This document was too large to scan as a whole document,
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Document number: SD-WM-TI-764

Section 1 of 2

Title: Hazard Analysis Database
Report

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ENGINEERING CHANGE NOTICE

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Page 1 of 3

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CHECKLIST FOR PEER REVIEW

Document Reviewed: HNF-SD-NH-TI-764, Hazard Analysis Database Report

Scope of Review: Peer Review

Yes No NA

- ☐ ☐ ☒ * Previous reviews complete and cover analysis, up to scope of this review, with no gaps.
- ☒ ☐ ☐ Problem completely defined.
- ☒ ☐ ☐ Accident scenarios developed in a clear and logical manner.
- ☒ ☐ ☐ Necessary assumptions explicitly stated and supported.
- ☒ ☐ ☐ Computer codes and data files documented.
- ☒ ☐ ☐ Data used in calculations explicitly stated in document.
- ☐ ☐ ☒ Data checked for consistency with original source information as applicable.
- ☐ ☐ ☒ Mathematical derivations checked including dimensional consistency of results.
- ☐ ☐ ☒ Models appropriate and used within range of validity or use outside range of established validity justified.
- ☐ ☐ ☒ Hand calculations checked for errors. Spreadsheet results should be treated exactly the same as hand calculations.
- ☐ ☐ ☒ Software input correct and consistent with document reviewed.
- ☐ ☐ ☒ Software output consistent with input and with results reported in document reviewed.
- ☐ ☐ ☒ Limits/criteria/guidelines applied to analysis results are appropriate and referenced. Limits/criteria/guidelines checked against references.
- ☐ ☐ ☒ Safety margins consistent with good engineering practices.
- ☐ ☐ ☒ Conclusions consistent with analytical results and applicable limits.
- ☒ ☐ ☐ Results and conclusions address all points required in the problem statement.
- ☐ ☐ ☒ Format consistent with appropriate NRC Regulatory Guide or other standards
- ☐ ☐ ☒ * Review calculations, comments, and/or notes are attached.
- ☒ ☐ ☐ Document approved.

David M. Hammond *David M. Hammond*
 Reviewer (Printed Name and Signature)

7/9/97
 Date

* Any calculations, comments, or notes generated as part of this review should be signed, dated and attached to this checklist. Such material should be labeled and recorded in such a manner as to be intelligible to a technically qualified third party.

Hazard Analysis Database Report

B.J. Miami

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Abstract: This document describes and defines the Hazard Analysis Database for the Tank Waste Remediation System Final Safety Analysis Report.

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Hazard Analysis Database Report

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HAZARD ANALYSIS DATABASE REPORT

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LIST OF TERMS

ALC	airlift circulation
COB	clean out box
DCRT	double-contained receiver tank
DSSF	double-shell slurry feed
DST	double-shell tank
EPDM	Ethylene-Propylene Diene Monomer
FCI	Food Instrument Corporation
FSAR	Final Safety Analysis Report
HazOp	hazard and operability study
HEPA	high-efficiency particulate air
IMUST	inactive miscellaneous underground storage tank
LFL	lower flammability limit
MAR	material at risk
MISF	Miscellaneous Inactive Storage Facility
NCPLX	non-compacted waste
OGT	over ground transfer
PCBs	polychlorinated biphenyls
PFP	Plutonium Finishing Plant
PHA	preliminary hazards analysis
PUREX	Plutonium Uranium Extraction (Facility)
SS	stainless steel
SSC	structures, systems, and components
SST	single-shell tank
TRU	transuranic (waste)
TSR	Technical Safety Requirements
TWRS	Tank Waste Remediation System
USQ	Unreviewed Safety Question

1.0 INTRODUCTION AND PURPOSE

This document describes, identifies, and defines the contents of the TVRS FSAR Hazard Analysis Database. The Hazard Analysis Database was developed in conjunction with the hazard analysis activities conducted in accordance with DOE-STD-3009-94, *Preparation Guide for U.S. Department of Energy Nonreactor Nuclear Facility Safety Analysis Reports*, for the Tank Waste Remediation System (TVRS) Final Safety Analysis Report (FSAR).

The TVRS Hazard Analysis Database contains collected information generated during the initial hazard evaluations and the subsequent hazard and accident analysis activities. This database supports the preparation of Chapters 3, 4, and 5 of the TVRS FSAR and consists of two major, interrelated data sets:

1. Hazard Evaluation Database: Data from the results of the hazard evaluations
2. Hazard Topography Database: Data from the system familiarization and hazard identification.

2.0 DATA MANAGEMENT

The TVRS FSAR Hazard Analysis Database documented in this report and validated by the FSAR will become the province of the TVRS safety basis authority. Its primary function is the collation of all hazards analysis data in an easily accessible form for use in the hazards analysis process. Maintenance and management practices as delineated in WMC-CMA-3-10, *Software Practices*, will be used to ensure maintenance of the database. The following sections define current and proposed minimum configuration controls and describe the current data set software package.

2.1 SOFTWARE DESCRIPTION

The software currently used for management of the TVRS FSAR Hazard Analysis Database is Paradox® 5.0 for Windows from Borland® International, Inc., Copyright © 1994. However, the database management software is only a tool for organizing and manipulating data. Any full featured database management software that can import the data files could be used instead of Paradox 5.0.

Paradox® is a full-featured relational database management system, that can be used as a stand alone system or as a multiuser system on a network. For the purpose of the TVRS FSAR Hazard Analysis activities, Paradox is being used as a stand alone system.

In a relational database, data records are organized into small, easily managed tables that contain fields of data, repeated for each record in the table. These tables can be easily linked together using a common field to query data across many tables for the generation of multi-table forms and reports. For example, the Hazard Analysis Database is used to generate Hazard Analysis Results Tables for the TVRS FSAR.

2.2 CONFIGURATION CONTROL

During the course of the development of the hazards analysis data set, the quality, integrity, and accuracy of the data was ensured by the FSAR development process. This process includes internal peer review, inter-organizational review, and outside peer review of the actual reported data. Special field walkdowns documented in WNF-SD-WM-TI-773, *Hazards Analysis Results Report*, verify the

facility configuration and hazards reported. Internal consistency within the database was verified periodically by the analysts performing the work.

The subject data set is a prime supporting feature of the TVRS safety authorization basis; this document and corresponding database must be maintained. The minimum information that should be maintained to support the TVRS authorization basis includes: (1) the hazardous materials (or materials at risk), (2) the hazardous conditions, (3) the causes of those hazardous conditions and associated frequency and consequence information, (4) other related codes (to allow topographical issue resolution) and (5) the controls that provide the safety envelope against the represented risk.

When the TVRS FSAR is issued, the ownership and responsibility for the database will transfer to the Authorization Basis Management/implementation group in the TVRS Nuclear Safety and Licensing Organization. Configuration management of the database will be established and the database will be maintained current with the approved authorization basis including approved amendments. The owner will have the following responsibilities for data management/administration:

- **Database Administrator**—Database Administrator, as determined by the Authorization Basis custodian, is responsible for duties that include information updates, data integrity and accuracy maintenance and administrative/technical reviews. This information was originally generated by the hazard analysis process and in the future may be generated by the Unreviewed Safety Question (USQ) process; therefore, safety analysis expertise should be an integral part in the review or maintenance of the database.
- **System developers**—The database system as documented may be modified to accommodate future use.
- **System data administrator**—The administrator will handle data system administration issues such as ensuring that the data information construct meets the intent.
- **Data trustees**—Trustees will, along with other responsibilities, administer the data and define the data and its source.

3.0 HAZARD EVALUATION DATABASE TABLES AND FIELD DESCRIPTIONS

The TVRS Hazard Evaluation Database is composed of the data tables shown in Table 3-1 and organized using the following tables and described fields:

3.1 MASTER HAZARDOUS CONDITIONS TABLE (Appendix A, Table A-1)

This table contains information important to the definition of Hazardous Conditions. The following is a description of the Master Hazardous Conditions Table fields:

- **ID**—This field contains a unique alpha/numeric identification code for each Hazardous Condition identified during the TVRS hazard evaluations activities. In general, these codes, derived from the name of the evaluation and the node numbering used in the evaluation, can be used to identify which analysis they came from. The ID code is unique for each hazardous condition, however, this field is used to link all the other hazard analysis database tables together and as such is identical in each of the tables.
- **Material at Risk**—A description of the type and quantity (when applicable) of material that may be affected by the occurrence of a Hazardous Condition.

- **Hazardous Condition**—A description of the Hazardous Condition associated with the unique ID code. In general, Hazardous Conditions are related to uncontrolled releases of hazardous or radioactive material; however, there are occurrences of Hazardous Conditions listed that are not specific to release events and can be identified by the BIN code as non-release events, worker hazard event, or radiation protection concerns.
- **Cause**—A description of the factors that could cause the identified Hazardous Condition.
- **Consequence**—A description of the consequence of an uncontrolled release related to a specific hazardous condition.

3.2 MASTER CODE TABLE (Appendix A, Tables A-2 and A-3)

This table contains the coded alphanumeric information associated with each Hazardous Condition and is used primarily to organize the hazards analysis information as required for linking sorting and reporting.

- **ID**—This field contains a unique alpha/numeric identification code for each Hazardous Condition identified during the TVRPA hazard evaluations activities. In general, these codes, derived from the name of the evaluation and the code numbering used in the evaluation, can be used to identify which analysis they came from. The ID code is unique for each hazardous condition; however, this field is used to link all the other hazard analysis database tables together and as such is identical in each of the tables.
- **Initial Safety Cons NC**—Safety Consequence/No Controls - The resultant effect on individuals impacted by a release or exposure associated with a specific Hazardous Condition assuming no controls are present. This safety consequence was determined in the initial hazard evaluation before any accident analysis was performed. (code definitions in Table 4-1)
- **Initial Freq NC**—Frequency/No Controls - The frequency of Hazardous Condition occurrence assuming no controls are present for a specific Hazardous Condition. This frequency was determined in the initial hazard evaluation before any accident analysis was performed. (code definitions in Table 4-2)
- **Env Cons**—Environmental Consequence - The resultant effect to the environment of a release associated with a specific Hazardous Condition assuming no controls are present. The environmental consequence was determined in the initial hazard evaluation before any accident analysis was performed. (code definitions in Table 4-3)
- **BIN**—A code that describes the release attributes for high Safety Consequence (S2 and S3) and Worker Hazard (S1) with anticipated frequency (F3) Hazardous Conditions. This code identifies the initial location, form, and energy level of the release or the code identifies an occupational safety or radiation protection condition. (code definitions in Table 4-4)
- **Initial Risk Factor NC**—Initial Risk Factor/No Controls - A numeric value assigned to a Hazardous Condition based on a pre-established matrix that relates the Initial Frequency NC and the Initial Safety Consequence NC. (code definitions in Table 4-5)
- **Failed Cntrl Risk Factor**—Risk Factor/Failed Controls - A numeric value assigned to a Hazardous Condition from a pre-established matrix that relates the Accident Analysis Failed Control Frequency and Accident Analysis Failed Control Consequence. (code definitions in Table 4-5)

- **Facility Code**— An alphanumeric identifier that is used to relate the Hazardous Condition to the general Hazards Topography Database and the TWRS facility (code definitions in Table 4-6)
- **Cause Grp—Cause Group** - An alphanumeric code used to permit sorting of data by the cause of a Hazardous Condition (code definitions in Table 4-7)
- **Rep Acc—Representative Accident** - An alphanumeric code used to specify the analyzed accident by which the specified Hazardous Condition is represented. Only Hazardous Conditions with high Safety Consequence (S2 or S3) were assigned representative accidents. The code is used in the Database in two forms, alphanumeric with and without an X. The X identifies that the hazardous condition is represented by the analyzed accident. Hazardous conditions that were chosen as the analyzed accident have no X designator (code definitions in Table 4-8)
- **AA Safety Cons NC—Analyzed Accident/Safety Consequence/No Controls** - The resultant safety effect of a release or exposure associated with a specific Analyzed Accident assuming no controls are present. This field will be blank if the AA Safety Cons NC remained the same as the Initial Safety Cons NC (code definitions in Table 4-1)
- **AA Freq NC—Analyzed Accident/Frequency/No Controls** - The frequency of occurrences for a specific Analyzed Accident assuming no controls are present. This field will be blank if the AA Freq NC remained the same as the Initial Freq NC (code definitions in Table 4-2)
- **App Cntrl Safety Cons—Applied Control Safety Consequence** - The resultant safety effect of a release or exposure associated with a specific Hazardous Condition assuming controls are present and work correctly. This field will be blank if the App Cntrl Safety Cons remained the same as the Initial Safety Cons NC (code definitions in Table 4-1)
- **App Cntrl Freq—Applied Control Frequency** - The frequency of occurrence of the resultant safety effect of a release or exposure associated with a specific Hazardous Condition assuming controls are present and work correctly. This field will be blank if the App Cntrl Freq remained the same as the Initial Freq NC (code definitions in Table 4-2)
- **Failed Cntrl Safety Cons—Failed Controls Safety Consequence** - The resultant safety effect of a release or exposure associated with a specific Hazardous Condition assuming controls are present but fail to work correctly. This field will be blank if the Failed Cntrl Safety Cons remained the same as the Initial Safety Cons NC (code definitions in Table 4-1)
- **Failed Cntrl Freq—Failed Control Frequency** - The frequency of occurrence of the combined controls failure. This field will be blank if the Failed Cntrl Freq remained the same as the Initial Freq NC (code definitions in Table 4-2)
- **Cntrl Failure MEMO**—This field is used to document the logic of the development of the control failure frequency (Failed Cntrl Freq)
- **Change MEMO**—This field is used to document dates and reasons for changes to the database

3.3 MASTER CONTROLS TABLE (Appendix A, Table A-4)

This table contains information important to define the controls associated with specified Hazardous Conditions. The following is a description of the Master Controls Table fields:

- **ID**—This field contains a unique alphanumeric identification code for each Hazardous Condition identified during the TWRS hazard evaluations activities. In general, these codes, derived from the name of the evaluation and the node numbering used in the evaluation, can be used to identify which analysis they came from. The ID code is unique for each hazardous condition, however, this field is used to link all the other hazard analysis database tables together and as such is identical in each of the tables.
- **Prev SSC**—Preventive safety related Structures, Systems and Components (SSCs) - Preventive Controls mandated by the TWRS FSAR. These Safety SSCs are identified to prevent the occurrence of Hazardous Conditions.
- **Mit SSC**—Mitigative safety related Structures, Systems and Components (SSCs) - Mitigative Controls mandated by the TWRS FSAR. These Safety SSCs are identified to reduce the severity of the consequence of the Hazardous Condition.
- **Prev TSR**—Preventive Technical Safety Requirements (TSRs) - Preventive Administrative Controls identified by the TWRS FSAR. These controls include actions to be taken or operability limits that reduce the frequency of occurrence of the Hazardous Condition.
- **Mit TSR**—Mitigative Technical Safety Requirements (TSRs) - Mitigative Administrative Controls identified by the TWRS FSAR. These controls include actions to be taken or operability limits that reduce the severity of the consequence of the Hazardous Condition.

3.4 MASTER DEFENSE-IN-DEPTH CONTROLS TABLE

(Appendix A, Table A-5)

This table contains information important to define the Defense-in-Depth controls associated with specified Hazardous Conditions.

The following is a description of the Master Defense-in-Depth Controls Table fields:

- **ID**—This field contains a unique alphanumeric identification code for each Hazardous Condition identified during the TWRS hazard evaluations activities. In general, these codes, derived from the name of the evaluation and the node numbering used in the evaluation, can be used to identify which analysis they came from. The ID code is unique for each hazardous condition, however, this field is used to link all the other hazard analysis database tables together and as such is identical in each of the tables.
- **DID Prev**—Defense-in-Depth/Preventive - Identified Defense-in-Depth Controls to prevent the occurrence of Hazardous Conditions.
- **DID Mit**—Defense-in-Depth/Mitigative - Identified Defense-in-Depth Controls to reduce the severity of the consequences of the Hazardous Conditions.

3.5 CONTROL MEMO TABLE (Appendix A, Table A-6)

This table contains information important to the control selection process associated with specified Hazardous Conditions.

The following is a description of the Control MEMO Table fields:

- **ID**—This field contains a unique alphanumeric identification code for each Hazardous Condition identified during the TWRS hazard evaluations activities. In general, these codes, derived from the name of the evaluation and the node numbering used in the evaluation, can be used to identify which analysis they came from. The ID code is unique

for each hazardous condition, however, this field is used to link all the other hazards analysis database tables together and as such is identical in each of the tables.

- **Control MEMO**—Memo field contains a memo explaining the selection of the controls for the Hazardous Condition.
- **P SSC MEMO**—Memo field contains a memo providing more detailed information concerning the Preventive safety related Structures, Systems, and Components (SSCs) controls for the Hazardous Condition.
- **M SSC MEMO**—Memo field contains a memo providing more detailed information concerning the Mitigative safety related Structures, Systems, and Components (SSCs) controls for the Hazardous Condition.

3.6 PROCESS HISTORY TABLE (Appendix A, Table A-7 -B)

This table contains historical information relating to various changes that have occurred to the structure of the Hazards Analysis Database during the development process. It can be used to verify the integrity of the data tables and provide a readily accessible tracking mechanism for those changes.

The following is a description of the Process History Table fields:

- **ID**—This field contains a unique alphanumeric identification code for each Hazardous Condition identified during the TWRLS hazard evaluations activities. In general, these codes, derived from the name of the evaluation and the node numbering used in the evaluation, can be used to identify which analysis they came from. The ID code is unique for each hazardous condition, however, this field is used to link all the other hazard analysis database tables together and as such is identical in each of the tables.
- **MEMO NC**—This field contains a memo explaining the application and/or any changes to the Safety Consequence NC and Frequency NC.
- **Re-binned Safety**—This field contains the safety consequence changes made after a re-binning effort due to application of new risk acceptance guidelines. (code definitions in Table 4-1)
- **Re-binned Frequency**—This field contains the frequency changes made during the re-binning effort due to reassessment of the frequencies. (code definitions in Table 4-2)
- **Re-binned MEMO**—This field contains a memo stating what changes were made during a re-binning effort due to application of new risk acceptance guidelines.
- **Orig Freq**—This field contains the original frequency of occurrence for a specified Hazardous Condition, assuming that controls are in place, assigned during the initial hazard analysis activities. (code definitions in Table 4-2)
- **Orig Freq NC**—This field contains the original frequency of occurrence for a specified Hazardous Condition, assuming that no controls are in place, assigned during the initial hazard analysis activities. (code definitions in Table 4-2)
- **Orig Safety**—This field contains the original safety consequence assigned during the initial hazard analysis activities. (code definitions in Table 4-1)
- **Remarks**—Miscellaneous remarks gathered during initial hazard analysis activities.

4.8 KEY TO CODES IN HAZARD EVALUATION DATABASE

The following tables define the codes used in the Hazards Analysis Database.

- Table 4-1 - Safety Consequence Categories (Cons Code)
- Table 4-2 - Frequency Categories (Freq Code)
- Table 4-3 - Environmental Consequence Categories (Env Code)
- Table 4-4 - Accident Release Attributes (ERn Code)
- Table 4-5 - Risk Factor Codes (Risk Metric)
- Table 4-6 - Alpha/Numeric Designator (Facility Codes)
- Table 4-7 - Cause Group Designator (Cause Grp Code)
- Table 4-8 - Representative Accident (Rep Acc Code).

These codes are used primarily to sort the data and may be used alone or in combination.

5.0 HAZARD TOPOGRAPHY DATABASE TABLES AND FIELD DESCRIPTIONS

The TWRS Hazard Topography Database is used to organize data from the system familiarization and hazard identification process to demonstrate the comprehensive coverage of material at risk, phenomena, configurations, operations, and facilities. The hazard topography is specifically used to accomplish the following.

1. Identify the types of TWRS facility situations that are directly analyzed by a hazard evaluation (e.g., identify the specific representative analyses).
2. Map the representative hazard evaluation results to each TWRS facility in the Final Safety Analysis Report (FSAR) Scope.
3. Store the results of the hazard identification effort for each TWRS facility in the FSAR Scope.

The Hazard Topography Database is composed of the data tables shown in Table 5-1 and organized using the following described fields.

5.1 FACILITY CODE DATA TABLE (Appendix B, Table B-1)

This table contains a list of all facility codes appearing in the Topography database using the following fields:

- Facility Code—An alpha/numeric identifier that is used to connect the Hazardous Condition to the general Hazards Topography Database and the TWRS facility. This field is common to this table and the Hazard Analysis Database Master Codes table and is a link between the two databases. (code definitions in Table 4-8)
- Farm - A tank farm identifier used for formatting reports.
- Facility Name—Facility designation. This field is common to this table and the Topography Data table.
- Field Name—Name of Facility used for the field verification process. This field is common to this table and the Material at Risk Data table, the Unique Phenomena Data table and the Facility Configuration table.

- **Type**—This field identifies the type of facility. This field is common to this table the Topography Data table, the Unique Phenomena Data table and the Facility Configuration Data table.

5.2 TOPOGRAPHY DATA TABLE (Appendix B, Table B-2)

This table contains a list of all major tank farm facilities. The following is a description of the Topography Table fields:

- **Facility Name**—Facility designation. This field is common to this table and the Facility Code table.
- **Type**—This field identifies the type of facility. This field is common to this table the Facility Code table, the Unique Phenomena Data table and the Facility Configuration Data table.
- **Applicable Hazard Eval.**—This field contains information about which Hazard Evaluation Study (PHA, HAZOP, WHAT IF) results are applicable to a particular facility.

5.3 MATERIAL AT RISK DATA TABLE (Appendix B, Table B-3)

This table contains information about the Facility Materials Inventory and uses the following fields:

- **Field Name**—Name of Facility used, by the facility workers, for the field verification process. This field is common to this table, the Facility Code table, the Unique Phenomena Data table and the Facility Configuration table.
- **MAR-subject**—Material at risk subject
- **MAR-description**—Material at risk description
- **MAR-classification**—Material at risk classification
- **Capacity**—Material capacity of facility
- **Material Type**—The type of material in the facility
- **Physical Form**—The physical form of the material in the facility
- **Volume or Activity**—The volume or activity of the material present in the facility
- **Transient**—Transient nature of the particular type of material stored at the facility
- **Quantity**—Number of drums, pails, boxes, bottles, Clean Out Boxes (COBs), etc.
- **Comments**—Comments about the material at risk.

5.4 UNIQUE PHENOMENA DATA TABLE (Appendix B, Tables B-4 and B-5)

This table contains a Unique Phenomena Checklist for the Facilities using the following fields:

- ◆ **Field Name**—Name of Facility used, by the facility workers, for the field verification process. This field is common to this table and the Facility Code table, the Material at Risk Data table and the Facility Configuration table.
- ◆ **Type**—This field identifies the type of facility. This field is common to this table the Facility Code table, the Topography Data table and the Facility Configuration Data table.
- ◆ **Flammable Gas**—This field contains the answer to the following question: "Does the flammable gas hazard exist in this facility (yes/no) and provide reference?"
- ◆ **Ferrocyanide**—This field contains the answer to the following question: "Does the ferrocyanide hazard exist in this facility (yes/no) and provide reference?"
- ◆ **Organics Separable Phase**—This field contains the answer to the following question: "Does an organic separable phase exist in this facility (yes/no) and provide reference?"
- ◆ **TOC in Liquids**—This field contains the answer to the following question: "Does organic carbon in the liquid phase exist in this facility (yes/no) and provide reference?"
- ◆ **TOC in Solids**—This field contains the answer to the following question: "Does organic carbon in the solid phase exist in this facility (yes/no) and provide reference?"
- ◆ **High Heat**—This field contains the answer to the following question: "Is the heat load of the waste in this facility greater than 26,000 Btu/hr (yes/no) and provide reference?"
- ◆ **Pyrophorics**—This field contains the answer to the following question: "Does a pyrophoric condition exist at this facility (yes/no) and provide reference?"
- ◆ **Syphoning**—This field contains the answer to the following question: "Does a potential syphoning condition exist at this facility (yes/no) and provide reference?"
- ◆ **Critically**—This field contains the answer to the following question: "Does a potential critically condition exist at this facility (yes/no) and provide reference?"
- ◆ **Corrosivity**—This field contains the answer to the following question: "Does a potential corrosive condition exist at this facility (yes/no) and provide reference?"

5.5 FACILITY CONFIGURATION DATA TABLE (Appendix B, Table B-4)

This table contains information about facility configuration and uses the following fields:

- ◆ **Field Name**—Name of Facility used for the field verification process. This field is common to this table and the Facility Code table, the Material at Risk Data table and the Unique Phenomena table.
- ◆ **Type**—This field identifies the type of facility. This field is common to this table the Facility Code table, the Topography Data table and the Unique Phenomena Data table.
- ◆ **Ventilation**—This field contains the answer to the following question: "What type of ventilation is used in the specified waste tank (passive or active)?"
- ◆ **Comment V**—Ventilation system comments.

- ◆ **ALC**—This field contains the answer to the following question: "Are there air lift circulators active in the waste tank (yes/no)?"
- ◆ **Comment ALC**—Air lift circulator comments.
- ◆ **Steam Coils**—This field contains the answer to the following question: "Are there steam coils active in the waste tank (yes/no)?"
- ◆ **Comment SC**—Steam coil comments.
- ◆ **Mixer/Transfer/Feed Pump**—This field contains the answer to the following question: "Is there a pump associated with the waste tank (yes/no)?"
- ◆ **Comments MP**—Mixer pump comments.

6.0 KEY TO CODES IN HAZARD TOPOGRAPHY DATABASE

The Hazard Topography Database primarily contains descriptive information. However, two fields are comprised of codes with alphanumeric designations. The Facility Code descriptions are found in Table 4-6, which is the common field between Hazard Topography Database and the Hazard Evaluation Database. Applicable Hazard Evaluation designation descriptions are found in Table 6-1.

7.0 REFERENCES

- Borland® Paradox® for Windows, 1994, *User's Guide*, Borland International, Inc., Scotts Valley, California.
- DOE-STD-3000-94, *Preparation Guide for U.S. Department of Energy Nonreactor Nuclear Facility Safety Analysis Reports*, U.S. Department of Energy, Washington, D.C.
- WHC-CM-3-10, 1999, *Software Practices*, Rel. 1, Westinghouse Hanford Company, Richland, Washington.
- WHC-SD-WM-TI-773, 1998, *Hazards Analysis Results Report*, Rev. 0, Westinghouse Hanford Company, Richland, Washington.

Table 3-1. Hazard Evaluation Database Structure.

Master Hazards Table		
ID	A	50
Material at Risk	A	255
Hazardous Condition	A	255
Cause	A	255
Consequence	A	255

Master Code Table		
ID	A	50
Initial Safety Cons NC	A	5
Initial Freq NC	A	5
Env Cons	A	5
SRN	A	10
Initial Risk Factor NC	N	
Failed Cntrl Risk Factor	N	
Facility Code	A	15
Cause Grp	A	5
Rep Acc	A	5
AA Safety Cons NC	A	5
AA Freq NC	A	5
App Cntrl Safety	A	5
App Cntrl Freq	A	5
Failed Cntrl Safety Cons	A	5
Failed Cntrl Freq	A	5
Cntrl Failure MEMO	M	240
Change MEMO	M	240

*Fields shown in italics are common to multiple tables.

Field type designations:

A = Alphanumeric.

N = Numeric.

M = Memo Field.

Size = Field Character Length

Master Controls Table		
ID	A	50
Prev SSC	A	255
MR SSC	A	255
Prev TSR	A	255
MR TSR	A	255

Master Defense In Depth Table		
ID	A	50
DID - Preventive	A	255
DID - Mitigative	A	255

Control Memo Table		
ID	A	50
P SSC MEMO	M	240
M SSC MEMO	M	240
Control MEMO	M	240

Process History Table		
ID	A	50
MEMO NC	M	240
Re-binned Safety	A	5
Re-binned Frequency	A	5
Re-binned MEMO	M	240
Orig Freq	A	5
Orig Freq NC	A	5
Orig Safety	A	5
Remarks	A	255

Table 4-1. Safety Consequence Categories - (Cons Code).

Category	Definition
S3	Significant radiological or chemical exposure to the public
S2	Significant radiological or chemical exposure to onsite worker
S1	Significant radiation or chemical exposure to facility worker
S0	No significant effect outside facility systems. No consequences for facility workers, onsite workers, or public.
Prevented	No effect - Accident Prevented

Table 4-2. Frequency Categories (Freq Code).

Category	Definition
F3 ($>.01$)	Anticipated events: Frequency greater than once in 100 operating years.
F2 (10^{-2} to 10^{-4})	Unlikely: Frequency between once in 100 years and once in 10,000 operating years.
F1 (10^{-4} to 10^{-6})	Extremely unlikely: Frequency between once in 10,000 years and once in 1 million operating years.
F0 ($< 10^{-6}$)	Beyond extremely unlikely: Frequency of less than once in 1 million operating years.

Table 4-3. Environmental Consequence Categories - (Env Code).

Category	Definition
E3	Offsite discharge OR discharge to groundwater
E2	Significant discharge onsite
E1	Localized discharge of hazardous material
E0	No significant environmental consequence.

Table 4-4. Accident Release Attributes - (Bin Code).

Accident release attributes		
Initial energy level	Initial release location	Initial release form
A. High	1. Atmosphere	a. Vapor/gas/aerosol
B. Moderate	2. Ground surface	b. Liquid/slurry
C. Low	3. Subsurface	c. Solid/sludge
OCC - Occupational Hazard		
RP - Radiation Protection		
NA - Not Applicable		
NR - No Release		

Table 4-5. Risk Matrix - (Risk Factor Codes).

Likelihood (FREQ)	Safety Consequences (CONS)			
	S0	S1	S2	S3
F3	7			
F2	4			
F1	2			
F0	1	3	6	10

Considered for Identification of Safety Structures, Systems, and Components and Technical Safety Requirements.

Requires Identification of Safety Structures, Systems, and Components and Technical Safety Requirements.

Table 4-6. Alpha/Numeric Designator (Facility Code).

Tank/Storage	
ER	Crbs, effluents, ponds
Facilities	
F204	204-AR Unloading Facility
F213	213-W Compressor Building
F244	244-AR Vault
Multiple	
M	Multiple facilities (e.g., as in the case of a common cause event)
Other	
A	Abandoned or inactive THERS equipment
G	General
O	Other (interesting facilities/equipment)
OS	Miscellaneous Inactive Storage Facility
Pipes	
PA	Above ground pipe
PC	Contained pipe (e.g., cross-aisle line)
PD	Double crossed pipe
PS	Single uncrossed pipe (direct buried)
Storage Facilities	
S90	90-Day Storage Pad, Intermediate Holding Area, Satellite Accumulation Area
SS	2727 W Sodium Storage
SV	Vertical Storage

Tanks (See Example Section Below)	
T	Tanks, non-specific (Add any appropriate tank type designators. If applicable to all tanks, do not add any tank type designator.)
CD	DCRT (244-TX, 244-U, etc.)
CH	Non-DCRT catch tank, drainage type (vent and fill station, aging waste vent)
CS	Double Shaded Tanks non-specific (Add any appropriate characteristic designators.)
A	Air lift circulators (aging waste tanks)
C	Caustic addition tank (e.g., 10F-J01)
E	Evaporator feed tank
H	Flammable gas tanks (hydrogen)
O	Organic tanks
P	Active transfer/air pumps (e.g., 10Z-BY)
V	Active ventilation
SS	Single Shaded Tanks non-specific (Add any appropriate characteristic designators.)
D	Dry crust tank (114-SX)
H	Flammable gas tanks (hydrogen)
L	High heat load (>26,000 Btu/hr)*
O	Organic tanks
V	Active ventilation
SD	Double Shaded Tanks or Single Shaded Tanks (Add any appropriate characteristic designators. - See CS and SS)
Pits, Bore, and Caissons	
WB	Clean out box, sluice transfer box
WD	Overton box, diverter station, pump pit, valve pit
WP	Flush pit, service pit, outson, leak detection pit

*Example of facility type code for tanks: The letter T indicates that the facility is a tank of some kind. Each additional designator separated by periods will supply additional information as indicated in the column under the Tank section of the table.

T.D.S.A.H = Flammable gas (hydrogen), double shaded tank with air lift circulators.

T.S.D.L.V = High Heat load tank, either single shaded or double shaded with active ventilation.

T.S.S.D = Dry crust, single shaded tank.

T.C.D.V = DCRT with active ventilation.

*High heat load based on Steam Ramp Event concern.

Table 4-7. Cause Group Designators - (Cause Grp Code).

Cause description	Criticality	Fire/ Explosion	Tank Dome Collapse	Release	Human Error Release	Non-release/ Occupational
Addition of aggravating materials/exothermic reaction	A01	B01	C01	D01	E01	F01
Internal aggravating causes	A02	NA	NA	D02	E02	NA
Over concentration	A03	NA	NA	NA	E03	F03
Intrusive activity	A04	B04	NA	D04	E04	F04
Non-specific/multiple external events or phenomena/other	A05	NA	C05	D05	E05	F05
Error in transfer/backflow/ overflow/filling DST annulus	A06	B06	C06	D06	E06	F06
Ventilation failure	NA	B07	C07	D07	E07	F07
Internal buildup of flammable gas/internal ignition source	NA	B08	NA	NA	NA	F08
External fire/external ignition source	NA	B09	NA	D08	NA	F09
Excess weight/dropping/heavy snow	NA	NA	C10	D10	E10	F10
Vacuum	NA	NA	C11	D11	NA	NA
Structural degradation/leak	NA	B12	C12	D12	NA	F12
Over rated equipment	NA	NA	C13	NA	E13	NA
Confinement failure	NA	NA	NA	D14	E14	F14
Excess agitation	NA	NA	NA	NA	E15	NA
Corrosion	NA	NA	NA	D16	NA	NA
Water hammer	NA	NA	NA	D17	NA	NA
Seismic event/tectonic activity	NA	NA	NA	D18	NA	NA
Flooding, pipe failure	NA	NA	C18	D19	NA	NA
High winds/tornado/storm	NA	NA	NA	D20	NA	NA
Lightning	NA	B21	NA	D21	NA	NA
Excavation	NA	NA	NA	D22	NA	F22
Aircraft crash	NA	B23	NA	D23	NA	NA
Low temperature/freezing	NA	NA	NA	D24	NA	NA
Vehicle accidents	NA	B25	NA	D26	E26	F25
Structural damage	NA	B26	C26	D26	E26	F26

DST = double-shell tank.

NA = not applicable.

Table 4-3. Representative Accident - (Rep Acc Code).

#	Representative Accident Description
1	Nuclear Criticality
2	In-Tank Fuel Fire/Degradation
3	Mixing of Incompatible Material - Tank Pressurization
4	Flammable Gas Deflagrations - DST
5	Flammable Gas Deflagrations - SST
6	HEPA Filter Failure - Exposure to High Temperature or Pressure
7	Fire in Contaminated Area
8	Waste Transport Vehicle Accident
9	Organic Solvent Fire/Organic Salt-Nitrate Reaction
10	Natural Phenomena - High Wind ^a
11	Natural Phenomena - Lightning
12	Tank Failure Due to Excessive Loads
13	Tank Failure Due to Vacuum or Degradation
14	Natural Phenomena - Seismic
15	Spray Leak in Structure or From Over ground Waste Transfer Lines
16	Spray Leak from Underground Waste Transfer Lines
17	Caustic Spray Leak
18A	Tank Bump
18b	Unfiltered Release
21	Subsurface Leak Resulting in Pool
22	Evaporator Dump
23	Mixing of Incompatible Material - Toxic Vapor Generation
25	Leak from Rail Car/Tank Trailer
26	Surface Leak Resulting in Pool
28	Unplanned Excavation/Drilling in Crib/Ditch/Pond
29	Subsurface Leak Remaining Subsurface
30	Sodium Fire
31	Above Ground Structure Failure ^b
32	Steam Intrusion from Interfacing Systems

Note: A code followed by an X identifies that Hazardous Condition as being represented by the selected accident.

^aHigh Wind events associated with Crane activities.

^bAbove Ground Structure Failure includes Pier/Roadways.

Table S-1. Hazard Topography Database Structure.

Facility Code Table		
Field Name	Field Type	Field Size
Facility Code	A	15
Facility Name	A	50
Field Name	A	50
Type	A	50

Topography Table		
Field Name	Field Type	Field Size
Facility Name	A	50
Type	A	50
Applicable Hazard Eval	A	255

Material at Risk Table		
Field Name	Field Type	Field Size
Field Name	A	50
Mat-Subject	A	255
Mat-Description	A	255
MAR-Classification	A	255
Capacity	A	255
Material Type	A	15
Physical Form	A	15
Volume or Activity	A	50
Transient	A	255
Quantity	A	255
Comments	A	255

Unique Phenomena Table		
Field Name	Field Type	Field Size
Field Name	A	50
Type	A	50
Flammable Gas	A	255
Percyanide	A	255
Organics Separable Phase	A	255
TOC in Liquids	A	255
TOC in Solids	A	255
High Heat	A	255
Pyrophorics	A	255
Syphoning	M	255
Criticality	A	255
Corrosivity	A	255
Other	M	240
Comments	A	255
LOC	A	5
NUM	N	

Facility Configuration Table		
Field Name	Field Type	Field Size
Field Name	A	50
Type	A	50
Ventilation	A	10
Comment V	A	240
ALC	A	15
Comment ALC	A	240
Steam Coils	A	15
Comment SC	A	240
Meter/Transfer/Feed Pump	A	15
Comment MP	A	240

*Fields shown in italics are common to multiple tables

*High Heat based on >25,000 BTU/hr for Tank Bump.

Field type designations:

A = Alphanumeric.

M = Numeric.

N = Memo Field

Size = Field Character Length.

Table 6-1. Applicable Hazard Evaluation (Applicable Hazard Eval). (2 Pages)

Name/ designator	Definition
HAZOP	Hazards and Operability Study
204-AR	204-AR Transfer Facility - Lab waste, transfer of waste by vehicle
222-S	222-S Laboratory - Interface with TWRS facilities
242-A	242-A Evaporator - Interface with TWRS facilities
242-S	242-S Evaporator - Interface with TWRS facilities
242-T	242-T Evaporator - Interface with TWRS facilities
244-AR	244-AR Vault - Storage for liquid waste
AN-107	Double-shelled tanks, caustic addition
AW-102	Double-shelled tanks, evaporator interface, active ventilation
B-PLANT	B-Plant - Interface with TWRS facilities
C-105	Single-shelled tanks, high heat, active ventilation
OGT	Overground transfer system
PFP	Plutonium Finishing Plant - Interface with TWRS facilities
PUREX	PUREX - Interface with TWRS facilities
T-PLANT	T-Plant - Interface with TWRS facilities
S-102	Single-shelled tanks, flammable gas, organics, passive ventilation
SY-102	Double-shelled tanks, waste transfer by pipeline
SX-114	Single-shelled Tanks, dry crust, high heat, active ventilation
U-PLANT	U-Plant - Interface with TWRS facilities
W058	New cross site transfer lines
XS	Cross site transfer lines
PHA	Preliminary Hazard analysis
90D	209-E Storage Area (90-Day Storage Pad)
213 W	213 Compressor - Equipment decontamination activities
2727W	2727 W Sodium Storage Building
AZ-102	Tank Operations for Double-shelled Tanks - Aging waste
BX-109	Tank Operations for Single-shelled Tanks - Passive ventilation
BND	Bonding activities
CDP	Creeks, Ditches, and Ponds - Disposal of liquid waste
COB	Cleanout Boxes - Interface with waste transfer system
CRN	Crane activities in the tank farms
CVR	Cover block activities in the tank farms
DCN	Decontamination activities

Table 6-1. Applicable Hazard Evaluation (Applicable Hazard Eval). (2 Pages)

Name/ designator	Definition
FR	Flex Receivers - Removal of in-tank equipment
GRN	Greenhouse activities
ITK	In-tank activities
MSF	Inactive miscellaneous underground storage tanks and other inactive facilities - Various types and forms of radioactive and hazardous material
RAD	Radiation protection
RSR	Riser activities
SFF	Siphoning - Various types and forms of radioactive and hazardous material
SY-101	Tank operations - double-shelled tanks, flammable gas, active ventilation, mixer pump
VEH	Vehicle activities in or around tank farms
VSU	Vertical Storage Units - Storage of solid low-level waste
Waste	Waste Management
CCF	Common Cause Failures- Events with potential impact on multiple TWRS facilities
EE	External Events - Events with potential impact on multiple TWRS facilities
NP	Natural Phenomena - Events with potential impact on multiple TWRS facilities

PUREX = Plutonium Uranium Extraction (Facility).

TWRS = Tank Waste Remediation System.

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APPENDIX A
HAZARD EVALUATION DATABASE TABLES

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Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
102AW-01-FLOW 102AW-02-PRES	DST tank contents	Release of liquids, solids, and/or vapors from T1-102-AW due to dome collapse caused by chemical reaction of incompatible wastes	Mixing to destruction other than intended creates chemical incompatibility	Release of solids, liquids, and vapors
102AW-01-FLOW 102AW-04-PRES	Liquid radioactive waste being transferred to DST from DCRT	Release of radioactive aerosol from transfer pipe which runs from DCRT to T1-102-AW due to spray leak into open underground structure	Properly leak due to thermal stress of transferring hot solution in cold pipe	Release of liquid waste aerosol
102AW-01-FLOW01	Liquid radioactive waste being transferred to DST from DCRT	Release of liquid radioactive waste aerosols from transfer pipe to T1-102-AW due to spray leak into open underground structure	Piping leak due to corrosion caused by transferring high temperature waste	Release of liquid waste aerosol
102AW-01-FLOW02	Liquid radioactive waste being transferred to DST	Release of radioactive waste to soil from transfer piping which runs to T1-102-AW due to leak from primary pipe and encasement	Excavation accident hits primary pipe and encasement	Release of liquid radioactive waste to soil
102AW-01-FLOW03	Liquid radioactive waste being transferred to DST	Release of radioactive waste to soil from transfer pipe to T1-102-AW due to leak of radioactive waste from primary pipe and encasement	Corrosion of inner and outer pipe causes failure of primary pipe and encasement	Release of liquid radioactive waste to soil
102AW-01-FLOW04	Liquid radioactive waste being transferred to DST	Release of radioactive waste to soil from transfer pipe to T1-102-AW due to leak of radioactive waste from primary pipe and encasement	High structural loading from traffic or Chinese tank primary pipe and encasement	Release of liquid radioactive waste to soil
102AW-01-FLOW05	Liquid radioactive waste being transferred to DST	Release of radioactive waste to soil from transfer piping to T1-102-AW due to leak from primary pipe and encasement	Seismic event hits primary pipe and encasement	Release of liquid radioactive waste to soil
102AW-01-FLOW06	Liquid radioactive waste being transferred to DST	Release of radioactive waste to soil from transfer pipe to T1-102-AW due to leak of radioactive waste from primary pipe and encasement	Undermining due to leak of nearby pipes cause failure of primary pipe and encasement	Release of liquid radioactive waste to soil
102AW-01-FLOW07	Liquid radioactive waste being transferred to DST	Release of radioactive waste to soil from transfer pipe to T1-102-AW due to leak of radioactive waste from primary pipe and encasement	Winter weather cause failure of primary pipe and encasement	Release of liquid radioactive waste to soil
102AW-01-FLOW10	Liquid radioactive waste involved in transfer	Release of liquid radioactive waste from T1-102-AW due to overflow	Mixing of waste from reverse flow caused by the combination of an incorrectly sized pump and a full transfer pipe	Environmental release of liquid waste to ground surface

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Material of Risk	Hazardous Condition	Cause	Consequence
102AW-01-FLOW11	Liquid radioactive waste involved in transfer	Release of liquid radioactive waste to the ground surface from TK-102-AW due to overflow of TK-102-AW or underground structure	Misrouting to destination other than intended causes overflow	Environmental release of liquid waste to ground surface
102AW-01-TEMP	Radioactive waste being pumped to DCRT	Release of liquid radioactive waste aerosols from transfer pipe to TK-102-AW due to spray leak of liquid waste from transfer pipe leak	Piping leak due to exceeding the design temperature of the pipe by transferring high temperature waste	Release of liquid waste aerosol
102AW-01-TEMP01	Liquid radioactive waste being transferred to DST	Release of liquid radioactive waste from transfer pipe to TK-102-AW due to leaks overflowing from underground structure	Piping leak due to corrosion caused by transferring high temperature waste	Release of liquid waste to ground surface
102AW-01-TEMP01A	Liquid radioactive waste being transferred to DST	Release of liquid waste from transfer pipe to TK-102-AW due to leaks overflowing from underground structure	Piping leak due to thermal stress of transferring hot solution in cold pipe	Environmental release of liquid waste to ground surface
102AW-01-TEMP02	Liquid radioactive waste being transferred to DST	Release of liquid radioactive waste from transfer pipe to TK-102-AW due to leaks overflowing from underground structure	Piping leak due to exceeding the design temperature of the pipe by transferring high temperature waste	Release of liquid waste to ground surface
102AW-02-LEVE	DST tank vapor/aerosols	Release of radioactive aerosols from TK-102-AW annulus due to the presence of radioactive liquid waste in TK-102-AW annulus	Primary tank leakage from welds causes	Airborne release of radioactive aerosols from TK-102-AW annulus
102AW-02-LEVE01	DST tank vapor/aerosols	Release of toxic gases from TK-102-AW due to accumulations of gases	Slurry growth	Release of toxic gases from tank atmosphere
102AW-02-LEVE02	DST tank vapor/aerosols	Release of liquid radioactive waste from TK-102-AW due to leak of primary and secondary tank	Structural failure of primary tank when annulus leaks	Leak of liquid to soil with release of aerosols via the annulus ventilation system
102AW-02-LEVE02A	DST tank vapor/aerosols	Release of radioactive aerosols from TK-102-AW annulus ventilation system due to the presence of radioactive liquid waste in the annulus	Mis-routing of transfer to annulus instead of primary tank	Release of radioactive aerosols from TK-102-AW annulus
102AW-02-LEVE03	DST tank contents	Release of radioactive liquid from TK-102-AW due to overfilling	Failure to stop transfer causes overfilling of tank	Release of liquid waste to the soil
102AW-02-LEVE04	DST tank contents	Release of radioactive liquid from TK-102-AW due to overfilling	Misrouting causes overfilling of tank	Release of liquid waste to the soil

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Material of Risk	Hazardous Condition	Cause	Consequence
102AW-02-LEVE06	DST tank contents	Release of radioactive liquid from TK-102-AW to the soil column due to gross overfilling of tank (Pool)	Interlocking causes overfilling of tank	Release of radioactive liquid to soil from TK-102-AW
102AW-02-LEVE08	DST tank contents	Release of radioactive liquid to soil column from TK-102-AW annulus due to leakage	Primary tank leakage from various causes combined with annulus leakage	Release of radioactive liquid from TK-102-AW annulus
102AW-02-PRES 102AW-02-TEMP	DCRT tank vapor/aerosols	Release of radioactive aerosols from TK-102-AW due to pressurization	Evaporator dump when intrusive activity is occurring which causes pressurization	Release of radioactive aerosols to air
102AW-02-PRES 01 XS-06-PRES 01	NA	Injury of worker from impact with projectile debris due to catastrophic fan failure	Loss of fan due to high pressure causing fan to walk into another object and become airborne	Personal injury or death
102AW-02-PRES01	DST tank contents	Release of radioactive aerosols from TK-102-AW due to fire/explosion in waste tank (Dome Collapse)	Flammable concentration of gases in tank vapor space with spark source	Release of radioactive aerosols to air
102AW-02-PRES02	DST tank vapor/aerosols	Release of toxic gases from TK-102-AW due to chemical reaction in waste	Transfer of incompatible waste to 102-AW causes tank gas accumulation	Release of toxic gases
102AW-02-PRES03	DST tank contents	Release of liquids, solids, and/or vapors from TK-102-AW due to dome collapse caused by excessive vacuum	Blocked ventilation inlet causes excessive vacuum leading to dome collapse	Release of liquid, solids, and/or aerosols to air
102AW-02-PRES04	DST tank contents	Release of liquids, solids, and/or vapors from TK-102-AW due to dome collapse caused by excessive vacuum	Condensation of vapors causes excessive vacuum leading to dome collapse	Release of liquid, solids, and/or aerosols to air
102AW-02-PRES05	DST tank contents	Release of liquids, solids, and/or vapors from TK-102-AW due to dome collapse caused by excessive vacuum	Sub-cooling of vapor during equipment flushing causes excessive vacuum leading to dome collapse	Release of liquid, solids, and/or aerosols to air
102AW-02-PRES06	DST tank contents	Release of liquids, solids, and/or vapors from TK-102-AW due to dome collapse caused by excessive vacuum	Vacuum indicator causes excessive vacuum leading to dome collapse	Release of liquid, solids, and/or aerosols to air

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
102AW-02-PRE907	DST tank contents	Release of liquids, solids, and/or vapors from TK-102-AW due to dome collapse caused by excessive vacuum	Wrong size portable ventilator chosen for support work causes excessive vacuum leading to dome collapse	Release of liquid, solids, and/or vapors to air
102AW-02-PRE906	DST tank vapor/aerosols	Release of radioactive aerosols from TK-102-AW due to positive pressure	Evaporator dump of hot liquid generates aerosols and pressurizes the tank	Airborne release of radioactive aerosols from TK-102-AW
102AW-02-PRE908	DST tank atmosphere	Release of radioactive aerosols from head space of TK-102-AW due to positive pressure (Lower energy than tank bump)	Loss of fan with drive circulation running, generating aerosols and pressurizing the tank	Airborne release of radioactive aerosols from TK-102-AW
102AW-02-TEMP 102AW-03-TEMP	DST tank vapor/aerosols	Release of radioactive aerosols from TK-102-AW due to positive pressure	Chemical reaction heating up and/or agitating tank causes positive pressure in tank	Airborne release of radioactive aerosols from TK-102-AW
102AW-02-TEMP01	DST tank vapor/aerosols	Release of radioactive aerosols from TK-102-AW due to boiling waste	High heat waste causing boiling	Release of radioactive aerosols to air
102AW-02-TEMP02	DST tank vapor/aerosols	Release of radioactive aerosols from TK-102-AW due to tank bump	High heat waste combined with loss of ventilation contributes to tank bump	Release of radioactive aerosols to air
102AW-03-LEVE01	DST tank contents	Release of radioactive aerosols from TK-102-AW due to breakeggestion in annulus	Flammable concentration of gases in annulus vapor space due to waste leak into annulus and spark source	Release of radioactive aerosols to air
102AW-03-LEVE02	Liquid radioactive waste leaked into 102-AW annulus	Release of radioactive aerosols from TK-102-AW due to breakeggestion in annulus	Flammable concentration of gases in annulus vapor space due to waste anti-leakoff into annulus and spark source	Release of radioactive aerosols to air
102AW-03-LEVE03	Radioactive waste in DST annulus	Release of liquids, solids, and/or vapors from TK-102-AW due to dome collapse caused by flooding the primary tank with the annulus	Accumulating of liquid waste to the annulus causes flooding of primary tank and subsequent dome collapse	Release of liquid, solids, and/or aerosols to air
102AW-03-PRE901 102AW-03-LEVE	DST tank vapor/aerosols	Release of radioactive aerosols from TK-102-AW aerosols due to the presence of radioactive liquid waste in TK-102-AW annulus	Leak of primary tank to annulus combined with annulus ventilation fan failure	Release of radioactive aerosols from TK-102-AW annulus

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
102AW-03-PRES02 102AW-03-LEVE	DST tank vapor/airerosols	Release of radioactive aerosols from TK-102-AW annulus due to the presence of radioactive liquid waste in TK-102-AW annulus	Loss of primary tank to annulus combined with loss of power to annulus ventilation	Release of radioactive aerosols from TK-102- AW annulus
102AW-03-TEMP01	DST tank contents	Release of liquids, solids, and/or vapors from TK-102- AW due to dome collapse caused by an explosion/fire in the annulus	First Explosion of flammable liquid spilled into annulus via a riser	Release of liquid solids, and/or aerosols to air
102AW-03-TEMP02	DST tank contents	Release of radioactive aerosols from TK-102-AW due to dry-explosion in annulus damaging primary tank	Flammable concentration of gases in annulus vapor space due to spill of fuel into annulus and spark source	Release of radioactive aerosols to air
102AW-04-LEVE01	Liquid in transfer piping	Release of radioactive aerosols from TK-102-AW central pump pit due to accumulation of radioactive liquids in the central pump pit	Leak of primary piping	Airborne release of radioactive aerosols from central pump pit
102AW-04-LEVE02	Liquid in transfer piping	Release of radioactive aerosols from TK-102-AW central pump pit due to accumulation of radioactive liquids in the central pump pit	Misrouting through an open jumper plus clogged drain	Airborne release of radioactive aerosols from central pump pit
102AW-04-LEVE03	Residual contamination in central pump pit	Release of radioactive aerosols from TK-102-AW central pump pit due to accumulation of radioactive liquids in the central pump pit	Dissolution of residual contamination in central pump pit caused by erroneous use of low water	Airborne release of radioactive aerosols from central pump pit
102AW-04-LEVE04	Residual contamination in central pump pit	Release of radioactive aerosols from TK-102-AW central pump pit due to dissolution of radioactive liquids in the central pump pit	Dissolution of residual contamination in central pump pit caused by pit cleaning plus clogged drain	Airborne release of radioactive aerosols from central pump pit
102AW-04-PRES 01	NA	Personnel exposure higher than expected	Removal of cover block and pressure release due to loss of fan	Personnel exposure
102AW-04-PRES01	DST pump pit vapor/aerosols	Release of radioactive particulate from TK-102-AW central pump pit due to pressurization	Loss of primary tank ventilation causes pressurization of pump pit	Airborne release of radioactive particulate from central pump pit
102AW-04-PRES02	Residual contamination in DST central pump pit	Release of radioactive particulate from TK-102-AW central pump pit due to its being open to atmosphere	Removal of cover block	Airborne release of radioactive particulate from central pump pit
102AW-04-STRU 01	NA	Injury of worker from falling equipment	Equipment drop during crane work	Personnel injury or death

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
102AW-04-STRU02	Residual contamination in pump pit	Release of radioactive particulate from TK-102-AW central pump pit due to confinement inadequacies	Structural degradation with time	Airborne release of radioactive particulate from central pump pit
102AW-04-STRU01A	DST tank contents	Release of liquids, solids, and/or vapors from TK-102-AW due to dome collapse caused by excessive dome loading	Equipment drop during crane work causes excessive dome loading	Release of liquid, solids, and/or aerosols to air
102AW-04-STRU01B	Residual contamination in pump pit	Release of radioactive particulate from TK-102-AW central pump pit due to pump pit structural failure	Seismic-induced failure of central pump pit	Airborne release of radioactive particulate from central pump pit
102AW-04-STRU02	DST tank contents	Release of liquids, solids, and/or vapors from TK-102-AW due to dome collapse caused by excessive dome loading	Violation of limits on dome loading	Release of liquid, solids, and/or aerosols to air 102AW-4-STRU
102AW-04-STRU03	Residual contamination in pump pit	Release of radioactive particulate from TK-102-AW central pump pit due to re-suspension	Equipment drop during crane work	Airborne release of radioactive particulate from central pump pit
102AW-04-STRU04	Radioactive waste transfer through DST central pump pit	Release of liquid radioactive waste from TK-102-AW central pump pit due to leak to soil	Piping leak and leak from pump pit due to equipment drop	Release of liquid waste to ground
102AW-04-STRU06	Radioactive waste transfer through DST central pump pit	Release of liquid radioactive waste from TK-102-AW central pump pit due to leak to soil	Piping leak and leak from pump pit due to seismic event	Release of liquid waste to ground
102AW-04-TEMP	Residual contamination in central pump pit	Release of radioactive particulate from TK-102-AW central pump pit due to fire	Pump motor electrical fire	Airborne release of radioactive particulate from central pump pit
102AW-06-COMP01	DST tank vapor/aerosols	Release of radioactive aerosols from tank vapor space due to protection of airspace from sludge and migration	Chemical reactions causing ignition	Aerosol release from TK-102-AW
102AW-06-COMP02	DST tank contents	Release of fission product gases and aerosols from TK-102-AW due to criticality	Mixing of waste creates critical mass	Release of fission product gases and aerosols
102AW-06-COMP03A	DST tank contents	Release of fission product gases and aerosols from TK-102-AW due to criticality	Human error - addition of excess fission material to TK-102-AW creates critical mass	Release of fission product gases and aerosols

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
102AW-08-COMP03	DST tank contents	Release of fission product gases and aerosols from TH-102-AW due to criticality	Non-uniform distribution of fission material (horizontally) creates critical mass	Release of fission product gases and aerosols
102AW-08-COMP04	DST tank contents	Release of fission product gases and aerosols from TH-102-AW due to criticality	Non-uniform distribution of fission material (vertically) due to rejection of rich layer	Release of fission product gases and aerosols
102AW-08-COMP05	DST tank contents	Release of fission product gases and aerosols from TH-102-AW due to criticality	Over concentration of waste creates critical mass	Release of fission product gases and aerosols
102AW-08-COMP08	DST tank vapors/aerosols	Release of toxic gases from TH-102-AW tank vapor space due to production and migration of toxic gases from sludge	Chemical reactions in waste cause production of toxic gases	Toxic vapor release from TH-102-AW atmosphere
102AW-08-COMP01	DST tank contents	Release of combustion product aerosols from TH-102-AW due to fire in separable organic layer in waste tank causing dome collapse	Organic reaching flash point or being aerosolized plus ignition source	Release of contaminated combustion product aerosols to air
102AW-08-COMP02	DST tank contents	Release of radioactive waste aerosols from TH-102-AW due to fire in fuel spilled in waste tank causing dome collapse	Spill of fuel from external source plus fuel reaching flash point or being aerosolized plus ignition source	Release of contaminated combustion product aerosols to air
102AW-08-COMP03	DST tank vapors/aerosols	Release of toxic vapors from a separable organic layer in TH-102-AW due to fuel spill into tank	External event (fuel spill)	Airborne release of toxic vapors
102AW-08-COMP04	DST tank vapor/aerosols	Release of toxic vapors from a separable organic layer in TH-102-AW due to core sampling activities	Core sampling (BPH) releases trapped vapors	Airborne release of toxic vapors
102AW-08-COMP05	Organic layer in DST	Release of toxic vapors from a separable organic layer in TH-102-AW due to error in transfer	Generator aqueous transfer of insoluble organic material	Airborne release of toxic vapors
102AW-08-TEMP	DST pump pit vapor/aerosols	Release of aerosols from TH-102-AW vapor space due to pressurization	Transfer of hot splashes from facility, generates aerosols and pressurizes the tank	Airborne release of radioactive aerosols from TH-102-AW
102AW-08-TEMP01	DST tank vapors/aerosols	Release of radioactive aerosols from TH-102-AW atmosphere due to tank bump	High fuel waste gives loss of cooling and/or mixing pump lock-out inhibits operation	Release of radioactive aerosols to air

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
102AH-09-TEMP02	DST tank vapors/emissions	Release of aerosols from annulus due to leak of liquid waste into the annulus	Tank leak due to thermal stress caused by transfer of hot solution to an almost empty tank	Airborne release of radioactive aerosols from TK-102-AH annulus
102AH-13-FLOW 01	HA	Personnel exposure due to radiation doses from contaminated pipes	Multiple valving errors and failure of backflow prevention causing reverse flow from valve pit to flush pit	Personnel exposure
102AH-13-FLOW01	Radioactive waste being pumped from SST to DCRF	Release of radioactive waste aerosols from flush pit due to spray leak of waste	Backflow of waste to flush pit with valve or pipe leak and cover block off	Release of waste aerosols to air
102AH-13-FLOW02	Liquid waste being transferred from DST	Release of radioactive liquid from transfer piping out of TK-102-AH due to backflow of radioactive material into flush pit and subsequent overflow (Pool)	Multiple valving errors and failure of backflow prevention devices dumps to pit as designed	Airborne release of radioactive liquids or aerosols
102S-01 a1	Radioactive/hazardous material contained in pumpable liquids from various S Form Tanks	Release of radioactive/hazardous liquid to soil surface from tank diversion backscotch pit due to overloading a transfer	Human Error (Jumper/Blank Installation) + Waytransfer to Tank S-102 (45D-800 Kgal) overfill tank	Material released to diversion box, which then seeps to the environment
102S-01 b2	Radioactive/hazardous material contained in pumpable liquids from S-102	Release of radioactive liquid to soil surface from TK-102-B "Pump Pit" due to leak in pumps connecting tank transfer lines SL-140, SN-242 during selffill pumping	Jumper Failure + Drain Plugged	Leak to pit, overfilling the pit, resulting in a leak to surrounding soil
102S-01 b3	Radioactive/hazardous material contained in pumpable liquids from S-102	Release of radioactive liquid to the soil subsurface from leaks in transfer lines SL-140, SN-242 (Pumps) due to leak in line caused by corrosion	Line leak during selffill pumping (corrosion)	Leak of radioactive/hazardous material to soil surrounding transfer line(s)
102S-02 b1	Material leaked into the Tank Pump Pit during selffill pumping	Release of radioactive aerosols to atmosphere from TK-102-B pump pit due to flammable gas generated in pump pit igniting and burning paint off pump pit walls	Jumper Leak + H2 evolution (or ammonia) + Spark	Deflagration leading to release of material to the environment

Table A-1. Muster Hazardous Conditions Table. (127 Sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
102S-02 b2	Residual contamination in tank pump pit	Release of radioactive aerosols to atmosphere from T1-102-S due to flammable gas from tank igniting in pump pit and burning point off pump pit walls	H ₂ (Ammine) production seegrates into pump pit + Spark (pumps not operating)	Deflagration leading to release of material to the environment
102S-02 c2	Residual contamination in tank pump pit	Release of radioactive aerosols to atmosphere from T1-102-S due to burning fuel flowing into pit ignited from ruptured gas tank	Vehicle drives into pit cover puncturing gas tank + Ignition	Potential release of contaminated smoke to the environment
102S-02 c3	Vehicle or other material on and around the inter/pump pit	Release of radioactive aerosols to atmosphere from T1-102-S pit due to burning fuel on top of pit caused by ignition of gas from ruptured gas tank	Vehicle drives into pit cover puncturing gas tank + Ignition	Release of Smoke to the Environment Potential exposure to facility workers to flames/smoke
102S-03 b3	Tank contents	Release of radioactive aerosols to atmosphere from T1-102-S due to burning fuel flowing into waste tank caused by ignition of fuel from ruptured gas tank	Vehicle drives into open near puncturing gas tank + Ignition	Burning Fuel flows into tank releasing contaminated smoke out open near
102S-03 b4	Tank contents	Release of radioactive aerosols to atmosphere from T1-102-S due to burning fuel flowing into waste tank causing dome collapse	Vehicle drives into open near puncturing gas tank + Ignition + Flammable organic vapors in tank	Burning Fuel flows into tank igniting of vapors in headspace resulting in dome collapse due to overpressure
102S-04 a1b	Tank contents (liquids)	Release of radioactive contaminants from T1-102-S liquid waste to the soil due to crack in tank with water intrusion	Structural or other stresses	Release of contaminated liquid to the surrounding soil
102S-04 a1bb	Tank contents (liquids)	Release of radioactive contaminants from T1-102-S liquid waste to the soil due to crack in tank with water intrusion	Corrosion	Release of contaminated liquid to the surrounding soil
102S-04 c3	Gases within the tank waste	Release of radioactive aerosols trapped in gases from T1-102-S waste to the atmosphere due to periodic release of toxic gases (lower energy than tank bump)	Waste growth (bump) due to chemistry within the waste coupled with crust movement	Toxic gases released to Environment

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
102S-04 c	Tank waste/vapor space	Release of radioactive aerosols from T1-102-S vapor space to atmosphere due to ignition of flammable gas in tank vapor space	Concentration of H ₂ or Ammonia (or other flammable gases) above LFL + Ignition Source	Possible Dome collapse due to excessive heating of dome space and pressure generation
102S-04 d1	Tank waste/vapor space gases	Release of radioactive aerosols from T1-102-S vapor space to the atmosphere due to low pressure causing dome collapse	Misoperation of sump pump during rainfall	Collapse of tank structure
102S-04 e1b	Vapor space gases	Release of radioactive aerosols from T1-102-S vapor space to atmosphere due to ignition of flammable gas in tank vapor space	Concentration of H ₂ or Ammonia (or other flammable gases) above LFL + Ignition Source	Release of radioactive/hazardous gases to environment
102S-04 e2	Tank vapor space gases	Release of radioactive aerosols from tank vapor space to atmosphere due to generation of excessive heat	Chemical Reaction in waste Addition of incompatible waste/chemical (mercuric)	Generation of Toxic or flammable gases
102S-04 e3	Tank contents	Release of radioactive aerosols from T1-102-S vapor space to atmosphere due to generation of excessive heat leading to dome collapse	Addition of incompatible waste/chemical (mercuric)	Tank integrity lost due to excessive temperature
102S-04 e4	Tank waste/vapor space	Release of radioactive gases and aerosols from T1-102-S vapor space to atmosphere due to criticality	Criticality (refueling)	Burst of Neutrons and Ionizing Radiation and release of fissile product gases
102S-05 a1a	Tank contents	Release of radioactive aerosols from T1-102-S to atmosphere due to dome collapse	Excess Gravel overburden	Dome Collapse releasing hazardous radioactive material
102S-05 a1a	Tank contents	Release of radioactive aerosols from T1-102-S to atmosphere due to dome collapse	Large Vehicle ballin over tank	Dome Collapse releasing hazardous radioactive material
102S-05 a2	Tank contents	Release of radioactive aerosols from T1-102-S to atmosphere due to dome collapse	Seismic Event (Common Mode Failure)	Common Mode Failure SAFR Discussion
102S-05 a3	Tank contents	Release of radioactive aerosols from T1-102-S to atmosphere due to dome collapse	Past Thermocycling of Tank	An issue for future consideration

Table A-1. Master Hazardous Conditions Table. (12T Sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
102S-05-a3a	Tank contents	Release of radioactive aerosols from Tk-102-S to atmosphere due to dome collapse	Long Term Aging	An issue for future consideration
102S-05-a	Tank vapor space gases	Release of radioactive aerosols from Tk-102-S vapor space to atmosphere due to failure of passive ventilation system	Filter plugged	Unfiltered venting of gases if seal loop is blown out or drains out
108C-01A	Tank inventory	Release of radioactive and/or hazardous material from Tk-108-C, structural damage, and dome collapse due to tank low pressure	Air inlet plugged due to long, dead	
108C-01B	Tank inventory	Release of radioactive and/or hazardous material from Tk-108-C, tank structural damage, and dome collapse due to tank low pressure	Inlet air valve closed	
108C-01C	Tank inventory	Release of radioactive and/or hazardous material from Tk-108-C, tank structural damage, and dome collapse due to tank low pressure	Exhauster damper positioned incorrectly	
108C-01D	Tank inventory	Release of radioactive and/or hazardous material from Tk-108-C, tank structural damage, and dome collapse due to tank low pressure	Wrong sized portable exhauster	
108C-01E	Tank inventory	Release of radioactive and/or hazardous material from Tk-108-C, structural damage, and dome collapse due to tank low pressure	Subcooling of tank vapor space due to water addition of flushing	
108C-01F	Tank atmosphere	Release of radioactive and/or hazardous material from Tk-108-C, blown out HEPA filter and/or discharged out cover blocks due to high tank pressure	Blockage of inlet, outlet, and outside line	
108C-01G	Tank atmosphere	Release of radioactive and/or hazardous material from Tk-108-C, due to waste fraction causing local discharge of contamination through blown HEPA's or out cover blocks	Addition of acid to tank	
108C-01H	Tank atmosphere, residual filter surface contamination	Release of radioactive and/or hazardous material from Tk-108-C, through blown HEPA's or out cover blocks due to tank boiling with vent path blocked or failed	Tank boiling with lack of vent path	

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Item at Risk	Hazardous Condition	Cause	Consequence
106C-01I	Tank inventory	Release of radioactive and/or hazardous material from T1-106-C due to possible dome collapse caused by tank high pressure	Fire in waste tank	
106C-01J	Tank inventory	Release of radioactive and/or hazardous material from T1-106-C due to high pressure in tank and possible dome collapse	Explosion/ fire in waste tank	
106C-01K	Tank atmosphere	Release of radioactive and/or hazardous material from T1-106-C due to high temperature	Water evaporation	
106C-01M	Tank inventory	Release of radioactive and/or hazardous material from T1-106-C, due to high temperature in the waste tank	Exothermic, chemical reaction in tank due to inadvertent addition to tank	
106C-01Ma	Tank inventory	Release of radioactive and/or hazardous material from T1-106-C due to flammable gas explosion/fire in tank caused by high temperature in the tank (Dome Collapse)	Chemical reaction in tank	
106C-01N	Tank inventory	Release of radioactive and/or hazardous material from T1-106-C due to high temperature in tank	Catalysis in waste tank	
106C-01Pa	Tank inventory	Release of radioactive and/or hazardous material from T1-106-C, due to high dT in tank because cold water addition caused thermal stress and cracks, resulting in tank leaks	Water addition temperature cold	
106C-01S	Tank atmosphere	Release of radioactive and/or hazardous material from T1-105-C due to high temperature caused by low level in waste tank	Water evaporation	
106C-01Sa	Tank atmosphere	Release of radioactive and/or hazardous material from T1-105-C, due to low tank level caused by tank leak	Waste tank leak	
106C-01T	Tank atmosphere	Release of radioactive and/or hazardous material from T1-105-C, due to low level in waste tank	Failure to add water to tank	
106C-01U	NA	No release - High level in waste tank due to excessive addition	Too much water addition from tank truck	
106C-01W	Tank atmosphere	Release of radioactive and/or hazardous material from T1-106-C, due to high level in waste tank	Level change due to barometric changes	

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
106C-01X	Tank inventory	Release of radioactive and/or hazardous material from T1-106-C, dome structural damage, and/or personnel injury due to overload of tank dome	Overweight vehicles over top of tank	
106C-01Y	Tank inventory	Release of radioactive and/or hazardous material from T1-106-C, dome structural damage, and/or personnel injury due to overload of tank dome	Flooding over top of tank	
106C-02A	Tank inventory	Release of radioactive and/or hazardous material from T1-106-C due to dome collapse caused by ignition of high flammable gas content in tank	High waste temperature	
106C-02B	Tank inventory	Release of radioactive and/or hazardous material from T1-106-C due to ignition of high flammable gas content in tank and possible dome collapse	Ventilation system failure	
106C-02C	Tank inventory	Release of radioactive and/or hazardous material from T1-106-C due to dome collapse caused by ignition of high flammable gas content in tank	Tank lamp, release of trapped gas	
106C-04A	Tank inventory	Release of radioactive and/or hazardous material from T1-106-C due to tank damage resulting from flammable gas explosion/fire caused by high flammable gas content in the tank (Dome Collapse)	High flammable gas content due to chemical reaction in sludge layer	
106C-04As	Tank atmosphere	Release of radioactive and/or hazardous material from T1-106-C, due to flammable gas content of the waste caused by an exothermic reaction in waste tank	High flammable gas content in tank sludge layer due to chemical reaction	
106C-04B	Tank inventory	Release of radioactive and/or hazardous material from T1-106-C due to explosion/fire caused by ignition of flammable gas released from radiolysis in tank sludge	Radiolysis in sludge layer allows release of trapped gas to vapor space	
106C-05A	Residual contamination in pump pit	Release of radioactive and/or hazardous material from T1-106-C pump pit, due to pump pit being opened to atmosphere	Cover blocks removed	
106C-06B	NA	No release - No pressure in pump pit, open to atmosphere	Ventilation system loss, cover blocks removed	
106C-06D	Residual pump pit contamination	Release of contamination from T1-106-C pump pit and potential worker injury due to fire	Fire in or near pump pit due to vehicle shut off and burn	

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
108C-05F	Residual contamination in pump pit	Release (minor) of radioactive and/or hazardous material from T1-108-C pump pit, due to pump pit high level	Plugged pit drain while adding water	
108C-05G	Residual contamination in pump pit	Release (minor) of radioactive and/or hazardous material from T1-108-C pump pit, due to pump pit high level	Plugged pit drain with rust or other small intrusion	
108C-05H	Residual contamination in pump pit	Release (major) of radioactive and/or hazardous material from T1-108-C pump pit, due to pump pit high level	Plugged pit drain during pit cleaning, cover blocks are off	
108C-05J	NA	No release - Decreased pump pit structural integrity	Dome over load	
108C-05K	Residual pump pit contamination	Release of radioactive and/or hazardous material from T1-108-C pump pit, due to decreased pump pit structural integrity caused by equipment drop	Equipment drop during crane work	
108C-05L	Residual pump pit contamination	Release of contamination from T1-108-C pump pit due to explosive/imp. affecting the structural integrity	Explosive/imp in pump pit	
108C-06M	NA	No release - Decreased pump pit structural integrity	Degradation of pump pit over time	
108C-10B	NA	No release - No ventilation system air intake	Ventilation system shutdown	
108C-10C	NA	No release - No ventilation system air intake	Intake HEPA filter plug	
108C-10D	NA	No release - High air flow into waste tank	Intake path partial blockage	
108C-10E	NA	No release - High air flow into waste tank	Intake HEPA filter breach	
108C-10F	Tank atmosphere	Release of radioactive and/or hazardous material from T1-108-C, potential spread of contamination, due to reverse air flow caused by intake HEPA damage	Loss of tank active ventilation	
108C-10H	Tank atmosphere	Release of radioactive and/or hazardous material from T1-108-C, due to HEPA filter damage	Low ambient air temperature results in ice on filter and filter damage	
108C-10J	Tank atmosphere and surface contamination on HEPA filter	Release of radioactive and/or hazardous material from T1-108-C due to tank structural damage, HEPA damage caused by high temperature	Fire in or around ventilation system	
108C-10K	Tank atmosphere	Release of radioactive and/or hazardous material from T1-108-C, spread of contamination, due to ventilation air intake open to atmosphere	HEPA filter breach	

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
105C-10L	Tank atmosphere	Release of radioactive and/or hazardous material from T1-105-C, spread of contamination, due to ventilation air intake open to atmosphere	Air intake ductwork damaged	
105C-11A	Tank atmosphere	Release of radioactive and/or hazardous material from T1-105-C, due to HEPA filter damage	HEPA filters plugged	
105C-11B	NA	No release - No ventilation air flow	Power loss to ventilation fan	
105C-11C	NA	No release - No ventilation air flow	Exhaust fan failure	
105C-11D	NA	No release - No ventilation air flow	Ventilation system damper valve closed	
105C-11E	Tank atmosphere	Release of unfiltered tank atmosphere from T1-105-C, due to damaged ductwork	Damage to ventilation ductwork upstream of filter	
105C-11F	NA	No release - Pressure or flow through waste tank	Loss of ventilation system	
105C-11G	Tank atmosphere	Release of radioactive and/or hazardous material from T1-105-C, through exhaustor drain due to leak or failure to add water routinely	Loss of exhaustor seal pot water due to leak or failure to add water routinely	
105C-11H	Tank atmosphere	Release of radioactive and/or hazardous material from T1-105-C, due to condensate backing up into filters, de-aerator or heater	Exhaustor seal pot water freezing due to loss of heat trace	
105C-11I	Tank atmosphere, residual filter surface contamination	Release of radioactive and/or hazardous material from T1-105-C, due to moisture anywhere into HEPA's causing loss of efficiency	Exhaustor heater failure	
105C-11J	Tank atmosphere, residual filter surface contamination	Release of radioactive and/or hazardous material from T1-105-C, due to HEPA damage, higher than 200 F design	Exhaustor heater overheat	
105C-11K	Tank atmosphere and surface contamination on HEPA filters	Release of radioactive and/or hazardous material from T1-105-C due to HEPA filter damage, spread of contamination caused by high temperatures in ventilation system	Fire in exhaustor ductwork	
105C-11L	Tank atmosphere, residual filter surface contamination	Release of radioactive and/or hazardous material from T1-105-C, through HEPA filter path due to human error in installation of filter	Improper installation of HEPA's	

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Minimum # Risk	Hazardous Condition	Cause	Consequence
108C-11M	Tank atmosphere, residual filter surface contamination	Release of radioactive and/or hazardous material from TR-108-C, due to damaged HEPA filter	Error that damages HEPA	
108C-11N	Tank atmosphere, residual filter surface contamination	Release of radioactive and/or hazardous material from TR-108-C, through HEPA filter pack due to filter degradation over time	HEPA filter degradation	
108C-11O	Tank atmosphere	Release of radioactive and/or hazardous material from TR-108-C, due to loss of filtration	HEPA filter blowout	
108C-12A	Tank atmosphere	Release of radioactive and/or hazardous material from TR-108-C, due to tank falling below level limit, caused by excessive liquid evaporation from high temperature	Pit drain plug, water addition late	
108C-12B	Tank atmosphere	Release of radioactive and/or hazardous material from TR-108-C, due to low tank level	Water addition tank truck breakdown	
108C-12C	Tank atmosphere	Release of radioactive and/or hazardous material from TR-108-C, due to low tank level because of increased evaporation	Water addition tank truck leak	
108C-12D	Tank atmosphere	Release of radioactive and/or hazardous material from TR-108-C, due to excessive liquid evaporation caused by high temperature resulting in tank level falling below level limit	Tank level equipmentization fails, does not prompt water addition	
108C-12F	Tank inventory	Release of radioactive and/or hazardous material from TR-108-C, due to waste reservoir tank	Added chemicals to tank instead of normal water addition	
108C-12G	Tank inventory	Release of radioactive and/or hazardous material from TR-108-C, due to high dT in tank because cold water addition caused thermal stress and cracks resulting in tank leaks	Tank leak, water temperature cold	
108C-13A	Tank inventory	Release of radioactive and/or hazardous material from TR-108-C due to possible dome collapse, tank damage caused by high temperature	Fire in C-105 propagates into tank C-108	
108C-13B	N/A	No release - Cascade waste tank contents into TR-108-C	Overflow of tank C-105 to cascade into	

Table A-1, Master Hazardous Conditions Table. (127 Sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
107AN-01-LEVE01	Caustic solution	Release of caustic material from truck tank due to leak (aerosol spray)	Open valve on truck with pressurized tank transfer	Spill to the environment Worker hazard
107AN-01-LEVE02	Caustic solution	Release of caustic material from truck tank due to leak (aerosol spray)	Truck tank leak	Spill to the environment Worker hazard
107AN-01-LEVE03	Caustic solution	Release of caustic material from truck tank due to leak	Failure to secure truck	Spill to the environment Worker hazard
107AN-01-TEMP01	NA	Injury of worker from thermal hazard	Caustic in tank heated too hot at source	Thermal hazard to personnel
107AN-01-TEMP02	Caustic solution	Release (spray) of caustic material from truck tank due to high temperature	Fire in gas tank	Leak from tank
107AN-02-FLOW01	Contents of DST	Release of radioactive aerosols from T1-107-AN due to surface chemical reaction	Transfer of incompatible chemical to tank via chemical addition system due to transfer of paperwork error	Release of airborne radioactive aerosols from tank
107AN-02-FLOW02	Contents of DST	Release of toxic vapors from T1-107-AN due to surface chemical reaction	Transfer of incompatible chemical to tank via chemical addition system due to transfer of paperwork error	Release of toxic off gas such as ammonia or NOX
107AN-02-FLOW03	Caustic material being transferred for pH adjustment (about 4000 gallons)	Release of concentrated caustic aerosol to surface from transfer piping due to leak	Caustic solution transfer line leak	Release of concentrated caustic material to surface
107AN-02-PRES	Contents of caustic truck	Release of caustic aerosol from caustic truck transfer piping due to spray leak	Piping/hose leak initiated by various causes	Release of caustic aerosol
107AN-02-PRES02	Caustic solution	Release of caustic material from transfer piping due to high pressure (aerosol spray)	Hose disconnect	Leak to environment
107AN-02-TEMP01	Caustic solution	Release of caustic material from transfer piping due to low temperature during transfer	Low temperature from truck	Low/no flow Crystals Leaks/drips

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Abstract of Risk	Hazardous Condition	Cause	Consequence
107A143-FLOWY	Caustic material being transferred for pH adjustment (about 4000 gallons)	Release of concentrated caustic solution to surface from transfer piping due to backflow of caustic	Low temperature causes backflow	Release of concentrated caustic material to surface
1143X-02 b	Radioactive material contained in permeable liquid	Release of radioactive liquid from tank/pump pit to the ground surface due to inadvertent pumping activity (Pool)	Human Error (Not Normal Activity)	N/A
1148SX-04 a 1a	Radioactive aerosols contained in tank head space	Release of radioactive aerosols from T1-114-SX head space via tank ventilation (prevents failure of outlet filter) to the atmosphere due to failure of the exhaustor	Exhaustor Failure Mechanical Low Temperature (Thermocouple in exhaust duct not insulated probe up isolated temperature from ductwork)	No discernable effect (Assumes inlet filter is intact for flowback through inlet barrier) (No H2 concern)
1143X-04 a 1b	Radioactive aerosols contained in tank head space	Release of radioactive aerosols from T1-114-SX head space via tank ventilation (prevents failure of outlet filter) to the atmosphere due to failure of the exhaustor	Filter Plugged	No Effect (Assumes Exhaustor Operating)
1143X-04 a 2	Radioactive material contained in the tank (this tank has a dry crust which may be composed of easily disturbed dusty material)	Release of radioactive aerosols from failed tank dome due to vacuum produced by mixing error	Human Error Valve out Flammable Watch Hal (SX-102) Buttery valve	Exposing their negative pressure causing tank "bump" or storm failure
1143X-04 a 3	Radioactive material contained in the tank (this tank has a dry crust which may be composed of easily disturbed dusty material)	Release of radioactive aerosols from T1-114-SX to atmosphere due to dome collapse caused by high temperature which resulted in dome concrete strength degradation	No Ventilation Flow High Ambient Temperature Conditions Resulting in tank degradation	Possible High temperature in dome with degradation of concrete leading to storm collapse
1148X-04 a 4	Radioactive aerosols contained in tank head space	Release of radioactive aerosols from T1-114-SX headspace to atmosphere due to inlet HEPA filter failure coupled with exhaustor failure	Filter Failure	Venting of radiologically contaminated material to local area
1148SX-04 b 1 a 1	Radioactive aerosols contained in tank head space	Release of radioactive aerosols from T1-114-SX headspace to atmosphere due to inlet HEPA filter failure coupled with exhaustor battery valve closure	Human Error Closure of SX-114 exhaust battery valve isolating tank from exhaust plenum	Go to Passive ventilation

Table A-6. Master Hazardous Conditions Table. (127 Sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
1145X-04 b 1 a 2	Radioactive material contained in the tank (this tank has a dry crust which may be composed of easily disturbed dusty material)	Release of radioactive material from T1-114-SX to atmosphere due to high temperature in the dome leading to dome collapse (long term closure of butterfly valve)	Human Error Closure of SX-114 exhaust butterfly valve isolating tank from exhaust plenum Resulting in tank degradation	Possible High temperature in tank leads to dome collapse
1145X-04 b 1 a 3	Radioactive liquids in tank waste capable of migrating out breach	Release of radioactive liquids to the soil from T1-114-SX due to tank bottom failure	Human Error Closure of SX-114 exhaust butterfly valve isolating tank from exhaust plenum Resulting in tank degradation	Possible high temperature in tank waste leads to failure of tank bottom
1145X-04 b 1 b 1a	Radioactive aerosols located in tank head space	Release of radioactive aerosols from T1-114-SX head space to the atmosphere due to ventilation system ducting failure (with failed inlet filter)	Ducting failure from bad welds	Go to Passive ventilation
1145X-04 b 1 b 1b	Radioactive aerosols located in tank headspace	Release of radioactive aerosols from T1-114-SX head space to atmosphere due to failure of exhaust ducting from assembly event (Mediational disruption)	Ducting failure from Seismic activity	Go to Passive ventilation
1145X-04 b 1 b 2a	Radioactive material contained in the tank (this tank has a dry crust which may be composed of easily disturbed dusty material)	Release of radioactive aerosols to atmosphere from T1-114-SX waste due to heat induced tank dome collapse	Ducting failure due to bad welds	Possible High temperature in tank leads to dome collapse
1145X-04 b 1 b 2b	Radioactive material contained in the tank (this tank has a dry crust which may be composed of easily disturbed dusty material)	Release of radioactive aerosols to atmosphere from T1-114-SX waste due to heat induced tank dome collapse	Ducting failure due to Seismic activity coupled with failure to respond Resulting in tank degradation	Possible High temperature in tank leads to dome collapse
1145X-04 b 1 b 3a	Liquid waste that is capable of migrating out tank breach	Release of radioactive liquids to the soil from T1-114-SX due to tank bottom failure	Ducting failure due to bad welds reduces heat removal rate Resulting in tank degradation	Possible high temperature in tank waste leads to failure of tank bottom

Table A-1. Master Hazardous Conditions Table. (127 Streets)

ID	Nature of Risk	Hazardous Condition	Cause	Consequence
1145X-04 b 1 b 3b	Liquid waste that is capable of igniting out tank breasts	Release of radioactive liquids to the soil from T1-114-SX due to tank bottom failure (Leak to soil)	Tank failure due to Seismic activity Resulting in tank degradation	Possible high temperature in tank waste leads to failure of tank bottom
1145X-04 b 1 c 1	Radioactive aerosols contained in tank head space	Release of radioactive aerosols from T1-114-SX head space to atmosphere due to exhaust filter failure and multiple filter failure	Exhaust filter failure Fan failure Filter Rupture (low diff. pressure shutdown) Resulting in tank degradation	Go to Passive ventilation
1145X-04 b 1 c 2	Radioactive material contained in the tank (this tank has a dry crust which may be composed of easily disturbed dusty material)	Release of radioactive aerosols to atmosphere from T1-114-SX waste due to dome collapse	Exhaust filter failure Fan failure Filter Rupture (low diff. pressure shutdown) Resulting in tank degradation	Possible High temperature in tank leads to dome collapse
1145X-04 b 1 c 3	Radioactive liquids contained in tank waste	Release of radioactive liquids to the soil from T1-114-SX due to tank bottom failure (From high head)	Exhaust filter failure Fan failure Filter Rupture (low diff. pressure shutdown) Resulting in tank degradation	Possible high temperature in tank waste leads to failure of tank bottom
1146X-04 b 1 d 1	Radioactive aerosols contained in tank head space	Release of radioactive aerosols from T1-114-SX head space to atmosphere due to exhaust filter plugging (exhaust filter failure of inlet filter)	Exhaust filter plugging plus inlet filter failure	Go to Passive ventilation
1146X-04 b 1 d 2	Radioactive material contained in the tank (this tank has a dry crust which may be composed of easily disturbed dusty material)	Release of radioactive aerosols from T1-114-SX waste to atmosphere due to dome collapse	Filter plugging results in lack of heat removal with high temperatures degrading dome strength	Possible High temperature in tank leads to dome collapse

Table A-1. Master Hazardous Conditions Table. (127 Streets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
1145X-04 b 1 d 3	Liquid radioactive waste capable of migrating out breach	Release of radioactive liquids to the soil from Tk-114-SX due to tank bottom failure	Filter plugging results in lack of heat removal with high temperatures degrading stress strength	Possible high temperature in tank waste leads to failure of tank bottom
1145X-04 b 3b	Radioactive aerosols contained in tank head space	Release of radioactive aerosols from head space of Tk-114-SX to atmosphere through exhaust HEPA filter due to flammable gas ignition in the headspace (Dome Collapse)	Flammable gas explosion/leak in SX-114 (Note: SX-114 is NOT currently identified as a Flammable Gas Watch list item) Requires spark to be present	Local radiological contamination
1145X-04 b 5	Radioactive aerosols contained in tank head space	Release of radioactive aerosols from Tk-114-SX head space to atmosphere due to failure of exhaust HEPA filter	No Ventilation Flow High Ambient Temperature Conditions Leading to filter failure	Exhauster filter failure due to high heat
1145X-04 c 1	Radioactive aerosols contained in tank head space	Release of radioactive aerosols from Tk-114-SX head space to atmosphere due to mechanical failure of exhaust HEPA filter	Plenum structure failure process filter	Release of radiological material from duct and filter media
1145X-04 c 2 a	Radioactive aerosols contained in tank head space	Release of radioactive aerosols from Tk-114-SX head space to atmosphere due to exhaust HEPA filter seal failure	HEPA filter seal failure	Release of Radioactive material to the environment
1145X-04 c 2 b	Radioactive aerosols contained in tank head space	Release of radioactive aerosols from Tk-114-SX head space to atmosphere due to exhaust defective HEPA filter	Defective HEPA filter	Release of Radioactive material to the environment
1145X-04 c 2 c	Radioactive aerosols contained in tank head space	Release of radioactive aerosols from Tk-114-SX head space to atmosphere due to exhaust HEPA filter degradation	Deteriorated HEPA filter	Release of Radioactive material to the environment
1145X-04 c 2 d	Radioactive aerosols contained in tank head space	Release of radioactive aerosols from Tk-114-SX head space to atmosphere due to exhaust HEPA filter installation errors	Improper Installation (Human error)	Release of Radioactive material to the environment

Table A-1. Master Hazardous Conditions Table. (127 Streets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
1148X-06 b 1	Radioactive material contained in the tank (this tank has a dry crust which may be composed of easily disturbed dusty material)	Release of radioactive aerosols from T10-114-SX waste to atmosphere due to flammable gas ignition resulting in dome collapse	Radiolysis creating bubbles of gases in waste	Release of H ₂ into the tank atmosphere allowing gas mixture to ignite (LFL & ignition causing release of radioactive material (dome collapse)
1148X-06 b 2	Radioactive aerosols contained in tank head space and some tank waste material (this tank has a dry crust which may be composed of easily disturbed dusty material)	Release of radioactive aerosols from T10-114-SX head space to atmosphere due to sudden flushing of water added to tank for cooling	Flashing (adding cold liquid to hot tank contents)	Possible ejection of radiological material through open hatch
1148X-06 b 3	Radioactive material contained in the tank (this tank has a dry crust which may be composed of easily disturbed dusty material)	Release of radioactive aerosols from T10-114-SX waste to atmosphere when dome collapses due to sudden vacuum in tank	Quenching (adding cold liquid to hot tank contents) creating a vacuum	Possible collapse of Dome with release of radiological material
1148X-06 c 2b	Radioactive material contained in the tank (this tank has a dry crust which may be composed of easily disturbed dusty material)	Release of radioactive aerosols from T10-114-SX waste to atmosphere due to dome collapse	Chemical reaction caused by addition of chemicals/acids Resulting in tank degradation	Possible High temperature in dome with degradation of concrete leading to dome collapse
1148X-06 c 2c	Radioactive aerosols created by volatility event	Release of radioactive gases and aerosols as well as direct radiation from T10-114-SX due to criticality	Criticality (difficult to achieve concentrations needed and difficult to obtain configuration required)	Release of fission gases and direct radiation
1148X-06 d	Radioactive material contained in tank head space	Release of radioactive aerosols from T10-114-SX head space to atmosphere due to localized explosion/rifts of flammable gas	Cone Sampling through a pocket of gas large enough to exceed local LFL AND A Spark = local explosion/rift	Puff Release of Radioactive Material Injury/Deaths to workers
1148X-06 e 1a	Radioactive material contained in the tank (this tank has a dry crust which may be composed of easily disturbed dusty material)	Release of radioactive aerosols from T10-114-SX waste to atmosphere due to dome collapse	Gravel overburden Large Vehicle	Dome Collapse

Table A-4. Master Hazardous Conditions Table. (127 Sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequences
1145X-08 a 1b	Radioactive material contained in the tank (this tank has a dry crust which may be composed of easily disturbed dusty material)	Release of radioactive aerosols from TR-114-SX waste to atmosphere due to dome collapse	Dilatation of H2 (implies gas generation AND A Spark)	Dome Collapse
1145X-08 a 2	Radioactive liquid in the tank vents	Release of radioactive liquid from TR-114-SX to the soil due to failure of tank caused by corrosion	Corrosion AND Addition of Liquid	Additional movement of radioactive material into below ground area
1145X-08 a 3	Radioactive material contained in the tank (this tank has a dry crust which may be composed of easily disturbed dusty material)	Release of radioactive aerosols from TR-114-SX waste to the atmosphere due to dome collapse caused by loss of strength with aging	Long term aging Resulting in tank degradation	Dome Collapse
1145X-08 b	Radioactive material in the tank waste	Personnel exposure to ionizing radiation due to lack of shielding	Inadvertent removal of tank overburden (gravel)	Personnel exposed to ionizing radiation due to lack of shielding
204AR-01A	20,000 gallons of liquid radioactive waste from the rail car	Release and spread of airborne radiological contamination from railway due to over pressurization	Over pressure in the rail car due to chemical reaction, rupture disk fails	
204AR-01 B	20,000 gallons of liquid radioactive waste from the rail car	Release of airborne contamination and toxic chemical exposure to worker from railway due to high ambient temperature	Over pressure in the rail car due to high ambient temperature, rupture disk fails	
204AR-01 C	20,000 gallons of liquid radioactive waste from the rail car	Release of airborne contamination and toxic chemical exposure to worker from railway due to chemical reaction causing over pressurization	High temperature in the rail car due to chemical reaction of the rail car contents, rupture disk fails	
204AR-01 D	20,000 gallons of liquid radioactive waste from the rail car	Release and spread of airborne contamination and toxic chemical exposure to worker from railway due to leak caused by high ambient temperature and over pressurization of rail car	High ambient temperature causing pressurization of rail car and possible leakage, failed rupture disk	
204AR-01 E	20,000 gallons of liquid radioactive waste from the rail car	Release of airborne contamination and toxic chemical exposure to worker from railway due to damaged rupture disk	Chemical Reaction or Internal fire resulting in an over pressure condition on rail car	

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Nature of Risk	Hazardous Condition	Cause	Consequence
204AR-01F	20,000 gallons of liquid radioactive waste from the rail car	Release of airborne contamination and toxic chemical exposure to worker from railcar due to an over pressurization caused by a diesel fuel fire under the railcar	Fire from diesel fuel of the locomotive that results in an over pressure condition on the rail car, rupture disk fails	
204AR-01G	20,000 gallons of liquid radioactive waste from the rail car	Release of airborne and liquid contamination from emptying car due to lifting of railcar contents	Vacuum condition on rail car results in emptying of rail car contents to the catch tank	
204AR-01H	20,000 gallons of liquid radioactive waste from the rail car	Release of airborne and waterborne contaminants outside building on track spur, and potential contamination in unloader room from railcar due to spilling railcar contents	Rail car rupture due to collision with other or a derailed car	
204AR-01I	20,000 gallons of liquid radioactive waste from the rail car	Release of airborne and waterborne contaminants outside building on track spur, and potential contamination in unloader room from railcar due to leak	Rail car leak due to tanker corrosion or other degradation	
204AR-01J	Unloader room environment Airborne contaminants	Release of airborne contamination from overflowing catch tank due to overflowing through pressure line	Pressure line inadvertently lifts up rail car and overflows rail car through its vent line to the catch tank	
204AR-01K	Unloader room environment Airborne contaminants	Release of airborne contamination from unloader room due to overflowing catch tank	During skidding operations, fill up rail car and overflow through its vent line to the catch tank	
204AR-02A	5000 gallons of liquid rad waste from trailer	Release of liquid radioactive material and toxic chemicals outside and inside the 204-AR building from the trailer due to collision which causes it spill	Trailer damage due to running into the building and causing the tank contents to spill	
204AR-02B	5000 gallons of liquid rad waste from trailer	Release of radioactive material and toxic chemicals from trailer due to structural degradation of trailer	Tank trailer damaged due to corrosion or other degradation	
204AR-02C	5000 gallons of liquid rad waste from trailer	Release of Airborne contamination and toxic chemical exposure to worker, from the railcar due to over pressurization on trailer	Chemical reaction in trailer resulting in an over pressure condition, rupture disk fails	
204AR-02D	5000 gallons of liquid rad waste from trailer	Release of Airborne contamination and toxic chemical exposure to worker, from the railcar due to diesel fuel fire causing over pressurization on the trailer	Diesel fuel fire from the truck causing an over pressure condition in the tank trailer, rupture disk fails	

Table A-1. Worker Hazardous Conditions Table. (127 Sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
204AR-02E	5000 gallons of liquid red waste from trailer	Release of radioactive material and toxic chemicals from trailer due to damage caused by trailer jack failure	Leak from tank trailer due to trailer jack failure	
204AR-02F	Unleaded room environment Airborne contaminants	Release of airborne contamination from unleaded room due to overflowing catch tank	Purging line inadvertently fills up trailer and overflows trailer through its vent line to the catch tank	
204AR-03A	Liquid radioactive waste from catch tank	Release of contamination and airborne release around the catch tank area, and chemical exposure in mechanical equipment room from catch tank or Sodium Nitrate tank due to failed tank	Sodium Nitrate tank #2 either fails or has a drain valve open and empties its contents to the floor drains in the mechanical equipment room	
204AR-03B	~2000 gallons of liquid red waste from catch tank and Sodium Nitrate tank	Release of airborne around the catch tank area and chemical exposure in mechanical equipment room from the NaNO ₃ tank due to overflowing and spill from the catch tank	Sodium Nitrate Tank #2 overflowed and contents spilled into floor drains	
204AR-03C	Liquid radioactive waste from catch tank	Release of airborne contamination in unleaded room and chemical exposure to worker from overflowed catch tank due to tank failure	Na Nitrate tank #2 tank failure (leak at bottom) filling the catch tank with potential for airborne	
204AR-04A	~2000 gallons of liquid red waste from catch tank and NaOH tank	Release of airborne and waterborne contamination from high level in the catch tank due to NaOH tank failure	Sodium Hydroxide Tank #3 failure or drain valve open which empties contents into the floor drains	
204AR-04B	~2000 gallons of liquid red waste from catch tank and NaOH tank	Release of airborne contamination around the catch tank area, and chemical exposure in mechanical equipment room from the NaOH and catch tank(s) due to overflowing of the NaOH tank	Sodium Hydroxide Tank #3 overflowed and contents spilled into the floor drains	
204AR-04C	Up to 500 gallons of Na Nitrate solution	Release of chemicals to the mechanical equipment room environment from the Sodium Nitrate tank due to adding chemicals too quickly	Adding caustic chemicals too quickly to the tank - human error	
204AR-04D	Up to 500 gallons of Na Nitrate solution	Release of NaOH particulates from the NaOH tank due to thermal stresses in piping and eventual valve leakage of NaOH tank piping	Adding too much NaOH resulting in high temperatures	Caustic exposure to worker
204AR-04E	Up to 500 gallons of Na Nitrate solution	Release of NaOH particulates from the NaOH tank due to damage to the chemical addition pump discharge	Adding steam heat to the coils resulting in high temperatures	Caustic exposure to worker

Table A-1, Master Hazardous Conditions Table. (127 Sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
204AR-04F	~2000 gallons of liquid red waste from catch tank and NaOH tank	Release of airborne and waterborne contamination from high level in the catch tank due to NaOH tank failure	NaOH tank is failure (leak at bottom) filling the catch tank with potential for airborne	
204AR-05A	~500 gallons of caustic water	Release of toxic chemicals to mechanical equipment room from chemical addition piping due to large leak in chemical addition piping	Large leak in the chemical addition piping during the transfer process	
204AR-06B	~500 gallons of caustic chemicals in solution	Release of toxic chemicals and worker exposure from chemical addition piping due to over pressure of piping and subsequent damage	Over pressure while running chemical addition pump due to speed lowering the piping	
204AR-06C	Aging waste D&T tank contents	Release of TK-102-AY liquid red waste to the mechanical equipment room from TK-102-AY due to pumping and reversing flow from TK-102-AY to the 204-AR facility	Reverse flow of transfer piping fluid through the chemical addition piping in the mechanical equipment room	
204AR-08A	Radioactive liquid waste in transfer piping	Release of liquid radioactive waste to the unloader room or caustic chemicals to the mechanical equipment room from the painting water piping or transfer piping due to over pressurization of piping	Raw water supply pressure higher than normal	
204AR-08B	Radioactive liquid waste in transfer piping	Release of liquid radioactive waste to the unloader room or caustic chemicals to the mechanical equipment room from the painting water piping or transfer piping due to over pressurization of piping	Water hammer in painting piping from raw water supply	
204AR-08C	Unloader room environment radioactive contaminants	Release of airborne contamination from unloader room due to overflowing catch tank	High flow through the grating into and transfer piping due to misalignment which fills up the rail car or trailer and overflows it to the catch tank	
204AR-07A	Aging waste D&T tank contents	Release of liquid red waste and high airborne in unloading room from the TK-102-AY due to reverse pumping of TK-102-AY contents back to 204-AR	Pump in pit OSD starts and pumps back to the 204AR building through the transfer piping and leaks	Flis room and overflows out rail door?
204AR-07B	~1000 gallons of liquid red waste in 204AR transfer piping	Release of contaminated water to environment outside of 204-AR building and floor drains inside building from the transfer piping due to over pressure and leakage from raw water flush	Over pressure of raw water through transfer piping during post transfer flush	

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequences
204AR-07C	5000 - 20,000 of liquid rad waste from rail car or trailer	Release of airborne and spread of contamination from the transfer piping due to leak from improper valve lineup	Leaking transfer piping due to transfer pump being closed too fast (e.g., a valve in the transfer line is closed)	
204AR-08A	Up to 20,000 of liquid rad waste from rail car	Release of airborne and waterborne contamination from the sump pit due to ruptured piping during transfer	Rupture of transfer piping section above the sump pit	
204AR-08B	5000 - 20,000 of liquid rad waste from rail car or trailer	Release of airborne and radiation contamination in the unloader room from trailer or railcar leak due to high level in sump pit	Catastrophic leak from a large liquid source such as a trailer or rail car	Fills room and flows out roll door?
204AR-09C	5000 of liquid rad waste	Release of airborne and radiation contamination in the unloader room from railcar due to gross overfilling of catch tank	Gross overfilling of catch tank either from large source such as the trailers or rail cars or continual pumping of transfer water through a leaky pipe	Fills room and flows out roll door?
204AR-09D	5000 - 20,000 of liquid rad waste from rail car or trailer	Release of radioactive liquid waste in the unloader room from the railcar or trailer due to leaked rail car or trailer	Filled tank car or rail car (initially full of liquid waste) overfilling the catch tank and sump pit	
204AR-09E	1800 gallons of liquid rad waste from catch tank	Release of airborne contamination and increased radiation levels from catch tank due to blocked catch tank ventilation and over pressure of catch tank	A heat power is in the catch tank and the overflow and vent of the catch tank are blocked off or obstructed, resulting in a catch tank over pressure	
204AR-09F	1500 gallons of liquid rad waste from catch tank	Release of airborne contamination and increased radiation levels from catch tank due to blocked catch tank ventilation and over pressure of catch tank	Ventilation to the catch tank is blocked off with firebars on, resulting in a catch tank high pressure	
204AR-09G	~30000 gallons of liquid rad waste from sump pit	Release of waterborne contamination to the ground from the sump pit due to corrosion or structural defect	Leakage of sump pit stainless steel liner due to corrosion or structural defect	
204AR-09H	~5000 gallons of liquid rad waste from the transfer piping	Release of airborne and waterborne contamination in the unloader room from transfer piping and sump pit due to flooding the catch tank and damaging piping	Rupture of raw water line piping above sump pit, causing sump pit to fill before catch tank	
204AR-11A	Unloader room environment. Airborne contaminants	Release of airborne radioactivity from unloader room due to loss of confinement caused by power failure	Loss of confinement due to power failure and total loss of ventilation fan	

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Manner of Risk	Hazardous Condition	Cause	Consequence
204AR-11B	Unloader room environment Airborne contaminants	Release of airborne radioactivity from unloader room due to loss of confinement caused by low ventilation flow	Loss of confinement due to low ventilation flow	
204AR-11C	Unloader room environment Airborne contaminants	Release of airborne contamination from the unloader room due to failure of ventilation fan	Failure of EF-1 fan resulting in loss of confinement	
204AR-11D	Unloader room environment Airborne contaminants	Release of airborne contamination from the unloader room due to blocked ventilation flow	No ventilation flow because of jamper ahead	
204AR-11E	Unloader room environment Airborne contaminants	Release of airborne contamination from the unloader room due to plugged ventilation flow	No ventilation flow because of plugged HEPA filter	
204AR-11F	Unloader room environment Airborne contaminants	Release of airborne radiological contamination through the ventilation stack from the unloader room atmosphere due to fire in ventilation ducting	Fire in ventilation ducting resulting in damage to the HEPA filter and release to the atmosphere	
213 W-01	Inventory in building	Release of radioactive and/or hazardous materials from 213-W work room due to error in repackaging or assessment repair	Handling error (forfeit, spills, etc)	Worker exposure to radioactive and/or hazardous materials
213 W-02	Inventory in building	Release of radioactive and/or hazardous materials from 213-W work room due to error in repackaging or assessment repair	Failure of lock	Worker exposure to radioactive and/or hazardous materials
213 W-03	Inventory in ventilation system	Release of radioactive and/or toxic materials from 213-W due to fire in ventilation system	Electrical fault in ventilation or monitoring system	Release of radioactive and/or hazardous materials from stack
213 W-04	Inventory in work room and in ventilation system	Release of radioactive and/or hazardous materials from 213-W work room due to fire	Human error (handling, smoking, hot tools)	Worker exposure to radioactive and/or hazardous materials, burns
213 W-05	Inventory in work room and in ventilation system	Release of radioactive and/or hazardous materials from 213-W work room due to fire	Electrical or mechanical fault in tools, heating system, or hydraulics	Worker exposure to radioactive and/or hazardous materials, burns
213 W-06	Inventory in work room and in ventilation system	Release of radioactive and/or toxic materials from 213-W due to fire in ventilation system	Lightning	Release of radioactive and/or hazardous materials from stack

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
213-W-07	Inventory in building and in ventilation system	Release of radioactive and/or toxic materials from 213-W due to structural failure of building	Earthquake	Worker exposure to radioactive and/or hazardous materials
213-W-08	Inventory in building and in ventilation system	Release of radioactive and/or toxic materials from 213-W due to structural failure of building	High winds or tornado	Worker exposure to radioactive and/or hazardous materials
213-W-09	Inventory in building	Release of radioactive and/or toxic materials from 213-W due to structural failure of building	Loss of control of vehicle in vicinity of building	Worker exposure to radioactive and/or hazardous materials, worker injury
244AR-01 a 03	Aerosols generated by jelling operations	Release of radioactive aerosols from tank headspace and exit building through the inlet side of the canyon ventilation system due to mechanical failure	Failure of wood vesting with open vents to cell atmosphere and jelling operations occurring plus failure of exhaust fans	Movement of isotopic contamination out inlet
244AR-01 b 01	Aerosols generated by jelling operations	Release of radioactive aerosols from tank headspace and exit building through the inlet side of the canyon ventilation system due to mechanical failure	Fan Failure with jelling occurring	Personnel exposure to radioactive materials if present in canyon when event occurs
244AR-01 b 02	Aerosols generated by jelling operations	Release of radioactive aerosols from tank headspace and exit building through the inlet side of the canyon ventilation system due to mechanical failure	HEPA filter plugged with jelling occurring	Personnel exposure to radioactive materials if present in canyon when event occurs
244AR-01 b 03	Aerosols generated by jelling operations	Release of radioactive aerosols from tank headspace and exit building through the inlet side of the canyon ventilation system due to human error	Damper closed with jelling occurring	Personnel exposure to radioactive materials if present in canyon when event occurs
244AR-01 b 04	Material trapped in filter	Release of radioactive aerosols from the facility exhaust stack due to filter failure	HEPA filter fails	Possible release of radioactive material out stack
244AR-01 c 01	Radioactive aerosols suspended in vessel headspace	Release of radioactive aerosols from vessel headspace to atmosphere due to vessel ventilation failure	Plugged vessel ventilation system filters	Possible radioactive material release to cell atmosphere

Table A-1. Master Hazardous Conditions Table, (127 Sheets)

ID	Hazard at Risk	Hazardous Condition	Cause	Consequence
244AR-01 a 02	Radioactive aerosols suspended in vessel headspace	Release of radioactive aerosols from vessel headspace into canyon atmosphere due to ventilation system failure	Vessel ventilation system fan shutdown or failure	Possible radioactive material release to cell atmosphere
244AR-01 a 03	Radioactive aerosols suspended in vessel headspace	Release of radioactive aerosols from vessel headspace into canyon atmosphere due to human error	Valve closed in exhaust flow path	Possible radioactive material release to cell atmosphere
244AR-01 a 07	Radioactive aerosols suspended in vessel headspace	Release of radioactive aerosols from vessel headspace into canyon atmosphere due to human error	All inlets to tank sealed with gasping of tank occurring	Possible collapse of tank and breach resulting in leakage to dump
244AR-01 a 08	Radioactive aerosols suspended in vessel headspace	Release of radioactive aerosols from vessel headspace into canyon atmosphere due to tank rupture	Plugged tank vents with gas evolution in tank contents	Possible vessel rupture and leakage into dump
244AR-01 a 09	Radioactive and toxic material contained in tank	Release of radioactive aerosols from vessel headspace to atmosphere due to flammable gas ignition	Ignition of flammable gas that has collected in piping and tank dome	Explosion/fire with possible tank rupture and release of radioactive materials to cell
244AR-01 a 10	Radioactive aerosols contained in vessel head space	Release of radioactive aerosols from vessel headspace to atmosphere due to plugged ventilation system	Air purge operating with ventilation system plugged	None - air purge system does not have sufficient pressure to rupture vessel
244AR-01 a 11	Radioactive aerosols contained in vessel head space and material trapped on filter	Release of radioactive aerosols from vessel headspace to atmosphere due to ventilation system filter plugging	Air heaters off (steam supplied)	Potential filter plug from condensation of moisture and buildup of gases in tank
244AR-01 a 19	Radioactive aerosols contained in vessel head space and material trapped on filter	Release of radioactive aerosols from vessel headspace to atmosphere due to ventilation system filter plugging	Air heater off with significant heat generating waste in tanks	Potential filter plug and buildup of gases in the tank
244AR-02 a 03	Radioactive material contained in vessel	Release of radioactive liquid in the form of aerosols from a spill to the exterior of the 244-Air facility due to ignition of flammable gas	Explosion/fire from Hydrogen buildup	Structural damage

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
244AR-02 # 05	Radioactive material contained in sump	Release of (movement of) radioactive liquid from a cell to an adjacent cell due to rain or snow water intrusion	Rain or snow water intrusion	Very high level would result in overflow to the adjacent cells
244AR-02 # 06	Radioactive material contained in sump	Release of radioactive liquid from a cell to the environment due to leak pathways in the cell structure	Rain or snow water intrusion	If leaks are present in the cell structure there could be a release to the environment
244AR-02 # 07	Radioactive material contained in vessel	Release of radioactive aerosols from vessel headspace to building atmosphere with eventual release outside facility due to overflowing of sump causing tank failure	Rain or snow water intrusion	Tank buoyancy could result in field down both bracing and tank floating with subsequent waste escape (level above tank)
244AR-02 # 08	Quantity of radioactive waste being transferred	Release of radioactive aerosols through cracks from excess radioactive liquid in cells due to very high level caused by jumper leak	Jumper Leak (general)	Very high level results in overflow to adjacent cells
244AR-02 # 09	Quantity of radioactive waste being transferred	Release of radioactive liquid to soil from leaking sump due to filling of sump caused by leaking jumper	Jumper Leak (general)	If leaks are present in the cell structure there could be a release to the environment
244AR-02 # 10	Quantity of radioactive waste being transferred	Release of radioactive liquid from cells to adjacent cells due to high level caused by jumper leak	Jumper (B plant to AY) leak through cell(s) leak	Very high level results in overflow to adjacent cells
244AR-02 # 11	Quantity of radioactive waste being transferred	Release of radioactive liquid to soil from leaking sump due to filling of sump caused by leaking jumper	Jumper (B plant to AY) leak through cell(s) leak	If leaks are present in the cell structure there could be a release to the environment
244AR-02 # 12	Radioactive material contained in the tank	Release of radioactive liquid from cells to adjacent cells due to high level caused by tank leak	Tank leak	Very high level results in overflow to adjacent cells
244AR-02 # 13	Radioactive material contained in the tank	Release of radioactive liquid to soil from leaking sump due to filling of sump caused by leaking tank	Tank leak	If leaks are present in the cell structure there could be a release to the environment

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
244AR-02 a 14	Radioactive material contained in the four tanks and gallery	Release of radioactive aerosols from waste contained in tanks (4) and building due to a seismic event	Earthquake collapses building and four tanks	Sufficiently large earthquake could result in collapse of building, failure of cells, and breaching of tanks containing waste
244AR-03 a 03	Radioactive material contained in the tank	Release of radioactive aerosols from tank into cell due to collapse of tank	Complete flooding of all rooms with vessel ventilation system piping blocked and pumping of tank occurring	Collapse of tank with breach and waste release to cell
244AR-03 a 04	Radioactive material contained in the tank	Release of radioactive aerosols from tank into cell due to ignition of flammable gas in 244-AR Vent tank headspace	Explosion due to ignition of accumulated flammable gas	Tank rupture and release of radioactive aerosols to cell
244AR-03 a 05	Radioactive material contained in the tank	Release of radioactive aerosols from tank headspace due to ventilation system blockage	Ventilation and valves blocked while jelling occurring	Tank rupture and release of radioactive aerosols to cell
244AR-03 a 06	Radioactive aerosols disturbed by jelling operation	Release of radioactive aerosols from tank headspace due to stream pressure control failure for jelling system	Jelling operation with failure of jelling stream pressure regulation	Possible release of radioactive aerosols to vessel ventilation system
244AR-03 a 07	Radioactive aerosols generated by the air purge (very small amount of material)	Release of radioactive aerosols from tank headspace due to air purge pressure control failure	Air purge with blocked ventilation and rooms and failure of air pressure control	Possible release of radioactive aerosols to vessel ventilation system
244AR-03 a 08	Radioactive material contained in tank	Release of radioactive aerosols from tank to the cell atmosphere caused by boiling waste	Steam being supplied to tank heating/cooling cells	Boiling of wastes with aerosol release to vessel ventilation system
244AR-03 a 09	Fission product gases generated by the primary	Release of radioactive aerosols from tank to the cell atmosphere caused by criticality	Criticality in waste	Release of radioactive gases to the vessel ventilation ducting
244AR-03 a 13	Quantity of radioactive material being moved	Release of radioactive aerosol being jelled from tank or sump due to overflow into sump	Jelling activities moving material from sump or another tank	Material overflow from tank moves to sump or flow from vessel ventilation system drain to sump

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
244AR-03 a 14	Quantity of radioactive material being moved	Release of radioactive liquid being pitted from tank or sump due to overflow of tank	Inter-facility tank transfers	Material overflow from tanky (spills to sump or flow from vessel ventilation system down to sump)
244AR-03 a 15	Quantity of radioactive material being moved	Release of radioactive liquid to sumps from tanky releases or flow from vessel ventilation system down due to tank in AR-151 pit	Leak from pit AR 151	Material overflow from tanky spills to sump or flow from vessel ventilation system down to sump
244AR-03 a 16	Radioactive material contained in the tank	Release of radioactive liquid from tank into cell due to tank leak	Corrosion	Leak to sump
244AR-03 a 17	Radioactive material contained in the tank	Release of radioactive liquid from tank to cell due to mechanical failure of tank	Mechanical damage from vacuum or flooding tank	Leak to sump
244AR-03 a 18	Radioactive material contained in the tank	Release of radioactive aerosols from tank due to seismic event	Seismic event	Leak to sump
244AR-04 a 01	Radioactive material contained in the tank	Release of radioactive aerosols from sump due to dislodgement of radioactive material caused by falling crane	Seismic event	Crane falls onto cover blocks
244AR-06 a 01	N/A	Injury of worker from fall through roof caused by weak roof structure	Aging (rust)	Personnel injury or death if person stands on degraded roof and it collapses
244AR-05 a 02	Total amount of radioactive material contained in facility	Release of radioactive material from facility due to seismic event which causes building collapse without cell collapse	Seismic event damages facility structure	Building collapse causes release of contamination (leaks may be ok depending on size of building/etc)
244AR-06 a 02	Quantity of radioactive material in sample	Personnel exposure to ionizing radiation from high activity radioactive material	Tank ventilation heater coil failure	Personnel exposure

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Hazard at Risk	Hazardous Condition	Cause	Consequence
244AR-07 a 01	Radioactive aerosols generated by the jetting activity	Spread of radioactive contamination contained in canis from cell area into canyon area due to steam pressure control failure	Failure of PRV during jetting activities coupled with failure of ventilation systems	High steam pressure only a problem during jetting activities where excess pressure could cause movement of contamination
244AR-07 a 02	Volume of radioactive waste equal to the volume of the pipe	Spread of radioactive contamination into steam system due to back flow caused by steam supply failure	Steam supply failure	Back flow of contamination into steam system
244AR-07 a 03	Volume of radioactive waste equal to the volume of the pipe	Spread of radioactive contamination into steam system due to back flow caused by compressed air failure	Steam supply failure and air blow failure	Air blow failure permits residual contamination to backflow into the steam system
244AR-07 a 04	Volume of radioactive waste equal to the volume of the pipe	Personnel exposure to low concentrations of radioactive material	Excess water used in steam jet flush	Fill sump with clean water requiring jelling
244AR-PH01	NA	Injury of worker due to water hammer during setup for jelling	Condensate in the lines coming into contact with steam	Pipe break with possible personnel injury
244AR-PH02	NA	Injury of worker from asphyxiation due to entry into confined space	Lack of oxygen due to corrosion, decomposition or fire/implosion	Personnel injury or death
244AR-PH03	NA	Personnel exposure and/or contamination to radioactive material	Radioactive contamination in canyons or sample gallery being disturbed by personnel entry	Exposure to ionizing radiation or possible internal uptake
244AR-PH04	NA	Injury of worker from fall from elevated surface	Roof was knee (more than 2 stories high)	Personnel injury or death
244AR-PH05	NA	Injury of worker from fall from elevated surface	Crane maintenance activities	Personnel injury or death
244AR-PH06	NA	Injury of worker from fall from elevated surface	Walking over weak fiber vault roof	Personnel injury or death
244AR-PH07	NA	Injury of worker from fall from elevated surface	Ladder climbing	Personnel injury or death
244AR-PH08	NA	Injury of worker from contact with rotating equipment due to human error	Maintenance work on rotating equipment	Personnel injury or death

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Personnel at Risk	Hazardous Condition	Cause	Consequence
244AR-PH09	NA	Injury of worker from contact with rotating equipment due to human error	Process operations activities	Personnel injury or death
244AR-PH10	NA	Injury of worker from failure of equipment during over speed event	Equipment malfunction	Personnel injury or death
244AR-PH11	NA	Injury of worker from contact with energized circuits or faulted equipment	Insulation failure	Personnel injury or death
244AR-PH12	NA	Injury of worker from contact with energized circuits or faulted equipment	Maintenance activities	Personnel injury or death
244AR-PH13	NA	Injury of worker from contact with energized circuits or faulted equipment	Mechanical damage to insulation	Personnel injury or death
244AR-PH14	NA	Injury of worker from electrical fire	Insulation failure	Personnel injury or death
244AR-PH15	NA	Injury of worker from electrical fire	Overload conditions, transformer failure, sparking in flammable atmosphere	Personnel injury or death Structural damage Explosion/fire Spread of asbestos
244AR-PH16	NA	Injury of worker from exposure to insulation or construction materials containing asbestos	Disturbance from fire, maintenance, vent, aging, water intrusion	Possible personnel exposure to a carcinogen
244AR-PH17	NA	Injury of worker from exposure to toxic or corrosive materials	Maintenance and operations activities combined with leakage such as pipe failure, pump failure, or valve packing leaks	Possible exposure of personnel to toxic or corrosive materials
244AR-PH18	NA	Injury of worker from impact with high pressure gas bottles due to bottles becoming projectiles	Malfunction of bottle regulator	Possible personnel injury or death
244AR-PH19	NA	Injury of worker from impact with high pressure gas bottles due to bottles becoming projectiles	Improper storage and transport	Possible personnel injury or death
2727W-01	NA to react with about 50 gal water	Release of hazardous materials from 2727-W due to sodium reactions with leaked water	Water enters through roof vents when tanks not sealed	Exposure of personnel to sodium hydroxide release

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
2727W-02	Building inventory	Release of hazardous material from 2727-W due to sodium fire	Vehicle crashes into building and ignites sodium	Exposure of personnel to combustion by-products
2727W-03	Building inventory	Release of hazardous material from 2727-W due to sodium fire	Lightning	Exposure of personnel to combustion by-products
2727W-04	Building inventory	Release of hazardous material from 2727-W due to sodium fire	Overhead power line falls through building	Exposure of personnel to combustion by-products
2727W-05	Building inventory	Release of hazardous material from 2727-W due to sodium fire	Nitrogen tank over pressurizes sodium tank, ignites sodium	Ruptured sodium tank, potential fire
2727W-06	Building inventory	Release of hazardous materials from 2727-W due to sodium-water reactions	High wind or tornado destroys building with rain/snow	Exposure of personnel to sodium hydroxide release
900-01	Contents of 2 containers	Release of radioactive and toxic aerosols/vapors from 90 day storage pad due to container breach	Container breach from internal chemical, thermal or radiolysis reactions, corrosion, freeze-thaw cycles	Personnel exposure to radioactive and toxic aerosols, vapors, and liquids
900-02	Contents of 2 containers	Release of radioactive and toxic aerosols/vapors from 90 day storage pad due to container breach	Container breach from internal impact from handling error, forklift, handling equipment airborne missile from wind, seismic	Personnel exposure to radioactive and toxic aerosols, vapors, and liquids
900-03	Contents of 2 containers	Release of radioactive and toxic aerosols/vapors from 90 day storage pad due to container breach	Container breach from airborne missile from wind, or from a seismic event	Personnel exposure to radioactive and toxic aerosols, vapors, and liquids
900-04	Pail inventory	Release of radioactive and toxic aerosols/vapors from 90 day storage pad due to fire or explosion	Waste ignition from spontaneous combustion, incompatible wastes, heat from sun, waste handling or other transient activities	Personnel exposure to radioactive and toxic aerosols, vapors, and liquids, injury from burns
900-05	Pail inventory	Release of radioactive and toxic aerosols/vapors from 90 day storage pad due to fire or explosion	External events cause waste ignition (range fire, lightning, seismic event, aircraft crash)	Personnel exposure to radioactive and toxic aerosols, vapors, and liquids, injury from burns

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
900-06	Contents of 2 LLW containers	Release of radioactive and toxic aerosols/vapors from Intermediate Holding Area due to container breach	Container breach from internal chemical, thermal or radiolysis reactions, corrosion, frost-thaw cycles	Personnel exposure to radioactive and toxic aerosols, vapors, and liquids
900-07	Contents of 2 LLW containers	Release of radioactive and toxic aerosols/vapors from Intermediate Holding Area due to container breach	Container breach from external impact from handling error, forklift, handling equipment, airborne missile from wind, seismic	Personnel exposure to radioactive and toxic aerosols and vapors
900-08	Contents of 2 LLW containers	Release of radioactive and toxic aerosols/vapors from Intermediate Holding Area due to container breach	Container breach from airborne missile from wind, or from a seismic event	Personnel exposure to radioactive and toxic aerosols and vapors
900-09	Holding area inventory	Release of radioactive and toxic aerosols/vapors from Intermediate Holding Area due to fire or explosion	Waste ignition from spontaneous combustion, incompatible wastes, heat from sun, waste handling or other human activities	Personnel exposure to radioactive and toxic aerosols and vapors, injury from burns
900-10	Holding area inventory	Release of radioactive and toxic aerosols/vapors from Intermediate Holding Area due to fire or explosion	Natural Phenomena cause waste ignition (e.g. fire, lightning seismic event)	Personnel exposure to radioactive and toxic aerosols and vapors, injury from burns
900-11	Transport vehicle inventory of mixed, hazardous, and/or radioactive materials	Release of radioactive and toxic aerosols/vapors from waste transport vehicle due to loss of waste containment	Failure to secure waste, vehicle accident, improper packaging, waste reactions	Personnel exposure to radioactive and toxic aerosols, vapors, and liquids, injury from accident
BND-01	NA	Injury to worker from industrial hazards (lifting, bending, tool accidents, cracked lifting hardware)	Failure to follow safe work practices, equipment failures	Worker injury
BND-01-I	NA	Injury to worker from (lifting, bending, tool accidents, cracked lifting hardware) due to bonding activities	Failure to follow safe work practices, equipment failures	Worker injury
BND-02	Surface contamination in pits and ditches	Release of radioactive aerosols from tank due to ignition of combustibles during preparation for bonding	Drilling holes for bonding attachments caused sparks when flammable gases or vapors are present	Worker injury

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Nature of Risk	Hazardous Condition	Cause	Consequence
BND-02-1	NA	Injury of worker from ignition of combustibles due to preparation for bonding	Drilling holes for bonding attachment to source gases which is a hazard	Worker injury
CCF-01	Heat spikes emanating from actively ventilated tanks	Release of radioactive and hazardous material from tanks due to extended loss of ventilation (over 8 months)	Sustained loss of offsite power	Minor release of materials from multiple tanks and ventilation systems due to freezing, loss of monitoring capability, in long term, potential for tank headtop, bursting
CCF-02	Heat spikes emanating from actively ventilated tanks	Release of radioactive and hazardous material from tanks due to short term loss of ventilation	Loss of offsite power	Minor release of materials from multiple tanks and ventilation systems due to tank freezing, loss of monitoring capability
CCF-03	NA	Personnel exposure due to degraded ventilation performance at TQ2-A due to condensed water vapors on HEPA's	Sustained loss of water supply (months)	Degraded ventilation performance, possible tank heating in light heat tanks until water added
CCF-04	NA	Personnel exposure due to degraded ventilation performance at TQ2-A due to condensed water vapors on HEPA's	Sustained loss of steam supply	Degraded ventilation performance, loss of space heating in buildings
CCF-05	NA	No release - No safety consequence	Loss of common fuel supply (diesel, gasoline, propane)	
CCF-06	NA	No release - Compromised monitoring of tanks and alarms	Loss of air supply	Interruption of monitoring, or manual monitoring, until portable compressor aligned

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Intensities of Risk	Hazardous Condition	Cause	Consequence
CCF-07	Overflow of tank contents	Release of radioactive and hazardous materials from tank due to overflow	Disabled or unavailable staff to terminate transfer	Personnel exposure to radioactive and hazardous materials outside immediate area, environmental impacts
CCF-08	NA	No release - Unable to respond to off-normal conditions due to disabled personnel	Disabled or unavailable essential staff (illness, natural disasters, etc.)	Violations of monitoring requirements, unable to respond to off-normal conditions
CCF-09	NA	No release - Degraded operations using diesel fuel	Diesel supply is poor quality	Disruptions in operations and backup capabilities
CCF-10	NA	No release - Degraded operations using gasoline	Gasoline supply is poor quality	Disruptions in operations and backup capabilities
CCF-11	NA	No release - Degraded operations using propane	Propane supply is poor quality	Disruptions in operations and backup capabilities
CCF-12	NA	No release - Degraded operations using lubricants	Lubricant supply is poor quality	Disruptions in operations and backup capabilities
CCF-13	NA	No release - Degraded operations using hydraulic fluids	Hydraulic fluids supply are poor quality	Disruptions in operations and backup capabilities
CCF-14	NA	Injury of worker - Personnel illness or asphyxiation due to air supply faults	SCBA air supply of poor quality	Potential workforce illness or deaths
CCF-15	NA	Injury of worker from equipment failure caused from parts supply of inferior quality	Faulty parts or equipment supplied (e.g. o-rings, seals, electronics, HEPA's, pressure regulators, etc.)	Disruption in operations and increased maintenance, potential for personnel injury (e.g. crane or high pressure system replacement parts inferior)

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
CCF-16	Contents of multiple tanks	Release (spilloverage) of radioactive or hazardous material from cracks or perforations due to leaks in multiple tanks caused by corrosion	Tanks, tank penetrations and tank components deteriorate due to corrosion	Radioactive and hazardous materials released below grade from multiple tanks, potential for upward migration to soils at grade
CCF-17	Contents of tank	Release of radioactive and hazardous materials from tank due to dome collapse	Corrosion of rebar in concrete GST domes	Public exposure to radioactive and hazardous materials
CCF-18	Contents of tanks, products of combustion	Release of radioactive and hazardous materials from tanks due to dome collapse	Fire in tank propagates to connecting tank and both tanks collapse during cool down from negative tank pressure	Personnel and public exposure to radioactive and hazardous materials from dome collapses resulting from negative pressure
CCF-19	Contents of tanks, products of combustion	Release of radioactive and hazardous materials from tanks due to dome collapse	Fire in tank causes pressure transient that leads to GSE in connecting tank with subsequent fire and tank collapse from negative tank pressure	Personnel and public exposure to radioactive and hazardous materials from dome collapses resulting from negative pressure
CCF-20	Contents of two tanks	Release of radioactive and hazardous materials from tanks due to chemical reactions between waste and added materials	Reactive chemical additions to two tanks	Personnel exposure to radioactive and hazardous materials due to tank penetration
CDP-01	Small portion of the total available solid radioactive material	Release of radioactive contamination to soil surface from emb or ditch due to animal intrusion	Animal intrusion into emb or ditch	Exposure of persons onsite to ionizing radiation
CDP-02	Small portion of the total available solid radioactive material	Release of radioactive contamination to soil surface from inactive pond due to animal intrusion	Animal intrusion into emb or ditch	Exposure of persons onsite to ionizing radiation
CDP-03	Small portion of the total available solid radioactive material	Release of radioactive contamination to soil surface from inactive pond due to flooding in emb or ditch	Flooding	Exposure of persons onsite to ionizing radiation

Table A-1. Master Hazardous Conditions Table, (127 Sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
CDP-04	Small portion of the total available solid radioactive material	Release of radioactive contamination to soil surface from inactive pond due to flooding of inactive pond	Flooding	Exposure of persons onsite to ionizing radiation
CDP-05	Small portion of the unsuspendable radioactive material present in crib or ditch	Release of radioactive contamination to atmosphere from active pond due to high wind/tornado disturbing radioactive contamination in crib or ditch	High wind/tornadoes	Exposure of persons onsite or offsite to ionizing radiation
CDP-06	Small portion of the resuspendable radioactive material present in crib or ditch	Release of radioactive contamination to atmosphere from inactive pond due to high wind/tornado disturbing active pond	High wind/tornadoes	Exposure of persons onsite or offsite to ionizing radiation
CDP-07	Small portion of radioactive liquid present in the active pond	Release of liquid radioactive contamination to soil surface from active pond due to unspecified phenomena	Unspecified phenomena	Exposure of persons onsite or offsite to ionizing radiation
CDP-08	Radioactive contamination contained in vegetation	Release of airborne radioactive contamination from contaminated vegetation due to fire in weed growth on top of crib or ditches	Range fire	Exposure of persons onsite or offsite to ionizing radiation
CDP-09	NA	Injury of worker from vehicle impact due to driver error	Driver error	Personnel injured
CDP-10	Portion of radioactive material present in crib, ditch, or pond	Release of radioactive contamination to soil surface from cribs, ditches, or ponds due to excavation or drilling	Excavation or drilling	Exposure of onsite personnel to ionizing radiation
COB-01	Transfer inventory	Release of radioactive and/or hazardous material from COB due to spray leak	Flange, gasket, or valve, spray leak with COB lid removed	Spread of contamination, Personnel exposure to radioactive or toxic aerosols, vapors, and direct radiation
COB-02	Transfer inventory	Release of radioactive and/or hazardous material from COB due to spray leak	Flange, gasket, or valve, spray leak with COB lid in place	Spread of contamination, Personnel exposure to radioactive or toxic aerosols, vapors, and direct radiation

Table A-1, Master Hazardous Conditions Table. (127 Sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
COB-03	Transfer inventory	Release of radioactive and/or hazardous material from COB due to spray leak	Propeg leak into COB due to chemical reaction degrading pipe, lid in place	Spread of contamination when COB lid is opened, Personnel dose increased
COB-04	Transfer inventory	Release of radioactive and/or hazardous material from COB lid due to overflow of COB during transfer (Post)	Leak into COB with floor drain plugged, leak detector failed	Spread of contamination, Personnel dose increased
COB-05a	Residual surface contamination	Release of radioactive and/or hazardous material from COB due to existing contamination inside COB and lid removed	Inspection of COB	Spread of contamination, Potential personnel exposure to radioactive or toxic aerosols, vapors, or direct radiation
COB-05b	Residual surface contamination	Release of radioactive and/or hazardous material from COB due to existing contamination inside COB and lid off during high wind	High wind with COB cover off	Spread of contamination, Potential personnel exposure to radioactive or toxic aerosols, vapors, or direct radiation
COB-05c	Residual surface contamination	Release of radioactive and/or hazardous material from COB due to flooding	Flooding of COB due to mainline melt	Spread of contamination, Potential personnel exposure to radioactive or toxic aerosols, vapors, or direct radiation
COB-05d	Residual surface contamination	Release of radioactive and/or hazardous material from COB due to vehicle accident	Vehicle accident involving COB	Spread of contamination, Potential personnel exposure to radioactive or toxic aerosols, vapors, or direct radiation
COB-05e	Residual surface contamination	Release of radioactive and/or hazardous material from COB due to seismic event	Seismic event	Spread of contamination, Potential personnel exposure to radioactive or toxic aerosols, vapors, or direct radiation

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

JD	W/level at Risk	Hazardous Condition	Cause	Consequence
COB-05f	Residual surface contamination	Release of radioactive and/or hazardous material from COB due to existing contamination inside COB and the lid is off	Human error leaving COB lid off	Spread of contamination, Potential personnel exposure to radioactive or toxic aerosols, vapors, or direct radiation
COB-06a	Transfer inventory	Release of radioactive and/or hazardous material from COB due to COB casing pressurization	Weather backup with HEPA filter plugged	-HEPA filter blowout, spread of contamination, Leak out of lid spread of contamination, Potential industrial hazard when removing lid
COB-06b	Transfer inventory	Release of radioactive and/or hazardous material from COB due to COB casing pressurization	Leak into COB with lid on	-HEPA filter blowout, spread of contamination, Leak out of lid spread of contamination, Potential industrial hazard when removing lid
COB-07	Transfer inventory	Release of radioactive and/or hazardous material from COB due to reverse flow through COB from adjacent transfer line	COB setup is such that a transfer through the adjacent transfer line backflows through the 1" COB drain line into the primary transfer line that the COB is attached to	-Potential leak and over pressurization of COB and primary transfer line, major leak, Potential spread of contamination from COB
COB-08	Transfer inventory	Release of radioactive and/or hazardous material from COB due to over filling of COB (Pool)	Transfer pipe or near rupture, backflowing lower part of COB, then filling COB via the floor drain	Potential spread of contamination, Personnel dose increase
CRN-01	Tank inventory	Release of radioactive and/or toxic materials from near breach due to crane movement	Human error or failure to follow safe work practices	Personnel exposure to radioactive and/or toxic aerosols and vapors, direct radiation
CRN-01-1	Aerosols and vapors in vapor space	Release of radioactive and/or toxic materials from near breach due to crane movement	Human errors or failure to follow safe work practices	Personnel exposure to radioactive and/or toxic aerosols and vapors, direct radiation

Table A-1. Master Hazardous Conditions Table, (127 Sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
CRN-02	Tank inventory	Release of radioactive and/or toxic materials from tank breach due to crane movement	Mechanical failure of crane (brakes, throttle)	Personnel exposure to radioactive and/or toxic aerosols and vapors, direct radiation
CRN-02-1	Aerosols and vapors in vapor space	Release of radioactive and/or toxic materials from tank breach due to crane movement	Mechanical failure of crane (brakes, throttle)	Personnel exposure to radioactive and/or toxic aerosols and vapors, direct radiation
CRN-03	Tank inventory	Release of radioactive and/or toxic materials from tank due to dome collapse	Human error results in excessive weight on dome	Personnel exposure to radioactive and/or toxic aerosols and vapors, direct radiation, loss of waste confinement
CRN-03-1A	Contents of facility	Release of radioactive and/or toxic materials from facility due to confinement top collapse	Human error results in excessive weight on top of confinement	Personnel exposure to radioactive and/or toxic aerosols and vapors, direct radiation, loss of waste confinement
CRN-03-2B	Contents of facility	Release of radioactive and/or toxic materials from facility due to MSF containment collapse	Human error results in excessive weight on top of containment	Personnel exposure to radioactive and/or toxic aerosols and vapors, direct radiation, loss of waste confinement
CRN-04	Tank inventory	Release of radioactive and/or toxic materials from tank due to dome collapse	Crane or rigging failure drop load resulting in large impact to dome	Personnel exposure to radioactive and/or toxic aerosols and vapors, direct radiation, loss of waste confinement
CRN-04-1A	Contents of facility	Release of radioactive and/or toxic materials from facility due to MSF containment collapse	Crane or rigging failure drop load resulting in large impact to top of containment	Personnel exposure to radioactive and/or toxic aerosols and vapors, direct radiation, loss of waste confinement

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
CRN-04-1B	Contents of facility	Release of radioactive and/or toxic materials from facility due to MISF containment collapse	Crane or rigging failures drop load resulting in large impact to top of containment	Personnel exposure to radioactive and/or toxic aerosols and vapors, direct radiation, loss of waste confinement
CRN-06	Pits and risers inventory	Release of radioactive and/or toxic materials from pits and risers due to fuel tank fire in crane or support vehicle (see In-Tank Equipment Installation for tank fires)	Human error in positioning crane load	Personnel exposure to radioactive and/or toxic aerosols and vapors, direct radiation, burns, and injury to workers
CRN-06-1	Contamination on crane or support vehicle, fuel in crane or support vehicle fuel tank	Release of radioactive and/or toxic materials from surface contamination and fuel tank on crane or support vehicle due to fuel tank fire (see In-Facility Equipment Installation for facility fires)	Human error in positioning crane load	Personnel exposure to radioactive and/or toxic aerosols and vapors, direct radiation, burns, and injury to workers
CRN-06	Pits and risers inventory	Release of radioactive and/or toxic materials from pits and risers due to fuel tank fire in crane or support vehicle (see In-Tank Equipment Installation for tank fires)	Mechanical failure in positioning crane load	Personnel exposure to radioactive and/or toxic aerosols and vapors, direct radiation, burns, and injury to workers
CRN-06-1	Contamination on crane or support vehicle, fuel in crane or support vehicle fuel tank	Release of radioactive and/or toxic materials from surface contamination and fuel tank on crane or support vehicle due to fuel tank fire (see In-Facility Equipment Installation for facility fires)	Mechanical failure in positioning crane load causes crane fuel tank rupture and fire	Personnel exposure to radioactive and/or toxic aerosols and vapors, direct radiation, burns, and injury to workers
CRN-07	Pits and risers inventory	Release of radioactive and/or toxic materials from pits and risers due to fuel tank fire in crane or support vehicle (see In-Tank Equipment Installation for tank fires)	Crane hits electrical lines/supplies	Personnel exposure to radioactive and/or toxic aerosols and vapors, direct radiation, burns, and injury to workers
CRN-07-1	Contamination on crane or support vehicle, fuel in crane or support vehicle fuel tank	Release of radioactive and/or toxic materials from surface contamination and fuel tank on crane or support vehicle due to fuel tank fire (see In-Facility Equipment Installation for facility fires)	Crane hits electrical lines/supplies	Personnel exposure to radioactive and/or toxic aerosols and vapors, direct radiation, burns, and injury to workers

Table A-4. Master Hazardous Conditions Table. (127 Sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
CRN-08	Pits and crane inventory	Release of radioactive and/or toxic materials from pits and rooms due to fuel tank fire in crane or support vehicle (see In-Facility Equipment Installation for tank fires)	Lightning	Personnel exposure to radioactive and/or toxic aerosols and vapors, direct radiation, burns, and injury to workers
CRN-08-I	Contamination on crane or support vehicle, fuel in crane or support vehicle fuel tank	Release of radioactive and/or toxic materials from surface contamination and fuel tank on crane or support vehicle due to fuel tank fire (see In-Facility Equipment Installation for facility fires)	Lightning	Personnel exposure to radioactive and/or toxic aerosols and vapors, direct radiation, burns, and injury to workers
CRN-09	Contamination emanating from tank headspace and material contained in ventilation system	Release of radioactive and/or toxic materials from ventilation system due to crane damage	Human error in positioning crane load	Personnel exposure to radioactive and/or toxic aerosols and vapors, release to environment
CRN-09-I	Residual materials in the ventilation ductwork or ventilation filter	Release of radioactive and/or toxic materials from ventilation system due to damage caused by crane operation	Human error in positioning crane load	Personnel exposure to radioactive and/or toxic aerosols and vapors, release to environment
CRN-10	Material emanating from tank head space and the material contained in the ventilation system	Release of radioactive and/or toxic materials from ventilation system due to crane damage	Mechanical failure in positioning crane load	Personnel exposure to radioactive and/or toxic aerosols and vapors, release to environment
CRN-10-I	Residual materials in the ventilation ductwork or ventilation filter	Release of radioactive and/or toxic materials from ventilation system due to damage caused by crane operation	Mechanical failure in positioning crane load	Personnel exposure to radioactive and/or toxic aerosols and vapors, release to environment
CRN-11	Tank inventory	Release of radioactive and/or toxic material from tank due to boom failure and tank/equipment damage and dome collapse	Human error: improper load assembly, rigging, crane overloaded	Personnel exposure to radioactive and/or toxic aerosols and vapors, release to environment
CRN-11-BA	Contents of facility or equipment	Release of radioactive and/or toxic materials from facility due to containment top collapse or equipment damage by boom failure	Human error: improper load assembly, rigging, crane overloaded	Personnel exposure to radioactive and/or toxic aerosols and vapors, release to environment

Table A-1, Master Hazardous Conditions Table, (127 Sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
GRN-11-AB	Contents of equipment	Release of radioactive and/or toxic materials from facility due to equipment damage by boom failure	Human error, improper load assembly, rigging, crane overloaded	Personnel exposure to radioactive and/or toxic aerosols and vapors, release to environment
GRN-11-AC	Contents of facility	Release of radioactive and/or toxic materials from facility due to containment top collapse damage by boom failure (Pool)	Human error, improper load assembly, rigging, crane overloaded	Personnel exposure to radioactive and/or toxic aerosols and vapors, release to environment
GRN-12	Tank inventory	Release of radioactive or toxic material from tank due to boom failure and tank/equipment damage and dome collapse	Mechanical failure, corrosion, faulty materials	Personnel exposure to radioactive and/or toxic aerosols and vapors, release to environment
GRN-12-AA	Contents of facility or equipment	Release of radioactive and/or toxic materials from facility due to containment top collapse or equipment damage by boom failure	Mechanical failure, corrosion, faulty materials	Personnel exposure to radioactive and/or toxic aerosols and vapors, release to environment
GRN-12-AB	Contents of equipment	Release of radioactive and/or toxic materials from facility due to equipment damage by boom failure	Mechanical failure, corrosion, faulty materials	Personnel exposure to radioactive and/or toxic aerosols and vapors, release to environment
GRN-12-AC	Contents of facility	Release of radioactive and/or toxic materials from facility due to containment top collapse by boom failure (Pool)	Mechanical failure, corrosion, faulty materials	Personnel exposure to radioactive and/or toxic aerosols and vapors, release to environment
GRN-13-1A	Contents of facility	Release of radioactive and/or toxic materials from below ground facility due to containment top collapse or equipment damage by boom failure	High wind or seismic event	Personnel exposure to radioactive and/or toxic aerosols and vapors, release to environment
GRN-13-AB	Contents of equipment	Release of radioactive and/or toxic materials from above ground facility due to equipment damage by boom failure	High wind or seismic event	Personnel exposure to radioactive and/or toxic aerosols and vapors, release to environment

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
CRN-13-4C	Contents of facility	Release of radioactive and/or toxic materials from facility due to collapse/damage of containment top due to boom failure caused by high wind or seismic event	High wind or seismic event	Personnel exposure to radioactive and/or toxic aerosols and vapors, release to environment
CRN-13-a	Tank inventory	Release of radioactive or toxic material from tank/equipment damage and dome collapse due to boom failure	High wind	Personnel exposure to radioactive and/or toxic aerosols and vapors, release to environment
CRN-13-b	Tank inventory	Release of radioactive or toxic material from tank/equipment damage and dome collapse due to boom failure	Seismic event	Personnel exposure to radioactive and/or toxic aerosols and vapors, release to environment
CRN-14	Surface contamination in pit or near	Personnel exposure and/or injury of worker due to boom failure	Human error improper load assembly, rigging, crane overloaded	Personnel exposure to radioactive and/or toxic aerosols and vapors, release to environment
CRN-14-I	NA	Injury of worker from boom failure due to human error	Human error improper load assembly, rigging, crane overloaded	Personnel exposure to radioactive and/or toxic aerosols and vapors, release to environment
CRN-15	Surface contamination in pit or near	Personnel exposure and/or injury of worker due to boom failure	Mechanical failure corrosion, faulty materials	Personnel exposure to radioactive and/or toxic aerosols and vapors, release to environment
CRN-15-I	NA	Injury of worker from boom failure due to mechanical failure	Mechanical failure corrosion, faulty materials	Personnel exposure to radioactive and/or toxic aerosols and vapors, release to environment
CRN-16	Surface contamination in pit or near	Personnel exposure and/or injury of worker due to boom failure	High wind or seismic event	Personnel exposure to radioactive and/or toxic aerosols and vapors, release to environment

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
CRN-16-1	NA	Injury of worker from boom failure due to high wind or seismic	High wind or seismic event	Personnel exposure to radioactive and/or toxic aerosols and vapors, release to environment
CRN-17	Tank inventory	Release of radioactive or toxic material from tanks due to power failure from crane lifting power lines/supplies and dropping load into tank	Human error: improper load assembly, rigging, crane positioning	Loss of active ventilation, personnel exposure to radioactive and/or toxic aerosols and vapors, release to environment, possible worker burns or electrocution
CRN-17-1	NA	Injury of worker from electricity due to crane hitting power lines/supplies	Human error: improper load assembly, rigging, crane positioning	Possible worker burns or electrocution
CRN-18	Contaminates on above ground equipment	Release of radioactive or toxic material from above ground tank equipment due to dropping crane load	Human error: improper load assembly, rigging, crane overloaded	Personnel exposure to radioactive and/or toxic aerosols and vapors, direct radiation
CRN-18-1	Material in aboveground facility equipment	Release of radioactive or toxic material from above ground facility equipment due to dropping crane load	Human error: improper load assembly, rigging, crane overloaded	Personnel exposure to radioactive and/or toxic aerosols and vapors, direct radiation
CRN-19	Contaminates on above ground equipment	Release of radioactive or toxic material from above ground tank equipment due to dropping crane load	Mechanical failure: corrosion, faulty materials (filter crush)	Personnel exposure to radioactive and/or toxic aerosols and vapors, direct radiation
CRN-19-1	Material in aboveground facility equipment	Release of radioactive or toxic material from above ground facility equipment due to dropping crane load	Mechanical failure: corrosion, faulty materials	Personnel exposure to radioactive and/or toxic aerosols and vapors, direct radiation
CRN-20	Surface contamination in pit or near	Release of radioactive or toxic material from pit or near due to dropping crane load onto above ground tank equipment	High wind or seismic event (Filter Crush)	Personnel exposure to radioactive and/or toxic aerosols and vapors, direct radiation

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Material of Risk	Hazardous Condition	Cause	Consequence
CRN-20-A	Material in aboveground facility equipment	Release of radioactive or toxic material from aboveground facility equipment due to dropping crane load	High wind or seismic event	Personnel exposure to radioactive and/or toxic aerosols and vapors, direct radiation
CRN-21	Tank inventory	Release of radioactive or toxic materials from tank due to loss of vertical load control, dropping crane load into tank, onto tank bottom (subsurface leak)	Human error: improper load assembly, rigging, positioning error	Breach of tank, loss of primary and/or secondary confinement
CRN-21-A	Contents of facility	Release of radioactive or toxic materials from underground facility bottom due to loss of vertical load control, dropping crane load into facility (subsurface leak)	Human error: improper load assembly, rigging, positioning error	Breach of facility, loss of primary and/or secondary confinement
CRN-21-B	Contents of facility	Release of radioactive or toxic materials from aboveground facility bottom due to loss of vertical load control, dropping crane load into facility (surface pool)	Human error: improper load assembly, rigging, positioning error	Breach of facility, loss of primary and/or secondary confinement
CRN-22	Tank inventory	Release of radioactive or toxic materials from tank due to loss of vertical load control, dropping crane load into tank, onto tank bottom (subsurface leak)	Mechanical failure: corrosion, faulty materials, hydraulics	Breach of tank, loss of primary and/or secondary confinement
CRN-22-A	Contents of facility	Release of radioactive or toxic materials from facility bottom due to loss of vertical load control, dropping crane load into facility	Mechanical failure: corrosion, faulty materials, hydraulics	Breach of facility, loss of primary and/or secondary confinement
CRN-22-B	Contents of facility	Release of radioactive or toxic materials from aboveground facility bottom due to loss of vertical load control, dropping crane load into facility (surface pool)	Mechanical failure: corrosion, faulty materials, hydraulics	Breach of facility, loss of primary and/or secondary confinement
CRN-23	Tank inventory	Release of radioactive or toxic materials from tank due to loss of vertical load control, dropping crane load into tank, onto tank bottom (subsurface leak)	High wind or seismic event	Breach of tank, loss of primary and/or secondary confinement
CRN-23-A	Contents of facility	Release of radioactive or toxic materials from underground facility bottom due to loss of vertical load control, dropping crane load into facility (subsurface leak)	High wind or seismic event	Breach of facility, loss of primary and/or secondary confinement
CRN-23-B	Contents of facility	Release of radioactive or toxic materials from aboveground facility bottom due to loss of vertical load control, dropping crane load into facility	High wind or seismic event	Breach of facility, loss of primary and/or secondary confinement

Table A-1, Master Hazardous Conditions Table. (127 Sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
CRN-24	NA	Injury of worker from asphyxiation due to carbon monoxide from crane accumulating in pits or temporary confinement (greenhouse, etc)	Oxygen deficient atmosphere and failure to provide adequate ventilation. Failure to seal or improper sealing	Personnel sickness or asphyxiation
CRN-24-1	NA	Injury of worker from carbon monoxide accumulation in pits or temporary confinement (greenhouse, etc) due to crane motor exhaust	Failure to provide adequate ventilation, (Failure to seal or improper sealing)	Personnel sickness or asphyxiation
CRN-25	NA	Injury of worker from swinging load into personnel or equipment due to loss of lateral load control caused by human error	Human error: improper load assembly, rigging, positioning error	Personnel injury in "pinch point" between load and nearby bulge or other structure. Possible release of radioactive and/or hazardous materials
CRN-25-1A	NA	Injury of worker from swinging load into personnel due to loss of lateral load control caused by human error	Human error: improper load assembly, rigging, positioning error	Personnel injury in "pinch point" between load and nearby bulge or other structure
CRN-25-1B	Material in aboveground facility or equipment	Release of radioactive or toxic material from aboveground HSBF due to swinging load into equipment caused by loss of lateral load control	Human error: improper load assembly, rigging, positioning error	Possible release of radioactive and/or hazardous materials
CRN-26	NA	Injury of worker from swinging load into personnel or equipment due to loss of lateral load control caused by mechanical failure	Mechanical failure: corrosion, faulty materials, hydraulics, outriggers in soft soil	Personnel injury in "pinch point" between load and nearby bulge or other structure. Possible release of radioactive and/or hazardous materials
CRN-26-1A	NA	Injury of worker from swinging load into personnel due to loss of lateral load control caused by mechanical failure	Mechanical failure: corrosion, faulty materials, hydraulics, outriggers in soft soil	Personnel injury in "pinch point" between load and nearby bulge or other structure
CRN-26-1B	Material in aboveground facility or equipment	Release of radioactive or toxic material from aboveground HSBF from swinging load into equipment due to loss of lateral load control caused by mechanical failure	Mechanical failure: corrosion, faulty materials, hydraulics, outriggers in soft soil	Possible release of radioactive and/or hazardous materials

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
CRN-27	HA	Injury of worker from swinging load into personnel or equipment due to loss of lateral load control caused by high wind or seismic event	High wind or seismic event	Personnel injury in "pinch point" between load and nearby bulpen or other structure. Possible release of radioactive and/or hazardous materials
CRN-27-1A	HA	Injury of worker from swinging load into personnel due to loss of lateral load control caused by high wind or seismic event	High wind or seismic event	Personnel injury in "pinch point" between load and nearby bulpen or other structure
CRN-27-1B	Material in aboveground facility or equipment	Release of radioactive or toxic material from aboveground MRF due to swinging load into equipment caused by loss of lateral load control	Mechanical failure: corrosion, faulty materials, hydraulics, outgassing in soil soil	Possible release of radioactive and/or hazardous materials
CRN-28-1	Liquid material in facility	Release of radioactive or toxic material from crushing of underground facility due to crane being driven over top of facility	Human error in driving over underground facilities or no signs to indicate location of underground facilities	Underground structure may fail releasing contents to subsurface
CVR-01	Combustion contained in the pit	Release (greater than expected) of radioactive or hazardous material from pit due to lifting cover blocks	Failure to monitor or improper monitoring	Personnel exposure to radioactive or toxic aerosols and vapors, direct radiation
CVR-01-1	Material in the pit from which a coverblock is being removed	Release (greater than expected) of radioactive or hazardous material from pit upon lifting coverblocks due to monitoring failure	Failure to monitor or improper monitoring	Personnel exposure to radioactive or toxic aerosols and vapors, direct radiation
CVR-02	Combustion contained in the pit	Release (greater than expected) of radioactive or hazardous material from pit due to lifting cover blocks	Mechanical failure of equipment in pit (compression, leaks, etc)	Personnel exposure to radioactive or toxic aerosols and vapors, direct radiation
CVR-02-1	Material in the pit from which a coverblock is being removed	Release (greater than expected) of radioactive or hazardous material from pit upon lifting coverblocks due to mechanical failure	Mechanical failure of equipment in pit (compression, leaks, etc)	Personnel exposure to radioactive or toxic aerosols and vapors, direct radiation

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
CVR-03	Contamination contained in the pit	Release (greater than expected) of radioactive or hazardous material from pit due to lifting cover blocks	Wind or dust devil	Personnel exposure to radioactive or toxic aerosols and vapors, direct radiation
CVR-03-1	Material in the pit from which a coverblock is being removed	Release (greater than expected) of radioactive or hazardous material from pit upon lifting coverblocks due to windy conditions	Wind or dust devil	Personnel exposure to radioactive or toxic aerosols and vapors, direct radiation
CVR-04	Airborne contamination in pits or rooms	Release (greater than expected) of radioactive or hazardous material from pit due to earthquake lifting cover blocks	Seismic event	Personnel exposure to radioactive or toxic aerosols and vapors, direct radiation
CVR-04-1	Material in the pit from which a coverblock is being removed	Release of greater than expected amount of radioactive or hazardous material from pit upon lifting coverblocks due to seismic event	Seismic event	Personnel exposure to radioactive or toxic aerosols and vapors, direct radiation
CVR-05	Contamination in the pit	Release of radioactive or hazardous material from pit due to combustion or explosion/ignition of materials in pit caused by human error	Failure to snuff or improper snuffing	Personnel exposure to radioactive or toxic aerosols and vapors, direct radiation, burns, injuries
CVR-05-1	Material in the pit from which a coverblock is being removed	Release of radioactive or hazardous material from pit due to combustion or explosion of materials in pit	Failure to snuff or improper snuffing	Personnel exposure to radioactive or toxic aerosols and vapors, direct radiation, burns, injuries
CVR-06	Surface contamination in pit	Personnel exposure to radiation and/or injury of worker from falling in pit	Failure to erect fence or failure to erect accurately	Personnel exposure to radioactive or toxic aerosols and vapors, direct radiation, injury
CVR-06-1	Material in the pit from which a coverblock has been removed	Injury of worker from falling into pit due to missing or improperly installed fence possibly resulting in personnel exposure	Failure to erect fence or failure to erect accurately	Personnel exposure to radioactive or toxic aerosols and vapors, direct radiation, injury

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
CVR-07	Surface contamination in pit	Personnel exposure to radiation and/or injury of worker from falling in pit	Fence tears over fence too far	Personnel exposure to radioactive or toxic aerosols and vapors, direct radiation, injury
CVR-07-1	Material in the pit from which a coverblock has been removed	Injury of worker from falling into pit due to human error possibly resulting in personnel exposure	Person leans over fence too far	Personnel exposure to radioactive or toxic aerosols and vapors, direct radiation, injury
CVR-08	Surface contamination in pit	Personnel exposure to radiation and/or injury of worker from falling in pit	Fence failure	Personnel exposure to radioactive or toxic aerosols and vapors, direct radiation, injury
CVR-08-1	Material in the pit from which a coverblock has been retrieved	Injury of worker from falling into pit due to fence failure possibly resulting in personnel exposure	Fence failure	Personnel exposure to radioactive or toxic aerosols and vapors, direct radiation, injury
CVR-09	Surface contamination in pit	Personnel exposure to radiation and/or injury of worker from falling in pit	Seismic event or high windstorm	Personnel exposure to radioactive or toxic aerosols and vapors, direct radiation, injury
CVR-09-1	Material in the pit from which a coverblock has been removed	Injury of worker from falling into pit due to seismic event or high winds possibly resulting in personnel exposure	Seismic event or high windstorm	Personnel exposure to radioactive or toxic aerosols and vapors, direct radiation, injury
CVR-10	NA	Injury of worker - Person(s) asphyxiated	Oxygen deficient atmosphere and failure to sniff or improper sniffing	Personnel injury or death
CVR-10-1	NA	Injury of worker from asphyxiation due to pit atmosphere	Failure to sniff or improper sniffing	Personnel injury or death
CVR-11	NA	Injury of worker - Person(s) asphyxiated	Oxygen deficient atmosphere and fresh air supply faults	Personnel injury or death
CVR-11-1	NA	Injury of worker from asphyxiation due to fresh air supply faults	Fresh air supply faults	Personnel injury or death

Table A-3. Master Hazardous Conditions Table. (127 Sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
CVR-12-4	Material in the pit from which a coverblock is being removed	Release of radioactive or hazardous material from pit upon lifting coverblocks due to incorrect spraying of flange	Spraying of flange (Soft Deposit) causes spray of material out of pit	Personnel exposure to radionuclides or toxic aerosols and vapors, direct radiation
CVR-13-4	Material in open nozzles or nozzles in pit	Release of radioactive or hazardous material from pit upon lifting coverblocks due to open nozzles or nozzles in pit	Open nozzles or nozzles in pit with radioactive or hazardous material inside	Personnel exposure to radioactive or toxic aerosols and vapors, direct radiation
CVR-14-4	NA	Injury of worker from biological hazards (spiders, snakes, etc.) due to open nozzles or nozzles in pit	Open nozzles or nozzles in pit with biological hazards (spiders, snakes, etc.) inside	Personnel exposure to biological hazards
CVR-15-4	Material in the pit from which a coverblock is being removed	Release of radioactive or hazardous material from pit due to dropping or falling coverblocks or pieces of coverblocks	Coverblock hooks fail or pieces of degraded coverblock fall into pit	Personnel exposure to radioactive or toxic dusts
DCN-01	Airborne contamination in pits or filters	Personnel exposure and/or contamination to decon personnel	Failure of PPE	Skin contamination, penetration through skin, and/or inhalation
DCN-01-4	Material on equipment being decontaminated or in areas where decontamination is occurring	Personnel exposure and/or contamination to decon personnel due to failed PPE	Failure of PPE	Skin contamination, penetration through skin, and/or inhalation
DCN-02	Toxic waste on equipment removed from tank	Release of radioactive or toxic material outside immediate area from equipment removed from tank due to decontamination of equipment	Miss direction of cleaning spray (human error)	Personnel contamination and/or ground contamination
DCN-02-1A	Material on equipment being decontaminated	Release of radioactive or toxic material outside immediate area from equipment being decontaminated due to spray redirection	Miss direction of cleaning spray (mechanical failure of spray ring)	Personnel contamination and/or ground contamination
DCN-02-1B	Material on equipment being decontaminated	Release of radioactive or toxic material outside immediate area from equipment being decontaminated due to spray redirection	Miss direction of cleaning spray (mechanical failure of spray ring)	Personnel contamination and/or ground contamination

Table A-1. Master Hazards Conditions Table. (127 Sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
DCN-03	Airborne contamination in pits or rooms	Release of aerosol outside immediate area during decontamination activities due to seismic event contaminating decon personnel	Seismic event	Skin contamination, penetration through skin, inhalation, personnel contamination, and/or ground contamination
DCN-03-1	Material on equipment being decontaminated or in area where decontamination is occurring	Release of aerosol outside immediate area from equipment during decontamination activities due to seismic event causes contamination of decon personnel	Seismic event	Skin contamination, penetration through skin, inhalation, personnel contamination, and/or ground contamination
DCN-04	Airborne contamination in pits or rooms	Release of aerosol outside immediate area during decontamination activities due to high wind or tornado damage contaminating decon personnel	Wind/Tornado	Skin contamination, penetration through skin, inhalation, personnel contamination, and/or ground contamination
DCN-04-1	Material on equipment being decontaminated or in area where decontamination is occurring	Release of aerosol outside immediate area from equipment during decontamination activities due to high wind or tornado damage, contamination of decon personnel	Wind/Tornado	Skin contamination, penetration through skin, inhalation, personnel contamination, and/or ground contamination
DCN-05	NA	Injury of worker from contact with tools	Human error	Personnel injury
DCN-05-1	NA	Injury of worker from contact with tools due to human error during decontamination activities	Human error	Personnel injury
DCN-06	Airborne contamination in pits or rooms	Personnel exposure higher than expected	More contamination than expected	Personnel exposure
DCN-06-1	NA	Personnel exposure and/or injury of worker from higher than expected exposure due to unknown contamination	More contamination than expected	Personnel exposure
DCN-07	NA	Injury of worker from exposure to asphyxiant	Oxygen deficient atmosphere and PPE failure or absence in confined space	Personnel injury
DCN-07-1	NA	Injury of worker from exposure to asphyxiant due to PPE failure	PPE failure or absence in confined space	Personnel injury

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Hazard at Risk	Hazardous Condition	Cause	Consequence
EE-01	Contents of tanks in one tank farm	Release of radioactive and toxic materials from tanks due to external force and fire	Aircraft crash	Radiological and toxic exposures to workers and the public, environmental impacts
EE-02	Surfside contamination around tank farms, liquid spillage inventories	Release of radioactive contaminants from tank farms due to external fires	Range fire	Radiological and toxic exposures to workers, personnel injury, loss of power to ventilation systems, building fires, potential inhibitor for other fires
EE-03	Tank headspace inventories of active ventilation systems, possible tank bump	Release of radioactive and hazardous materials from tanks due to loss of active ventilation	Dem collapse	Loss of power, minor releases from multiple tanks and ventilation systems due to breathing, loss of monitoring capability, potential for tank heating or bumping, loss of water supply
EE-04-a	BST tank contents	Release of radioactive and hazardous materials from BST tank due to external fires	Vehicle accident involving propane, diesel or gasoline delivery	Radiological and toxic exposures to workers, personnel injury, loss of power to ventilation systems, building fires, HEPA filter, range fire
EE-04-b	BST tank overfills	Release of radioactive and hazardous materials from BST tank due to external fires	Vehicle accident involving propane, diesel or gasoline delivery	Radiological and toxic exposures to workers, personnel injury, loss of power to ventilation systems, building fires, HEPA filter, range fire

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
EE-05-a	Contents of SST tank, fires and possible explosions	Release of radioactive or hazardous materials from SST tank due to external fires	Run-away vehicle or truck shears off one or more risers, ruptures gasoline tank	Radioactive and toxic exposures to workers from shearing off multiple risers on tanks. Potential for fuels to get into tanks resulting in fires or explosions
EE-05-b	Contents of DST tank, fires and possible explosions	Release of radioactive or hazardous materials from DST tank due to external fires	Run-away vehicle or truck shears off one or more risers, ruptures gasoline tank	Radioactive and toxic exposures to workers from shearing off multiple risers on tanks. Potential for fuels to get into tanks resulting in fires or explosions
EE-06	Surface contamination around tank farm, ventilation systems @ tank farms	Release of radioactive and hazardous materials from tank farm due to external fires	On-site rail accident involving flammable materials	Radioactive and toxic exposures to workers, personnel injury, loss of power to ventilation systems, building fires, HEMP fires, range fires
EE-07	NA	No release - Impact to tank farms due to offsite incident	Off-site rail accident	No direct impact except as potential range fire initiator, considered in EE-2
EE-08	NA	No release - Impact to tank farms due to offsite incident	Boeing accident on Columbia River	No direct impact except as potential range fire initiator, considered in EE-2
EE-09	NA	Possible spread of surface contamination due to surface flooding at tank farm	Water line break and causes flooding of tank farm	No direct impact, possible migration of surface contamination, possible soil erosion and formation of sink holes, potential for in-leakage of water into tanks

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
EE-10	Contents of affected tank	Release of radioactive and hazardous materials from tanks due to loss of tank integrity	Water line breaks, ruptures, subsurface, and hydrostatic head causes tank to float	Loss of tank integrity with wastes spilling below grade
EE-11	Contents of affected tank	Release of radioactive and hazardous materials from tank due to overfilling	Water line breaks and overfills tank	Loss of tank content below grade
EE-12	NA	Injury of worker due to washout of soils surrounding a transfer pipe	Water main to evaporator or steam plant breaks	Potential for washout of transfer pipe, potential sink hole
EE-13	NA	Injury of worker from steam jet impinging on equipment supporting multiple tanks	Steam line break	Potential for personnel injury or death
EE-14	NA	Injury of worker from electrocution	Excavation into power source	Potential for personnel injury or death
EE-15	NA	Injury of worker due to washout of soils resulting in sink hole due to excavation error	Excavation into water line	Potential industrial hazard
EE-16	Material leaked from transfer line	Release of radioactive and hazardous material from transfer line due to spray leak caused by excavation error	Excavation into waste transfer line during a transfer	Personnel exposure to radioactive and hazardous materials, environmental damage
EE-17	Materials in inactive equipment	Release of radioactive and hazardous material from inactive equipment due to excavation error	Excavation into abandoned or inactive equipment	Personnel exposure to radioactive and hazardous materials
GRN-01	NA	Injury to worker from industrial hazards (lifting, bending, trips and falls, tool operations)	Human errors	Worker injury
GRN-01-1	NA	Injury of worker from (lifting, bending, tool accidents, crests tripping hazard) due to temporary confinement solution	Human errors	Worker injury
GRN-02	NA	Injury to worker from industrial hazards (lifting, bending, trips and falls, tool operations)	Mechanical failure of equipment, tools	Worker injury
GRN-02-1	NA	Injury of worker from (lifting, bending, trips and falls, tool operations) due to mechanical failure	Mechanical failure of equipment, tools	Worker injury

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
GR04-03-I	NA	Injury of worker from asphyxiation in greenhouse due to collection of asphyxiants before removal	Human error	Worker injury
I-222S-1-CMP-A	222-S lab waste from tank 102 at 219-S (capacity 4000 gal)	Release of 222-S lab waste from transfer line due to leak from rapid corrosion caused by leak(s) of pH 1 solution	Human Error - Failure to add NaOH	
I-222S-1-CMP-B	222-S lab waste and other liquid radioactive waste in 244-S	Release of 222-S lab waste and other liquid waste in 244-S-DCRT from 244-S-DCRT due to increased corrosion from failing to add NaOH. Potential to reduce the life of 244-S-DCRT tank. Potential to disrupt tank farm operations	Human Error - Failure to add NaOH	
I-222S-1-CMP-C	222-S lab waste from tank 102 at 219-S (capacity 4000 gal)	Release of 222-S lab waste from spray tank to atmosphere in diversion box or 244-S-DCRT Pump Pit due to increased corrosion caused by failure to add NaOH	Human Error - Failure to add NaOH	
I-222S-1-CMP-D	222-S lab waste and other radioactive liquid waste in 244-S	Release of 222-S lab waste and other liquid waste from 244-S-DCRT due to increased corrosion caused by failing to add corrosion inhibitor. Potential to reduce the life of 244-S-DCRT tank. Potential to disrupt tank farm operations	Human Error - Failure to add Mfrases	
I-222S-1-CMP-E	Aerosols from receiver tank at 244-S	Release of radioactive aerosols to the atmosphere from 244-S-DCRT or receiver tank due to over pressurization of tank caused by organic fire	Human Error - Upset of 222-S Lab operations	
I-222S-1-LVL-A	Aerosols and particulates from 244-S entrained in the steam	Release of aerosols and entrained particulates from 244-S-DCRT to the atmosphere through ventilation due to over pressurization of 244-S-DCRT caused by sending pad stream to tank farm	Human Error - Failing to shut off steam after TK-102 is empty	
I-222S-1-RXN-A	Aerosols and/or toxic vapors from receiver tank	Release of aerosols and/or toxic vapors from receiver tank due to a diverse chemical reactions caused by incompatible waste	Transfer of incompatible waste	
I-222S-2-FLW-A	Aerosols and particulates from tank 102 at 219-S that are entrained in the steam	Release of aerosols and particulates from TK-102 at 219-S that are entrained in the steam to the atmosphere due to reverse flowing steam into TK-102 which activates the HERAs	Block valve inadvertently closed at tank farm AND Transfer via this line	

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
I-222S-2-FLW-B	222-S lab waste and other radioactive liquid waste in 244-S	Release of 222-S lab waste from 244-S-DCRT to the ground due to overflowing the DCRT caused by transferring with insufficient volume available	Transfer occurs to 244-S DCRT with insufficient volume available in 244-S DCRT	
I-222S-2-FLW-C	Aerosols and/or toxic vapors from receiver tank	Release of aerosols and/or toxic vapors from receiver tank due to adverse chemical reactions caused by incompatible waste	Human Error - incorrect valve line up	
I-222S-2-FLW-D	222-S lab waste and other radioactive liquid waste in 244-S	Release of 222-S lab waste from 244-S-DCRT to the ground due to overflowing the DCRT caused by improper valve line up	Human Error - incorrect valve line up	
I-222S-2-LEK-A	222-S lab waste from tank 102 at 219-S (capacity 4000 gal)	Release of 222-S lab waste from TL-102 at 219-S to the ground due to leak in the pipe caused by corrosion	Corrosion in pipe line	
I-222S-2-LEK-B	222-S lab waste from tank 102 at 219-S (capacity 4000 gal)	Release of 222-S lab waste from TL-102 at 219-S to the atmosphere due to spray leak at the diversion box or pump pit, caused by corrosion in the pipe	Corrosion in pipe line	
I-222S-2-LEK-C	222-S lab waste from tank 102 at 219-S (capacity 4000 gal)	Release of 222-S lab waste from TL-102 at 219-S to the atmosphere due to spray leak caused by rupture of the line	Inadvertent severing of line	
I-222S-2-LEK-D	222-S lab waste from tank 102 at 219-S (capacity 4000 gal)	Release of 222-S lab waste from TL-102 at 219-S to the ground due to leak in the pipe ruptured by a seismic event	Earthquake	
I-222S-2-LEK-E	222-S lab waste from tank 102 at 219-S (capacity 4000 gal)	Release of 222-S lab waste from TL-102 at 219-S to the atmosphere due to spray leak at the diversion box or pump pit, caused by rupture of pipe connections from a seismic event	Earthquake	
I-222S-2-PR6-A	Aerosols and particulates from 244-S entrained in the steam	Release (steam) of aerosols and particulates from 244-S-DCRT to atmosphere through ventilation due to over pressurization of DCRT caused by syringing just steam to tank farm	Steam radiator valve fails open	

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Material at Fault	Hazardous Condition	Cause	Consequence
I-242A-1-FLW-A	Aerosols and other radioactive material from TK-AW-102	Release of radioactive material from feed TK-102-AW due to fire/explosion caused by igniting hydrogen gas when pump is damaged and possibly becomes an ignition source from dead heading	Valve fail to regulate (Go closed) which fails pump and creates ignition source AND sufficient hydrogen accumulation for fire/explosion	
I-242A-1-FLW-B	Aerosols and other radioactive material from TK-AW-102	Release of radioactive material from feed TK-102-AW due to fire/explosion caused by igniting hydrogen gas when pump is damaged and possibly becomes an ignition source	Feed pump fails and creates ignition source AND sufficient hydrogen accumulation for fire/explosion	
I-242A-1-FLW-C	Aerosols and other radioactive material from TK-AW-102	Release of radioactive material from feed TK-102-AW due to fire/explosion caused by igniting hydrogen gas when pump is damaged and possibly becomes an ignition source from dead heading	Plugged line which fails pump and creates ignition source AND sufficient hydrogen accumulation for fire/explosion	
I-242A-1-FLW-D	Aerosols and other radioactive material from TK-AW-102	Release of radioactive material from feed TK-102-AW due to fire/explosion caused by igniting hydrogen gas when pump is damaged and possibly becomes an ignition source	Pump plugged which fails pump and creates ignition source AND sufficient hydrogen accumulation for fire/explosion	
I-242A-1-FLW-E	Aerosols and other radioactive material from TK-AW-102	Release of radioactive material from feed TK-102-AW due to fire/explosion caused by igniting hydrogen gas when pump is damaged and possibly becomes an ignition source from pump cavitation	Empty feed tank which fails pump and creates ignition source AND sufficient hydrogen accumulation for fire/explosion	
I-242A-1-FLW-F	NA	No release - Potential for leak to tank annulus (secondary containment) caused by damage to feed tank due to backflow and overfilling of tank	Valve inadvertently opened or failing	
I-242A-1-LEK-A	Liquid waste from feed tank TK-AW-102	Release of waste from feed TK-102-AW to the ground due to leak in the pipe caused by corrosion	Corrosion in pipe line	
I-242A-1-LEK-B	Liquid waste from feed tank TK-AW-102	Release of waste from feed TK-102-AW to the atmosphere due to spray leak at the diversion box or pump pit, caused by corrosion in the pipe	Corrosion in pipe line	

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
I-242A-1-LEK-C	Liquid waste from feed tank TK-AMV-102	Release of waste from feed TK-102-AMV to the atmosphere due to spray leak at the rupture of the line	Insufficient extension of line causes spray leak	
I-242A-1-LEK-D	Liquid waste from feed tank TK-AMV-102	Release of waste from feed TK-102-AMV to the ground due to leak in the pipe ruptured by a seismic event	Earthquake causes leak	
I-242A-1-LEK-E	Liquid waste from feed tank TK-AMV-102	Release of waste from feed TK-102-AMV to the atmosphere due to spray leak at the diversion box or pump pit, caused by rupture at pipe connections	Earthquake causes spray leak	
I-242A-2-OMP-A	GA	No release - Potential for leak to tank annulus (secondary containment) caused by damage to feed tank due to overfilling of tank	Valve is flow or inadvertently opened valve	
I-242A-2-OMP-B	Aerosols and particulates obtained as steam from receiver tank	Release of materials from receiver tank to the atmosphere through unsealed cracks in the cover blocks due to over pressurization of the receiver tank	Steam block valves inadvertently opened or left open	Release to the atmosphere through unsealed cracks in the cover blocks due to over pressurization of the receiver tank and possible structural damage to the tank
I-242A-2-FLW-A	Aerosols from receiver tank	Release of aerosols from receiver tank to the atmosphere through unsealed cracks in the cover blocks due to over pressurization of the receiver tank and possible structural damage to the tank	Human Error - Pump is run at maximum speed	
I-242A-2-FLW-B	Aerosols from receiver tank	Release of aerosols from receiver tank to the atmosphere through 12" opening in inlet station due to over pressurization of the receiver tank and possible structural damage to the tank	Human Error - Pump is run at maximum speed	
I-242A-2-LEK-A	Slurry from the evaporator	Release of evaporator slurry to the ground due to leak in the pipe caused by corrosion	Corrosion in pipe line	
I-242A-2-LEK-B	Slurry from the evaporator	Release of slurry tank waste from the evaporator to the atmosphere due to spray leak at the diversion boxes or pump pit, caused by corrosion in the pipe	Corrosion in pipe line	
I-242A-2-LEK-C	Slurry from the evaporator	Release of slurry tank waste from the evaporator to the atmosphere due to spray leak at the rupture of the line	Inadequate extension of line causes spray leak	

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Intending Risk	Hazardous Condition	Cause	Consequence
I-242A-2-LEK-D	Slurry from the evaporator	Release of evaporator slurry to the ground due to leak in the pipe ruptured by a seismic event	Earthquake causes leak	
I-242A-2-LEK-E	Slurry from the evaporator	Release of slurry tank waste from the evaporator to the atmosphere due to spray leak at the demister head of pump P4, caused by rupture of pipe connections	Earthquake causes leak	
I-242A-2-TMP-A	NA	No release - Potential for leak to the atmosphere due to damage to receiver tank caused by adding super heated (212 F) slurry	Failure of Evaporator Vacuum System	
I-242A-2-VSC-A	Aerosols from receiver tank	Release of aerosols from receiver tank due to tank bump caused by over concentration. Potential to generate conditions similar to T1-101-BY, "Tank Bump" due to hydrogen being trapped in thick solution. (Lower energy than tank bump)	Human Error - Over concentration of slurry at evaporator	
I-242A-2-VSC-B	NA	No release - Potential to plug transfer lines and disrupt basic slurry operations	Human Error - Over concentration of slurry at evaporator	
I-242A-3-FLW-A	Aerosols from feed tank TK-ANV-102	Release of aerosols from feed TK-102-ANV to the atmosphere through unsealed cracks in the cover blocks due to over pressurization of the feed tank and possible structural damage to the tank	Uncontrolled pot dump of Evaporator (Loss of electricity or air)	
I-242A-3-FLW-B	Aerosols from feed tank TK-ANV-102	Release of aerosols from feed TK-102-ANV to the atmosphere through 12" opening in inlet station due to over pressurization of the feed tank and possible structural damage to the tank	Uncontrolled pot dump of Evaporator (Loss of electricity or air)	
I-242A-4-FLW-A	Liquid waste from feed tank TK-ANV-102 diluted with raw water from the evaporator	Release of sludge high level waste from TK-102-ANV to the ground through weirs due to over filling of tank and overflow with condensate	Tube rupture of raw water in condenser	
I-242A-4-TMP-A	Aerosols and other radioactive material from feed tank TK-ANV-102	Release of radioactive material from TK-102-ANV due to ignition of organics in TK-100-C which pressurizes the drain line and propagates the fire down the line to feed TK-102-ANV	Partial control of vacuum to CA-1 vessel causing pot to boil with organic layer available	

Table A-4. Master Hazardous Conditions Table. (127 Sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
I-242A-6-FLW-A	N/A	No release - Potential for the spread of radioactive material to annulus due to overfilling TK-102-AW causing damage to tank and leak to annulus	Human Error - Improper valve line up AND High level in TK-AW-102 (in excess of Limiting Condition for Operation, LCO)	
I-242A-6-CMP-A	Aerosols and particulates entrained in steam from feed tank TK-AW-102	Release (steam) of aerosols from feed TK-M2-AW to the atmosphere through unsealed cracks in the cover blocks due to over pressurization of the receiver tank	Human error - Steam block valve inadvertently left opened	Release (steam) of aerosols to the atmosphere through unsealed cracks in the cover blocks due to over pressurization of the receiver tank and possible structural damage to the tank
I-242A-6-FLW-A	Liquid waste from feed tank TK-AW-102 diluted with raw water from the evaporator	Release of dilute high level waste from TK-102-AW to the ground through weirs due to over filling of tank and annulus with raw water	Rupture of raw water line in condenser / pump room	
I-242A-6-FLW-B	Aerosols and liquid waste from feed tank TK-AW-102 diluted with raw water from the evaporator	Release of diluted high level tank waste from feed TK-102-AW due to overfilling tank and annulus and aggravated by an uncontrolled evaporator dump when a raw water leak occurs in evaporator condenser room	Rupture of raw water line in condenser / pump room	
I-242A-6-FLW-C	Aerosols from the head space of feed tank TK-AW-102	Release of contaminated aerosols from the head space of TK-102-AW to the 242-A evaporator building through the down lines due to higher vacuum at evaporator than at tank farm - Potential water hazard	Higher vacuum at evaporator than at tank farms	
I-242A-7-CMP-A	Aerosols from the head space of various tanks in AW tank farm	Release of aerosols from freeboards in tanks in AW tank farm through the rooms due to leaking glycol into instrument air and pressure monitoring system which causes pressure gauges to fail and operators inability to detect tank pressurization	Compressor head leaks AND AW tank farm air supplied from 242-A AND A tank pressurization event for a release	
I-242A-7-FLW-A	Aerosols from the head space of feed tank TK-AW-102	Release of aerosols from the head space of feed TK-M2-AW through the rooms due to loss of instrument air which causes an uncontrolled evaporator dump and failure to detect changes in feed tank pressure	Compressor fails AND AW tank farm air supplied from 242-A	

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
I-242A-7-FLW-B	Aerosols from the head space of feed tank TK-AW-102	Release of aerosols from the head space of feed TK-102-AW through the weirs due to loss of instrument air which causes an uncontrolled evaporator dump and failure to detect changes in feed tank pressure	Valve inadvertently closed AND AW tank farm air supplied from 242-A	
I-242A-7-FLW-C	Aerosols from the head space of feed tank TK-AW-102	Release of aerosols from the head space of feed TK-102-AW through the weirs due to loss of instrument air which causes an uncontrolled evaporator dump and failure to detect changes in feed tank pressure	Filter plugged AND AW tank farm air supplied from 242-A	
I-242A-7-PR3-A	NA	Injury of worker - Personnel hazard due to rupture of compressed air line	Failure of compressor unloading switch due mechanical failure or incorrect setting during start/stop	
I-242S-1-PR3-A	Aerosols from 242-S building	Release of airborne contaminants from 242-S building through cracks due to over pressurization of 242-S building and contamination of control room where tank farm controls are located	Exhaust fan failure	
I-242S-1-TMP-A	Contaminated fire water from 242-S pump room	Release of contaminated water from 242-S pump room to the ground outside of the 242-S Evaporator due to leak in the pump room from the fire protection system's drains and ruptured line	Low ambient temperature freezes and breaks pipe	
I-242S-2-FLW-A	Contaminated fire water and other liquid waste in 102-SV tank	Release of tank waste diluted with contaminated fire water from TK-102-SV to the soil due to flooding the pump room from a fire main break and pumping the water to TK-102-SV which overfills the tank and floods pit through weirs	Break in fire main	
I-242S-2-FLW-B	Contaminated fire water from 242-S pump room	Release of contaminated water from 242-S pump room to condenser room increasing contamination in the condenser room due to overflowing TK-102-C	Human Error - Incorrect valve line up	
I-242S-2-FLW-C	Contaminated fire water and other liquid waste in 244-S DCRT	Release of contaminated water and other waste from 244-S-DCRT to the ground due to overflowing 244-S-DCRT vault caused by improper valve line up	Human Error - Incorrect valve line up AND increased volume of water in 242-S pump room	
I-242S-2-FLW-D	High level waste from tank farms	Release of high level waste from tank farms to the 242-S pump room due to reverse flow from TK-102-SV caused by improper valve line up	Human Error - Incorrect valve line up	

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
I-242S-2-FLW-E	High level waste from tank farms	Release of high level waste from tank farms to the ground outside the 242-S building due to unintended reverse flow to the pump room from T1-102-SY	Human Error - incorrect valve line up	
I-242S-2-LEK-A	Contaminated fire water from 242-S pump room	Release of contaminated water from 242-S pump room to the ground due to leak in the pipe caused by corrosion	Corrosion in pipe line	
I-242S-2-LEK-B	Contaminated fire water from 242-S pump room	Release of contaminated water from 242-S pump room to the atmosphere due to spray leak at the diversion box or pump pit, caused by corrosion in the pipe	Corrosion in pipe line causes spray leak	
I-242S-2-LEK-C	Contaminated fire water from 242-S pump room	Release of contaminated water from 242-S pump room to the atmosphere due to spray leak at the rupture of the line from expansion	Improper installation of line causes spray leak	
I-242S-2-LEK-D	Contaminated fire water from 242-S pump room	Release of contaminated water from 242-S pump room to the ground due to leak in the pipe ruptured by a seismic event	Earthquake	
I-242S-2-LEK-E	Contaminated fire water from 242-S pump room	Release of contaminated water from 242-S pump room to the atmosphere due to spray leak at the diversion box or pump pit, caused by rupture at pipe connections from a seismic event	Earthquake	
I-242S-4-FLW-A	Contaminated fire water and other liquid waste in 244-S DCRT	Release of contaminated water and other waste from 244-S-DCRT to the ground due to overflowing 244-S-DCRT vault caused by improper valve line up	Human Error - incorrect valve line up	
I-242S-4-FLW-B	High level waste from tank farms	Release of high level waste from the tank farms to the 242-S condenser room due to reverse flow from T1-102-SY caused by improper valve line up	Human Error - incorrect valve line up	
I-242S-4-FLW-C	High level waste from tank farms	Release of high level waste from the tank farms to the ground outside the 242-S building due to unintended reverse flow to the condenser room	Human Error - incorrect valve line up	
I-242S-4-FLW-D	Contaminated fire water and other waste in 102-SY tank	Release of tank waste diluted with contaminated water from T1-102-SY to the soil due to flooding the condenser room which is pumped to T1-102-SY and overfills the tank and floods pit through vents	Break in fire main	

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
I-242S-4-LEK-A	Contaminated fire water from 242-S condenser room	Release of contaminated water from 242-S condenser room to the ground due to leak in the pipe caused by corrosion	Corrosion in pipe line	
I-242S-4-LEK-B	Contaminated fire water from 242-S condenser room	Release of contaminated water from 242-S condenser room to the atmosphere due to spray leak at the condenser room, caused by corrosion in the pipe	Corrosion in pipe line	
I-242S-4-LEK-C	Contaminated fire water from 242-S condenser room	Release of contaminated water from 242-S condenser room to the atmosphere due to spray leak at the rupture of the line from excavation	Inadvertent excavation of line causes spray leak	
I-242S-4-LEK-D	Contaminated fire water from 242-S condenser room	Release of contaminated water from 242-S condenser room to the ground due to leak in the pipe ruptured by a seismic event	Earthquake	
I-242S-4-LEK-E	Contaminated fire water from 242-S condenser room	Release of contaminated water from 242-S condenser room to the atmosphere due to spray leak at the diversion box or pump pit, caused by rupture at pipe connections from a seismic event	Earthquake causes spray leak	
I-242S-5-CMP-A	Aerosols from head space in tanks in SY tank farm	Release of aerosols through the room from various tanks due to glycol in the instrument air which causes failure of pressure gauges and inability of operators to detect tank pressurization	Compressor head leaks AND A tank pressurization event to get a release	
I-242S-5-CMP-B	Aerosols from head space in tanks in SY tank farm	Release of aerosols through the room from various tanks due to desiccant plugged air filter resulting in loss of instrument air to SY pressure monitoring system. Inability of operators to detect tank pressurization	Compressor head leaks AND A tank pressurization event to get a release	
I-242S-5-CMP-C	Aerosols from head space in tanks in SY tank farm	Release of aerosols through the room from various tanks due to a desiccant plugged air filter resulting in loss of instrument air to SY pressure monitoring system. Inability of operators to detect tank pressurization	Clogged filter cutting off air supply AND A tank pressurization event to get a release	
I-242S-5-CMP-D	Aerosols from head space in tanks in SY tank farm	Release of aerosols through the room from various tanks due to release of desiccant into instrument air which damages the pressure gauges and causes the inability of operators to detect tank pressurization	Blow out Filter damaging instrument. Air AND A tank pressurization event to get a release	

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
I-242S-B-FLW-A	Aerosols from head space in tanks in SY tank farm	Release of aerosols through the nozzles from various tanks due to loss of instrument air to SY pressure monitoring system which causes the pressure gauges to fail and the inability of operators to detect tank pressurization	Compressor fails AND A tank pressurization event to get a release	
I-242S-S-FLW-B	Aerosols from head space in tanks in SY tank farm	Release of aerosols through the nozzles from various tanks due to loss of instrument air to SY pressure monitoring system which causes pressure gauges to fail and the inability of operators to detect tank pressurization	Block valve inadvertently closed AND A tank pressurization event to get a release	
I-242S-S-FLW-C	Aerosols from head space in tanks in SY tank farm	Release of aerosols through the nozzles from various tanks due to loss of instrument air to SY pressure monitoring system which causes pressure gauges to fail and the inability of operators to detect tank pressurization	Filter plugged AND A tank pressurization event to get a release	
I-242S-S-PRS-A	NA	Injury of worker - Personnel hazard due to rupture of compressed air line	Human Error - Failure of compressor unloading switch due to incorrect setting during maintenance	
I-242T-2-FLW-A	High level waste in 242-T feed tank (Capacity 4186 gal)	Release (subsurface) of high level waste from 242-T feed tank from the tank or a pipe due to flow of high level waste from feed tank to Tk-11B-TX caused by opened or leaking valve	Block valves inadvertently opened or leaking	Potential for change in tank status from alarm locked to active
I-242T-3-FLW-A	High level waste in various 242-T vessels (Approximate capacity - 20,000 gal)	Release of high level waste from 242-T vessels to the ground surface due to overflowing the "sum" diversion box caused by opened or leaking valve	Block valve inadvertently opened or leaking	
I-242T-4-FLW-A	High level waste in all 242-T vessels (Approximate capacity - 20,000 gal)	Release of high level waste from 242-T vessels to the ground surface due to overflowing the "sum" diversion box caused by failure of 242-T building and rupture of tanks in 242-T	Catastrophic failure of the building due to aging effects	
I-BPLANT-1-CMP-A	Low level waste from B Plant tank 24-1 (Administrative volume limit 7500 gal)	Release (subsurface) of low level waste from B Plant Tk-24-1 due to transfer of low pH material resulting in increased corrosion in pipe or receiver tank	Human Error - Failure to add NaOH	
I-BPLANT-1-CMP-B	Low level waste from B Plant tank 24-1 (Administrative volume limit 7500 gal)	Release (spray leak) of low level waste from B Plant Tk-24-1 at diversion box due to transfer of low pH material resulting in increased corrosion in pipe	Human Error - Failure to add NaOH leads to corrosion and leak in pipe	

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
I-BPLANT-1-CMP-C	Recover tank waste	Release (leak) of tank waste from recover tank to the atmosphere due to increased corrosion of the tank caused by transfer of acidic waste	Human Error - Failure to add NaOH	
I-BPLANT-1-CMP-D	Recover tank waste	Release (leak) of tank waste from recover tank to the atmosphere due to increased corrosion of the recover tank due to transfers without corrosion inhibitor	Human Error - Failure to add NaHCO ₃ (corrosion inhibitor)	
I-BPLANT-1-CMP-E	Recover tank waste	Release of tank waste from recover tank due to fire in recover tank caused by transferring organics from B Plant	Human error - Tank containing organics in B Plant rupture and spills organics to the drain which eventually end up in tank 24-1 and an inadvertent transfer to tank 41006	
I-BPLANT-1-TMP-A	Aerosols in recover tank	Release of aerosols from pressurizing recover tank due to transfer of inert material from T1024-1 to recover tank	Human Error - Sending steam to tank 24-1 AND inadvertently transferring to tank 41006	
I-BPLANT-2-FW-A	NA	No release - Potential to dead head and damage pump P24-1-3	Human Error - Block valve inadvertently closed in tank farms	
I-BPLANT-2-FW-B	Recover tank waste	Release (leak) of tank waste from recover tank to atmosphere due to excessive weight caused by exceeding administrative control for maximum liquid level	Human Error - Filling Tank 24-1 while transfer to tank farms AND Recover tank at maximum administrative level	
I-BPLANT-2-FW-C	Recover tank waste	Release (ground surface) of low level waste from overflow of recover tank to gals due to transfer of excessive low level waste from B Plant	Human Error - Filling Tank 24-1 while transferring to tank farms AND Recover tank at maximum administrative level	
I-BPLANT-2-FW-D	Recover tank waste	Release of aerosols and/or toxic vapors from recover tank due to transfer of incompatible waste from B Plant	Human Error - Communication error between B Plant and TWRB causes transfer of incompatible waste	
I-BPLANT-2-EKA	Low level waste from B Plant tank 24-1 (Administrative volume limit 7500 gal)	Release (underground) of low level waste from B Plant T1024-1 due to leak in the pipe caused by corrosion	Corrosion in pipe line	
I-BPLANT-2-EKB	Low level waste from B Plant tank 24-1 (Administrative volume limit 7500 gal)	Release of low level waste from B Plant T1024-1 to the atmosphere due to spray leak at the diversion box or pump pit, caused by corrosion in the pipe	Corrosion in pipe line causes spray leak	

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
1BPLANT-2-LEGC	Low level waste from B Plant tank 24-1 (Administrative volume limit 7500 gal)	Release of low level waste from B Plant T1-24-1 to the atmosphere due to spray leak at the rupture of the line from excavation	Inadequate excavation of line causes spray leak	
1BPLANT-2-LEGD	Low level waste from B Plant tank 24-1 (Administrative volume limit 7500 gal)	Release of low level waste from B Plant T1-24-1 to the ground due to leak in the pipe ruptured by the earthquake	Earthquake causes leak	
1BPLANT-2-LEGE	Low level waste from B Plant tank 24-1 (Administrative volume limit 7500 gal)	Release of low level waste from B Plant T1-24-1 to the atmosphere due to spray leak at the diversion box or pump pit, caused by rupture of pipe connections from an earthquake	Earthquake causes spray leak	
1PFP-1-AGT-A	Fission product gases and aerosols from receiver tank	Release of fission product gases and aerosols from receiver tank due to: Potential for solids to collect by T1-D-5. If moved later, potential for decomposition of reactants to exceed Criticality Prevention Specifications (CPS). Potential "Criticality issue"	Human Error or Agitator Set results in criticality	
1PFP-1-CMP-A	TRU mixed waste from PFP tank D-5 and other radioactive liquid waste in 244-TX	Release (underground) of TRU mixed waste from 244-TX-DGRT due to transfer of acidic waste to 244-TX-DGRT causing increased corrosion at tank. Potential damage to other equipment at tank farms	Human Error - Failure to add caustic	
1PFP-1-CMP-B	Fission product gases and aerosols from receiver tank	Release of fission product gases and aerosols from receiver tank due to: Potential for localized concentration of fission materials in receiver tank from failure to add fission materials. Potential "Criticality issue"	Failure to add fission materials, results in criticality	
1PFP-1-CMP-C	TRU mixed waste from PFP tank D-5 and other radioactive liquid waste in 244-TX	Release (underground) of TRU mixed waste from 244-TX-DGRT due to increased corrosion caused by failing to add corrosion inhibitors	Human Error - Failure to add sodium nitrate (corrosion inhibitor)	
1PFP-1-CMP-D	Fission product gases and aerosols from receiver tank	Release of fission product gases and aerosols from receiver tank due to excess fission material in waste. Potential to exceed emergency prevention specification requirements for shipment. Potential "Criticality issue"	Excess fission content added to waste results in criticality	
1PFP-1-CMP-E	High level waste in the receiver tank	Release of high level waste from receiver tank due to the fission organics transferred from PFP	Excess organic material added to waste results in fire	

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
1-PFP-1-LVL-A	TRU mixed waste from PFP tank D-5	Release (underground) of TRU mixed waste from PFP Tlx-D-5 at DCRT pit due to Potential to send steam vapor to 244-TX-DCRT Potential for thermal expansion to damage transfer pipe Potential for leak to containment pipe which drains to DCRT pit	Human Error - Failing to stop transfer to 244-TX when tank D-5 is empty	
1-PFP-1-MTN-A	TRU mixed waste from PFP tank D-5	Release of TRU mixed waste from PFP Tlx-D-5 at DCRT pit due to Potential to send steam vapor to 244-TX-DCRT by venting inlet/outlet for high temperature steam and/or for thermal expansion to damage transfer pipe and/or for leak to DCRT pit	Human Error - Incomplete maintenance	
1-PFP-2-FLW-A	TRU mixed waste from PFP tank D-5 and other radioactive liquid waste in 244-TX	Release of TRU mixed waste from PFP Tlx-D-5 to ground surface from overflowing sump pit and 244-TX-DCRT due to transferring with sufficient volume available	Human Error - Transfer to 244-TX without sufficient volume available	
1-PFP-2-LEK-A	TRU mixed waste from PFP tank D-5	Release of TRU mixed waste from PFP Tlx-D-5 due to leak in the pipe caused by corrosion which drains to the DCRT	Corrosion in pipe line	
1-PFP-2-LEK-B	TRU mixed waste from PFP tank D-5	Release of TRU mixed waste from PFP Tlx-D-5 to the atmosphere due to spray leak at the diversion box or pump pit, caused by corrosion in the pipe	Corrosion in pipe line causes spray leak	
1-PFP-2-LEK-C	TRU mixed waste from PFP tank D-5	Release of TRU mixed waste from PFP Tlx-D-5 to the atmosphere due to spray leak at the rupture of the line	Inadequate specification of line	
1-PFP-2-LEK-D	TRU mixed waste from PFP tank D-5	Release of TRU mixed waste from PFP Tlx-D-5 due to leak in the pipe ruptured by a seismic event or earthquake	Earthquake	
1-PFP-2-LEK-E	TRU mixed waste from PFP tank D-5	Release of TRU mixed waste from PFP Tlx-D-5 to the atmosphere due to spray leak at the diversion box or pump pit, caused by rupture of pipe connections	Earthquake causes spray leak	
1-PFP-2-TMP-A	TRU mixed waste from PFP tank D-5	Release of TRU mixed waste from PFP Tlx-D-5 at DCRT pit due to Potential to send steam vapor to 244-TX-DCRT caused by failure of steam reducer which sends higher pressure steam to steam jet and gases it out	Failure of steam reducer causes spray leak	Potential for thermal expansion to damage transfer pipe

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Hazard at Risk	Hazardous Condition	Cause	Consequence
1-PFA-2-TMP-B	Steam release of aerosols and entrained particulates from 244-TX	Release (absorb) of aerosols and entrained particulates from 244-TX-DCRT ventilation system due to rupturing HEPA's with steam caused by failure of steam reducer which sends higher pressure steam to steam jet, pushing it out and sends steam to 244-TX-DCRT	Failure of steam reducer	
1-PFP-3-CMP-A	TRU mixed waste from PFP tank D-5 and other radioactive liquid waste in 244-TX	Release of TRU mixed waste from 244-TX-DCRT due to uncertain corrosion caused by transferring acidic waste from PFP Tks D-7 or Tks D-8 to Tks D-5 while transferring from Tks D-5 to 244-TX-DCRT. Potential to damage other equipment at tank farms	Transferring from D-7 or D-8 to D-5 while transferring from D-5 to 244-TX	
1-PFP-3-FLW-B	TRU mixed waste from PFP tank D-5 and other radioactive liquid waste in 244-TX	Release of TRU mixed waste from overflowing sump pit and 244-TX-DCRT due to transferring without sufficient volume available	Human Error - Transfer to 244-TX without sufficient volume available	
1-PFP-3-FLW-C	TRU mixed waste from PFP tank D-5 and other radioactive liquid waste in 244-TX	Release of TRU mixed waste from 244-TX-DCRT overflowing due to transferring waste from PFP Tks D-7 or Tks D-8 to Tks D-5 while transferring from Tks D-5 to 244-TX-DCRT	Transferring from D-7 or D-8 to D-5 while transferring from D-5 to 244-TX	
1-PFP-3-LEK-A	TRU mixed waste from PFP tank D-5	Release of TRU mixed waste from PFP Tks D-5 due to leak in the pipe caused by corrosion which drain to the DCRT	Corrosion in pipe line	
1-PFP-3-LEK-B	TRU mixed waste from PFP tank D-5	Release of TRU mixed waste from PFP Tks D-5 to the atmosphere due to spray leak at the diversion box or pump pit, caused by corrosion in the pipe	Corrosion in pipe line causes spray leak	
1-PFP-3-LEK-C	TRU mixed waste from PFP tank D-5	Release of TRU mixed waste from PFP Tks D-5 to the atmosphere due to spray leak at the rupture of the line	Inadequate excavation of line	
1-PFP-3-LEK-D	TRU mixed waste from PFP tank D-5	Release of TRU mixed waste from PFP Tks D-5 due to leak in the pipe ruptured by a seismic event	Earthquake	
1-PFP-3-LEK-E	TRU mixed waste from PFP tank D-5	Release of TRU mixed waste from PFP Tks D-5 to the atmosphere due to spray leak at the diversion box or pump pit, caused by rupture of pipe connections	Earthquake causes spray leak	

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
1-PUREX-1-AGT-A	TRU waste from PUREX	Release (underground) of TRU waste from PUREX via the transfer line due to leaks from increased corrosion caused by transfer of acidic waste	Human Error or Mechanical Failure - Agitator fails or is not turned on	
1-PUREX-1-AGT-B	TRU waste from PUREX	Release (spray leak) of TRU waste from PUREX at diversion box due to leak from increased corrosion caused by transfer of acidic waste	Human Error or Mechanical Failure - Agitator fails or is not turned on	
1-PUREX-1-AGT-C	NA	No release - Potential for leak of tank waste to the annulus due to increased corrosion of the tank from transfer of acid waste to the receiver tank	Human Error or Mechanical Failure - Agitator fails or is not turned on	
1-PUREX-1-CMP-A	TRU waste from PUREX	Release (underground) of TRU waste from PUREX via the transfer line due to leaks from increased corrosion caused by transfer of acidic waste	Human Error - Failure to add NaOH to low level waste	
1-PUREX-1-CMP-B	TRU waste from PUREX	Release (spray leak) of TRU waste from PUREX at diversion box due to leak from increased corrosion caused by transfer of acidic waste	Human Error - Failure to add NaOH to low level waste results in corrosion and causes spray leak	
1-PUREX-1-CMP-C	NA	No release - Potential for leak of tank waste to the annulus due to increased corrosion of the tank from transfer of acid waste to the receiver tank	Human Error - Failure to add NaOH to low level waste	
1-PUREX-1-CMP-D	NA	No release - Potential for leak of tank waste to the annulus due to increased corrosion caused by failure to add corrosion inhibitor	Human Error - Failure to add NaNO ₂ (corrosion inhibitor)	
1-PUREX-1-LV-A	Aerosols from tank 105AW	Release of aerosols from TX-105-AW through cracks in the cover block due to pressurizing TX-105-AW caused by transfer of steam	Human Error - Failure to shut off steam jet when U-3 is empty	
1-PUREX-1-TMP-A	Aerosols from tank 105AW	Release of aerosols from TX-105-AW through cracks in the cover block due to pressurizing TX-105-AW caused by addition of hot waste to the tank	Human Error - Adding caustic (NaOH) to waste or transferring to U-3 via a steam jet AND Transferring from U-3 to 105AW before the waste cools	
1-PUREX-2-FLW-A	High level tank waste diluted with flush water	No release - Potential to reverse flow of steam back to U-3 (No Hazards Identified)	Block valve inadvertently closed at tank drain	

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
1-PUREX-2-LEK-A	TRU waste from PUREX	Release of TRU waste from PUREX to the ground due to leak in the pipe caused by corrosion	Corrosion in pipe line	
1-PUREX-2-LEK-B	TRU waste from PUREX	Release of TRU waste from PUREX to the atmosphere due to spray leak at the diversion box or pump pit, caused by corrosion in the pipe	Corrosion in pipe line causes spray leak	
1-PUREX-2-LEK-C	TRU waste from PUREX	Release of TRU waste from PUREX to the atmosphere due to spray leak from a ruptured line caused by inadvertent excavation	Inadvertent excavation of line causes spray leak	
1-PUREX-2-LEK-D	TRU waste from PUREX	Release (underground) of TRU waste from PUREX due to leak in the pipe ruptured by a seismic event	Earthquake	
1-PUREX-2-LEK-E	TRU waste from PUREX	Release of TRU waste from PUREX to the atmosphere due to spray leak of the diversion box or pump pit, caused by a seismic event	Earthquake causes spray leak	
1-PUREX-2-PRS-A	Aerosols and particulates entrained in steam from receiver tank	Release (steam) of aerosols and particulates from the receiver tank through cracks in the cover block due to tank pressurization from bending stresses caused by steam reducer failure which gases out the steam pit and sends just steam	Steam Reducer fails	
1-PUREX-2-PRS-B	Aerosols from receiver tank	Release of aerosols from the receiver tank through cracks in the cover block due to pressurizing the receiver tank from an extended air purge of the transfer line	Extended air purge after transfer (Mechanical Failure)	
1-PUREX-2-PRS-C	NA	Personnel exposure due to vacuum pulling radioactive material back to operating gallery. Worker hazard of PUREX (Dose concern)	Failure to air purge line after transfer (Mechanical Failure)	
1-PUREX-3-AGT-A	TRU waste from PUREX	Release (underground) of TRU waste from PUREX via the transfer line due to leaks from increased corrosion caused by transfer of acidic waste	Agitator fails or is not turned on	
1-PUREX-3-AGT-B	TRU waste from PUREX	Release (spray leak) of TRU waste from PUREX at diversion box due to leak from increased corrosion caused by transfer of acidic waste	Agitator fails or is not turned on results in corrosion and causes spray leak	

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Isolated at Risk	Hazardous Condition	Cause	Consequence
I-PUREX-3-SQT-C	NA	No release - Potential for leak of tank waste to the annulus due to increased corrosion of the tank head transfer of acid waste to the receiver tank	Agitator fails or is not turned on	
I-PUREX-3-CMP-A	TRU waste from PUREX	Release (underground) of TRU waste from PUREX via the transfer line due to leak from unapproved corrosion caused by impure acid waste	Human Error - Failure to add NaOH to low level waste	
I-PUREX-3-CMP-B	TRU waste from PUREX	Release (spray leak) of TRU waste from PUREX at diversion box due to leak from increased corrosion caused by transfer of acidic waste	Human Error - Failure to add NaOH to low level waste results in spray leak	
I-PUREX-3-CMP-C	NA	No release - Potential for leak of tank waste to the annulus due to increased corrosion of the tank from transfer of acid waste to the receiver tank	Human Error - Failure to add NaOH to low level waste	
I-PUREX-3-CMP-D	NA	No release - Potential for leak of tank waste to the annulus due to increased corrosion caused by failure to add corrosion inhibitor	Human Error - Failure to add NaNO_2 (corrosion inhibitor)	
I-PUREX-3-CMP-E	Fission product gases and aerosols from receiver tank	Release of fission product gases and aerosols from receiver tank due to criticality caused by exceeding Criticality Prevention Specifications for shipment from PUREX	Transfer of C cell pump water to tank F-12 and eventually to the tank farm	
I-PUREX-3-CVL-A	Aerosols from tank 105AW	Release of aerosols from Tk-105-AW through cracks in the cover block due to pressurizing Tk-105-AW caused by transfer of steam	Human Error - Failure to shut off steam jet when U-3 is empty	
I-PUREX-3-TMP-A	Aerosols from tank 105AW	Release of aerosols from Tk-105-AW through cracks in the cover block due to pressurizing Tk-105-AW caused by addition of hot waste to the tank	Human Error - Adding caustic (NaOH) to waste or transferring to U-3 via a steam jet AND Transferring from U-3 to 105AW before the waste cools	
I-PUREX-4-FLW-B	High level tank waste diluted with flush water	Release (ground surface) of high level tank waste diluted with flush water from the receiver tank due to overflowing from sending aqueous waste	Block valve on flush water inadvertently left opened or leaking	
I-PUREX-4-LEK-A	TRU waste from PUREX	Release (underground) of TRU waste from PUREX due to leak in the pipe caused by corrosion	Corrosion in pipe line	

Table A-1. Master Hazardous Conditions Table. (127 Streets)

ID	Material of Risk	Hazardous Condition	Cause	Consequence
1-PUREX-4-LEK-B	TRU waste from PUREX	Release of TRU waste from PUREX to the atmosphere due to spray leak at the diversion box or pump pit, caused by corrosion in the pipe	Corrosion in pipe line causes spray leak	
1-PUREX-4-LEK-C	TRU waste from PUREX	Release of TRU waste from PUREX to the atmosphere due to spray leak at the rupture of the line from excavation	Inadvertent excavation of line causes spray leak	
1-PUREX-4-LEK-D	TRU waste from PUREX	Release of TRU waste from PUREX to the ground due to leak in the pipe ruptured by a seismic event	Earthquake causes spray leak	
1-PUREX-4-LEK-E	TRU waste from PUREX	Release of TRU waste from PUREX to the atmosphere due to spray leak at the diversion box or pump pit, caused by rupture of pipe connections from a seismic event	Earthquake causes spray leak	
1-PUREX-4-PRS-A	Aerosols and particulates entrained in steam from receiver tank	Release of aerosols and particulates through cracks in the cover block from the receiver tank due to tank preheating from sending steam caused by steam reducer failure which spaces out the steam jet and sends just steam	Steam Reducer fails	
1-PUREX-4-PRS-B	Aerosols from receiver tank	Release of aerosols from receiver tank through cracks in the cover block due to preheating the receiver tank caused by an extended air purge of the transfer line	Extended air purge after transfer (Mechanical Failure)	
1-PUREX-4-PRS-C	NA	Personal exposure due to vacuum pulling radionuclides released back to operating gallery. Worker hindered at PUREX (Dose concern)	Failure to air purge line after transfer (Mechanical Failure)	
1-PUREX-5-FLW-A	Aerosols from receiver tank	Release of aerosols from receiver tank through cracks in cover block due to pressurizing receiver tank caused by transferring waste with steam which heats the waste	Multiple disconnection bolts removed and valves opened or multiple valves leaking	
1-PUREX-5-FLW-B	Aerosols from receiver tank	Release of aerosols from receiver tank due to fire caused by transfer of organic from PUREX	Organic material present in R-8	
1-PUREX-6-FLW-A	Contaminated water from PUREX tank V11	Release (ground surface) of contaminated water and other waste from catch tank 302-A due to overflowing 302-A and the pump pit and diversion box due to insufficient volume in 302-A	Human Error - Transfer to 302B with insufficient volume available in 302A	

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
I-PUREX-S-FLW-B	Contaminated water from PUREX tank V11	Release (ground surface) of liquid waste from catch tank 302-A diluted with flush water due to overflowing 302-A and the pump pit and/or the diversion box caused by improper valve line up of flush water	Multiple flush water block valves inadvertently opened or leaking	
I-PUREX-S-FLW-C	Contaminated water from PUREX tank V11	Release of high level tank waste from Tiv-111 due to overflowing tank caused by overflowing catch tank 302-A which backs up into the diversion box and flows into an open nozzle which directs the flow to other tanks at the tank farm	Multiple flush water block valves inadvertently opened or leaking	
I-PUREX-S-FLW-D	NA	No release - Potential for the spread of contaminated water to the exhaust filter sumps due to backflow caused by siphon effect from difference in elevation	Siphon effect due to difference in elevation	
I-TPLANT-1-CMP-A	Low level waste from T Plant tank 15-1 (Approximate capacity 14,500 gal)	Release of low level waste underground from T Plant TK-15-1 due to transfer of lower pH material resulting in increased corrosion in pipe or receiver tank	Human Error - Failure to add NaOH causes corrosion and associated leak	
I-TPLANT-1-CMP-B	Low level waste from T Plant tank 15-1 (Approximate capacity 14,500 gal)	Release (spray) of low level waste from T Plant TK-15-1 at diversion box due to transfer of lower pH material resulting in increased corrosion in pipe	Human Error - Failure to add NaOH causes corrosion and associated spray leak	
I-TPLANT-1-CMP-C	Receiver tank waste	Release (leak) of waste from receiver tank to the annulus due to increased corrosion of the receiver tank caused by transfer of lower pH waste	Human Error - Failure to add NaOH	
I-TPLANT-1-CMP-D	Receiver tank waste	Release (leak) of waste from receiver tank to the annulus due to increased corrosion of the receiver tank due to transfers without corrosion inhibitor	Failure to add NaOH (corrosion inhibitor) AND transferring the waste to tank farms via line 735	
I-TPLANT-1-TMP-A	Aerosols in receiver tank	Release of aerosols from pressurizing receiver tank due to transfer of hot material from TK-15-1 to receiver tank	Human Error - Sending steam to tank 15-1 AND inadvertently transferring to tank farms	
I-TPLANT-2-CMP-A	Aerosols and particulates from 244-S entrained in the steam	Release (steam) of aerosols and entrained particulates from 244-S-DCRT to atmosphere through ventilation due to over pressurization of 244-S-DCRT caused by sending just steam to tank farm	Human Error - Steam block valve inadvertently opened or failure to close valve when tank 15-1 is low	

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
1-TPLANT-2-FLW-A	Recover tank waste	Release (spillage) of waste from recover tank to ground due to excessive weight from exceeding administrative controls for maximum liquid level	Human Error - Filling Tank 15-1 while transferring to tank farms AND Recover tank at maximum administrative level	
1-TPLANT-2-FLW-B	Recover tank waste	Release of low level waste from overflow of recover tank to pits due to transfer of excessive low level waste from T Plant	Human Error - Filling Tank 15-1 while transferring to tank farms AND Recover tank at maximum administrative level	
1-TPLANT-2-LEK-A	Low level waste from T Plant tank 15-1 (Approximate capacity 14,500 gal)	Release (underground) of low level waste from T Plant Tk-15-1 due to leak in the pipe caused by corrosion	Corrosion in pipe line caused leak	
1-TPLANT-2-LEK-B	Low level waste from T Plant tank 15-1 (Approximate capacity 14,500 gal)	Release of low level waste from T Plant Tk-15-1 to the atmosphere due to spray leak at the diversion box or pump pit, caused by corrosion in the pipe	Corrosion in pipe line caused spray leak	
1-TPLANT-2-LEK-C	Low level waste from T Plant tank 15-1 (Approximate capacity 14,500 gal)	Release of low level waste from T Plant Tk-15-1 to the atmosphere due to spray leak from a ruptured line from excavation	Inadvertent excavation of line causes spray leak	
1-TPLANT-2-LEK-D	Low level waste from T Plant tank 15-1 (Approximate capacity 14,500 gal)	Release of low level waste from T Plant Tk-15-1 to the ground due to leak in the pipe ruptured by a seismic event	Earthquake causes subsurface leak	
1-TPLANT-2-LEK-E	Low level waste from T Plant tank 15-1 (Approximate capacity 14,500 gal)	Release of low level waste from T Plant Tk-15-1 to the atmosphere due to spray leak at the diversion box or pump pit, caused by rupture of pipe penetrations from a seismic event	Earthquake causes spray leak	
1-UPPLANT-1-FLW-A	Particulates in catch tank	Release (spillage) of unfiltered radioactive particulates from the U Plant stack via the stack drain to the atmosphere when level rises in catch tank due to loss of water seal in drain line	Loss of water seal	
1-UPPLANT-1-LEK-A	Contaminated city water from U Plant stack	Release of low level waste from U Plant stack to the ground due to leak in the pipe caused by corrosion	Corrosion in pipe line	
1-UPPLANT-1-LEK-B	Contaminated rain water from U Plant stack	Release of low level waste from U Plant stack to the ground due to rupture of the line caused by inadvertent excavation of line	Inadvertent excavation of line	

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
UPLANT-1-LEK-C	Contaminated rain water from U Plant stack	Release of low-level waste from U Plant stack to the ground due to leak in the pipe ruptured by a seismic event	Earthquake	
UPLANT-1-RAN-A	Contaminated rain water from U Plant stack and other low-level liquid waste in the catch tank	Release of contaminated rain water to the ground surface from overflowing catch tank and diversion box due to severe rain	Severe Rain	
ITK-01	Tank inventory	Release of radioactive and/or hazardous material from point of in-tank access (non-fire, non-explosion) due to intrusive activity	Chemical/thermal reaction of materials in equipment/waste	Personnel exposure to radioactive or toxic aerosols, vapors, direct radiation
ITK-01-1	Material inside MISF	Release of radioactive and/or hazardous material from point of in-facility access due to chemical/thermal reaction (non-fire, non-explosion)	Chemical/thermal reaction of materials in equipment/waste	Personnel exposure to radioactive or toxic aerosols, vapors, direct radiation
ITK-02	Tank inventory	Release of radioactive and/or hazardous material from point of in-tank access (non-fire, non-explosion) due to intrusive activity	Pressurized equipment fails in tank and increases tank pressure	Personnel exposure to radioactive or toxic aerosols, vapors, direct radiation
ITK-02-1	Material inside MISF	Release of radioactive and/or hazardous material from point of in-facility access due to equipment/pressurization release event (non-fire, non-explosion)	Pressurized equipment fails in facility and increases facility pressure	Personnel exposure to radioactive or toxic aerosols, vapors, direct radiation
ITK-03	Contamination on the equipment	Release of radioactive and/or hazardous material from point of in-tank access (non-fire, non-explosion) due to intrusive activity	Contaminated equipment removed or reused	Personnel exposure to radioactive or toxic aerosols, vapors, direct radiation
ITK-03-1	Material on equipment being removed from MISF	Release of radioactive and/or hazardous material from point of in-facility access due to equipment removal (non-fire, non-explosion)	Contaminated equipment removed or reused	Personnel exposure to radioactive or toxic aerosols, vapors, direct radiation

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
ITK-04	Airborne contamination in pile or nears	Release of radioactive and/or hazardous material from point of in-tank access (non-fire, non-explosion) due to earthquake or high wind with open access	Seismic event or high wind when access open	Personnel exposure to radioactive or toxic aerosols, vapors, direct radiation
ITK-04-1	Material inside MISF	Release of radioactive and/or hazardous material from point of in-facility access due to seismic event or high wind (non-fire, non-explosion)	Seismic event or high wind when access open	Personnel exposure to radioactive or toxic aerosols, vapors, direct radiation
ITK-05	Tank inventory	Release of radioactive and/or hazardous material from point of in-tank access (non-fire, non-explosion) due to intrusive activity	Tank berge from intrusive activity	Personnel exposure to radioactive or toxic aerosols, vapors, direct radiation
ITK-05-1	Gases or aerosols generated inside MISF from gas release	Release of radioactive and/or hazardous material from point of in-facility access due to gas release from in-facility waste during intrusive activity (non-fire, non-explosion)	Gas release from in-facility waste during intrusive activity	Personnel exposure to radioactive or toxic aerosols, vapors, direct radiation
ITK-06	Radioisotopes from criticality plus tank wastes	Release of radioactive and/or hazardous material from point of in-tank access (non-fire, non-explosion) due to criticality	Intrusive activity opens critical mass	Personnel exposure to radioactive or toxic aerosols, vapors, direct radiation
ITK-06-1	Material inside MISF	Release of radioactive and/or hazardous material from point of in-facility access due to criticality within the in-facility waste during intrusive activity (non-fire, non-explosion)	Criticality from intrusive activity	Personnel exposure to radioactive or toxic aerosols, vapors, direct radiation
ITK-07	Tank inventory	Release of radioactive and/or hazardous material from tank below grade (non-fire, non-explosion) due to intrusive activity	Dropped equipment in tank from human error or equipment failure (also see crane operations) Penetration of tank with linear-force, high pressure, or rotational equipment from human error or equipment failure	Breach of tank, loss of primary and/or secondary confinement

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
ITK-07-1A	Material in MIBF	Release of radioactive and/or hazardous material from facility below grade due to breach of facility confinement (non-fire, non-explosion)	Dropped equipment in facility from human error or equipment failure (also see crane operations) Penetration of facility confinement with linear force, high pressure, or released equipment from human error or equipment failure	Breach of confinement, loss of primary and/or secondary confinement
ITK-07-1B	Material in MIBF	Release of radioactive and/or hazardous material from facility at surface due to breach of facility confinement (non-fire, non-explosion)	Dropped equipment in facility from human error or equipment failure (also see crane operations) Penetration of facility confinement with linear force, high pressure, or released equipment from human error or equipment failure	Breach of facility confinement, loss of primary and/or secondary confinement
ITK-08	Tank Inventory	Release of radioactive material from in-tank fire or explosion due to intrusive activity (Dome Collapse)	Exothermic reaction of incompatible materials in tank	Personnel exposure to radioactive or toxic aerosols and vapors, direct radiation, injury or burns from fire or explosion, loss of tank confinement
ITK-08A	Material inside MIBF	Release of radioactive or toxic material from facility due to in-facility fire or explosion during intrusive activity	Exothermic reaction of incompatible materials in facility	Personnel exposure to radioactive or toxic aerosols and vapors, direct radiation, injury or burns from fire or explosion, loss of facility confinement
ITK-09	Tank Inventory	Release of radioactive material from in-tank fire or explosion due to intrusive activity (Dome Collapse)	Failure to bond components or incorrect bonding	Personnel exposure to radioactive or toxic aerosols and vapors, direct radiation, injury or burns from fire or explosion, loss of tank confinement

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
ITK-09-1	Material Inside MISP	Release of radioactive or toxic material from facility due to a facility fire or explosion during intrusive activity	Failure to bond components or incorrect bonding	Personnel exposure to radioactive or toxic aerosols and vapors, direct radiation, injury or burns from fire or explosion, loss of facility confinement
ITK-10-1	Material Inside MSBF	Release of radioactive or toxic material from facility due to in-facility fire or explosion during intrusive activity	Spark from equipment or tools provide an ignition source	Personnel exposure to radioactive or toxic aerosols and vapors, direct radiation, injury or burns from fire or explosion, loss of facility confinement
ITK-10-a	OST tank contents	Release of radioactive material from in-tank fire or explosion due to intrusive activity (Dome Collapse)	Spark from equipment or tools	Personnel exposure to radioactive or toxic aerosols and vapors, direct radiation, injury or burns from fire or explosion, loss of tank confinement
ITK-10-b	OST tank contents	Release of radioactive material from in-tank fire or explosion due to intrusive activity (Dome Collapse)	Spark from equipment or tools	Personnel exposure to radioactive or toxic aerosols and vapors, direct radiation, injury or burns from fire or explosion, loss of tank confinement
ITK-11	Tank inventory	Release of radioactive material from in-tank fire or explosion due to intrusive activity (Dome Collapse)	Lightning, range fire, or seismic event ignites tank vapors	Personnel exposure to radioactive or toxic aerosols and vapors, direct radiation, injury or burns from fire or explosion, loss of tank confinement

Table A-1. Master Hazardous Conditions Table. (127 Streets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
ITK-114	Material inside MISF	Release of radioactive or toxic material from facility due to in-facility fire or explosion during intrusions activity	Lightning, surge line, or seismic event ignites facility impure	Personnel exposure to radioactive or toxic aerosols and vapors, direct radiation, injury or burns from fire or explosion, loss of facility confinement
ITK-FR-01	D&T & SST tank liquid held in flex receiver	Release of radioactive or hazardous material from flex receiver due to flushing with insufficient drainage	Riser not drained properly or drain clogged causing plugging of riser	Personnel exposure to direct radiation and formation of surface contamination
ITK-FR-02	D&T & SST tank liquid held in flex receiver	Release of radioactive or hazardous material from flex receiver due to equipment jam in riser and non-procedural efforts to dislodge	Equipment becomes lodged in riser, efforts to remove pull riser out of tank causing breach of tank & receiver confinement and/or flush water	Personnel exposure to direct radiation and potential formation of surface contamination
ITK-FR-03	D&T & SST tank inventory	Release of radioactive aerosols from tank and/or receiver due to equipment jam in riser	Equipment becomes lodged in riser, efforts to remove pull riser out of tank causing breach of tank & receiver confinement	Personnel exposure to radioactive or toxic aerosols, vapors, direct radiation and release to the environment
ITK-FR-04	D&T & SST tank inventory	Release of radioactive aerosols from tank due to tank collapse	Equipment becomes lodged in riser, efforts to remove pull riser out of tank causing loss of structural integrity leading to tank collapse	Personnel exposure to radioactive or toxic aerosols, vapors, direct radiation and release to the environment
ITK-FR-05	D&T & SST tank liquid held in flex receiver	Release of radioactive or hazardous material from flex receiver due to structural failure	Maximum error tears flex receiver bag	Personnel exposure to direct radiation and potential formation of surface contamination
ITK-FR-06	D&T & SST tank liquid held in flex receiver	Release of radioactive or hazardous material from flex receiver due to structural failure	Equipment failure/misalignment tears flex receiver bag (cane operation, hydraulic jack stand)	Personnel exposure to direct radiation and potential formation of surface contamination

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
ITK-FR-07	DST & SST tank liquid held in flex receiver	Release of radioactive or hazardous material from flex receiver due to structural failure	Structural degradation	Personnel exposure to direct radiation and potential formation of surface contamination
ITK-FR-08	DST & SST tank liquid held in flex receiver	Release of radioactive aerosols/vapors from flex receiver due to structural failure	High winds tear flex receiver bag	Personnel exposure to radioactive or toxic aerosols, vapors, direct radiation Potential formation of surface contamination
ITK-FR-09	DST & SST tank liquid held in flex receiver	Release of radioactive or hazardous material from flex receiver due to mechanical equipment failure	Failure of automatic catch or inappropriate tightening of cables + Condition goes unnoticed and receiver is shifted	Personnel exposure to direct radiation and potential formation of surface contamination
ITK-FR-10	DST & SST tank liquid held in flex receiver	Release of radioactive or hazardous material from flex receiver due to mechanical equipment failure	Failure of craning cable causing loss of containment after receiver is shifted	Personnel exposure to direct radiation and potential formation of surface contamination
ITK-FR-11	DST & SST tank liquid held in flex receiver	Release of radioactive or hazardous material from flex receiver due to loss of hydraulics	Hydraulic power is lost while bag is being sealed resulting in failure of seal and leak path from bag	Personnel exposure to direct radiation and potential formation of surface contamination
ITK-FR-12	DST & SST tank liquid held in flex receiver	Release of radioactive or hazardous material from flex receiver due to loss of hydraulics	Mechanical failure of inadequate operating pressure of hydraulics while bag is being sealed resulting in failure of seal and leak path from bag	Personnel exposure to direct radiation and potential formation of surface contamination
ITK-FR-13	DST & SST tank liquid held in flex receiver	Release of radioactive aerosols/vapors from flex receiver due to buildup and ignition of flammable gas in receiver	Hydrogen gas buildup in tank/water that travels into receiver + Ignition source (spark from hardware or equipment)	Personnel exposure to radioactive or toxic aerosols, vapors, direct radiation

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
ITK-FR-14	DST & SST tank liquid held in flex receiver	Release of radioactive or hazardous material from flex receiver due to leak from flanges	Non-acceptable torque on bolts connecting bellows - forces too low not enough pressure for adequate seal, too high distorts seal material	Personnel exposure to direct radiation and potential formation of surface contamination
ITK-FR-15	DST & SST tank liquid held in flex receiver	Release of radioactive or hazardous material from flex receiver due to errors in installation	Incorrect installation of receiver provides misseal path (misalignment of bellows)	Personnel exposure to direct radiation and potential formation of surface contamination
ITK-FR-16	DST & SST tank liquid held in flex receiver	Release of radioactive or hazardous material from flex receiver due to containment failure during transfer	Failure of latched endheader material and secondary containment bag during transfer of equipment to trailer	Personnel exposure to direct radiation and potential formation of surface contamination
ITK-FR-17	DST & SST tank liquid held in flex receiver	Release of radioactive or hazardous material from flex receiver due to leak from bag	Pin in bag construction provides leak path for material	Personnel exposure to direct radiation and potential formation of surface contamination
ITK-FR-18	DST & SST tank liquid held in flex receiver	Release of radioactive or hazardous material from flex receiver due to damage from operation of hydraulic jacks	Hydraulic jacks on assembly stand are operated while assembly is bolted to flange damaging flex receiver or inner pressing release path	Personnel exposure to direct radiation and potential formation of surface contamination
ITK-FR-19	DST & SST tank inventory	Release of radioactive aerosols from tank due to dome collapse	Hydraulic jacks on assembly stand are operated while assembly is bolted to flange tearing out liner and destroying tank integrity leading to dome collapse	Personnel exposure to radioactive or toxic aerosols, vapors, direct radiation and release to the environment
ITK-FR-20	DST & SST tank liquid held in flex receiver	Release of radioactive or hazardous material from flex receiver due to wrong bag being used	Containment bag is too short to hold equipment being withdrawn from tank, condition goes unnoticed until containment is lost	Personnel exposure to direct radiation and potential formation of surface contamination
ITK-FR-21	DST & SST tank liquid held in flex receiver	Release of radioactive or hazardous material from flex receiver due to operation in extreme weather	Operators in cold weather compromises strength of flex receiver, equipment breaks providing release path	Personnel exposure to direct radiation and potential formation of surface contamination

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
ITK-FR-22	DST & SST tank liquid held in flex receiver	Release of radioactive aerosols from flex receiver due to tank gas release	Tank gas release pressurizes bag and causes bag to rupture	Personnel exposure to radioactive or toxic aerosols, vapors, direct radiation and release to the environment
ITK-FR-23	DST & SST tank liquid held in flex receiver	Release of radioactive or hazardous material from flex receiver due to equipment failure	Plexiglass window on receiver breaks causing release path	Personnel exposure to direct radiation and potential formation of surface contamination
ITK-FR-24	DST & SST tank liquid held in flex receiver	Release of radioactive aerosols from flex receiver due to outgas incapsulation damaging metal housing	Cutter cuts through containment (metal housing), vacuum effect sprays vapor outside of containment (Cutter not turned off in time, vapor pressure/flow too high, or cutting speed increased because of abrasive characteristics)	Personnel exposure to radioactive or toxic aerosols, vapors, direct radiation Potential formation of surface contamination
ITK-FR-25	DST & SST tank inventory	Release of radioactive or hazardous vapors from tank due to pump or water supply failure	Loss of cutting water due to pump or water supply failure provides open pathway from tank through a side hopper	Personnel exposure to radioactive or toxic aerosols, vapors, direct radiation
ITK-FR-26	DST & SST tank liquid held in flex receiver	Release of radioactive or hazardous material from flex receiver due to leak from bag	Equipment mispositioned in receiver bag creating inappropriate seal and leak	Personnel exposure to direct radiation and potential formation of surface contamination
ITK-FR-27	DST & SST tank liquid held in flex receiver	Release of radioactive or hazardous material from flex receiver due to containment breach during transfer	Unable to lock lifting ring onto sled + Equipment falls off sled ripping bag and creating a release path	Personnel exposure to direct radiation and potential formation of surface contamination
ITK-FR-28	DST & SST tank liquid held in flex receiver	Release of radioactive or hazardous material from flex receiver due to containment breach during transfer	Receiver trailer falls over with bagged equipment attached ripping bag and creating release path	Personnel exposure to direct radiation and potential formation of surface contamination

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Material of Risk	Hazardous Condition	Cause	Consequence
NP-01	Head space inventory in actively ventilated tanks	Release of radioactive and hazardous material from tanks and ventilation systems due to loss of electric power	Lightning strikes power distribution system	Loss of electric power, loss of monitoring, loss of ventilation, potential inhibitor for fires
NP-02	Head space inventory in actively ventilated tanks, ventilation systems electricity	Release of radioactive and hazardous material from tanks and ventilation systems due to fire	Lightning strikes ventilation system	Loss of ventilation system, potential fire in ventilation system
NP-03	Head space inventories and combustion products from tank fire	Release of radioactive and hazardous material from tanks due to fire in tanks	Lightning strikes near in tank farm	Fires in multiple tanks, probable loss of ventilation system and flame, possible tank explosions and tank rupture
NP-05	Head space inventories, ventilation system inventories, surface contamination, 204-E inventory, tanker spill at 204-AR	Release of radioactive and hazardous material from tanks, nearby ground surfaces, and ventilation systems due to above grade disturbances	High winds	Loss of electric power, loss of monitoring, loss of ventilation, structural damage to buildings and waste storage areas, tank releases from sudden low pressure in atmosphere, personnel injury
NP-06	Head space inventories, ventilation system inventories, surface contamination, 204-E inventory, 204-AR tanker spill	Release of radioactive and hazardous material from tanks, nearby ground surfaces, and ventilation systems due to above ground disturbances	High wind	Loss of electric power, loss of monitoring, structural damage to buildings and waste storage areas, personnel injury
NP-07	Multiple tanks and ventilation systems inventories, 204-AR tanker spill	Release of radioactive and hazardous material from tanks and ventilation systems due to seismic event	Earthquake collapses domes	Loss of power, loss of water system, loss of communication systems, impaired transportation systems/evacuation, multiple tank dome collapses

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Hazard at Risk	Hazardous Condition	Cause	Consequence
NP-05	Inventory in transfer lines	Release of radioactive and hazardous material from transfer pipes due to vacuum invert (Possible Spilly Leak)	Earthquake shears pipes and encasements during transfer	Loss of power, loss of water systems, loss of communication systems, impaired transportation systems/evacuation, leakage of wastes below grade
NP-06	Inventory of ruptured tanks	Release of radioactive and hazardous material from tanks due to seismic event	Earthquake results in tank leaks or below grade tank ruptures	Loss of power, loss of water system, loss of communication systems, impaired transportation systems/evacuation, leakage of wastes below grade
NP-10	Need space inventories from tank breathing	Release of radioactive and hazardous material from tanks due to loss of power to ventilation systems	Ash fall from volcanic activity	Loss of power, loss of water systems, loss of communication systems, impaired transportation systems/evacuation, HEPA filters plugged, rotating equipment failures, monitoring system failures
NP-11	Tank inventories	Release of radioactive and hazardous material from tank tanks due to lava flow	Eruption of molten lava from fissures	Loss of power, loss of water systems, loss of communication systems, impaired transportation systems, ash fall, HEPA filters plugged, monitoring system failures, loss of waste management

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
NP-12	Head space inventories from tank breathing, surface contamination	Release of radioactive and hazardous material from tanks due to ventilation system failures	Dust storm/dust devil	Loss of power, loss of water systems, loss of communication systems, impaired transportation system/evacuation, HEPA filters plugged, rotating equipment failure, monitoring system failures
NP-13	Tank headspace inventories and splash from dome collapse	Release of radioactive and hazardous material from tanks due to excessive weight on dome	Accumulations of heavy snow followed by heavy rain	Loss of power, loss of water systems, loss of communication, impaired transportation system/evacuation, loss of monitoring systems, tank dome collapse
NP-14	Tank headspace inventories from tank breathing	Release of radioactive and hazardous material from tanks due to loss of power to ventilation systems	Severe Hail	Loss of power, loss of water systems, loss of communication systems, impaired transportation system/evacuation, loss of monitoring systems, personnel injury
NP-15	Inventory in isolated or abandoned equipment	Release of radioactive and hazardous material from isolated or abandoned equipment due to fire	Hydrogen producing chemical reactions in isolated or abandoned equipment	Personnel exposure and possible injury
QOT-EXT3-01A	DST & SST tank inventory	Release of radioactive or hazardous materials from the primary pipe due to spray leak caused by truck crash into piping system	Human error, line struck by truck	Spray leak from pipeline unmitigated by concrete shield
QOT-EXT3-01B	DST & SST tank inventory	Release of radioactive or hazardous material from the primary pipe due to leak caused by truck crash into piping system	Human error, line struck by truck	Pool leak onto ground surface outside of concrete shield

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
OGT-FLOW1-01	DST & SST tank inventory	Personnel exposure to radioactive or hazardous material in the primary pipe due to pump failure	Pump failure AND Material settles in line crystallization AND Plugged line prohibiting backflows resulting in less and creates increased exposure to personnel	Waste in line with need to remove/ replace/ undergo additional exposure to personnel (direct radiation)
OGT-FLOW1-02	DST & SST tank inventory	Release of radioactive or hazardous material from pit overflow due to primary pipe leak, caused by over-rated pump	Incorrect pump installed creates excessive flow and pressure on OGT system creating EPDM pipe AND Leak to secondary pipe AND Drain in pit plugged	Overflow onto ground from pit (surface pool)
OGT-FLOW1-03A	DST & SST tank inventory	Release of radioactive or hazardous aerosols from the primary pipe due to spray leak caused by misdirected flow	Spray leak caused by JR-1 (3-way valve) mispositioned to flush AND 2 check valves fail AND Flush disconnected fails (check valve) AND Reverse flow to external flush failure and release to the environment	Spray release to atmosphere
OGT-FLOW1-03B	DST & SST tank inventory	Release of radioactive or hazardous material from the primary pipe due to misdirected flow of waste through flush line	JR-1 (3-way valve) mispositioned to flush AND 2 check valves fail AND Flush disconnected fails (check valve) AND Reverse flow to water truck, drum, or onto ground	Pool leak to ground surface
OGT-FLOW1-04	DST & SST tank inventory	Release of radioactive or hazardous material from the primary pipe due to valve failure resulting in misdirected flow of waste through flush line to flush water supply leak	JR-1 leak (blow-by) AND 2 check valves fail AND Flush disconnected fails and pump affected causing reverse flow to flush water truck tank	Reverse flow to flush water supply in flush truck tank
OGT-FLOW1-05	DST & SST tank inventory	Release of radioactive or hazardous material from the SST due to reverse flow into leaking SST	SST leaks AND Pumping two tanks into common OGT line AND One pump shuts down - valve still in process position AND Waste reverse flow back into single shell tank * Potential to create siphoning event that would maintain flow back into the SST (leak)	Continued subsurface leak of waste from leaking SST ** Regulatory concerns (prohibited to add waste to SST)

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
OGT-FLOW1-06	DST & SST tank inventory	Release of radioactive or hazardous material from the DCRT due to overflow	Excess volume available in DCRT/Insufficient volume available Condition goes unnoticed until overflow occurs	Overflow of DCRT creating surface pool
OGT-FLOW2-01A	DST & SST tank inventory	Release of radioactive or hazardous material from the primary pipe due to leak caused by incorrect pump installed	Incorrect pump installed creates excessive flow and isolation valve closed on secondary pipe. Erosion of EPDM AND Pressurization of secondary pipe causing leaks from flanges gasket within concrete shield	Pool leak under shield
OGT-FLOW2-01B	DST & SST tank inventory	Release of radioactive or hazardous material from the primary pipe due to leak caused by incorrect pump installed	Incorrect pump installed creates excessive flow and isolation valve closed on secondary pipe. Erosion of EPDM AND Pressurization of secondary pipe causing leaks from flanges gasket within concrete shield	Pool leak under shield large enough to pool out from under shield
OGT-FLOW2-02	DST & SST tank inventory	Release of radioactive or hazardous materials from the primary pipe due to spray leak caused by over-rated pump	Installation of incorrect pump and failure of inner pipe AND Failure of weld on flange of outer pipe AND Isolation valves closed on secondary pipe drains AND No concrete shield in place	Spray leak due to failed weld on flange
OGT-FLOW2-03A	DST & SST tank inventory	Release of radioactive or hazardous material from the primary pipe due to leak caused by incorrect pump installed	Installation of incorrect pump AND Failure of inner pipe AND Isolation valves closed on secondary pipe drains causing leak from failed welds on flange within the concrete shield	Pool leak under shield
OGT-FLOW2-03B	DST & SST tank inventory	Release of radioactive or hazardous material from the primary pipe due to leak caused by incorrect pump installed	Installation of incorrect pump AND Failure of inner pipe AND Isolation valves closed on secondary pipe drains causing leak from failed welds on flange within the concrete shield	Pool leak under shield large enough to pool out from under shield

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
OGT-WTEG3-01	DST & SST tank inventory	Release of radioactive or hazardous material from overflow of pit due to leak caused by loss of primary pipe integrity from aging	Primary pipe failure due to radiation/chemical age related damage. Leak of primary pipe and flow to pit from secondary pipe drains when pipe drains are in open position with pipe drains open AND insufficient drainage from pit	Potential overflow of pit/formation of surface pool
OGT-NF3-01	DST & SST tank inventory	Release of radioactive or hazardous aerosols from the primary pipe due to spray leak caused by a seismic event	Failure of line and concrete shielding during earthquakes	Spray leak due to flange failure and partial shearing of primary pipe
OGT-NF3-02	DST & SST tank inventory	Release of radioactive or hazardous aerosols from the primary pipe due to leak caused by high wind	Pipe is blown off supports AND no concrete shielding in place	Spray leak due to flange failure and partial shearing of primary pipe
OGT-OPS1-01	DST & SST tank inventory	Release of radioactive or hazardous material from the primary pipe due to line clashing from equipment drop	Drop shield blocks on transfer line during disassembly after pumping complete. Potential to break primary and secondary line	Release of residual contamination causing personnel exposure and potential formation of surface pool
OGT-PRPS1-01	DST & SST tank inventory	Release of radioactive or hazardous material from overflow of pit due to leak caused by high pressure	Heat up of hydro head by heat tape or high ambient temperature. High pressure results from capillary fluid heat up AND inner pipe damaged, leaks to secondary pipe and drains back to pits AND insufficient drainage in pit	Potential surface pool from overflow of pit
OGT-REAC1-01	DST & SST tank inventory	Release of radioactive or hazardous material from overflow of pit due to primary pipe leak caused by chemical reaction	Pumping from multiple tanks to single OGT. Potential for adverse chemical reactions in pipelines damaging inner pipe, leaks to secondary pipe and drains back to pits AND insufficient drainage in pit	Potential surface pool from overflow of pit
OGT-SP@C1-01	DST & SST tank inventory	Personnel exposure to radioactive or hazardous material in the primary pipe due to loss of electrical supply	Loss of flow leading to line plug and the need to remove/replace, and/or fix	Additional exposure to personnel

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
OGT-TEMP1-01	DST & SGT tank inventory	Personnel exposure to radioactive or hazardous material from the primary pipe due to leak caused by low ambient temperature	Plugging of pipe due to crystallization or due to freezing for very low temperature	Waste in line with need to remove/replace/unclog create additional exposure to personnel
OGT-TEMP1-02	DST & SGT tank inventory	Release of radioactive or hazardous vapors/aerosols from the primary pipe due to spray flash caused by high temperatures	Vehicle accident above ground start fire. Melt the EPDM hose causing a leak to secondary pipe. Pumping occurring, fire runs greater and facilitates a release to atmosphere	Personnel exposure to radioactive/aerosols, direct radiation and potential formation of surface pool
OGT-TEMP1-03	DST & SGT tank inventory	Release of radioactive or hazardous material from overflow of pit due to leak caused by high temperature	High temperature flush under hill's inner pipe causing leak to secondary pipe and drain to pit AND insufficient drainage in pit	Potential surface pool from overflow of pit
RAD-01	Airborne contamination in pits or nears	Personnel exposure to radioactive and/or toxic materials from pits or nears due to radiation monitoring failure	Failure to monitor	Personnel exposure to radioactive and/or toxic aerosols and vapors, direct radiation
RAD-01-1	NA	Personnel exposure to radioactive materials due to failure to monitor radiation	Failure to monitor	Personnel exposure to radioactive aerosols and vapors, direct radiation
RAD-02	Airborne contamination in pits or nears	Personnel exposure to radioactive and/or toxic materials from pits or nears due to radiation monitoring failure	Failure of monitoring instrument	Personnel exposure to radioactive and/or toxic aerosols and vapors, direct radiation
RAD-02-1	NA	Injury of worker from exposure to radioactive materials due to radiation monitoring failure	Failure of monitoring instrument	Personnel exposure to radioactive aerosols and vapors, direct radiation
RAD-03	Airborne contamination in pits or nears	Personnel exposure to radioactive and/or toxic materials from pits or nears due to radiation monitoring failure	Improper calibration of monitoring instrument	Personnel exposure to radioactive aerosols and vapors, direct radiation
RAD-03-1	NA	Injury of worker from exposure to radioactive materials due to radiation monitoring failure	Improper calibration of monitoring instrument	Personnel exposure to radioactive aerosols and vapors, direct radiation

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
R3R-01	Airborne contamination in near	Release of radioactive and/or toxic material from incorrect opening of near due to human error	Human error: improper contamination control, failure to monitor (rad or sniff), improper reconditioning	Personnel exposure to radioactivity and/or toxic aerosols and vapor, direct radiation
R3R-01-1	Vapor and aerosols in the vapor space	Release of radioactive and/or toxic material from the vapor space due to opening of near	Human error: improper contamination control, failure to monitor (rad or sniff), improper reconditioning	Personnel exposure to radioactivity and/or toxic aerosols and vapor, direct radiation
R3R-02	Asbestos	Injury of worker from exposure to asbestos hazard from gasket materials during access to near	Failure to follow asbestos procedures	Personnel exposure to asbestos fibers
R3R-02-1	NA	Injury of worker from exposure to asbestos from gasket materials during access to near due to failure to follow procedures	Failure to follow asbestos procedures	Personnel exposure to asbestos fibers
R3R-03	Asbestos	Injury of worker from exposure to asbestos from gasket materials during access to near	Failure of mask or breath air (if appropriate)	Personnel exposure to asbestos fibers
R3R-03-1	NA	Injury of worker from exposure to asbestos from gasket materials during access to near due to failure of PPE or breath air supply	Failure of mask or breath air (if appropriate)	Personnel exposure to asbestos fibers
R3R-04	NA	Personnel exposure to direct radiation from open near due to human error	Failure to follow procedures, failure to monitor or improper monitoring	Exposure to direct radiation from open near
R3R-04-1	NA	Personnel exposure to direct radiation from open near due to failure to follow procedures	Failure to follow procedures, failure to monitor or improper monitoring	Exposure to direct radiation from open near
R3R-05	Tank inventory	Release of radioactive and toxic materials from tank (below grade) due to tank breach caused by dropped equipment (tools, mirrors, gauge plugs) into tank	Failure to attach lanyard or other position limiting device Failure of lanyard or device	Potential for breach of tank bottom. Potential for waste-equipment chemical reaction
R3R-06-1A	Material inside MTSF	Release of material inside MTSF from facility confinement breach due to dropped equipment (tools, mirrors) into facility	Failure to attach lanyard or other position limiting device. Failure of lanyard or device	Potential for breach of facility bottom. Potential for waste-equipment chemical reaction

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
RSR-05-B	Material inside MISF	Release of material inside MISF from facility confinement inside due to dropped equipment (tools, meters) into facility	Failure to attach lanyard or other position limiting device. Failure of lanyard or device	Potential for impact of facility bottom. Potential for waste-equipment chemical reaction
RGR-06-A	Material inside MISF	Release of radioactive or toxic material from facility due to in facility fire or explosion during major removal activity	Failure to bond components or incorrect bonding allows electrostatic spark	Personnel exposure to radioactive or toxic aerosols and vapors, direct radiation, injury or burns from fire or explosion, loss of facility confinement
RSR-07-F	Material inside MISF	Release of radioactive or toxic material from facility due to in-facility fire or explosion during major removal activity (chosen to represent all negative nitrate faults)	Spark from failure to use non-sparking tools or sparks from welding, cutting, grinding, etc	Personnel exposure to radioactive or toxic aerosols and vapors, direct radiation, injury or burns from fire or explosion, loss of facility confinement
RSR-08-I	NA	Injury of worker from falling into facility due to large access opening and broken wire	Human error	Worker injury
SFF-01	Aerosol contamination in pits or rooms	Release of radioactive and/or toxic materials from pits or rooms during snift sampling due to human error or instrument failure	Improper snifting technique or instrument failure, failure to perform radiation monitoring, improper monitoring, or instrument failure	Personnel exposure to radioactive and/or toxic aerosols and vapors during snifting, direct radiation
SFF-01-A	NA	Injury of worker from exposure to toxic materials due to snift sampling failure	Improper snifting technique or instrument failure	Personnel exposure to toxic aerosols and vapors during snifting
TFS-1	Waste from 102-SY	Release of radioactive or hazardous waste liquid from overflow of 244-S-DCRT vault to the 244-S-DCRT pump pit due to siphon effect on TK-102-SY pump does not overflow)	Human Error: Failure to close isolation valve (or valve malfunction) following waste transfer which allows flow to continue (siphoning) when pump is stopped	

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
VEH-01	Material available on vehicle	Release of radioactive or toxic materials from cask due to fire caused by vehicle operation	Vehicle catches on fire	Radioactive or toxic material are energetically released to the atmosphere, injury to driver
VEH-01-1	Material in samples from MISFs, material on equipment from inside MISFs, fuel in vehicle gas tank	Release of radioactive or toxic materials from vehicle carrying MISF samples or contaminated equipment due to vehicle fire	Vehicle catches on fire	Radioactive or toxic material are energetically released to the atmosphere, injury to driver
VEH-02	Sample transport cask	Release of radioactive or toxic material from cask due to damage to transport cask during a seismic event	Seismic event	Radioactive or toxic material are released to the ground, injury to driver
VEH-02-1	Material in samples from MISFs	Release of radioactive or toxic material from MISF samples in transport casks due to seismic damage	Seismic event	Radioactive or toxic material released to the ground, injury to driver
VEH-03	Sample transport cask	Release of radioactive or toxic material from cask due to damage to transport cask during a high wind/tornado	High wind/tornado	Radioactive or toxic material are released to atmosphere and moved by wind, injury to driver
VEH-03-1	Material in samples from MISFs	Release of radioactive or toxic material from MISF samples in transport cask due to high wind/tornado damage	High wind/tornado	Radioactive or toxic material released to atmosphere and moved by wind, injury to driver
VEH-04	NA	Personnel exposure to radiation from casks during transport due to human error	Personnel drive the vehicles or work near the cask transport vehicle	Personnel may receive more radiation exposure than expected
VEH-04-1	NA	Personnel exposure to radiation from casks during transport due to inappropriate ALARA practices	Driver receives unexpected exposure or personnel work near the cask transport vehicle	Personnel may receive more radiation exposure than expected

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
VEH-05	NA	Injury of worker due to vehicle impact with electrical power pole	Loss of control of vehicle or lack of attention to driving	Possible vehicle fire, possible personnel injury, loss of local electrical power, possible exposure
VEH-05-1	NA	Injury of worker from impact with electrical power pole due to vehicle accident	Loss of control of vehicle or lack of attention to driving	Possible vehicle fire, possible personnel injury, loss of local electrical power, possible exposure
VEH-06	NA	Injury of worker - Personnel are pinched or crushed between vehicle and solid structure	Vehicle is about to move exerting pressure on personnel to solid structure	Personnel injury
VEH-06-1	NA	Injury of worker from being pinched or crushed between vehicle and solid structure due to malfunctions to situation	Vehicle exerts pressure on personnel located between the vehicle and solid structure	Personnel injury
VEH-07	Tank inventory	Release of radioactive and toxic materials from tank due to tank head being sheared off	Vehicle moving near tank tops	Possible release of radioactive material from tank and/or discharge of gasoline into tank
VEH-07-1	Material in MRF	Release of radioactive or toxic material from MRF due to over being sheared off and possibly vehicle gas tank ruptured and fire	Vehicle moving near facility vents	Possible release of radioactive or toxic material from facility and/or discharge of gasoline into facility
VEH-08-1	Liquid released in facility	Release of radioactive or toxic material from crushing of underground facility due to vehicle being driven over top of facility	Human error in driving over underground facilities or no signs to indicate location of underground facilities	Underground structure away (a) releasing contents to subsurface or cause injury to driver
VSU-01	Residual contamination and hazardous material	Release of residual contamination and/or hazardous material from VSU due to VSU lid being left off	VSU lid is left off due to human error, wind blows	Potential spread of contamination
VSU-02	Residual contamination and hazardous material	Release of residual contamination and/or hazardous material from VSU due to VSU lid being left off	VSU lid is left off due to human error, rainwater well seeps out bottom of VSU	Potential spread of contamination

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Hazard at Risk	Hazardous Condition	Cause	Consequence
VSAU-03	Residual contamination and hazardous material	Release of residual contamination and/or hazardous material from VSU due to VSU wall degradation	VSU wall degradation over time	Potential spread of contamination
VSAU-04	Residual contamination and hazardous material	Release of residual contamination and/or hazardous material from VSU due to internal VSU pressurization	Covered VSU pressurization due to ambient temperature heat-up	Potential spread of contamination
VSAU-05	None	Injury to worker due to tripping hazard	Exposure above ground level	Injury to facility personnel
VSAU-06	None	Injury to worker from falling hazard	VSU without a lid and not capped	Injury to facility personnel
W055-FLOW01	Amount of slurry transferred (20,000 to 1,000,000 gallons)	Release of radioactive slurry to the soil surface from overflow in the SY-A or SY-B valve pit due to piping system leak (Pool)	Computer failure or human error causing misrouting of material when flow path is not completely connected plus mitigative features failure	Overflow of material from valve pit forming a surface pool resulting in airborne radiation dose/hazardous material to onsite and facility personnel and/or direct radiation to facility personnel
W055-FLOW03	Amount of slurry transferred (20,000 to 1,000,000 gallons)	Release of radioactive slurry to the soil surface from overflow in the SY-A or SY-B valve pit due to piping system leak (Pool)	External leak of valve or valves to the valve pit plus mitigative features failure	Overflow of material from valve pit forming a surface pool resulting in airborne radiation dose/hazardous material to onsite and facility personnel and/or direct radiation to facility personnel
W055-FLOW05	Amount of slurry transferred (20,000 to 1,000,000 gallons)	Release of radioactive slurry to the soil surface from overflow in the SY-A or SY-B valve pit due to piping system leak (Pool)	Failure of jumper due to misalignment (human error) plus mitigative features failure	Overflow of material from valve pit forming a surface pool resulting in airborne radiation dose/hazardous material to onsite and facility personnel and/or direct radiation to facility personnel

Table A-1. Master Hazardous Conditions Table, (127 Sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
W058-FLOW05b	Amount of slurry transferred (20,000 to 1,000,000 gallons)	Release of radioactive slurry to the soil surface from overflow in the SY-A or SY-B valve pit due to piping system leak (Pool)	Failure of jumper due to gasket failure plus negative features failure	Overflow of material from valve pit forming a surface pool resulting in: Airborne radiation disperses material to onsite and facility personnel and/or direct radiation to facility personnel
W058-FLOW05c	Amount of slurry transferred (20,000 to 1,000,000 gallons)	Release of radioactive slurry to the soil surface from overflow in the SY-A or SY-B valve pit due to piping system leak (Pool)	Failure of jumper due to corrosion plus negative features failure	Overflow of material from valve pit forming a surface pool resulting in: Airborne radiation disperses material to onsite and facility personnel and/or direct radiation to facility personnel
W058-FLOW07	Amount of supernate transferred (20,000 to 1,000,000 gallons)	Release of radioactive supernate to the soil surface from overflow in the SY-A or SY-B valve pit due to piping system leak (Pool)	Computer failure or human error causing misrouting of material while flow path is not completely connected plus negative features failure	Overflow of material from valve pit forming a surface pool resulting in: Airborne radiation disperses material to onsite and facility personnel and/or direct radiation to facility personnel

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
WD55-FLOW06	Amount of supernate transferred (20,000 to 1,000,000 gallons)	Release of radioactive supernate to the soil surface from overflow in the SY-A or SY-B valve pit due to piping system leak (Pool)	External leak of valves or valves to the valve pit plus mitigative features failure	Overflow of material from valve pit forming a surface pool resulting in Airborne radiation dose/hazardous material to onsite and facility personnel and/or direct radiation to facility personnel
WD66-FLOW11a	Amount of supernate transferred (20,000 to 1,000,000 gallons)	Release of radioactive supernate to the soil surface from overflow in the SY-A or SY-B valve pit due to piping system leak (Pool)	Failure of jumper due to misengagement (human error) plus mitigative features failure	Overflow of material from valve pit forming a surface pool resulting in Airborne radiation dose/hazardous material to onsite and facility personnel and/or direct radiation to facility personnel
WD68-FLOW11b	Amount of supernate transferred (20,000 to 1,000,000 gallons)	Release of radioactive supernate to the soil surface from overflow in the SY-A or SY-B valve pit due to piping system leak (Pool)	Failure of jumper due to gasket failure plus mitigative features failure	Overflow of material from valve pit forming a surface pool resulting in Airborne radiation dose/hazardous material to onsite and facility personnel and/or direct radiation to facility personnel

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
W058-FLOW11a	Amount of supernate transferred (20,000 to 1,000,000 gallons)	Release of radioactive supernate to the soil surface from overflow in the SY-A or SY-B valve pit due to piping system leak (Pool)	Failure of jumper due to corrosion plus negative testwire failure	Overflow of material from valve pit forming a surface pool resulting in: Airborne radiation dose/hazardous material to onsite and facility personnel and/or direct radiation to facility personnel
W058-FLOW13	Portion of supernate or slurry transferred (20,000 to 1,000,000 gallons) once if the primary line failed catastrophically, it would still provide a flow path, hence, the leak via the test sewer would be a side stream	Release of radioactive supernate to the soil surface from overflow in the SY-A or SY-B valve pit due to piping system leak (Pool)	Open path for pool leak from test sewer	Formation of a surface pool on the ground Airborne radiation dose/hazardous material to onsite and facility personnel and/or direct radiation to facility personnel
W058-FLOW15	Amount of slurry transferable through a limited size orifice	Release of radioactive slurry aerosols to the atmosphere caused by spray leak of slurry from the SY-A or SY-B valve pits due to piping system leak	Computer failure or human error causing unrecording of material when flow pits is not completely connected	Release of aerosol spray causing: Airborne radiation/hazardous material dose to onsite, onsite and facility individuals
W058-FLOW16	Amount of slurry transferable through a limited size orifice	Release of radioactive slurry aerosols to the atmosphere caused by spray leak of slurry from the SY-A or SY-B valve pits due to piping system leak	External leak of valve or valve to the valve pit	Release of aerosol spray causing: Airborne radiation/hazardous material dose to effects, onsite, and facility individuals

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
W058-FLOW17a	Amount of slurry transferable through a limited size orifice	Release of radioactive slurry aerosols to the atmosphere caused by spray leak of slurry from the SY-A or SY-B valve pits due to piping system leak	Failure of jumper due to misalignment (human error) plus mitigative features failure	Release of aerosol spray causing Airborne radioactive/hazardous material dose to offsite, onsite, and facility individuals
W058-FLOW17b	Amount of slurry transferable through a limited size orifice	Release of radioactive slurry aerosols to the atmosphere caused by spray leak of slurry from the SY-A or SY-B valve pits due to piping system leak	Failure of jumper due to gasket failure plus mitigative features failure	Release of aerosol spray causing Airborne radioactive/hazardous material dose to offsite, onsite, and facility individuals
W058-FLOW17c	Amount of slurry transferable through a limited size orifice	Release of radioactive slurry aerosols to the atmosphere caused by spray leak of slurry from the SY-A or SY-B valve pits due to piping system leak	Failure of jumper due to corrosion plus mitigative features failure	Release of aerosol spray causing Airborne radioactive/hazardous material dose to offsite, onsite, and facility individuals
W058-FLOW18	Amount of supernate transferable through a limited size orifice	Release of radioactive supernate aerosols to the atmosphere caused by spray leak of supernate from the SY-A or SY-B valve pits due to piping system leak	Computer failure or human error causing misrouting of material when flow path is not completely connected	Release of aerosol spray causing Airborne radioactive/hazardous material dose to offsite, onsite, and facility individuals

Table A-1. Master Hazardous Conditions Table, (127 Sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
W055-FLOW18	Amount of supernate transferable through a limited size orifice	Release of radioactive supernate aerosols to the atmosphere caused by spray leak of supernate from the SY-A or SY-B valve pits due to piping system leak	External leak of valve or valves to the valve pit plus mitigative features failure	Release of aerosol spray causing Airborne radiation/hazardous material dose to offsite, onsite, and facility individuals
W055-FLOW20a	Amount of supernate transferable through a limited size orifice	Release of radioactive supernate aerosols to the atmosphere caused by a spray leak of supernate from the SY-A or SY-B valve pits due to piping system leak	Failure of jumper due to misalignment (human error) plus mitigative features failure	Release of aerosol spray causing Airborne radiation/hazardous material dose to offsite, onsite, and facility individuals
W055-FLOW20b	Amount of supernate transferable through a limited size orifice	Release of radioactive supernate aerosols to the atmosphere caused by a spray leak of supernate from the SY-A or SY-B valve pits due to piping system leak	Failure of jumper due to gasket failure plus mitigative features failure	Release of aerosol spray causing Airborne radiation/hazardous material dose to offsite, onsite, and facility individuals
W055-FLOW20c	Amount of supernate transferable through a limited size orifice	Release of radioactive supernate aerosols to the atmosphere caused by a spray leak of supernate from the SY-A or SY-B valve pits due to piping system leak	Failure of jumper due to corrosion plus mitigative features failure	Release of aerosol spray causing Airborne radiation/hazardous material dose to offsite, onsite, and facility individuals

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
WQSS-INTEG01a	Amount of slurry transferred (20,000 to 1,000,000 gallons)	Release of radioactive slurry to the soil surface from the underground piping between the SY-A or SY-B valve pit and a diversion box due to piping system leak	Failure of primary and encasement piping due to corrosion plus mitigative features failure	Slurry forming a surface pool on the ground (if encasement line fails) Airborne radiation dose/hazardous material to onsite and facility personnel and/or direct radiation to facility personnel
WQSS-INTEG01b	Amount of slurry transferred (20,000 to 1,000,000 gallons)	Release of radioactive slurry to the soil surface from the underground piping between the SY-A or SY-B valve pit and a diversion box due to piping system leak	Failure of primary and encasement piping due to unrecognized material flaw plus mitigative features failure	Slurry forming a surface pool on the ground (if encasement line fails) Airborne radiation dose/hazardous material to onsite and facility personnel and/or direct radiation to facility personnel
WQSS-INTEG01c	Amount of slurry transferred (20,000 to 1,000,000 gallons)	Release of radioactive slurry to the soil surface from overflow of a diversion box due to piping system leak	Failure of primary and encasement piping due to corrosion plus mitigative features failure	Slurry forming a surface pool on the ground from overflowing the diversion box Airborne radiation dose/hazardous material to onsite and facility personnel and/or direct radiation to facility personnel

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
W056-INTEG01d	Amount of slurry transferred (20,000 to 1,000,000 gallons)	Release of radioactive slurry to the soil surface from overflow of a diversion box due to piping system leak	Failure of primary and encasement piping due to unrecognized material flaw plus mitigative feature failure	Slurry forming a surface pool on the ground from overflowing the diversion box Airborne radiation dose/Hazardous material to onsite and facility personnel and/or direct radiation to facility personnel
W056-INTEG02a	Amount of slurry transferred (20,000 to 1,000,000 gallons)	Release of radioactive slurry to the soil surface from the underground piping between the SY-A or SY-B valve pit and a diversion box due to piping system leak	Failure of primary and encasement piping due to external event (airplane crash, volcanism, etc)	Slurry forming a surface pool on the ground (if encasement line fails) Airborne radiation dose/Hazardous material to onsite and facility personnel and/or direct radiation to facility personnel
W056-INTEG03b	Amount of slurry transferred (20,000 to 1,000,000 gallons)	Release of radioactive slurry to the soil surface from overflow of a diversion box due to piping system leak	Failure of primary and encasement piping due to external event (airplane crash, volcanism, etc)	Slurry forming a surface pool on the ground from overflowing the diversion box Airborne radiation dose/Hazardous material to onsite and facility personnel and/or direct radiation to facility personnel

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Hazard at Risk	Hazardous Condition	Cause	Consequence
W055-INTEG05a	Amount of slurry transferred (20,000 to 1,000,000 gallons)	Release of radioactive slurry to the soil surface from the underground piping between the SY-A or SY-B valve pit and a diversion box due to piping system leak.	Failure of primary and encasement piping due to external event (seismicity accident) plus mitigative features failure	Slurry forming a surface pool on the ground (if encasement line fails) Airborne radiation downwindward material to onsite and facility personnel and/or direct radiation to facility personnel
W055-INTEG05b	Amount of slurry transferred (20,000 to 1,000,000 gallons)	Release of radioactive slurry to the soil surface from overflow of a diversion box due to piping system leak.	Failure of primary and encasement piping due to external event (seismicity accident) plus mitigative features failure	Slurry forming a surface pool on the ground from overflowing the diversion box Airborne radiation downwindward material to onsite and facility personnel and/or direct radiation to facility personnel
W055-INTEG07a	Amount of slurry transferred (20,000 to 1,000,000 gallons)	Release of radioactive slurry to the soil surface from the underground piping between the SY-A or SY-B valve pit and a diversion box due to piping system leak.	Failure of primary and encasement piping due to external event (undermining from broken fluid transfer lines in vicinity) plus mitigative features failure	Slurry forming a surface pool on the ground (if encasement line fails) Airborne radiation downwindward material to onsite and facility personnel and/or direct radiation to facility personnel

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
W066-INTEG07a	Amount of slurry transferred (20,000 to 1,000,000 gallons)	Release of radioactive slurry to the soil surface from overflow of a diversion box due to piping system leak	Failure of primary and encasement piping due to external shock (undermining from brackish fluid transfer lines in vicinity) plus negative features failure	Slurry forming a surface pool on the ground from overflowing the diversion box Airborne radiation disseminates material to onsite and facility personnel and/or direct radiation to facility personnel
W066-INTEG08a	Amount of slurry transferred (20,000 to 1,000,000 gallons)	Release of radioactive slurry to the soil surface from the underground piping between the SY-A or SY-B valve pit and a diversion box due to piping system leak	Failure of primary and encasement piping due to freezing	Slurry forming a surface pool on the ground (if encasement line fails) Airborne radiation disseminates material to onsite and facility personnel and/or direct radiation to facility personnel
W066-INTEG08b	Amount of slurry transferred (20,000 to 1,000,000 gallons)	Release of radioactive slurry to the soil surface from overflow of a diversion box due to piping system leak	Failure of primary and encasement piping due to freezing	Slurry forming a surface pool on the ground from overflowing the diversion box Airborne radiation disseminates material to onsite and facility personnel and/or direct radiation to facility personnel

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
WQSB-INTEG11a	Amount of slurry transferred (20,000 to 1,000,000 gallons)	Release of radioactive slurry to the soil surface from the underground piping between the SY-A or SY-B valve pit and a diversion box due to piping system leak	Failure of primary and encasement piping due to seismic event plus mitigative features failure	Slurry forming a surface pool on the ground (if encasement line fails) Airborne radiation dose/hazardous material to onsite and facility personnel and/or direct radiation to facility personnel
WQSB-INTEG11b	Amount of slurry transferred (20,000 to 1,000,000 gallons)	Release of radioactive slurry to the soil surface from overflow of a diversion box due to piping system leak	Failure of primary and encasement piping due to seismic event plus mitigative features failure	Slurry forming a surface pool on the ground from overflowing the diversion box Airborne radiation dose/hazardous material to onsite and facility personnel and/or direct radiation to facility personnel
WQSB-INTEG13a	Amount of supernate transferred (20,000 to 1,000,000 gallons)	Release of radioactive supernate to the soil surface from the underground piping between the SY-A or SY-B valve pit and a diversion box due to piping system leak	Failure of primary and encasement piping due to corrosion plus mitigative features failure	Supernate forming a surface pool on the ground (if encasement line fails) Airborne radiation dose/hazardous material to onsite and facility personnel and/or direct radiation to facility personnel

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
W065-INTEG13b	Amount of supernate transferred (20,000 to 1,000,000 gallons)	Release of radioactive supernate to the soil surface from the underground piping between the SY-A or SY-B vent pit and a diversion box due to piping system leak	Failure of primary and encasement piping due to unrecognized material flow plus mitigative features failure	Supernate forming a surface pool on the ground (if encasement line fails) Airborne radiation dose/hazardous material to onsite and facility personnel and/or direct radiation to facility personnel
W065-INTEG13c	Amount of supernate transferred (20,000 to 1,000,000 gallons)	Release of radioactive supernate to the soil surface from overflow of a diversion box due to piping system leak	Failure of primary and encasement piping due to corrosion plus mitigative features failure	Supernate forming a surface pool on the ground by overflowing the diversion box Airborne radiation dose/hazardous material to onsite and facility personnel and/or direct radiation to facility personnel
W065-INTEG13d	Amount of supernate transferred (20,000 to 1,000,000 gallons)	Release of radioactive supernate to the soil surface from overflow of a diversion box due to piping system leak	Failure of primary and encasement piping due to unrecognized material flow plus mitigative features failure	Supernate forming a surface pool on the ground by overflowing the diversion box Airborne radiation dose/hazardous material to onsite and facility personnel and/or direct radiation to facility personnel

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
W056-INTEG14a	Amount of supernate transferred (20,000 to 1,000,000 gallons)	Release of radioactive supernate to the soil surface from the underground piping between the SY-A or SY-B valve pit and a diversion box due to piping system leak	Failure of primary and encasement piping due to external event (pipeline crash, volcanism, etc) plus mitigative features failure	Supernate forming a surface pool on the ground (if encasement leak fails) Airborne radiation dose/hazardous material to onsite and facility personnel and/or direct radiation to facility personnel
W056-INTEG14b	Amount of supernate transferred (20,000 to 1,000,000 gallons)	Release of radioactive supernate to the soil surface from overflow of a diversion box due to piping system leak	Failure of primary and encasement piping due to external event (pipeline crash, volcanism, etc) plus mitigative features failure	Supernate forming a surface pool on the ground from overflowing the diversion box Airborne radiation dose/hazardous material to onsite and facility personnel and/or direct radiation to facility personnel
W056-INTEG18a	Amount of supernate transferred (20,000 to 1,000,000 gallons)	Release of radioactive supernate to the soil surface from the underground piping between the SY-A or SY-B valve pit and a diversion box due to piping system leak	Failure of primary and encasement piping due to external event (disaster/accident) plus mitigative features failure	Supernate forming a surface pool on the ground (if encasement leak fails) Airborne radiation dose/hazardous material to onsite and facility personnel and/or direct radiation to facility personnel

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
W058-INTEG18a	Amount of supernate transferred (20,000 to 1,000,000 gallons)	Release of radioactive supernate to the soil surface from overflow of a diversion tank due to piping system leak	Failure of primary and encasement piping due to external event (excavation accident) plus mitigative features failure	Supernate forming a surface pool on the ground from overflowing the diversion tank Airborne radiation dose/radiation material to onsite and facility personnel and/or direct radiation to facility personnel
W058-INTEG18b	Amount of supernate transferred (20,000 to 1,000,000 gallons)	Release of radioactive supernate to the soil surface from the underground piping between the SY-A or SY-B valve pit and a diversion tank due to piping system leak	Failure of primary and encasement piping due to external event (undermining from broken fluid transfer lines in vicinity) plus mitigative features failure	Supernate forming a surface pool on the ground (if encasement line fails) Airborne radiation dose/radiation material to onsite and facility personnel and/or direct radiation to facility personnel
W058-INTEG18c	Amount of supernate transferred (20,000 to 1,000,000 gallons)	Release of radioactive supernate to the soil surface from overflow of a diversion tank due to piping system leak	Failure of primary and encasement piping due to external event (undermining from broken fluid transfer lines in vicinity) plus mitigative features failure	Supernate forming a surface pool on the ground from overflowing the diversion tank Airborne radiation dose/radiation material to onsite and facility personnel and/or direct radiation to facility personnel

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
W058-INTEG20a	Amount of supernate transferred (20,000 to 1,000,000 gallons)	Release of radioactive supernate to the soil surface from the underground piping between the SY-A or SY-B valve pit and a diversion box due to piping system leak	Failure of primary and encasement piping due to freezing	Supernate forming a surface pool on the ground (if encasement line fails) Airborne radiation dose/hazardous material to onsite and facility personnel and/or direct radiation to facility personnel
W058-INTEG20b	Amount of supernate transferred (20,000 to 1,000,000 gallons)	Release of radioactive supernate to the soil surface from overflow of a diversion box due to piping system leak	Failure of primary and encasement piping due to freezing	Supernate forming a surface pool on the ground from overflowing the diversion box Airborne radiation dose/hazardous material to onsite and facility personnel and/or direct radiation to facility personnel
W058-INTEG22	Amount of supernate transferred (20,000 to 1,000,000 gallons)	Release of radioactive supernate to the soil surface from the underground piping between the SY-A or SY-B valve pit and a diversion box due to piping system leak	Failure of primary and encasement piping due to seismic event plus mitigative features failure	Supernate forming a surface pool on the ground (if encasement line fails) or overflowing the diversion box if not resulting in Airborne radiation dose/hazardous material to onsite personnel

Table A-1, Master Hazardous Conditions Table. (127 Sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
W058-INTG24	Amount of slurry transferred (20,000 to 1,000,000 gallons)	Release of radioactive slurry to the soil surface from overflow in the SY-A or SY-B valve pit due to piping system leak	External event (airplane crash, etc)	Overflow of material from valve pit forming a surface pool resulting in: Airborne radiation downhazardous material to onsite and facility personnel and/or direct radiation to facility personnel
W058-INTG28	Amount of slurry transferred (20,000 to 1,000,000 gallons)	Release of radioactive slurry to the soil surface from overflow in the SY-A or SY-B valve pit due to piping system leak	Seismic event plus mitigative features failure	Overflow of material from valve pit forming a surface pool resulting in: Airborne radiation downhazardous material to onsite and facility personnel and/or direct radiation to facility personnel
W058-INTG29	Amount of supernate transferred (20,000 to 1,000,000 gallons)	Release of radioactive supernate to the soil surface from overflow in the SY-A or SY-B valve pit due to piping system leak	External event (airplane crash, etc)	Overflow of material from valve pit forming a surface pool resulting in: Airborne radiation downhazardous material to onsite and facility personnel and/or direct radiation to facility personnel

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
W059-INTEG30	Amount of supernate transferred (20,000 to 1,000,000 gallons)	Release of radioactive supernate to the soil surface from overflow in the SY-A or SY-B valve pit due to piping system leak (Pool)	Setback event	Overflow of material from valve pit forming a surface pool resulting in Airborne radiation dose/hazardous material to onsite and facility personnel and/or direct radiation to facility personnel
W058-INTEG32	Amount of supernate or slurry released that could be released through a small orifice	Release of radioactive supernate or slurry aerosols from leak points located near SY-A and SY-B valve pits to the atmosphere due to a spray leak	Failure of primary piping and path for spray leak from leak hole plus mitigative features failure	Offsite, onsite and facility individuals internal radiation dose
W058-INTEG34	Amount of slurry transferable through a limited size orifice	Release of radioactive slurry aerosols to the atmosphere caused by spray leak of slurry from the SY-A or SY-B valve pits due to piping system leak	External event (airplane crash, etc)	Release of aerosol spray causing Airborne radiation/hazardous material dose to offsite, onsite and facility individuals
W058-INTEG35	Amount of slurry transferable through a limited size orifice	Release of radioactive slurry aerosols to the atmosphere caused by spray leak of slurry from the SY-A or SY-B valve pits due to piping system leak	Scram event	Release of aerosol spray causing Airborne radiation/hazardous material dose to offsite, onsite and facility individuals
W058-INTEG36	Amount of supernate transferable through a limited size orifice	Release of radioactive supernate aerosols to the atmosphere caused by spray leak of supernate from the SY-A or SY-B valve pits due to piping system leak	External event (airplane crash, etc)	Release of aerosol spray causing Airborne radiation/hazardous material dose to offsite, onsite, and facility individuals

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
W088-INTEG37	Amount of supernate transferable through a limited size orifice	Release of radioactive supernate aerosols to the atmosphere caused by spray leak of supernate from the SY-A or SY-B valve pit due to piping system leak	Seismic event	Release of aerosol spray causing Airborne radiobiohazardous material does to offsite, on-site, and facility individuals
W098-PRES01	Amount of slurry transferred (20,000 to 1,000,000 gallons)	Release of radioactive slurry to the soil surface from overflow in the SY-A or SY-B valve pit due to piping system leak (Pool)	Water hammer plus negative features failure	Overflow of material from valve pit forming a surface pool resulting in Airborne radiation dose/hazardous material to on-site and facility personnel and/or direct radiation to facility personnel
W098-PRES03	Amount of supernate transferred (20,000 to 1,000,000 gallons)	Release of radioactive supernate to the soil surface from overflow in the SY-A or SY-B valve pit due to piping system leak (Pool)	Water hammer plus negative features failure	Overflow of material from valve pit forming a surface pool resulting in Airborne radiation dose/hazardous material to on-site and facility personnel and/or direct radiation to facility personnel
X8-01-FLOW01	DCRT tank contents	Release of radioactive aerosols from DCRT due to ignition of flammable gas atmosphere	Pressure drop in transfer line releases flammable gas into DCRT atmosphere and ignition source causes deflagration	Release of airborne radioactive aerosols from DCRT
X8-01-FLOW02	SST tank contents	Release of liquids, solids, and/or vapors from single shell tank due to dome collapse caused by flammable gas burn	Loss of pump prime results in overheated pump that ignites flammable gas	Ignition of the single shell tank atmosphere with dome collapse and release of aerosols

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
XS-01-FLOW03	SST and DCRT tank contents	Release of liquids, solids, and/or vapors from single shell tank due to dome collapse and DCRT pressurization caused by flammable gas explosion/fire propagating from DCRT to single shell tank	Pipeline connecting single shell tank and DCRT fills with flammable gas; loss of ventilation flow in DCRT so that a flammable gas atmosphere is ignited by the ventilation exhaust heater	Release of aerosols from single shell tank and release of aerosols from the DCRT
XS-01-FLOW04	244-TX-DCRT contents	Release of liquid radioactive waste from DCRT to analysis due to overflow	Human error flushing water on after extended flush causes overflow to analysis	Airborne release from analysis pool
XS-01-FLOW05	Liquid radioactive waste being transferred to DCRT	Release of radioactive contaminated liquid from transfer piping to 244-TX-DCRT via the raw water system due to reverse flow of liquid waste (Pool)	Mixing causes racing of waste into raw water system that causes leak in the flush pit cover block	Release of liquid waste to ground surface
XS-01-FLOW06	Saltwell liquid being transferred to DCRT	Release of liquid radioactive waste from saltwell pumping transfer piping as DCRT pump pit to surface due to overflow (Pool)	Open jumper in single shell tank pump pit leads to overflowing of pump pit	Airborne release from surface pool formed by leak of saltwell liquid to ground
XS-01-FLOW07	Saltwell liquid being transferred to DCRT	Release of liquid radioactive waste to the soil from transfer piping from SST to DCRT due to leakage (Plume)	Pipe failure from various causes	Airborne release from surface pool formed by leak of saltwell liquid to ground
XS-01-PRES01	Liquid radioactive waste in saltwell or PFP transfer to DCRT	Release of liquid radioactive waste from damaged transfer piping to DCRT due to over pressure (Pool)	Use of wrong size pump and closed valve causes over pressure and subsequent pipe failure	Release of liquid waste to soil column
XS-01-PRES02	Saltwell liquid being transferred to DCRT	Release of liquid radioactive waste from transfer pipe due to damaged saltwell pump	Leak from pump or seal from various causes	Release of liquid from damaged saltwell pump
XS-01-TEMP01	Liquid radioactive waste in saltwell or PFP transfer piping to DCRT	Release of steam aerosol from transfer piping in pump pit due to steam heater and resulting pipe damage	Extended restriction and consequential heating of saltwell liquid with sudden opening of valve when cover block is open	Release of aerosol from underground structure
XS-01-TEMP02	Liquid radioactive waste in saltwell or PFP transfer piping to DCRT	Release of steam aerosol from transfer piping in pump pit due to steam heater and resulting pipe damage	Extended restriction and consequential heating of saltwell liquid with sudden opening of valve when cover block is in place	Release of aerosol from underground structure

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Nature of Risk	Hazardous Condition	Cause	Consequence
XS-02-FLOW01	Aerosols in DCRT headspace	Release of headspace aerosols from DCRT into PFP due to jumper misalignment	Jumper misalignment allowing PFP steam jet or ventilation system to pull vapors DCRT	Release of DCRT aerosols into PFP
XS-02-FLOW02	DCRT filter integrity	Release of aerosols and particulate from DCRT ventilation filter due to leakage of steam from PFP steam jet into DCRT headspace	Human error (failure to shut off steam jet at completion of transfer) which causes DCRT ventilation filter failure	Release of contamination from DCRT filter
XS-02-FLOW03	DCRT tank vapors/aerosols	Release of toxic gases (oxides of nitrogen) from DCRT due to chemical reaction	Chemical reaction between sodium nitrate (DCRT) and nitric acid (PFP transfer) due to failure to adjust waste pH prior to transfer	Release of oxides of nitrogen from DCRT
XS-02-FLOW04	PFP waste being transferred to DCRT	Release of liquid radioactive waste to soil from transfer pipe (not-pool) subleakage plume due to leak caused by failure to adjust waste pH prior to transfer	Failure to adjust waste pH prior to transfer causes leak	Airborne release from surface pool formed by leak of PFP liquid waste to ground
XS-02-FLOW05	PFP waste being transferred to DCRT	Release of liquid radioactive waste to the soil from PFP lines for piping due to pipe break	Pipe break from various causes	Airborne release from surface pool formed by leak of PFP liquid waste to ground
XS-02-FLOW06	DCRT tank contents	Release of liquid radioactive waste from DCRT due to overflowing of PFP feeding tank (in facility)	Reverse flow caused by jumper misalignment	Liquid release in PFP
XS-03-LEVE	DCRT tank contents	Release of radioactive liquids from DCRT "manhole" (vault) due to DCRT leak	Corrosion or structural failure of DCRT or associated piping	Release of radioactive aerosols from sump
XS-03-LEVE01 XS-21-LEVE (244-3 DCRT)	DCRT tank contents	Release of combustion products from DCRT due to flammable gas burn in tank atmosphere	Evaporation of DCRT contents causing decreased stability of waste to retain flammable gases and spark source	Release of aerosol from DCRT
XS-03-LEVE02 XS-21-LEVE (244-8 DCRT)	DCRT tank contents	Release of fission product gases and aerosols from DCRT due to criticality	Evaporation of DCRT contents with increased solids settling on DCRT bottom creating critical mass	Release of fission product gases and aerosols from DCRT
XS-03-PRES01	DCRT vapors/aerosols	Release of toxic vapors from DCRT due to increased concentrations in DCRT atmosphere	Tank isolated from forced ventilation with gas evolution	Release of toxic vapors from DCRT

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
XS-03-PRES01 XS-21-PRES (244-S DCRT)	DCRT tank contents	Release of liquid aerosols from DCRT due to flammable gas burn in tank atmosphere	Loss of ventilation flow with accumulation of flammable gas and spark source	Release of aerosol from DCRT
XS-03-PRES01A	DCRT tank vapor/aerosols	Release of radioactive aerosols from DCRT headspace due to positive pressure	Loss of ventilation flow due to failure of ventilation fans causes positive pressure in tank	Release of radioactive aerosols from DCRT
XS-03-PRES02	DCRT tank vapor/aerosols	Release of radioactive aerosols from DCRT headspace due to positive pressure	Designers inadvertently closed causing positive pressure in tank	Release of radioactive aerosols from DCRT
XS-03-PRES02 XS-21-PRES (244-S DCRT)	DCRT tank contents	Release of toxic vapors from DCRT due to decreased ability to keep vapors in solution (fan on)	Heating of DCRT or chemical adjustment	Release of toxic vapors from DCRT
XS-03-PRES03	DCRT tank vapor/aerosols	Release of radioactive aerosols from DCRT headspace due to positive pressure in DCRT	Duckwork damage due to external event causes positive pressure in DCRT	Release of radioactive aerosols from DCRT
XS-03-PRES04	DCRT tank vapor/aerosols	Release of radioactive aerosols from DCRT headspace due to positive pressure	Loss of power causes positive pressure in tank	Release of radioactive aerosols from DCRT
XS-03-PRES05	DCRT tank vapor/aerosols	Release of toxic vapors from DCRT due to increased concentrations in DCRT atmosphere	Transfer of steam from PFP causing evolution of toxic gases due to heating tank	Release of toxic vapors from DCRT
XS-03-TEMP01	DCRT tank contents	Release of radioactive aerosols from 244-TX-DCRT headspace due to positive pressure	Chemical reaction in DCRT causes positive pressure	Release of radioactive aerosols from DCRT
XS-03-TEMP01 XS-21-TEMP (244-S DCRT)	Liquid radioactive within DCRT	Release of liquid radioactive waste from DCRT due to flow path to soil	Exceeding structural or corrosion limits on tank due to high temperature waste transfer to DCRT connected with vault leak	Release of radioactive waste to soil
XS-03-TEMP02	DCRT vapor/aerosols	Release of toxic vapor from DCRT due to chemical reaction	Chemical reaction in DCRT tank vapor	Release of toxic vapors from DCRT
XS-03-TEMP02 XS-21-TEMP (244-S DCRT)	DCRT tank contents	Release of fission product gases and aerosols from DCRT due to integrity	Transfer of material into tank that violates activity specification	Release of fission product gases and aerosols from DCRT

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
XS-03-TEMP03 XS-21-TEMP (244-S-DCRT)	DCRT tank contents	Release of liquid aerosols from DCRT due to flammable gas burn-explosion/fire in tank atmosphere	Buildup of gases, loss of ventilation, and spark source	Release of liquid radioactive aerosols
XS-03-TEMP04	DCRT tank contents	Release of radioactive aerosols from DCRT due to fire	Burning of flammable gas in DCRT	Release of radioactive aerosols from DCRT
XS-03-TEMP04 XS-21-TEMP (244-S-DCRT)	DCRT tank contents	Release of liquid radioactive waste from DCRT due to overflow	Freezing temperatures causing non-water line break-leak with leakage to tank causes overflow	Release of liquid radioactive waste to ground surface
XS-03-TEMP05	DCRT tank vapor/aerosols	Release of radioactive aerosols from DCRT headspace due to positive pressure	Excessive agitation-pumping causes positive pressure and generates aerosols	Release of radioactive aerosols from DCRT
XS-03-TEMP06	DCRT vapor/aerosols	Release of toxic vapors from DCRT headspace due to positive pressure in DCRT	Excessive agitation pumping causes positive pressure	Release of toxic vapors from DCRT
XS-03-TEMP07	DCRT tank vapor/aerosols	Release of radioactive aerosols from DCRT headspace due to positive pressure	Loss of ventilation flow due to HEPA filter blockage at cold weather causes positive pressure in tank	Release of radioactive aerosols from DCRT
XS-03-TEMP08	DCRT tank vapor/aerosols	Release of radioactive aerosols from DCRT headspace due to positive pressure	Loss of ventilation flow plus high heat waste causes positive pressure in tank	Release of radioactive aerosols from DCRT
XS-03-TEMP08	Liquid radioactive waste in DCRT	Release of liquid radioactive waste from DCRT due to flow path to soil	Exceeding structural limits on tank due to high temperature caused by transfer of steam from PFP as well as small leak	Release of radioactive waste to soil
XS-03-FLOW01	Radioactive material entrained in DCRT HEPA filter-DCRT aerosols	Release of aerosols and filter media from DCRT ventilation systems due to HEPA filter damage	Replacement of exhaust fan with larger capacity fan causes HEPA filter damage	Release of radioactive aerosols and particulates from DCRT
XS-03-FLOW02	Liquid radioactive waste in DCRT	Release of liquid radioactive waste from DCRT due to flow path to soil	Exceeding structural limit on tank due to replacement of exhaust fan with higher capacity fan and blockage of ventilation inlet downstream with vault leak	Release of radioactive waste to soil

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
X5-05-TEMP01	Material holdup on DCRT ventilation filter	Release of materials from DCRT ventilation filters and tank to atmosphere due to filter degradation	Fire in ventilation system due to failure of ventilation heater controls	Release of radioactive aerosols
X5-05-TEMP02	Material holdup on DCRT ventilation filter	Release of materials from DCRT ventilation filters and tank to atmosphere due to filter degradation	Fire in ventilation system due to flammable gas buildup and ignition	Release of radioactive aerosols
X5-05-FLOW01	DCRT tank contents	Release of fission product gases and aerosols from DCRT due to volatility	Transfer of inadequately reprecipitated waste from tank due to failure to appropriately balance flow between reprecipitation and transfer line causing buildup of solids creating critical mass	Release of fission product gases and aerosols
X5-05-FLOW02	DCRT sample being transferred to 1G2-SY	Release of liquid radioactive waste from DCRT transfer piping to Th-102-SY due to spray leak in DCRT pump pit	Pipe failure in DCRT pump pit causing spray leak	Leak of liquid waste to atmosphere
X5-05-FLOW03	Radioactive waste being transferred from PFP to DCRT	Release of liquid radioactive waste from transfer piping from PFP to DCRT due to spray leak in DCRT pump pit	Pipe failure in DCRT pump pit causing spray leak	Leak of liquid waste to atmosphere
X5-05-FLOW04	Radioactive waste being pumped from SST to DCRT	Release of liquid radioactive waste from transfer piping from an SST to a DCRT due to spray leak (SPUTTER) of saltwater liquor from DCRT pump pit	Pipe failure	Leak of liquid waste to atmosphere
X5-05-FLOW05	Radioactive liquid waste transferred from DCRT	Release of waste from transfer pipe out of DCRT to the soil due to flow path to soil	Concurrent failure of transfer piping and encasement	Release of liquid waste to soil
X5-05-FLOW06	DCRT tank contents	Release of radioactive aerosols from DCRT annulus due to a spill of radioactive liquid	Overfilling DCRT due to a measuring device spill into DCRT annulus	Release of radioactive aerosols and particulates from DCRT
X5-07-FLOW01	Liquid radioactive waste transferred out of DCRT	Release of radioactive waste to soil from transfer piping out of 244-TX-DCRT due to leak in primary pipe and encasement	Excavation accident fails primary pipe and encasement	Release of liquid radioactive waste to soil
X5-07-FLOW02	Liquid radioactive waste transferred out of DCRT	Release of radioactive waste to soil from transfer piping out of DCRT due to leak in primary pipe and encasement	Corrosion of inner and outer pipe	Release of liquid radioactive waste to soil
X5-07-FLOW03	Liquid radioactive waste being transferred out of DCRT	Release of radioactive waste to soil from transfer pipe out of DCRT due to leak in primary pipe and encasement	High structural loading from traffic or cranes cause failure of primary pipe and encasement	Release of liquid radioactive waste to soil

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Material of Risk	Hazardous Condition	Cause	Consequence
XS-07-FLCWA04	Liquid radioactive waste being transferred out of DCRT	Release of radioactive waste to soil from transfer piping of DCRT due to leak in primary pipe and encasement	Seismic event fails primary pipe and encasement	Release of liquid radioactive waste to soil
XS-07-FLCWA05	Liquid radioactive waste being transferred out of DCRT	Release of radioactive waste to soil from transfer pipe out of DCRT due to leak in primary pipe and encasement	Undermining due to leak of secondary pipes causes failure of primary pipe and encasement	Release of liquid radioactive waste to soil
XS-07-FLCWA08	Liquid radioactive waste transferred out of DCRT	Release of radioactive waste to soil from transfer pipe out of DCRT due to leak in primary pipe and encasement	Water hammer causes failure of primary pipe and encasement	Release of liquid radioactive waste to soil
XS-11-LEVE01	Liquid radioactive waste transferred out of DCRT	Release of radioactive waste from diversion box to surface due to overflow of transfer from 244-TX-DCRT	Plugged drain and increasing causes overflow	Release of liquid radioactive waste at surface
XS-11-LEVE02	Liquid radioactive waste transferred out of DCRT	Release of radioactive waste from diversion box to surface due to overflow of transfer from 244-TX-DCRT	Plugged drain and open jumper causes overflow	Release of liquid radioactive waste at surface
XS-11-LEVE03	Liquid radioactive waste transferred out of DCRT	Release of radioactive waste from diversion box to surface due to overflow	Plugged drain and piping leak causes overflow	Release of liquid radioactive waste at surface
XS-12-FLCWA01	Residual contamination in catch tank	Release of toxic gas from diversion box due to accumulation of toxic vapors from catch tank	Chemical reaction of catch tank material with backflow of vapors via diversion box drain line	Release of toxic gases
XS-12-FLCWA02	Residual contamination in diversion box 241-U-1B2	Release of aerosols from diversion box 241-U-1B2 due to flammable gas degradation	Chemical reaction of catch tank material with backflow of vapors via diversion box drain line	Pressurized release of residual contamination in diversion box
XS-12-FLCWA03	Residual contamination in diversion box 241-U-1B2	Release of aerosols from diversion box 241-U-1B2 due to hydrogen degradation	Pyrolysis of catch tank material with backflow of vapors via diversion box drain line and ignition source	Pressurized release of residual contamination in diversion box
XS-12-FLCWA04	Catch tank vapors/aerosols	Release of toxic gas from diversion box due to accumulation of toxic vapors from catch tank	Pyrolysis of catch tank material with backflow of vapors via diversion box drain line	Release of toxic gases
XS-12-FLCWA05	Liquid radioactive waste transferred out of DCRT	Release of radioactive waste from diversion box to surface due to overflow of transfer from a DCRT	Backflow from catch tank causes overflow from diversion box	Release of liquid radioactive waste at surface

Table A-1. Master Hazardous Conditions Table. (127 sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
XS-12-FLOW05	Liquid waste involved in cross site transfer	Release of radioactive waste to the soil from diversion box drain due to a spill of radioactive liquid into 241-U-152 diversion box	Leak of diversion box drain line upstream of catch tank	Release of radioactive material from above-ground pooling
XS-13-LEVE	Catch tank contents	Release of liquid radioactive waste to soil from 241-U-301B catch tank due to leak in catch tank contents to soil	Failure of catch tank due to various causes	Subsurface release of liquid from catch tank
XS-13-PRES01	Liquid radioactive waste contents of catch tank	Release of radioactive aerosols from 241-U-301B catch tank due to chemical reaction	Onset of incompatible chemicals in catch tank	Release of radioactive aerosols from catch tank
XS-13-PRES02	Catch tank contents	Release of radioactive aerosols from 241-U-301B catch tank due to flammable gas	Buildup of flammable gas in catch tank and spark source	Release of radioactive aerosols
XS-13-PRES03	Catch tank vapors/aerosols	Release of toxic vapors from 241-U-301B due to chemical reaction	Drooping of incompatible chemicals in catch tank	Release of toxic gases from catch tank
XS-13-PRES04	Catch tank contents	Release of fission product gases and aerosols from catch tank 241-U-301B due to volatility	Transfer of excess fission material to catch tank creates critical mass	Release of fission product gases and radioactive aerosols
XS-20-FLOW01	DCRT tank vapors/aerosols	Release of radioactive aerosols from DCRT due to chemical reaction	Transfer of incompatible waste to 244-TX DCRT due to improper valve lineup	Release of radioactive aerosols
XS-20-FLOW02	T-Plant tank vapors/aerosols	Release of radioactive aerosols from T-Plant tank due to chemical reaction	Transfer of incompatible waste to T-Plant due to improper valve lineup	Release of radioactive aerosols
XS-20-FLOW03	DCRT tank contents	Release of radioactive aerosols from 244-TX-DCRT due to positive pressure caused by chemical reaction	Chemical reaction of 244-S material with contents of 244-TX caused by misrouting	Release of aerosols from 244-TX DCRT
XS-20-FLOW04	DCRT vapors/aerosols	Release of toxic vapors from 244-TX-DCRT due to chemical reaction with incompatible material in 244-S-DCRT	Mixing contents of 244-TX and 244-S due to misrouting causes chemical reaction	Release of toxic vapors from 244-TX DCRT
XS-20-FLOW05	Catch/DCRT tank contents	Release of fission product gases and aerosols from DCRT (not designated active receiver) due to volatility	Transfer of waste from 244-TX DCRT due to improper valve lineup creates critical mass	Release of fission product gases and aerosols to air

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
XS-20-FLOW06	T-Plant waste tank vapors/aerosols	Release of radioactive aerosols from T-Plant tank due to positive pressure	Chemical reaction of 244-S material with contents of T-Plant Tank due to mixing causes positive pressure at tank	Release of aerosols from T-Plant
XS-20-FLOW07	T-Plant waste tank contents	Release of toxic vapors from T-Plant due to chemical reaction with incompatible material in DCRT	Mixing contents of 244-S with contents of T-Plant tank due to interlocking causes chemical reaction	Release of toxic vapors from T-Plant
XS-20-FLOW08	Liquid radioactive waste in catch tank and DCRT	Release of radioactive waste from a DCRT to surface due to overflow	Transfer of excess waste to 244-TX DCRT due to improper valve lineup causes overflow	Release of radioactive liquid to soil
XS-20-FLOW09	Liquid radioactive waste in catch tank and DCRT	Release of radioactive waste from a DCRT to surface due to overflow	Transfer of waste from 244-TX DCRT due to improper valve lineup causes overflow	Release of radioactive liquid to soil
XS-25-PRES XS-25-TEMP	DST tank vapors/aerosols	Release of toxic vapors from TK-102-SY due to chemical reaction	Mis-transfer of incompatible waste causes chemical reaction	Release of toxic gases to air
XS-25-PRES XS-25-TEMP 102AW-TEMP (FOR TK-102-AW)	DST tank contents	Release of fission product gases and aerosols from TK-102-SY due to criticality	Transfer of critical mass of fissile material and achievement of critical geometry	Release of fission product gases and aerosols to air
XS-25-PRES01	DST tank vapors/aerosols	Release of radioactive aerosols from TK-102-SY due to chemical reaction	Mis-transfer of incompatible waste causes chemical reaction	Release of radioactive aerosols to air
XS-25-PRES01A 102AW-02-PRES	DST tank vapors/aerosols	Release of radioactive aerosols from TK-102-SY due to positive pressure	Blockage of exhaust path causes pressure in tank	Automatic release of radioactive aerosols from TK-102-SY
XS-25-PRES02	DST tank contents	Release of radioactive aerosols from TK-102-SY due to flammable gas fire/explosion (Dome Collapse)	Accumulation of flammable gases in vapor space and spark source	Release of radioactive aerosols to air
XS-25-PRES02A 102AW-02-PRES	DST tank vapors/aerosols	Release of radioactive aerosols from TK-102-SY due to positive pressure	Failure of ventilation fans causes pressure in tank	Automatic release of radioactive aerosols from TK-102-SY

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
XS-26-PRES03	DST tank vapor/aerosols	Release of radioactive aerosols from TK-102-SY due to positive pressure	Use of hot water to decontaminate equipment in tank discharges generates aerosols and pressurizes the tank	Airborne release of radioactive aerosols from TK-102-SY
XS-26-PRES03 102AW-02-PRES	DST tank vapor/aerosols	Release of radioactive aerosols from TK-102-SY due to positive pressure	Loss of power to ventilation system causes positive pressure in tank	Airborne release of radioactive aerosols from TK-102-SY
XS-26-TEMP 102AW-06-TEMP	DST tank vapor/aerosols	Release of radioactive aerosols from TK-102-SY annulus due to leak of tank contents to annulus	Exceeding design temperatures of tank due to high heat waste and loss of primary ventilation system	Airborne release of radioactive aerosols from annulus
XS-26-TEMP01	DST tank vapor/aerosols	Release of radioactive aerosols from TK-102-AW due to tank bump	High level waste plus loss of cooling contributes to tank bump	Release of radioactive aerosols to air
XS-26-TEMP02	DST tank vapor/aerosols	Release of radioactive aerosols from TK-102-SY annulus due to leak of tank contents to annulus	Exceeding design temperature of tank due to failure of annulus ventilation	Airborne release of radioactive aerosols from annulus
XS-35-FLOW01	Contents of evaporator sump	Release of radioactive liquid waste to soil from 242-S Evaporator due to leak of un-encased direct buried piping (Plume)	Corrosion or other cause	Airborne release of radioactive aerosols from surface pool
XS-35-FLOW02	Liquid radioactive waste from cross-site transfer	Release of radioactive waste to surface from 242-S Evaporator sump due to backflow and overflow	Human error of leaving open flow path after emptying the sump and backflow and subsequent overflow	Release of liquid radioactive waste to ground
XS-37-FLOW01	Liquid waste involved in cross-site transfer	Release of radioactive liquid waste from catch tank to surface due to overflowing (Pool)	Leak of transfer piping with drainage to catch tank or sump overflow	Liquid release of materials from catch tank overflow
XS-37-FLOW02	Liquid waste involved in cross-site transfer	Release of radioactive liquid waste to soil from transfer piping due to leak of liquid waste from concrete encasement (Subsurface plume)	Leak of transfer piping with encasement leak or blocked drain to catch tank (liquid seeps out concrete encasement)	Liquid release of radioactive materials to the soil
XS-41A#LOW01	Liquid radioactive waste from cross-site transfer	Release of radioactive waste from ventilation nozzle pit to surface due to overflow	Catastrophic failure of vent piping causes overflow of nozzle pit	Release of liquid radioactive waste to soil surface

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
XS-41A-FLOW02	Liquid radioactive waste from cross-site transfer	Release of radioactive waste to surface from vent station nozzle pit due to overflow	Vent valve left open or leaking during transfer causes overflow	Release of liquid radioactive waste to soil surface
XS-41B-LEVE01	Vent station catch tank contents	Release of radioactive aerosols from vent station catch tank due to flammable gas fire or explosion in nozzle pit	Failure to empty catch tank with buildup of flammable gas in nozzle pit plus ignition source	Release of radioactive aerosols to air
XS-41B-LEVE02	Liquid waste involved in cross-site transfer	Release of toxic gas from vent station access pit via valve operator seals due to liquid accumulation in vent station nozzle pit	Overflow of vent station catch tank into nozzle pit causes tank gas accumulation	Release of toxic gases from liquid waste through openings in wall between nozzle pit and access pit
XS-41B-LEVE03	Liquid radioactive waste in vent station catch tank and waste being transferred	Release of radioactive waste to surface from vent station nozzle pit due to overflow	Failure to empty catch tank, causing overflow of tank and pit due to transfer failure	Release of liquid radioactive waste to soil surface
XS-41B-LEVE04	Liquid waste involved in cross-site transfer	Release of radioactive liquid from vent station access pit via valve operator seals due to liquid accumulation in vent station nozzle pit	Overflow of vent station catch tank into nozzle pit	Liquid release of radioactive material through openings in wall between nozzle pit and access pit
XB-41C-LEVE01	Vent station catch tank inventory	Release of radioactive aerosols from vent station catch tank due to flammable gas fire or explosion in catch tank pit	Leak of catch tank with buildup of flammable gas in catch tank pit plus ignition source	Release of radioactive aerosols to air
XB-41C-LEVE02	Liquid waste in vent station catch tank	Release of radioactive aerosols from catch tank pit due to presence of liquid from collapse of catch tank	Intrusion plus plugged drain creating external load on catch tank	Release of radioactive aerosols from catch tank pit
XB-41C-LEVE03	Liquid waste spilled into cross-site transfer encasement	Release of toxic gases from vent station catch tank pit due to presence of liquid waste in pit	Backflow from cross-site piping encasement leak causes tank gas accumulation	Release of toxic gases from liquid waste in catch tank pit
XB-4B-FLOW	Liquid waste transferred from B-Plant to diversion box	Release of liquid waste to soil from transfer piping between B-Plant and 244-ER-152 diversion box due to leak (Pump)	Piping failure from various causes	Release of liquid waste to ground
XS-52-FLOW01	Liquid radioactive waste transferred to D&T	Release of radioactive waste to surface from transfer piping to TK-CR-003 due to leak (Pump)	Failure of pipe from various causes	Release of liquid radioactive waste to ground

Table A-1. Master Hazardous Conditions Table. (127 Sheets)

ID	Material at Risk	Hazardous Condition	Cause	Consequence
XS-62-FLOW02	Liquid radioactive waste transfer to D&T	Release of radioactive waste from TKG-CR-003 to surface due to overflow (Pool)	Mis-wiring or valve failure during cross-site transfer causes overflow	Release of liquid radioactive waste to ground

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Table A-2. Master Code Table - Part 1. (53 Sheets)

ID	Initial Safety Code NC	Initial Prod NC	Env Code	BH	Initial Risk Factor NC	Failed Ctrl Risk Factor	Facility Code	Cause Grp	Rep Acc	AA Safety Code NC	AA Freq NC	App Ctrl Safety	App Ctrl Freq	Failed Ctrl Safety Code	Failed Ctrl Freq
102AW-01-FLOW 102AW-02-PRES	S3	F0	E3	A-1-a	10	5	Y	B00	05X	S2	F0	Prevented	Prevented	S2	F0
102AW-01-FLOW 102AW-04-PRES	S3	F0	E2	B-1-a	10	15	PD	D01	15X			S2	F3	S3	F2
102AW-01-FLOW01	S3	F2	E2	B-1-a	15	15	PD	D01	15X	S3	F3	S2	F3	S3	F2
102AW-01-FLOW02	S2	F3	E2	B-2-b	14	13	PD	D22	21X	S3	F3	Prevented	Prevented	S3	F1
102AW-01-FLOW03	S2	F3	E2	B-3-b	14	13	PD	D16	21X	S3	F3	S1	F3	S3	F1
102AW-01-FLOW04	S2	F3	E2	B-3-b	14	10	PD	D10	21X	S3	F3	S3	F0	S3	F0
102AW-01-FLOW05	S2	F2	E2	B-3-b	12	13	PD	D18	21X	S3	F3	S1	F2	S3	F1
102AW-01-FLOW06	S2	F3	E2	B-3-b	14	13	PD	D12	21X	S3	F3	S1	F3	S3	F1
102AW-01-FLOW07	S2	F3	E2	B-3-b	14	13	PD	D17	21X	S3	F3	S1	F3	S3	F1
102AW-01-FLOW10	S2	F2	E2	C-2-b	12	13	T	E06	26X	S3	F3	S1	F3	S3	F1
102AW-01-FLOW11	S2	F3	E2	C-2-b	14	13	T	E06	26X	S3	F3	Prevented	Prevented	S3	F1
102AW-01-TEMP	S3	F1	E3	B-1-a	13	13	PD	D01	16X	S3	F3	Prevented	Prevented	S3	F1
102AW-01-TEMP01	S2	F2	E2	C-2-b	12	13	WD	D01	26X	S3	F3	S1	F3	S3	F1
102AW-01-TEMP01A	S2	F2	E2	C-2-b	12	13	WD	D01	26X	S3	F3	S1	F3	S3	F1
102AW-01-TEMP02	S2	F2	E2	C-2-b	12	13	WD	D01	26X	S3	F3	S1	F3	S3	F1
102AW-02-LEVE	S1	F3	E1		11	5	T.OS	D12						S1	F1
102AW-02-LEVER1	S2	F1	E1	C-1-a	9		T	D02	23X	S1	F1	S1	F3		
102AW-02-LEVED2	S1	F1	E3		5		T.OS	D12							
102AW-02-LEVED2A	S1	F3	E1		11	5	T.OS	E00						S1	F1

Table A-2. Master Code Table - Part 1. (51 Sheets)

ID	Initial Safety Cons NC	Initial Freq NC	Erw Cons	SN	Initial Risk Factor NC	Failed Crnl Risk Factor	Facility Code	Cause Grp	Rep Acc	AA Safety Cons NC	AA Freq NC	App Crnl Safety	App Crnl Freq	Failed Crnl Safety Cons	Failed Crnl Freq
102AW-02-LEVED3	S2	F3	E2	C-2-b	14	13	T.D6	E06	25X	S0	F3	Prevented	Prevented	S3	F1
102AW-02-LEVED4	S2	F3	E2	C-2-b	14	13	T	E06	25X	S3	F3	Prevented	Prevented	S3	F1
102AW-02-LEVED5	S2	F3	E2	C-2-b	14	13	T	E06	25X	S3	F3	Prevented	Prevented	S3	F1
102AW-02-LEVED6	S1	F1	E3		5		T.D8	D12							
102AW-02-PRES 102AW-02-TEMP	S3	F3	E2	C-1-a	14	11	T.DS.E	D01	22	S1	F3	S1	F3	S1	F3
102AW-02-PRES.D1 XS-25-PRES.D1	S1	NA	NA	QCC			Q	F07							
102AW-02-PRES01	S3	F2	E2	A-1-a	15	15	T.SD.H	B08	04X	S3	F3	S3	F1	S3	F2
102AW-02-PRES02	S2	F3	E2	C-1-a	14	11	T.D6	E01	23X	S1	F3	S1	F3	S1	F3
102AW-02-PRES03	S3	F0	E3	B-1-a	10	1	T.SD.V	C07	13X	S0	F0	S0	F0	S0	F0
102AW-02-PRES04	S3	F0	E3	B-1-a	10	1	T.SD	C11	13X	S0	F0	S0	F0	S0	F0
102AW-02-PRES05	S3	F0	E3	B-1-a	10	1	T.DS	C11	13X	S0	F0	S0	F0	S0	F0
102AW-02-PRES06	S3	F0	E3	B-1-a	10	1	T.SD.V	C07	13X	S0	F0	S0	F0	S0	F0
102AW-02-PRES07	S3	F0	E3	B-1-a	10	1	T.SD.V	C13	13X	S0	F0	S0	F0	S0	F0
102AW-02-PRES08	S2	F3	E1	C-1-a	14	11	T.DS.E	D01	22X	S1	F3	S1	F3	S1	F3
102AW-02-PRES09	S2	F3	E1	B-1-a	14	11	T.DS.A.V	D07	22X	S2	F3	S1	F3	S1	F3
102AW-02-TEMP 102AW-02-TEMP	S2	F2	E1	C-1-a	12	9	T.DS.A	E16	03X	S2	F3	Prevented	Prevented	S2	F1
102AW-02-TEMP.D1	S2	F2	E2	B-1-a	12	9	T.SD.L	D01	03X	S2	F3	Prevented	Prevented	S2	F1
102AW-02-TEMP.D2	S2	F2	E2	B-1-a	12	9	T.SD.V	D01	16A			Prevented	Prevented	S2	F1
102AW-03-LEVED1	S2	F2	E2	A-1-a	12	13	T.DS.H	B12	04X	S3	F3	S3	F1	S3	F1

Table A-2. Master Code Table - Part 1. (53 Sheets)

ID	Initial Safety Cons NC	Initial Freq NC	Env Cons	BN	Initial Risk Factor NC	Failed Crit Risk Factor	Facility Code	Cause Gap	Rep Acc	AA Safety Cons NC	AA Freq NC	App Crit Safety	App Crit Freq	Failed Crits Safety Cons	Failed Crit Freq
102AW-03-LEVE02	S2	F2	E2	A-1-a	12	13	T.D8.H	B05	D4X	S3	F3	S3	F1	S3	F1
102AW-03-LEVE08	S3	F1	E3	B-1-a	13	1	T.D8	C08	13K	S0	F1	S0	F0	S0	F0
102AW-03-PRES01 102AW-03-LEVE	S1	F2	E1		6		T.D8.V	D12							
102AW-03-PRES02 102AW-03-LEVE	S1	F2	E1		6		T.D8.V	D12							
102AW-03-TEMP01	S3	F2	E3	A-1-a	16	13	T.D8	B09	02K			Prevented	Prevented	S3	F1
102AW-03-TEMP02	S2	F2	E2	A-1-a	12	13	T.D8	B09	02K	S3	F2	Prevented	Prevented	S3	F1
102AW-04-LEVE01	S1	F3	E1		11	11	WD	D12						S1	F3
102AW-04-LEVE02	S1	F3	E1		11	11	WD	E05						S1	F3
102AW-04-LEVE03	S1	F3	E1		11	11	WD	E06						S1	F3
102AW-04-LEVE04	S1	F3	E1		11	11	WD	D08						S1	F3
102AW-04-PRES01	S1	NA	NA	RP			G	F14							
102AW-04-PRES01	S1	F3	E1		11	11	WD	D07						S1	F3
102AW-04-PRES02	S1	F3	E1		11	11	WD	E14						S1	F3
102AW-04-STRU01	S1	NA	NA	ODC			G	F10							
102AW-04-STRU02	S1	F2	E1		8		WD	D14							
102AW-04-STRU01A	S3	F3	E3	B-1-a	16	8	T	C10	12K	S2	F3	Prevented	Prevented	S2	F1
102AW-04-STRU01B	S1	F1	E1		6		WD	D18							
102AW-04-STRU02	S3	F3	E3	B-1-a	18	8	T	C10	12K	S2	F3	Prevented	Prevented	S2	F0
102AW-04-STRU03	S2	F2	E1	B-1-a	12	8	WD	D10	07K	S2	F3	Prevented	Prevented	S2	F1

Table A-2. Master Code Table - Part 1. (53 Sheets)

ID	Initial Safety Code NC	Initial Freq NC	Emr Cons.	SW	Initial Risk Factor NC	Failed Crnt Risk Factor	Facility Code	Cause Grp	Rep Acc	AA Safety Code NC	AA Freq NC	App Crnt Safety	App Crnt Freq	Failed Crnt Safety Cons	Failed Crnt Freq
102AW-04-STRU04	B2	F2	E2	C-3-b	12	5	WD	D10	20X	S1	F3	S1	F0	S1	F1
102AW-04-STRU05	B2	F1	E2	C-3-b	9	6	WD	D10	20X	S1	F3	S1	F2	S1	F2
102AW-04-TEMP	B2	F1	E1	A-1-a	9	9	WD	B08	07X	S2	F3	Prevented	Prevented	S2	F1
102AW-06-COMP01	S1	F2	E1		6		T	D01							
102AW-06-COMP02	S2	F1	E2	A-1-a	8	3	T	A00	01X	S1	F1	Prevented	Prevented	S1	F0
102AW-06-COMP02A	B2	F1	E2	A-1-a	9	3	T.DS	A01	01X	S1	F1	Prevented	Prevented	S1	F0
102AW-06-COMP03	B2	F1	E2	A-1-a	9	3	T	A02	01X	S1	F1	Prevented	Prevented	S1	F0
102AW-06-COMP04	S2	F1	E2	A-1-a	9	3	T.DS	A02	01X	S1	F1	Prevented	Prevented	S1	F0
102AW-06-COMP05	S2	F0	E2	A-1-a	6	3	T.DS	A03	01X	S1	F1	Prevented	Prevented	S1	F0
102AW-06-COMP06	S1	F3	E1		11		T	D01							
102AW-09-COMP01	S3	F2	E3	A-1-a	16	12	T.SD.O	B08	06X	S2	F2	S2	F2	S2	F2
102AW-09-COMP02	S3	F2	E3	A-1-a	15	13	T	B09	02X			Prevented	Prevented	S3	F1
102AW-09-COMP03	S1	F3	E1		11	8	T	D01						S1	F2
102AW-09-COMP04	S1	F3	E1		11		T.SD.O	D04							
102AW-09-COMP05	S1	F3	E1		11	8	T.DS.O	E01						S1	F2
102AW-09-TEMP	B2	F3	E1	C-1-a	14	11	T.DS	D01	22X	S1	F3	S1	F3	S1	F3
102AW-09-TEMP01	S2	F2	E2	B-1-a	12	9	T.DS.F	D01	16AX			Prevented	Prevented	S2	F1
102AW-09-TEMP02	S1	F1	E1		6		T.DS	D01							
102AW-13-FLOW01	S1	NA	NA	RF			G	F06							
102AW-13-FLOW01	S3	F1	E3	B-1-a	13	13	WW	D12	18X	S3	F3	S2	F1	S3	F1

Table A-2. Master Code Table - Part 1. (53 Sheets)

ID	Initial Safety Code NC	Initial Freq NC	Env Code	BIN	Initial Risk Factor NC	Failed Crit Risk Factor	Facility Code	Cause Grp	Rep Acc	AA Safety Cons NC	AA Freq NC	App Crit Safety	App Crit Freq	Failed Crit Safety Cons	Failed Crit Freq
102AW-13.FLOW02	B2	F9	E1	C-2-b	14	13	P0	E06	26X	S3	F3	Prevented	Prevented	S3	F1
102B-01.a1	B2	F2	B2	C-2-b	12	13	WD	B06	26X	S3	F3	S1	F3	S3	F1
102B-01.b2	B2	F2	B3	C-2-b	12	13	WD	D12	26X	S3	F3	S1	F3	S3	F1
102B-01.b3	B2	F3	E2	B-3-b	14	5	PS	D12	26	S1	F3	S1	F0	S1	F1
102B-02.a1	B2	F2	E1	A-1-a	12	9	WD	B12	67X	B2	F3	Prevented	Prevented	B2	F1
102B-02.b2	B2	F2	E2	A-1-a	12	9	WD	B09	67X	B2	F3	Prevented	Prevented	B2	F1
102B-02.b2	B2	F3	B0	A-1-a	14	9	T	B25	07X			Prevented	Prevented	B3	F1
102B-02.b3	B1	F3	E1		11	5	T	B25						B1	F1
102B-03.b3	B2	F2	E2	A-1-a	12	13	T.S0	B25	02X	B3	F2	Prevented	Prevented	B3	F1
102B-03.b4	B3	F3	E3	A-1-a	16	13	T.S8.O	B25	02X	B3	F2	Prevented	Prevented	B3	F1
102B-04.a1b	B0	F3	E2		7		T.S9	D12							
102B-04.a1b6	B0	F3	E2		7		T.S6	D06							
102B-04.b3	B2	F3	E1	B-1-a	14	11	T.60	D02	22X	B1	F3	B1	F3	S1	F3
102B-04.c	B3	F1	E3	A-1-a	13	12	T.S0.H	B06	06X	B2	F3	B2	F1	B2	F2
102B-04.d1	B3	F0	E3	B-1-a	10	1	T.S9.V	C07	13X	B0	F0	S0	F0	B0	F0
102B-04.e1b	B2	F2	E2	A-1-a	12	12	T.60.H	B06	06X	B2	F3	B2	F1	B2	F2
102B-04.e2	B1	F2	E1		5		T	B06							
102B-04.b3	B3	F0	E3	A-1-a	10	6	T	B06	06X	B2	F0	Prevented	Prevented	B2	F0
102B-04.e4	B2	F1	E1	A-1-a	9	3	T	A03	D1X	B1	F1	Prevented	Prevented	B1	F0
102B-05.a1a	B3	F3	E3	B-1-a	16	6	T	G10	12X	B2	F3	Prevented	Prevented	B2	F0

Table A-2. Master Code Table - Part 1. (53 Sheets)

ID	Initial Safety Conc NC	Initial Freq NC	Env Conc	BM	WML Risk Factor NC	Fatig Crd1 Risk Factor	Facility Code	Cause Grp	Rep Acc	AA Safety Conc NC	AA Freq NC	App Crd1 Safety	App Crd1 Freq	Fatig Crd1 Safety Conc	Fatig Crd1 Freq
102S-05.a1a	E3	F3	E3	B-1-a	18	8	T	C10	12X	S2	F3	Prevented	Prevented	E2	F0
102S-05.a2	S3	F1	E3	B-1-a	13		T	D18	14X	S3	F6	S3	F2		
102S-05.a3	S3	F1	E3	B-1-a	13	1	T	C13	13X	S0	F1	S0	F0	S0	F0
102S-06.a3a	S3	F1	E3	B-1-a	13	1	T	C12	13X	S0	F1	S0	F0	S0	F0
102S-06.a	B1	F3	E1		11	11	T.SD.V	D07						S1	F3
108C-01A	E3	F0	E3	B-1-a	10	1	T.SD.V	C07	13X	S0	F0	S0	F0	S0	F0
108C-01B	S3	F0	E3	B-1-a	10	1	T.SD.V	C07	13X	S0	F0	S0	F0	S0	F0
108C-01C	S3	F0	E3	B-1-a	10	1	T.SD.V	C07	13X	S0	F0	S0	F0	S0	F0
108C-01D	S3	F0	E3	B-1-a	10	1	T.SD.V	C13	13X	S0	F0	S0	F0	S0	F0
108C-01E	S3	F2	E3	B-1-a	16	1	T.SS.V	C11	13X	S0	F0	S0	F0	S0	F0
108C-01F	S2	P2	E2	B-1-a	12	12	T.SD.LV	D07	08X	S2	F3	S1	F3	S2	P2
108C-01G	S2	P2	E1	B-1-a	12	9	T	E01	03X	S2	F3	Prevented	Prevented	S2	F1
108C-01H	S2	P2	E1	C-1-a	12	9	T.SD.L	D07	03X	S2	F3	Prevented	Prevented	S2	F1
108C-01I	S3	F2	E3	A-1-a	16	16	T.SD.H	B06	05X	S3	F3	S3	F2	S3	F2
108C-01J	S3	F2	E3	A-1-a	16	16	T.SD.H	B06	05X	S3	F3	S3	F2	S3	F2
108C-01K	S1	F3	E1		11	8	T.SD.L	D02						S1	F2
108C-01M	S2	F2	E1	B-1-a	12	12	T	E01	03X	S2	F3	Prevented	Prevented	S2	F2
108C-01Ma	S3	F2	E2	A-1-a	16	16	T.SD.L	B01	05X	S3	F3	S3	F0	S3	F1
108C-01N	S2	F1	E2	A-1-a	9	3	T.SD.L	A05	01X	S1	F1	Prevented	Prevented	E1	F0
108C-01Ra	S0	F2	E3		4		T.S&L	E01							

Table A-2. Master Code Table - Part 1. (53 Sheets)

ID	Initial Safety Code NC	Initial Freq NC	Env Code	QIN	Initial Risk Factor NC	Failed Cntrl Risk Factor	Facility Code	Cause Grp	Rep Acc	AA Safety Code NC	AA Freq NC	App Cntrl Safety	App Cntrl Freq	Failed Cntrl Safety Code	Failed Cntrl Freq
108C-01B	S1	F3	E1		11	8	T.S&L	D02						S1	F2
108C-01S ^a	S1	F3	E3		11		T.S&S	D12							F3
108C-01T	S1	F3	E1		11	8	T.S&L	E02						S1	F2
108C-01U	S0	NA	E0	NR			T.S&L	F06							
108C-01W	S1	F1	E1		5		T	D05							
108C-01X	S3	F3	E3	B-1-a	16	8	T	C10	12X	S2	F3	Prevented	Prevented	S2	F0
108C-01Y	S3	F2	E3	B-1-a	15	9	T	C19	12X	S2	F3	Prevented	Prevented	S2	F1
108C-02A	S3	F2	E3	A-1-a	15	13	T.S&H	B06	05X	S3	F3	S3	F0	S3	F1
108C-02B	S3	F2	E3	A-1-a	15	15	T.S&H.V	B07	05X	S3	F3	S3	F2	S3	F2
108C-02C	S3	F2	E3	A-1-a	15	15	T.S&H	B08	05X	S3	F3	S3	F2	S3	F2
108C-04A	S3	F2	E2	A-1-a	15	15	T.S&H	B01	06X	S3	F3	S3	F2	S3	F2
108C-04A ^a	S2	F2	E1	A-1-a	12	15	T.S&H	B06	05X	S3	F3	S3	F2	S3	F2
108C-04B	S3	F2	E3	A-1-a	15	15	T.S&H	B08	05X	S3	F3	S3	F2	S3	F2
108C-00A	S1	F3	E1		11	11	WD	E14						S1	F3
108C-00B	S0	NA	E0	NR			WD	F07							
108C-00D	S2	F2	E1	A-1-a	12	9	WD	B25	07X	S2	F3	Prevented	Prevented	S2	F1
108C-00F	S1	F3	E1		11		WD	D06							
108C-00G	S1	F3	E1		11	8	WD	D06						S1	F2
108C-00H	S1	F3	E1		11		WD	D06							
108C-00J	S0	NA	E0	NR			WD	F10							

Table A-2. Master Code Table - Part 1. (53 Sheets)

ID	Initial Safety Code NC	Initial Fract NC	EW Code	SIN	Initial Risk Factor NC	Failed Critl Risk Factor	Facility Code	Cause Grp	Rep Acc	AA Safety Code NC	AA Freq NC	App Critl Safety	App Critl Freq	Failed Critl Safety Code	Failed Critl Freq
108C-08K	B1	F3	E1		11	8	WD	D10						B1	F2
108C-08L	B2	F2	E1	A-1-a	12	9	WD	B09	07X	S2	F3	Prevented	Prevented	B2	F1
108C-08M	B0	NA	E0	NR			WD	F14							
108C-10B	B0	NA	E0	NR			T.SD.V	F07							
108C-10C	B0	NA	E0	NR			T.SD.V	P07							
108C-10D	B0	NA	E0	NR			T.SD.V	F07							
108C-10E	B0	NA	E0	NR			T.SD.V	F07							
108C-10F	B1	F3	E1		11	11	T.SD.V	D07						B1	F3
108C-10H	B1	F1	E1		5		T.S3	F05							
108C-10J	B2	F2	E3	A-1-a	12	12	T	B09	D8	S2	F3	S1	F3	B2	F2
108C-10K	B1	F3	E1		11	11	T	D07						B1	F3
108C-10L	B1	F3	E1		11	11	T	D07						B1	F3
108C-11A	B1	F3	E1		11	11	T	D07						B1	F3
108C-11B	B0	NA	E0	NR			T.SD.V	F07							
108C-11C	B0	NA	E0	NR			T.SD.V	F07							
108C-11D	B0	NA	E0	NR			T.SD.V	F07							
108C-11E	B2	F3	E2	B-1-a	14	7	T	D07	18BX	B2	F3	S0	F3	B0	F3
108C-11F	B0	NA	E0	NR			T.SD.V	F07							
108C-11G	B1	F3	E1		11	8	T.S3	D07						B1	F2
108C-11H	B1	F3	E1		11	11	T.S3	D07						B1	F3

Table A-2. Master Code Table - Part 1. (53 Sheets)

ID	Initial Safety Code NC	Initial Freq NC	Env Code	BIN	Initial Risk Factor NC	Failed Crit Risk Factor	Facility Code	Course Grp	Resp Acc	AA Safety Code NC	AA Freq NC	App Crit Safety	App Crit Freq	Failed Crit Safety Code	Failed Crit Freq
106C-11I	S1	F3	E1		11	8	T.S.D.V	D07						S1	F2
106C-11J	S2	F3	E1	B-1-a	14	12	T.S.D.V	D07	06X			S1	F3	S2	F2
106C-11K	S2	F2	E1	A-1-a	12	12	T	B07	06X			S1	F3	S2	F2
106C-11L	S2	F3	E1	B-1-a	14	12	T	E07	18BX			S1	F3	S2	F2
106C-11M	S2	F3	E1	B-1-a	14	9	T	D07	06X			S1	F3	S2	F1
106C-11N	S1	F3	E1		11	9	T	D07						S1	F2
106C-11D	S2	F2	E1	B-1-a	12	9	T	D07	06X	S2	F3	S1	F3	S2	F1
106C-12A	S1	F3	E1		11	5	T.S.S.L	D02						S1	F2
106C-12B	S1	F3	E1		11	5	T.S.S.L	D02						S1	F2
106C-12C	S1	F3	E1		11	6	T.S.S.L	D02						S1	F2
106C-12D	S1	F3	E1		11	6	T.S.S.L	D02						S1	F2
106C-12F	S2	F2	E2	C-1-a	12	12	T.S.S.L	E01	03X	S2	F3	Prevented	Prevented	S2	F2
106C-12G	S2	F3	E3		7		T.S.S.L	E01							
106C-13A	S3	F2	E3	A-1-a	15	15	T.S.D.V	B08	05X	S3	F3	S3	F1	S3	F2
106C-13B	S0	NA	E0	NR			T.S.S.L	F08							
107AN-01-LEVEL01	S2	F3	E2	B-1-a	14	12	T.D.B.C	E06	17X			S1	F3	S2	F2
107AN-01-LEVEL02	S2	F2	E2	B-1-a	12	12	T.D.B.C	D12	17X	S2	F3	S1	F3	S2	F2
107AN-01-LEVEL03	S1	F3	E2		11	11	T.D.B.C	E25						S1	F3
107AN-01-TEMP01	S1	NA	NA	OCC			T.D.B.C	F08							
107AN-01-TEMP02	S2	F1	E2	B-1-a	9	12	T.D.B.C	D09	17X	S2	F3	S1	F3	S2	F2

Table A-2. Master Code Table - Part 1. (63 Sheets)

ID	Initial Safety Code NC	Initial Freq NC	Env Cons	BM	Initial Risk Factor NC	Failed Critl Risk Factor	Facility Code	Cause Grp	Rep Acc	AA Safety Code NC	AA Freq NC	App Critl Safety	App Critl Freq	Failed Critl Safety Code	Failed Critl Freq
107AN-02-FLOW01	S2	F3	E2	C-1-a	14	12	T.DS.C	E01	03X			Prevented	Prevented	S2	F2
107AN-02-FLOW02	S2	F3	E2	C-1-a	14	12	T.DS.C	E01	03X	S2	F3	Prevented	Prevented	S2	F2
107AN-02-FLOW03	S1	F2	E2		6		P6	D12							
107AN-02-PRES	S2	F3	E2	B-1-a	14	12	P8	D12	17			S1	F3	S2	F2
107AN-02-PRES02	S2	F3	E1	B-1-a	14	12	P8	D08	17X			S1	F3	S2	F2
107AN-02-TEMP01	S1	F2	E1		8		P0	D01							
107AN-03-PL0W	S1	F3	E1		11	11	P8	D34						S1	F3
114SX-02-b	S2	F1	E2	B-2-b	9	13	WD	E06	20X	S3	F3	S1	F3	S3	F1
114SX-04-a.1a	S1	F3	E0		11	8	T.SD.V	D07						S1	F2
114SX-04-a.1b	S1	F3	E0		11	8	T	D07						S1	F2
114SX-04-a.2	S3	F0	E3	B-1-a	10	1	T.S3	C07	13X	S0	F0	S0	F0	S0	F0
114SX-04-a.3	S3	F1	E3	B-1-a	13	1	T.S0.LV	C12	13X	S0	F1	S0	F0	S0	F0
114SX-04-a.4	S1	F3	E1		11	11	T	D07						S1	F3
114SX-04-b.1.a.1	S1	F3	E1		11	8	T.S3	E06						S1	F2
114SX-04-b.1.a.2	S3	F1	E3	B-1-a	13	1	T.S3.LV	C07	13X	S0	F1	S0	F0	S0	F0
114SX-04-b.1.a.3	S0	F2	E2		4		T.S3.LV	C07							
114SX-04-b.1.a.1a	S1	F3	E1		11	11	T	D07						S1	F3
114SX-04-b.1.a.1b	S2	F1	E1	B-1-a	9	7	T	D18	188X	S0	F3	S0	F3	S0	F3
114SX-04-b.1.b.2a	S3	F1	E3	B-1-a	13	1	T.S3.L	C12	13X	S0	F1	S0	F0	S0	F0
114SX-04-b.1.b.2b	S3	F1	E3	B-1-a	13	16	T	D18	14X	S3	F2	S3	F2	S3	F2

Table A-2. Master Code Table - Part 1. (53 Sheets)

ID	Initial Barfly Code NC	Initial Freq NC	Env Code	BSN	Initial Risk Factor NC	Failed Cntrl Risk Factor	Facility Code	Case Gp	Rep Acc	AA Safety Code NC	AA Freq NC	App Cntrl Safety	App Cntrl Freq	Failed Cntrl Safety Code	Failed Cntrl Freq
1145X-04 b 1 b 3a	30	F2	E2		4		T 63 L	C12							
1145X-04 b 1 b 3b	30	F1	E2		2		T	D18							
1145X-04 b 1 c 1	31	F3	E1		11	11	T SD V	D07						31	F3
1145X-04 b 1 c 2	33	F0	E3	B-1-a	10	1	T 88 L V	C07	13X	30	F0	30	F0	30	F0
1145X-04 b 1 c 3	30	F2	E2		4		T 83 L V	D07							
1145X-04 b 1 d 1	31	F3	E1		11	11	T SD V	D07						31	F3
1145X-04 b 1 d 2	33	F1	E3	B-1-a	13	1	T 33 L V	C07	13X	30	F1	30	F0	30	F0
1145X-04 b 1 d 3	30	F2	E2		4		T 63 L V	D07							
1145X-04 b 3b	33	F1	E2	A-1-a	13	15	T 33 H	B08	06X	33	F3	33	F2	33	F2
1145X-04 b 5	31	F3	E1		11	8	T 33 L V	D07						31	F2
1145X-04 c 1	32	F2	E2	B-1-a	12	9	T	C07	188X	32	F3	31	F3	32	F1
1145X-04 c 2a	32	F3	E2	B-1-a	14	12	T	C07	188			31	F3	32	F2
1145X-04 c 2b	32	F3	E2	B-1-a	14	12	T	D07	188X			31	F3	32	F2
1145X-04 c 2c	32	F3	E2	B-1-a	14	9	T	D07	06X			31	F3	32	F1
1145X-04 c 2d	32	F2	E2	B-1-a	12	12	T	E07	188X			31	F3	32	F2
1145X-05 b 1	33	F2	E3	A-1-a	15	15	T SD H	B08	06X	33	F3	33	F2	33	F2
1145X-05 b 2	32	F0	E2	B-1-a	5	5	T 33 L	D01	16AX			32	F0	32	F0
1145X-05 b 3	33	F0	E3	B-1-a	10	1	T 63 L	C11	13X	30	F0	30	F0	30	F0
1145X-05 c 2b	33	F1	E3	A-1-a	13	1	T	C01	13X	30	F1	30	F0	30	F0
1145X-06 c 2a	32	F1	E1	A-1-a	9	3	T	A08	01X	31	F1	Prevented	Prevented	31	F0

Table A-2. Master Code Table - Part 1. (53 Sheets)

ID	Initial Safety Code NC	Initial Freq NC	Env. Cont.	BIN	Initial Risk Factor NC	Failed Cntrl Risk Factor	Facility Code	Cause Grp	Rep Acc	AA Safety Cont NC	AA Freq NC	App Cntrl Safety	App Cntrl Freq	Failed Cntrl Safety Cont	Failed Cntrl Freq
1148X-06.d	B2	F3	E1	A-1-a	14	15	T,SD,H	B08	05X	S3	F3	S3	F2	S3	F2
1148X-06.e.1a	B3	F3	E3	B-1-a	16	8	T	C10	12X	S3	F3	Prevented	Prevented	B2	F0
1148X-06.e.1b	B3	F1	E3	A-1-a	19	15	T,SD,H	B08	05X	S3	F3	S3	F2	S3	F2
1148X-06.e.2	S0	F3	E2		7		T	D06							
1148X-06.e.3	S3	F1	E3	B-1-a	13	1	T	C12	13	S0	F1	S0	F0	S0	F0
1148X-06.f	S1	NA	NA	RP			T	D06							
204AR-01A	S1	F3	E1		11	8	F204	D01						S1	F2
204AR-01B	S1	F3	E1		11	11	F204	D09						S1	F3
204AR-01C	S1	F3	E1		11	11	F204	D01						S1	F3
204AR-01D	S1	F3	E1		11	11	F204	D09						S1	F3
204AR-01E	S1	F2	E1		8		F204	B05							
204AR-01F	S1	F1	E1		5		F204	D09							
204AR-01G	S1	F2	E1		8		F204	D00							
204AR-01H	S2	F2	E2	B-2-b	12	8	F204	C25	25	S1	F2	S1	F2	S1	F2
204AR-01I	S2	F2	E2	C-2-b	12	8	F204	C12	25X	S1	F2	S1	F2	S1	F2
204AR-01J	S1	F3	E1		11	11	F204	B06						S1	F3
204AR-01K	S1	F3	E1		11	11	F204	B06						S1	F3
204AR-02A	S2	F2	E1	B-2-b	12	8	F204	C25	25X	S1	F2	S1	F2	S1	F2
204AR-02B	S2	F2	E1	C-2-b	12	8	F204	B12	25X	S1	F2	S1	F2	S1	F2
204AR-02C	S1	F2	E1		8		F204	D01							

Table A-2. Master Code Table - Part 1. (53 Sheets)

ID	Initial Safety Code NC	Initial Freq NC	Err Code	BIN	Initial Risk Factor NC	Failed Crit Risk Factor	Facility Code	Course Gp	Rsp Acc	AA Safety Code NC	AA Freq NC	App Crit Safety	App Crit Freq	Failed Crit Safety Code	Failed Crit Freq
204AR-02D	E1	F2	E1		8		F204	D09							
204AR-02E	E1	F3	E1		14	11	F204	D10						S1	F3
204AR-02F	E1	F3	E1		14	11	F204	E06						S1	F3
204AR-03A	E1	F3	E1		11	11	F204	D06						S1	F3
204AR-03B	E1	F3	E1		11	11	F204	E08						S1	F3
204AR-03C	E1	F2	E1		6		F204	D12							
204AR-04A	S1	F3	E1		19	11	F204	D06						S1	F3
204AR-04B	S1	F3	E1		15	11	F204	E06						S1	F3
204AR-04C	S1	F3	E1		11	11	F204	E01						S1	F3
204AR-04D	S1	F3	E1		11	11	F204	E01						S1	F3
204AR-04E	S1	F3	E1		11	11	F204	E01						S1	F3
204AR-04F	S1	F2	E1		8		F204	D12							
204AR-06A	S1	F2	E1		8		F204	D12							
204AR-06B	S1	F3	E1		11	11	F204	E06						S1	F3
204AR-06C	S1	F2	E1		8		F204	E08							
204AR-06A	S1	F3	E1		11	11	F204	D01						S1	F3
204AR-06B	S1	F3	E1		11	11	F204	D17						S1	F3
204AR-06C	S1	F3	E1		11	11	F204	E08						S1	F3
204AR-07A	E2	F2	E2	6-1-a	12	10	F204	E08	15X	S3	F3	Prevented	Prevented	S3	F0
204AR-07B	E1	F3	E1		11	11	F204	E01						S1	F3

Table A-2. Master Code Table - Part 1. (53 Sheets)

ID	Initial Safety Code NC	Initial Freq NC	Env Code	GIN	Initial Risk Factor NC	Failed Cntrl Risk Factor	Facility Code	Cause Grp	Rep Acc	AA Safety Code NC	AA Freq NC	App Cntrl Safety	App Cntrl Freq	Failed Cntrl Safety Code	Failed Cntrl Freq
204AR-07C	S1	F2	E1		8		F204	E03							
204AR-08A	S2	F2	E2	C-2-b	12	8	F204	D12	25X	S1	F2	S1	F2	S1	F2
204AR-08B	S2	F2	E2	C-2-b	12	8	F204	D12	25X	S1	F2	S1	F2	S1	F2
204AR-08C	S2	F2	E2	C-2-b	12	8	F204	D08	25X	S1	F2	S1	F2	S1	F2
204AR-08D	S2	F2	E1	C-2-b	12	8	F204	D12	25X	S1	F2	S1	F2	S1	F2
204AR-08E	S1	F2	E1		8		F204	D07							
204AR-08F	S1	F3	E1		11	11	F204	D07						S1	F3
204AR-08G	S0	F2	E1		4		F204	D12							
204AR-08H	S1	F2	E1		8		F204	D12							
204AR-11A	S1	F3	E1		11	11	F204	D07						S1	F3
204AR-11B	S1	F3	E1		11	11	F204	D07						S1	F3
204AR-11C	S1	F3	E1		11	11	F204	D07						S1	F3
204AR-11D	S1	F3	E1		11	11	F204	E07						S1	F3
204AR-11E	S1	F3	E1		11	8	F204	D07						S1	F2
204AR-11F	S2	F2	E1	A-1-a	12	12	F204	B07	08X	S2	F3	S1	F3	S2	F2
213W-01	S1	F3	E1		11	11	F213	E28						S1	F3
213W-02	S1	F3	E1		11	11	F213	D14						S1	F3
213W-03	S1	F2	E1		8		F213	B08							
213W-04	S1	F2	E1		8		F213	B08							
213W-05	S1	F2	E1		8		F213	B08							

Table A-2. Master Code Table - Part 1. (53 Sheets)

ID	Initial Safety Code NC	Initial Freq NC	Env Code	BSM	Initial Risk Factor NC	Failed Crit Risk Factor	Facility Code	Cause Grp	Rep Acc	AA Safety Code NC	AA Freq NC	App Crit Safety	App Crit Freq	Failed Crit Safety Code	Failed Crit Freq
213 W-06	S1	F2	E1		6		F213	B21							
213 W-07	S1	F1	E1		6		F213	D18							
213 W-09	S1	F2	E1		6		F213	D28							
213 W-09	S1	F3	E1		11	6	F213	D35						S1	F2
244AR-01.4.03	S1	F0	E1		3		F244	D07							
244AR-01.5.01	S1	F0	E1		3		F244	D07							
244AR-01.5.02	S1	F0	E1		3		F244	D07							
244AR-01.5.03	S1	F0	E1		3		F244	D07							
244AR-01.5.04	S2	F3	E1	B-1-a	14	5	F244	D07	D0X	S1	F3	S1	F2	S1	F1
244AR-01.6.01	S1	F3	E0		11	6	F244	D07						S1	F2
244AR-01.6.02	S1	F3	E0		11	11	F244	D07						S1	F3
244AR-01.6.03	S1	F3	E0		11	11	F244	D07						S1	F3
244AR-01.5.07	S1	F2	E0		8		F244	D11							
244AR-01.6.08	S1	F3	E0		11	8	F244	D07						S1	F2
244AR-01.6.09	S2	F2	E2	A-1-a	12	15	F244	B06	D0X	S3	F3	S3	F2	S3	F2
244AR-01.5.10	S1	F3	E0		11	5	F244	D07						S1	F2
244AR-01.6.11	S1	F0	E0		3		F244	D07							
244AR-01.6.13	S1	F2	E0		8		F244	D07							
244AR-02.1.03	S2	F1	E2	A-1-a	9	18	F244	B06	D0X	S3	F3	S3	F2	S3	F2
244AR-02.1.05	S0	F3	E0		7		F244	D01							

Table A-2. Master Code Table - Part 1. (53 Sheets)

ID	Initial Safety Cons NC	Initial Freq NC	EW Cons	BN	Initial Risk Factor NC	Failed Ctrl Risk Factor	Rectify Code	Caused Grp	Rep Acc	AA Safety Cons NC	AA Freq NC	App Ctrl Safety	App Ctrl Freq	Failed Ctrl Safety Cons	Failed Ctrl Freq
244AR-02.a.06	S0	F3	E2		7		F244	D01							
244AR-02.a.07	S2	F1	E2	C-1-a	9	13	F244	D01	28X	S3	F1	S3	F1	S3	F1
244AR-02.a.08	S3	F3	E0		11	8	F244	D08						S1	F2
244AR-02.a.09	S1	F3	E2		11	11	F244	D06						S1	F3
244AR-02.a.10	S1	F3	E0		11	8	F244	D06						S1	F2
244AR-02.a.11	S1	F3	E2		11	11	F244	D09						S1	F3
244AR-02.a.12	S1	F3	E0		11	11	F244	D12						S1	F3
244AR-02.a.13	S0	F3	E2		7		F244	D12							
244AR-02.a.14	S3	F1	E3	D-1-a	13	19	F244	D18	14X	S3	F3	S3	F2	S3	F2
244AR-03.a.03	S1	F1	E1		5		F244	D11							
244AR-03.a.04	S2	F2	E2	A-1-a	12	15	F244	B08	05X	S0	F3	S3	F2	S3	F2
244AR-03.a.05	S2	F2	E2	C-1-a	12	3	F244	D07	22X	S1	F0	S1	F0	S1	F0
244AR-03.a.06	S1	F0	E1		3		F244	D01							
244AR-03.a.07	S1	F2	E1		6		F244	D07							
244AR-03.a.08	S2	F3	E2	B-1-a	14	3	F244	D01	22X	S1	F0	S1	F0	S1	F0
244AR-03.a.09	S2	F1	E2	A-1-a	9	3	F244	A05	01X	S1	F1	Prevented	Prevented	S1	F0
244AR-03.a.13	S1	F0	E0		3		F244	D06							
244AR-03.a.14	S1	F0	E0		3		F244	D08							
244AR-03.a.16	S0	F3	E0		7		F244	D12							
244AR-03.a.18	S0	F3	E0		7		F244	D18							

Table A-2. Master Code Table - Part 1. (53 Sheets)

ID	Intel Safety Code NC	Intel Freq NC	Env Cons	SW	Intel Risk Factor NC	Failed Cntrl Risk Factor	Facility Code	Cause Grp	Resp Acc	AA Safety Code NC	AA Freq NC	App Cntrl Safety	App Cntrl Freq	Failed Cntrl Safety Code	Failed Cntrl Freq
244AR-03 s 17	S0	F2	E0		4		F244	D12							
244AR-03 s 18	S1	F2	E0		8		F244	D15							
244AR-04 s 01	S1	F2	E0		8		F244	D15							
244AR-05 s 01	S1	NA	NA	OCC			F244	F12							
244AR-06 s 02	S2	F3	E2	B-1-a	12	10	F244	D18	14X	S3	F0	S3	F0	S3	F0
244AR-06 s 02	S1	NA	NA	RP			F244	F07							
244AR-07 s 01	S1	F0	E1		3		F244	D09							
244AR-07 s 02	S1	F0	E1		3		F244	D08							
244AR-07 s 03	S1	F0	E1		3		F244	D08							
244AR-07 s 04	S1	F0	NA	RP	3		F244	F06							
244AR-PH01	S1	F0	NA	OCC	3		F244	F01							
244AR-PH02	S1	NA	NA	OCC			F244	F04							
244AR-PH03	S1	NA	NA	RP			F244	F04							
244AR-PH04	S1	NA	NA	OCC			F244	F12							
244AR-PH05	S1	NA	NA	OCC			F244	F05							
244AR-PH06	S1	NA	NA	OCC			F244	F12							
244AR-PH07	S1	NA	NA	OCC			F244	F05							
244AR-PH08	S1	NA	NA	OCC			F244	F05							
244AR-PH09	S1	NA	NA	OCC			F244	F05							
244AR-PH10	S1	NA	NA	OCC			F244	F05							

Table A-2. Master Code Table - Part 1. (53 Sheets)

ID	Initial Safety Code NC	Initial Freq NC	Env Cons	SIN	Initial Risk Factor NC	Failed Crd1 Risk Factor	Facility Code	Cause Grp	Rep Acc	AA Safety Cons NC	AA Freq NC	App Crd1 Safety	App Crd1 Freq	Failed Crd1 Safety Cons	Failed Crd1 Freq
244AR-PH1	B1	NA	NA	OCC			F244	F05							
244AR-PH2	B1	NA	NA	OCC			F244	F05							
244AR-PH3	B1	NA	NA	OCC			F244	F05							
244AR-PH14	B1	NA	NA	OCC			F244	F05							
244AR-PH15	B1	NA	NA	OCC			F244	F09							
244AR-PH16	B1	NA	NA	OCC			F244	F05							
244AR-PH17	B1	NA	NA	OCC			F244	F12							
244AR-PH18	B1	NA	NA	OCC			F244	F05							
244AR-PH19	B1	NA	NA	OCC			F244	F05							
272YW-01	B1	F2	E1		4		S3	D01							
272YW-02	B2	F1	E1	A-1-a	9	9	S3	B35	30X	S2	F3	B2	F1	B2	F1
272YW-03	B2	F2	E1	A-1-a	12	9	B3	B21	30X	S2	F3	B2	F1	B2	F1
272YW-04	B2	F1	E1	A-1-a	9	9	S6	B09	30X	S2	F3	B2	F1	B2	F1
272YW-05	B2	F3	E1	A-1-a	14	9	S5	B01	30X	S2	F3	B2	F1	B2	F1
272YW-06	B2	F2	E1	A-1-a	12	9	S3	D20	30			B2	F1	B2	F1
900-01	B1	F3	E1		11	11	S90	D12						B1	F3
900-02	B1	F3	E1		11	11	S90	D20						B1	F3
900-03	B1	F3	E1		11	11	S90	D05						B1	F3
900-04	B1	F3	E1		11	11	S90	B09						B1	F3
900-05	B1	F1	E1		5		S90	B09							

Table A-2. Master Code Table - Part 1. (53 Sheets)

ID	Initial Safety Code NC	Initial Freq NC	Env Code	BRN	Initial Risk Factor NC	Failed Ctrl Risk Factor	Facility Code	Case Grp	Rep Acc	AA Safety Code NC	AA Freq NC	App Ctrl Safety	App Ctrl Freq	Failed Ctrl Safety Code	Failed Ctrl Freq
900-06	S1	F3	E1		11	11	990	D12						S1	F3
900-07	S1	F3	E1		11	11	990	D26						S1	F3
900-08	S1	F3	E1		11	11	990	D05						S1	F3
900-09	S1	F2	E1		8		990	B09							
900-10	S1	F1	E1		5		990	B09							
900-11	S1	F3	E1		11	11	990	D14						S1	F3
BND-01	S1	NA	NA	OC0			G	F05							
BND-014	S1	NA	E1	OC0			CM	F05							
BND-02	S2	F2	E1	A-1-a	12	16	T	B04	05X	S3	F3	S3	F2	S3	F2
BND-024	S1	F2	E1	OC0	8		CM	B04							
CCF-01	S2	P0	E2	B-1-a	0		M	D07	03X	S1	P0	S1	P0		
CCF-02	S1	F3	E1		11	11	M	D07						S1	F3
CCF-03	S1	F3	E0	RP	11	11	M							S1	F3
CCF-04	S1	F3	E0	RP	11	11	M							S1	F3
CCF-05	S0	NA	E0	NR			M								
CCF-06	S0	NA	E0	NR			M								
CCF-07	S2	F3	E2	C-2-b	14	15	M	E06	26X	S3	F3	Prevented	Prevented	S3	F2
CCF-08	S0	NA	E0	NR			M								
CCF-09	S0	NA	E0	NR			G								
CCF-10	S0	NA	E0	NR			G								

Table A-2. Master Code Table - Part 1. (53 Sheets)

ID	Initial Safety Code NC	Initial Freq NC	Env Code	BH	Initial Risk Factor NC	Faded Cntrl Risk Factor	Facility Code	Cause Grp	Rep Acc	AA Safety Code NC	AA Freq NC	App Cntrl Safety	App Cntrl Freq	Faded Cntrl Safety Code	Faded Cntrl Freq
CCF-11	S0	NA	E0	NR			G								
CCF-12	S0	NA	E0	NR			G								
CCF-13	S0	NA	E0	NR			G								
CCF-14	S1	NA	NA	ODC			G	F05							
CCF-15	S1	NA	NA	ODC			G	F12							
CCF-16	S1	F3	E3		11	11	M	DW						S1	F3
CCF-17	S3	F1	E3	B-1-a	13	1	T.SS	G12	13K	S0	F1	S0	F0	S0	F0
CCF-18	S3	F0	E3	B-1-a	10	1	T.SD.V	C31	14K	S0	F0	NA	NA	S0	F0
CCF-19	S3	F0	E3	B-1-a	10	1	T.SD.V	C31	14K	S0	F0	NA	NA	S0	F0
CCF-20	S2	F2	E1	B-1-a	12	9	T	D01	D3K	S2	F3	Prevented	Prevented	S2	F1
CCF-01	S1	F3	E1		11	11	ER	D14						S1	F3
CCF-02	S0	F3	E0		7		ER	D14							
CCF-03	S1	F3	E1		11	11	ER	D19						S1	F3
CCF-04	S0	F3	E2		7		ER	D19							
CCF-05	S1	F2	E1		8		ER	D20							
CCF-06	S1	F3	E0		11	11	ER	D20						S1	F3
CCF-07	S0	F3	E2		7		ER	D05							
CCF-08	S1	F0	E1		11	11	ER	809						S1	F3
CCF-09	S1	NA	NA	ODC			G	F25							
CCF-10	S2	F3	E2	C-2-a	14	11	ER	D22	28	S1	F3	S1	F3	S1	F3

Table A-2. Master Code Table - Part 1, (63 Sheets)

ID	Initial Safety Code NC	Initial Freq NC	Env Code	GR	Initial Risk Factor NC	Failed Ctrl Risk Factor	Facility Code	Course Grp	Rsp Acc	AA Safety Code NC	AA Freq NC	App Ctrl Safety	App Ctrl Freq	Failed Ctrl Safety Code	Failed Ctrl Freq
COS-01	S3	F3	E2	B-1-a	16	15	WB	D12	15X			S2	F3	S3	F2
COS-02	S1	F3	E2		11	11	WB	D12						S1	F3
COS-03	S1	F3	E2		11	11	WB	D01						S1	F3
COS-04	S2	F3	E2	C-2-b	14	13	WB	D12	26X	S3	F3	S1	F3	S3	F1
COS-05a	S1	F3	E1		11	11	WB	E14						S1	F3
COS-05b	S1	F3	E1		11	11	WB	D14						S1	F3
COS-05c	S1	F3	E1		11	5	WB	D16						S1	F2
COS-05d	S1	F3	E1		11	5	WB	D25						S1	F2
COS-05e	S1	F3	E1		11	11	WB	D15						S1	F3
COS-05f	S1	F3	E1		11	5	WB	E14						S1	F2
COS-06a	S1	F3	E1		11	11	WB	D07						S1	F3
COS-06b	S1	F3	E1		11	11	WB	D12						S1	F3
COS-07	S1	F2	E1		5		WB	E05							
COS-08	S2	F3	E2	C-2-b	14	13	WB	D12	26X	S3	F3	S1	F3	S3	F1
CRN-01	S1	F3	E1		11	8	T	E26						S1	F2
CRN-01+	S1	F3	E1		11	8	OM	E26						S1	F2
CRN-02	S1	F3	E1		11	8	T	O26						S1	F2
CRN-02+	S1	F2	E1		8		OM	O26							
CRN-03	S3	F3	E3	B-1-a	16	8	T	G10	12A	S2	F3	Prevented	Prevented	S2	F3
CRN-03-1A	S2	F3	E1	B-1-a	14	6	OM	E10	12X			Prevented	Prevented	S2	F3

Table A-2. Master Code Table - Part 1. (53 Sheets)

ID	Initial Safety Code NC	Initial Freq NC	ENR Cons	BIN	Initial Risk Factor NC	Failed Crit Risk Factor	Facility Code	Clause Gp	Rep Acc	AA Safety Cons NC	AA Freq NC	App Crit Safety	App Crit Freq	Failed Crit Safety Cons	Failed Crit Freq
CRN-03-IB	S2	F3	E2	B-2-b	14	13	OM	E10	21X	S3	F3	Prevented	Prevented	S3	F1
CRN-04	S3	F3	E3	B-1-a	16	9	T	C10	12B	S2	F3	Prevented	Prevented	S2	F1
CRN-04-1A	S2	F2	E1	B-1-a	12	9	OM	D10	12X	S2	F3	Prevented	Prevented	S2	F1
CRN-04-IB	S2	F2	E2	B-2-b	12	6	OM	D10	21X			Prevented	Prevented	S2	F0
CRN-05	S2	F3	E2	A-1-a	14	9	T	B25	07	S2	F3	Prevented	Prevented	S2	F1
CRN-05-1	S1	F3	E1		11	8	DM	B25						S1	F2
CRN-06	S2	F3	E2	A-1-a	14	9	T	B25	07X	S2	F3	Prevented	Prevented	S2	F1
CRN-06-1	S1	F3	E1		11	8	OM	B25						S1	F2
CRN-07	S2	F3	E2	A-1-a	14	9	T	B25	07X	S2	F3	Prevented	Prevented	S2	F1
CRN-07-1	S1	F2	E1		8		DM	B25							
CRN-08	S2	F3	E2	A-1-a	14	9	T	B21	07X	S2	F3	Prevented	Prevented	S2	F1
CRN-08-1	S1	F1	E1		5		OM	B21							
CRN-09	S2	F3	E2	B-1-a	14	5	T	E25	12X			Prevented	Prevented	S1	F1
CRN-09-1	S2	F3	E1	B-1-a	14	5	OM	E25	18BX					S1	F1
CRN-10	S2	F3	E2	B-1-a	14	5	T	D25	12X			Prevented	Prevented	S1	F1
CRN-10-1	S2	F2	E1	B-1-a	12	5	OM	D25	18BX	S2	F3	Prevented	Prevented	S1	F1
CRN-11	S3	F3	E3	B-1-a	16	8	T	C10	12C	S2	F3	Prevented	Prevented	S2	F1
CRN-11-1A	S2	F3	E1	B-1-a	14	9	OM	E10	12X			Prevented	Prevented	S2	F1
CRN-11-1B	S2	F3	E1	B-1-a	14	11	OM	E10	31X	S1	F3	S1	F3	S1	F3
CRN-11-1C	S2	F3	E2	C-2-b	14	6	OM	E10	25X	S2	F3	Prevented	Prevented	S2	F0

Table A-2, Master Code Table - Part 1. (53 Sheets)

ID	Initial Safety Code NC	Initial Freq NC	Env Code	BB	Initial Risk Factor NC	Failed Crit Risk Factor	Facility Code	Cause Grp	Rep Acc	AA Safety Cons NC	AA Freq NC	App Crit Safety	App Crit Freq	Failed Crit Safety Cons	Failed Crit Freq
CRN-12	B3	F3	E3	B-1-a	9	9	T	C10	12X	S2	F3	Prevented	Prevented	S2	F1
CRN-12-A	S2	F2	E1	B-1-a	12	9	OM	D10	12X	S2	F3	Prevented	Prevented	S2	F1
CRN-12-B	S2	F2	E1	B-1-a	12	11	OM	D10	31X	S1	F3	S1	F3	S1	F3
CRN-12-C	S2	F2	E2	C-2-b	12	9	OM	D10	20X			Prevented	Prevented	S2	F0
CRN-13-A	S2	F2	E1	B-1-a	12	9	OM	D05	10X			Prevented	Prevented	S2	F1
CRN-13-B	S2	F2	E1	B-1-a	12	11	OM	D05	31X	S1	F3	S1	F3	S1	F3
CRN-13-C	S2	F2	E2	B-1-a	12	9	OM	D05	10X			Prevented	Prevented	S2	F1
CRN-13-a	S3	F3	E3	A-1-a	16	9	T	D20	10	S2	F2	Prevented	Prevented	S2	F1
CRN-13-b	S3	F1	E3	B-1-a	13	9	T	D15	14X	S3	F2	S2	F2	S2	F1
CRN-14	S1	NA	NA	RP			G	F10							
CRN-14-1	S1	NA	E1	ODC			OM	F10							
CRN-15	S1	NA	NA	RP			G	F10							
CRN-15-1	S1	NA	E1	ODC			OM	F10							
CRN-15-2	S1	NA	NA	RP			G	F05							
CRN-15-3	S1	NA	E1	ODC			OM	F05							
CRN-17	S1	F3	E1		11	11	T	E26						S1	F3
CRN-17-1	S1	NA	E1	ODC			OM	F26							
CRN-18	S2	F3	E1	B-1-a	14	11	T	D10	31X	S1	F3	S1	F3	S1	F3
CRN-18-1	S2	F3	E1	B-1-a	14	11	OM	E10	31X	S1	F3	S1	F3	S1	F3
CRN-19	S2	F3	E1	B-1-a	14	9	T	D10	45X			Prevented	Prevented	S2	F1

Table A-2. Master Code Table - Part 1. (53 Sheets)

ID	Initial Safety Code NC	Initial Freq NC	Env Cons	BN	Initial Risk Factor NC	Failed Crit Risk Factor	Facility Code	Cause Grp	Rep Acc	AA Safety Code NC	AA Freq NC	App Crit Safety	App Crit Freq	Failed Crit Safety Code	Failed Crit Freq
CRN-194	S2	F2	E1	B-1-a	12	11	OM	D10	31X	S1	F3	S1	F3	S1	F3
CRN-20	S2	F3	E1	B-1-a	14	9	T	D05	00X			Prevented	Prevented	S2	F1
CRN-204	S2	F2	E1	B-1-a	12	11	OM	D05	31X	S1	F3	S1	F3	S1	F3
CRN-21	S0	F3	E3		7		T	E10							
CRN-21-1A	S0	F3	E2		7		OM	E10							
CRN-21-B	S2	F3	E2	B-2-b	14	13	OM	E10	21X	S3	F3	Prevented	Prevented	S3	F1
CRN-22	S0	F2	E3		4		T	D90							
CRN-224A	S0	F2	E2		4		OM	D90							
CRN-224B	S2	F2	E2	B-2-b	12	6	OM	D90	21X	S1	F3	Prevented	Prevented	S2	F0
CRN-23	S2	F3	E3	B-3-b	14	9	T	D05	10X	S2	F2	Prevented	Prevented	S2	F1
CRN-234A	S2	F2	E1	B-3-b	12	9	OM	D05	10X			Prevented	Prevented	S2	F1
CRN-234B	S2	F2	E2	B-1-a	12	11	OM	D05	31X			S1	F3	S1	F3
CRN-24	S1	NA	NA	ODC			G	F07							
CRN-244	S1	NA	E1	ODC			OM	F07							
CRN-25	S1	NA	NA	ODC			G	F26							
CRN-25-1A	S1	NA	E1	ODC			OM	F26							
CRN-25-1B	S2	F3	E1	C-2-b	14	11	OM	E25	31X	S1	F3	S1	F3	S1	F3
CRN-26	S1	NA	NA	ODC			G	F26							
CRN-26-1A	S1	NA	E1	ODC			OM	F26							
CRN-26-1B	S2	F2	E1	C-2-b	12	11	OM	D26	31X	S1	F3	S1	F3	S1	F3

Table A-2. Master Code Table - Part 1. (53 Sheets)

ID	Initial Safety Code NC	Initial Freq NC	Env Code	BWH	Initial Risk Factor NC	Failed Cntl Risk Factor	Facility Code	Cause Grp	Resp Acc	AA Safety Code NC	AA Freq NC	App Cntl Safety	App Cntl Freq	Failed Cntl Safety Code	Failed Cntl Freq
CRN-27	S1	NA	NA	OCC			G	P05							
CRN-27-NA	S1	NA	E1	OCC			OM	D25							
CRN-27-NS	S2	F2	E1	C-2-b	12	11	OM	D10	S1X	S1	F3	S1	F3	S1	F3
CRN-28-1	S0	F3	E0		7		OM	E10							
CVR-01	S1	F3	E1		11	11	WD	E14						S1	F3
CVR-01-1	S1	F3	E1		11	11	OM	E14						S1	F3
CVR-02	S1	F3	E1		11	11	WD	D12						S1	F3
CVR-02-1	S1	F3	E1		11	11	OM	D12						S1	F3
CVR-03	S1	F3	E1		11	11	WD	D20						S1	F3
CVR-03-1	S1	F3	E1		11	11	OM	D20						S1	F3
CVR-04	S1	F1	E1		5		WD	D15							
CVR-04-1	S1	F2	E1		5		OM	D15							
CVR-05	S2	F3	E1	A-1-a	14	9	WD	B00	Q7X			Prevented	Prevented	S2	F1
CVR-05-1	S1	F1	E1		5		OM	B00							
CVR-06	S1	NA	NA	RP			G	F14							
CVR-06-1	S1	NA	E1				OM	F14							
CVR-07	S1	NA	NA	RP			G	F14							
CVR-07-1	S1	NA	E1	RP			OM	F14							
CVR-08	S1	NA	NA	RP			G	F14							
CVR-08-1	S1	NA	E1	RP			OM	F14							

Table A-2. Master Code Table - Part 1, (53 Sheets)

ID	Initial Safety Code NC	Initial Freq NC	Env Cons	BNF	Initial Risk Factor NC	Failed Child Risk Factor	Facility Code	Course Grp	Rep App	AA Safety Code NC	AA Freq NC	App Child Safety	App Child Freq	Failed Child Safety Code	Failed Child Freq
CVR-09	S1	NA	NA	RP			G	F05							
CVR-09a	S1	NA	E1	RP			Om	F05							
CVR-10	S1	NA	NA	OCG			G	F05							
CVR-10a	S1	NA	E1	OCG			Om	F05							
CVR-11	S1	NA	NA	OCG			G	F07							
CVR-11a	S1	NA	E1	OCG			Om	F07							
CVR-12a	S1	F3	E1		11	11	Om	D04						S1	F3
CVR-13a	S1	F3	E1		11	11	Om	D14						S1	F3
CVR-14a	S1	F3	E1	OCG	11	11	Om	F14						S1	F3
CVR-15a	S2	F3	E1	B-1-a	14	9	Om	D10	07X			Prevented	Prevented	S2	F1
DCN-01	S1	NA	NA	RP			G	F05							
DCN-01a	S1	NA	E1	RP			Om	F05							
DCN-02	S1	F3	E1		11	11	G	E06						S1	F3
DCN-02Aa	S1	F2	E1		8		Om	D05							
DCN-02Ab	S1	F2	E1		8		Om	D09							
DCN-03	S1	F1	E1		5		G	D16							
DCN-03a	S1	F2	E1	RP	8		Om	D16							
DCN-04	S1	F2	E1		8		G	D20							
DCN-04a	S1	F2	E2	RP	8		Om	D20							
DCN-05	S1	NA	NA	OCG			G	F05							

Table A-2. Master Code Table - Part 1. (53 Sheets)

ID	Initial Safety Code NC	Initial Freq NC	Env Code	SN	Initial Risk Factor NC	Failed Ctrl Risk Factor	Facility Code	Control Dep	Resp Acc	AA Safety Code NC	AA Freq NC	App Ctrl Safety	App Ctrl Freq	Failed Ctrl Safety Code	Failed Ctrl Freq
DCN-054	S1	NA	E1	CCC			CM	F05							
DCN-06	S1	NA	NA	RP			G	F05							
DCN-064	S1	NA	E1	RP			CM	F05							
DCN-07	S1	NA	NA	CCC			G	F05							
DCN-074	S1	NA	E1	CCC			CM	F05							
EE-01	S3	F1	E3	A-1-a	13	10	M	B23	11X			S3	F0	S3	F0
EE-02	S1	F3	E1		11	11	M	B09						S1	F3
EE-03	S1	F2	E1		8		M	D19							
EE-04a	S3	F2	E3	A-1-a	16	13	T	B25	02K			Prevented	Prevented	S3	F1
EE-04b	S3	F2	E3	A-1-a	15	13	T	B25	02K			Prevented	Prevented	S3	F1
EE-05a	S3	F3	E3	A-1-a	16	13	T	B25	02A	S3	F2	Prevented	Prevented	S3	F1
EE-05b	S3	F3	E3	A-1-a	16	13	T	B25	02B	S3	F2	Prevented	Prevented	S3	F1
EE-06	S1	F2	E1		8		M	B25							
EE-07	S0	NA	E0	NR			M								
EE-08	S0	NA	E0	NR			M								
EE-09	S1	F3	E0		11	11	M	F12						S1	F3
EE-10	S1	F0	E3		3		G	D12							
EE-11	S2	F2	E2	G-S-B	12	12	G	D12	25X			S1	F2	S2	F2
EE-12	S1	NA	E0	CCC			G	F12							
EE-13	S1	NA	NA	CCC			G	F12							

Table A-2. Master Code Table - Part 1. (53 Sheets)

ID	Initial Safety Code NC	Initial Frag NC	Env Code	BIN	Initial Risk Factor NC	Failed Crit Risk Factor	Facility Code	Cause Grp	Rep Acc	AA Safety Code NC	AA Frag NC	App Crit Safety	App Crit Frag	Failed Crit Safety Code	Failed Crit Frag
EE-14	S1	NA	NA	000			G	F22							
EE-15	S1	NA	NA	000			G	F22							
EE-16	S3	F3	E2	B-1-a	16	13	PD	D22	16	S3	F3	Prevented	Prevented	S3	F1
EE-17	S2	F3	E1	C-1-a	14	11	A	D22	28X	S1	F3	S1	F3	S1	F3
GRN-01	S1	NA	NA	000			G	F05							
GRN-01-1	S1	NA	E1	000			QM	F05							
GRN-02	S1	NA	NA	000			G	F05							
GRN-02-1	S1	NA	E1	000			QM	F05							
GRN-03-1	S1	NA	E1	000			QM	F07							
I-2225-1-CMP-A	S1	F3	E1		11	8	PC	E01						S1	F2
I-2225-1-CMP-B	S0	F2	E0		4		T.CD	E01							
I-2225-1-CMP-C	S2	F3	E2	B-1-b	14	15	WD	E01	15X	S3	F3	S2	F3	S3	F2
I-2225-1-CMP-D	S0	F2	E0		4		T.CD	E01							
I-2225-1-CMP-E	S3	F3	E3	A-1-a	16	12	T.CD	E01	08	S2	F2	S2	F2	S2	F2
I-2225-1-LVL-A	S2	F3	E2	B-1-a	14	11	T.CD	E01	32X	S1	F3	S1	F3	S1	F3
I-2225-1-PDN-A	S2	F3	E2	B-1-a	14	8	T.DS	D01	09	S1	F3	Prevented	Prevented	S2	F0
I-2225-2-FLW-A	S1	F3	E1		11	11	O	E06						S1	F3
I-2225-2-FLW-B	S0	F3	E1		7		T.CD	E06							
I-2225-2-FLW-C	S2	F2	E2	B-1-a	12	8	T.DS	E08	03X	S2	F3	Prevented	Prevented	S2	F0
I-2225-2-FLW-D	S0	F3	E1		7		T.CD	E06							

Table A-2. Master Code Table - Part 1. (53 Sheets)

ID	Initial Safety Code NC	Initial Freq NC	Env Code	BIN	Initial Risk Factor NC	Failed Crit Risk Factor	Facility Code	Cause Grp	Rep Acc	AA Safety Cons NC	AA Freq NC	App Crit Safety	App Crit Freq	Failed Crit Safety Cons	Failed Crit Freq
I-2225-2-LEK-A	80	F1	E1		2		PC	D18							
I-2225-2-LEK-B	82	F1	E2	B-1-b	8	15	WD	D18	15X	S3	F3	S2	F3	S3	F2
I-2225-2-LEK-C	S2	F2	E2	B-1-b	12	13	PC	D22	18X	G3	F3	Prevented	Prevented	S3	F1
I-2225-2-LEK-D	S0	F1	E1		2		PC	D18							
I-2225-2-LEK-E	82	F2	E2	B-1-b	12	15	WD	D18	15X	S3	F3	S3	F2	S3	F2
I-2225-2-PRB-A	82	F3	E2	B-1-a	14	11	T.O.D	D01	32X	S1	F3	S1	F3	S1	F3
I-242A-1-FLW-A	S3	F2	E3	A-1-a	15	15	T.O.S.H.P	B08	04X	S3	F3	S3	F1	S3	F2
I-242A-1-FLW-B	S3	F2	E3	A-1-a	15	15	T.O.S.H.P	B08	04X	S3	F3	S3	F1	S3	F2
I-242A-1-FLW-C	S3	F2	E3	A-1-a	15	15	T.O.S.H.P	B08	04X	S3	F3	S3	F1	S3	F2
I-242A-1-FLW-D	S3	F2	E3	A-1-a	15	15	T.O.S.H.P	B08	04X	S3	F3	S3	F1	S3	F2
I-242A-1-FLW-E	S3	F2	E3	A-1-a	15	15	T.O.S.H.P	B08	04X	S3	F3	S3	F1	S3	F2
I-242A-1-FLW-F	S0	F3	E3	NR	7		T.O.S.E	E08							
I-242A-1-LEK-A	80	F1	E1		2		PD	D18							
I-242A-1-LEK-B	82	F1	E2	B-1-b	8	15	WD	D18	15X	S3	F3	S2	F3	S3	F2
I-242A-1-LEK-C	S2	F2	E2	B-1-b	12	13	PD	D22	18X	S3	F3	Prevented	Prevented	S3	F1
I-242A-1-LEK-D	S0	F1	E1		2		PD	D18							
I-242A-1-LEK-E	S2	F2	E2	B-1-b	12	15	WD	D18	18X	S3	F3	S3	F2	S3	F2
I-242A-2-CMP-A	S0	F3	E1	NR	7	8	T.O.S.E	E08						S1	F0
I-242A-2-CMP-B	S3	F2	E3	B-1-a	15	11	T.O.S	B01	32X	S1	F3	S1	F3	S1	F3
I-242A-2-FLW-A	82	F3	E2	B-1-a	14	11	T.O.S	E15	22X	S1	F3	S1	F3	S1	F3

Table A-2. Master Code Table - Part 1. (53 Sheets)

ID	Initial Safety Code NC	Initial Freq NC	Err Code	S/N	Initial Risk Factor NC	Failed Crit Risk Factor	Facility Code	Cause Grp	Rep Acc	AA Safety Cons NC	AA Freq NC	App Crit Safety	App Crit Freq	Failed Crit Safety Cons	Failed Crit Freq
I-242A-2-FLW-B	S2	F3	E2	C-1-a	14	11	T.O.S	E15	22X	S1	F3	S1	F3	S1	F3
I-242A-2-LEK-A	S0	F1	E1		2		PD	D18							
I-242A-2-LEK-B	S2	F1	E2	B-1-a	9	16	WD	D18	15X	S3	F3	S2	F3	S3	F2
I-242A-2-LEK-C	S2	F2	E2	B-1-b	12	13	PD	D22	15X	S3	F3	Prevented	Prevented	S3	F1
I-242A-2-LEK-D	S0	F1	E1		2		PD	D18							
I-242A-2-LEK-E	S2	F2	E2	B-1-b	12	15	WD	D18	15X	S3	F3	S3	F2	S3	F2
I-242A-3-TMP-A	S0	F3	E3	NR	7		T.O.S	D01							
I-242A-3-VSC-A	S2	F2	E2	C-1-a	12	11	T.O.S.H	S03	22X	S2	F2	S1	F3	S1	F3
I-242A-3-VSC-B	S0	F2	E3	NR	4		PD	S03							
I-242A-3-FLW-A	S2	F3	E2	B-1-a	14	11	T.O.S.E	D01	22X	S1	F3	S1	F3	S1	F3
I-242A-3-FLW-B	S2	F3	E2	C-1-a	14	11	T.O.S.E	D01	22X	S1	F3	S1	F3	S1	F3
I-242A-4-FLW-A	S1	F3	E1		11	8	T.O.S.E	D12						S1	F2
I-242A-4-TMP-A	S3	FD	E3	A-1-a	10		T.O.S.E	S09	09X			S3	F0		
I-242A-5-FLW-A	S0	F2	E3	NR	4		T.O.S	E09							
I-242A-6-CMP-A	S3	F3	E3	B-1-a	16	11	T.O.S	E01	S2	S1	F3	S1	F3	S1	F3
I-242A-6-FLW-A	S1	F3	E1		11	8	T.O.S.E	D12						S1	F2
I-242A-6-FLW-B	S2	F3	E2	C-2-b	14	13	T.O.S.E	D12	26X	S3	F3	S1	F3	S3	F1
I-242A-6-FLW-C	S1	F3	E3		11		O	E05							
I-242A-7-CMP-A	S1	F1	E1		5		T.O.S	D05							
I-242A-7-FLW-A	S2	F1	E2	C-1-a	9	11	T.O.S.E	D05	22X	S1	F3	S1	F3	S1	F3

Table A-2. Master Code Table - Part 1, (53 Sheets)

ID	Initial Safety Code NC	Initial Freq NC	Env Code	BSE	Initial Risk Factor NC	Failed Crit Risk Factor	Facility Code	Cause Grp	Rep Acc	AA Safety Code NC	AA Freq NC	App Crit Safety	App Crit Freq	Failed Crit Safety Code	Failed Crit Freq
I-242A-7-FLW-B	S2	F1	E2	C-1-a	9	11	T.O.S.E	E05	22X	S1	F3	S1	F3	S1	F3
I-242A-7-FLW-C	S2	F1	E2	C-1-a	9		T.O.S.E	D05	22X						
I-242A-7-PRS-A	S1	F2	E0	OCC	8		Q	D05							
I-242B-1-PRS-A	S1	F3	E1		11	11	O	D07						S1	F3
I-242B-1-TMP-A	S1	F3	E1		11	11	O	D24						S1	F3
I-242B-2-FLW-A	S2	F1	E2	C-2-b	9	13	T.O.S	D12	20X	S3	F3	S1	F3	S3	F1
I-242B-2-FLW-B	S1	F2	E0		8		O	E06							
I-242B-2-FLW-C	S0	F2	E1		4		T.CD	E06		S3	F3				
I-242B-2-FLW-D	S0	F2	E0		4		O	E06							
I-242B-2-FLW-E	S2	F2	E2	C-2-b	12	13	O	E06	20X	S3	F3	S1	F3	S3	F1
I-242B-2-LEK-A	S0	F1	E1		2		PD	D16							
I-242B-2-LEK-B	S2	F1	E2	B-1-b	9	15	WD	D18	15X	S3	F3	S2	F3	S2	F2
I-242B-2-LEK-C	S2	F2	E2	B-1-b	12	13	PD	D22	15X	S3	F3	Prevented	Prevented	S3	F1
I-242B-2-LEK-D	S0	F1	E1		2		PD	D16							
I-242B-2-LEK-E	S2	F2	E2	B-1-b	12	15	WD	D18	15X	S3	F3	S3	F2	S3	F2
I-242B-4-FLW-A	S0	F3	E1		7		T.CD	E06							
I-242B-4-FLW-B	S1	F2	E0		8		O	E06							
I-242B-4-FLW-C	S2	F2	E2	C-2-b	12	13	O	E06	20X	S3	F3	S1	F3	S3	F1
I-242B-4-FLW-D	S2	F1	E2	C-2-b	9	13	T.O.S	D12	20X	S3	F3	S1	F3	S3	F1
I-242B-4-LEK-A	S0	F3	E1		7		PD	D16							

Table A-2. Master Code Table - Part 1. (53 Sheets)

ID	Initial Safety Code NC	Initial Freq NC	EW Code	BIN	Initial Risk Factor NC	Failed Ctrl Risk Factor	Faulty Code	Class Grp	Rep App	AA Safety Code NC	AA Freq NC	App Ctrl Safety	App Ctrl Freq	Failed Ctrl Safety Code	Failed Ctrl Freq
I-242S-4LEK-B	S1	F3	E1		11		O	D18							
I-242S-4LEK-C	S1	F2	E0		8		PD	D22							
I-242S-4LEK-D	S0	F1	E1		2		PD	D18							
I-242S-4LEK-E	S2	F2	E2	B-14b	12	15	WD	D18	15X	S3	F3	S3	F2	S3	F2
I-242S-6CMP-A	S1	F2	E1		8		T.D8	D05							
I-242S-6CMP-B	S1	F2	E1		8		T.D9	D05							
I-242S-6CMP-C	S1	F2	E1		8		T.D9	D05							
I-242S-6CMP-D	S1	F2	E1		8		T.D9	D05							
I-242S-6FLW-A	S1	F2	E1		8		T.D6	D05							
I-242S-6FLW-B	S1	F2	E1		8		T.D8	E05							
I-242S-6FLW-C	S1	F2	E1		8		T.D9	D05							
I-242S-6PRS-A	S1	F2	E0	00C	8		G	E08							
I-242T-2FLW-A	S0	F3	E1		7		T.S5	E08							
I-242T-3FLW-A	S1	F3	E1		11	11	WD	E08						S1	F3
I-242T-4FLW-A	S1	F3	E1		11	11	WD	D12						S1	F3
I-BPLANT-1-CMP-A	S0	F3	E1		7		PC	E01							
I-BPLANT-1-CMP-B	S2	F3	E2	B-14b	14	15	WD	E01	15X	S3	F3	S2	F3	S3	F2
I-BPLANT-1-CMP-C	S0	F3	E0		7		T.D9	E01							
I-BPLANT-1-CMP-D	S0	F3	E0		7		T.D9	E01							
I-BPLANT-1-CMP-E	S0	F1	E3	A-14c	13	12	T.D9	E01	D9X	S2	F2	S2	F2	S2	F2

Table A-2. Master Code Table - Part 1. (53 Sheets)

ID	Initial Safety Code NC	Initial Freq MC	Env Code	BSH	Initial Risk Factor NC	Failed Cntrl Risk Factor	Facility Code	Causes Gap	Rep Acc	AA Safety Code NC	AA Freq NC	App Cntrl Safety	App Cntrl Freq	Failed Cntrl Safety Code	Failed Cntrl Freq
ISPLANT-1-TMP-A	S1	F2	E1		8		T.DS	E01							
ISPLANT-2-FLW-A	B0	F3	E0	NR	7		G	F06							
ISPLANT-2-FLW-B	B0	F1	E0		3		T.DS	E05							
ISPLANT-2-FLW-C	S1	F1	E1		5		T.DS	E09							
ISPLANT-2-FLW-D	S2	F3	E2	B-1-a	14	6	T.DS	E09	00X	S1	F3	Prevented	Prevented	S2	F0
ISPLANT-2-LEK-A	S0	F1	E1		2		PC	D16							
ISPLANT-2-LEK-B	S2	F1	E2	B-1-b	9	15	WD	D18	15X	S3	F3	S2	F3	S3	F2
ISPLANT-2-LEK-C	S2	F2	E2	B-1-b	12	13	PC	D22	16X	S3	F3	Prevented	Prevented	S3	F1
ISPLANT-2-LEK-D	S0	F1	E1		2		PC	D16							
ISPLANT-2-LEK-E	S2	F2	E2	B-1-b	12	15	WD	D15	15X	S3	F3	S3	F2	S3	F2
ISPP-1-AGT-A	S2	F3	E2	A-1-a	14	3	T.DS	A06	01	S1	F1	Prevented	Prevented	S1	F0
ISPP-1-CMP-A	S0	F3	E1		7		T.CO	E01							
ISPP-1-CMP-B	S2	F3	E2	A-1-b	14	3	T.DS	A01	01X	S1	F1	Prevented	Prevented	S1	F0
ISPP-1-CMP-C	S0	F3	E1		7		T.CO	E01							
ISPP-1-CMP-D	S2	F3	E2	A-1-a	14	3	T.DS	A01	01X	S1	F1	Prevented	Prevented	S1	F0
ISPP-1-CMP-E	S3	F2	E3	A-1-e	15	12	T.DS	B01	00X			S2	F2	S2	F2
ISPP-1-LVL-A	S1	F3	E1		11	8	PD	E01						S1	F2
ISPP-1-MTN-A	S0	F3	E1		7		PD	E05							
ISPP-2-FLW-A	S0	F3	E1		7		T.CO	E05							
ISPP-2-LEK-A	S0	F1	E1		2		PD	D16							

Table A-2. Master Code Table - Part 1. (53 Sheets)

ID	Initial Safety Cons. NC	Initial Freq. NC	Env. Cons.	SW	Initial Risk Factor NC	Failed Crit. Risk Factor	Facility Code	Cause Grp.	Rep. Acc.	AA Safety Cons. NC	AA Freq. NC	App. Crit. Safety	App. Crit. Freq.	Failed Crit. Safety Cons.	Failed Crit. Freq.
LPPF2LEK-B	S2	F1	E2	B-1-b	9	15	WD	D18	15X	S3	F3	S2	F3	S3	F2
LPPF2LEK-G	S2	F2	E2	B-1-b	12	13	PD	D22	16X	S3	F3	Prevented	Prevented	S3	F1
LPPF2LEK-D	S0	F1	E1		2		PD	D18							
LPPF2LEK-E	S2	F2	E2	B-1-b	12	18	WD	D18	16X	S3	F3	S3	F2	S3	F2
LPPF2TMP-A	S1	F2	E1		8		PD	D01							
LPPF2TMP-B	S2	F2	E2	B-1-b	12	11	T.CD	D01	32X	S1	F3	S1	F3	S1	F3
LPPF3CMP-A	S0	F3	E1		7		T.CD	E01							
LPPF3FLW-B	S0	F3	E1		7		T.CD	E06							
LPPF3FLW-C	S1	F3	S1		11	8	T.CD	E06						S1	F2
LPPF3LEK-A	S0	F1	E1		2		PD	D18							
LPPF3LEK-B	S2	F1	E2	B-1-b	9	15	WD	D18	15X	S3	F3	S2	F3	S3	F2
LPPF3LEK-C	S2	F2	E2	B-1-b	12	13	PD	D22	16X	S3	F3	Prevented	Prevented	S3	F1
LPPF3LEK-D	S0	F1	E1		2		PD	D18							
LPPF3LEK-E	S2	F2	E2	B-1-b	12	15	WD	D18	15X	S3	F3	S3	F2	S3	F2
LPUREX1AGT-A	S0	F3	E1		7		PC	D05							
LPUREX1AGT-B	S2	F3	E2	B-1-b	14	16	WD	D06	16X	S3	F3	S2	F3	S3	F2
LPUREX1AGT-C	S0	F3	E0	NR	7		T.D8	D06							
LPUREX1CMP-A	S0	F3	S1		7		PC	E01							
LPUREX1CMP-B	S2	F3	E2	B-1-b	14	15	WD	E01	15X	S0	F3	S2	F3	S3	F2
LPUREX1CMP-C	S0	F3	E0	NR	7		T.D8	E01							

Table A-2. Master Code Table - Part 1. (63 Sheets)

ID	Initial Safety Code NC	Initial Freq NC	Env Code	BM	Initial Risk Factor NC	Failed Crit Risk Factor	Facility Code	Cause Grp	Rep Acc	AA Safety Code NC	AA Freq NC	App Code Safety	App Crit Freq	Failed Code Safety Code	Failed Crit Freq
LPUREX-1-CMP-D	S0	F0	E0	NR	7		T.DS	E01							
LPUREX-1-LVL-A	S2	F0	E2	B-1-a	14	11	T.DS	E01	32X	S1	F0	S1	F0	S1	F0
LPUREX-1-TMP-A	S1	F0	E1		11	8	T.DS	E01						S1	F2
LPUREX-2-FLW-A	S0	NA	NA	NR			G	K05							
LPUREX-2-LEK-A	S0	F1	E1		2		PC	D18							
LPUREX-2-LEK-B	S2	F1	E2	B-1-b	8	15	WD	D18	15X	S0	F0	S2	F0	S3	F2
LPUREX-2-LEK-C	S2	F2	E2	B-1-b	12	13	PC	D22	16X	S3	F0	Prevented	Prevented	S3	F1
LPUREX-2-LEK-D	S0	F1	E1		2		PC	D18							
LPUREX-2-LEK-E	S2	F2	E2	B-1-b	12	15	WD	D18	16X	S3	F0	S3	F2	S3	F2
LPUREX-2-PRS-A	S2	F2	E2	B-1-a	12	11	T.DS	D01	32X	S1	F0	S1	F0	S1	F0
LPUREX-2-PRS-B	S1	F0	E1		11	8	T.DS	D05						S1	F2
LPUREX-2-PRS-C	S1	F2	E0	AP	8		D	D05							
LPUREX-3-AGT-A	S0	F0	E1		7		PC	D05							
LPUREX-3-AGT-B	S2	F0	E2	B-1-b	14	15	WD	D05	15X	S3	F0	S2	F0	S3	F2
LPUREX-3-AGT-C	S0	F0	E0	NR	7		T.DS	D05							
LPUREX-3-CMP-A	S0	F0	E1		7		PC	E01							
LPUREX-3-CMP-B	S2	F0	E2	B-1-b	14	15	WD	E01	15X	S3	F0	S2	F0	S3	F2
LPUREX-3-CMP-C	S0	F0	E0	NR	7		T.DS	E01							
LPUREX-3-CMP-D	S0	F0	E0	NR	7		T.DS	E01							
LPUREX-3-CMP-E	S2	F0	E2	B-1-a	14	8	T.DS	A01	01X	S1	F1	Prevented	Prevented	S1	F0

Table A-2. Master Code Table - Part 1. (53 Sheets)

ID	Initl Safety Code NC	Initl Freq NC	Err Code	SN	Initl Risk Factor NC	Failed Ctrl Risk Factor	Facility Code	Cause Orp	Rep Acc	AA Safety Code NC	AA Freq NC	App Ctrl Safety	App Ctrl Freq	Failed Ctrl Safety Code	Failed Ctrl Freq
HPUREX-3-LVL-A	S2	F3	E2	B-1-a	14	11	T.DS	E01	32X	S1	F3	S1	F3	S1	F3
HPUREX-3-TMP-A	S1	F3	E1		11	8	T.DS	E01						S1	F2
HPUREX-4-FLW-B	S2	F3	E2	C-2-b	14	13	T.DS	D00	25X	S3	F3	S1	F3	S3	F1
HPUREX-4-LEK-A	S0	F1	E1		2		PC	D16							
HPUREX-4-LEK-B	S2	F1	E2	B-1-b	9	15	WD	D16	15X	S3	F3	S2	F3	S3	F2
HPUREX-4-LEK-C	S2	F2	E2	B-1-b	12	13	PC	D22	16X	S3	F3	Prevented	Prevented	S3	F1
HPUREX-4-LEK-D	S0	F1	E1		2		PC	D16							
HPUREX-4-LEK-E	S2	F2	E2	B-1-b	12	15	WD	D16	15X	S3	F3	S3	F2	S3	F2
HPUREX-4-PRS-A	S2	F2	E2	B-1-a	12	11	T.DS	D01	32X	S1	F3	S1	F3	S1	F3
HPUREX-4-PRS-B	S1	F3	E1		11	8	T.DS	D05						S1	F2
HPUREX-4-PRS-C	S1	F2	E0	NR	8		O	F05							
HPUREX-5-FLW-A	S1	F3	E1		11	8	T.DS	E06						S1	F2
HPUREX-5-FLW-B	S1	F2	E1		8		T.DS	B01							
HPUREX-5-FLW-A	S0	F3	E1		7		T.CH	E06							
HPUREX-5-FLW-B	S1	F2	E1		8		T.CH	E06							
HPUREX-5-FLW-C	S1	F2	E1		8		T.CH	E06							
HPUREX-5-FLW-D	S0	F1	E0	NR	2		O	D03							
HTPLANT-1-CMP-A	S0	F3	E1		7		PC	B01							
HTPLANT-1-CMP-B	S2	F3	E2	B-1-b	14	15	WD	B01	15X	S3	F3	S2	F3	S3	F2
HTPLANT-1-CMP-C	S0	F3	E0		7		T.DS	B01							

Table A-2. Master Code Table - Part 1. (83 Sheets)

ID	Initial Safety Code NC	Initial Prod NC	Env Cons	DBT	Initial Risk Factor NC	Failed Crit Risk Factor	Facility Code	Cause Grp	Rep Acc	AA Safety Code NC	AA Freq NC	Age Crit Safety	App Crit Freq	Failed Crit Safety Code	Failed Crit Freq
HTPLANT-1-OMP-A	S0	F3	E0		7		TDS	E01							
HTPLANT-1-TMP-A	S1	F2	E1		8		TDS	E01							
HTPLANT-2-OMP-A	S2	F3	E2	B-1-a	14	11	TCD	E01	32K	S1	F3	S1	F3	S1	F3
HTPLANT-2-FLW-A	S0	F1	E0		2		TDS	E06							
HTPLANT-2-FLW-B	S1	F1	E1		5		TDS	E06							
HTPLANT-2-LEK-A	S0	F1	E1		2		PC	D16							
HTPLANT-2-LEK-B	S2	F1	E2	B-1-b	8	16	WD	D16	15K	S3	F3	S2	F3	S3	F2
HTPLANT-2-LEK-C	S2	F2	E2	B-1-b	12	19	PC	D22	15K	S3	F3	Prevented	Prevented	S3	F1
HTPLANT-2-LEK-D	S0	F1	E1		2		PC	D16							
HTPLANT-2-LEK-E	S2	F2	E2	B-1-b	12	15	WD	D16	15K	S3	F3	S3	F2	S3	F2
HUPLANT-1-FLW-A	S0	F3	E1		7		PC	D06							
HUPLANT-1-LEK-A	S0	F3	E1		7		PC	D16							
HUPLANT-1-LEK-B	S2	F1	E2	C-2-b	9	13	PC	D22	25K	S3	F3	Prevented	Prevented	S3	F1
HUPLANT-1-LEK-C	S0	F1	E1		2		PC	D16							
HUPLANT-1-RAM-A	S1	F2	E1		8		WD	D19							
ITK-01	S1	F2	E1		8		T	D01							
ITK-01-1	S1	F3	E1		11	11	GM	D01						S1	F3
ITK-02	S1	F2	E1		8		T	D01							
ITK-02-1	S1	F1	E1		6		GM	D01							
ITK-03	S1	F3	E1		11	11	T	E14						S1	F3

Table A-2. Master Code Table - Part 1. (53 Sheets)

ID	Initial Safety Code NC	Initial Freq NC	Env Code	BN	Initial Risk Factor NC	Failed Cntrl Risk Factor	Facility Code	Cause Grp	Rep App	AA Safety Code NC	AA Freq NC	App Cntrl Safety	App Cntrl Freq	Failed Cntrl Safety Code	Failed Cntrl Freq
ITK-03-I	S1	F3	E1		11	11	OM	E14						S1	F3
ITK-04	S1	F3	E1		11	11	T	D05						S1	F3
ITK-04-I	S1	F2	E1		8		OM	D05							
ITK-05	S2	F2	E1	B-1-a	12	11	T	E04	22X	S1	F3	S1	F3	S1	F3
ITK-05-I	S2	F2	E1	B-1-a	12		OM	E04	23X	S1	F2	S1	F3		
ITK-06	S2	F1	E2	A-1-a	8	3	T	AD4	01X	S1	F1	Prevented	Prevented	S1	F0
ITK-06-I	S2	F1	E2	A-1-a	9	3	OM	AD4	01X	S1	F1	Prevented	Prevented	S1	F0
ITK-07	S1	F3	E3		11	8	T	D10						S1	F2
ITK-07-I-A	S1	F2	E1		6		OM	D20							
ITK-07-I-B	S1	F2	E2		6		OM	D20		S1	F2				
ITK-08	S3	F3	E2	A-1-a	18	13	T	B04	05X			S3	F0	S3	F1
ITK-08-I	S2	F2	E2	A-1-a	12	13	OM	B04	05X	S3	F3	S3	F0	S3	F1
ITK-09	S3	F3	E2	A-1-a	18	15	T	B08	05X			S3	F2	S3	F2
ITK-09-I	S2	F2	E2	A-1-a	12	15	OM	B08	05X	S3	F3	S3	F2	S3	F2
ITK-10-I	S2	F3	E2	A-1-a	14	16	OM	B04	06X	S3	F3	S3	F2	S3	F2
ITK-10-a	S3	F3	E2	A-1-a	16	15	T,SD,H	B04	05X			S3	F2	S3	F2
ITK-10-b	S3	F3	E2	A-1-a	16	15	T	B04	04	S3	F3	S3	F1	S3	F2
ITK-11	S3	F2	E2	A-1-a	15	16	T	B08	04X	S3	F3	S3	F1	S3	F2
ITK-11-I	S2	F1	E2	A-1-a	9	15	OM	B08	11X	S3	F2	S3	F2	S3	F2
ITK-PR-01	S1	F3	E1		11	11	T	D05						S1	F3

Table A-2. Master Code Table - Part 1. (53 Sheets)

ID	Initial Safety Code NC	Initial Freq NO	Env Code	BIN	Initial Risk Factor NC	Failed Cntrl Risk Factor	Facility Code	Course Grp	Rep Age	AA Safety Code NC	AA Freq NC	App Cntrl Safety	App Cntrl Freq	Failed Cntrl Safety Code	Failed Cntrl Freq
ITKFR-02	S1	F3	E1		11	11	T	E05						S1	F3
ITKFR-03	S2	F1	E2	D-1-a	8	11	T	E05	31Z	S1	F3	S1	F3	S1	F3
ITKFR-04	S3	F1	E3	B-1-a	13	9	T	C26	12Z	S2	F3	Prevented	Prevented	S2	F1
ITKFR-05	S4	F3	E1		11	11	T	E28						S1	F3
ITKFR-06	S1	F3	E1		11	11	T	D29						S1	F3
ITKFR-07	S1	F3	E1		11	11	T	D12						S1	F3
ITKFR-08	S2	F3	E2	B-1-a	14	11	T	D29	31	S1	F3	S1	F3	S1	F3
ITKFR-09	S4	F2	E1		8		T	D05							
ITKFR-10	S1	F2	E1		8		T	D05							
ITKFR-11	S1	F1	E1		5		T	D05							
ITKFR-12	S1	F1	E1		5		T	D05		S3	F3				
ITKFR-13	S2	F1	E2	A-1-a	9	15	T	B08	04X	S3	F3	S3	F1	S3	F2
ITKFR-14	S1	F3	E1		11	11	T	E14						S1	F3
ITKFR-15	S1	F3	E1		11	11	T	E08						S1	F3
ITKFR-16	S1	F2	E1		8		T	D14							
ITKFR-17	S1	F2	E1		8		T	D12							
ITKFR-18	S1	F3	E1		11	11	T	E28						S1	F3
ITKFR-19	S3	F1	E3	B-1-a	13	9	T	C26	12Z	S2	F3	Prevented	Prevented	S2	F1
ITKFR-20	S4	F3	E1		11	11	T	E14						S1	F3
ITKFR-21	S4	F3	E1		11	11	T	D04						S1	F3

Table A-2. Master Code Table - Part 1. (53 Sheets)

ID	Initial Safety Code NC	Initial Freq NC	Emr Cons	BW	Initial Risk Factor NC	Failed Crit Risk Factor	Facility Code	Course Grp	Rep Acc	AA Safety Code NC	AA Freq NC	App Chnl Safety	App Crst Freq	Failed Chnl Safety Cons	Failed Chnl Freq
ITK-FR-22	B2	F1	E2	C-1-a	9	11	T	D01	31X	S1	F3	S1	F3	S1	F3
ITK-FR-23	B3	F0	E1		11	11	T	D12						S1	F3
ITK-FR-24	S1	F2	E0		9		T	D05							
ITK-FR-25	S1	F2	E0		8		T	D06							
ITK-FR-26	S1	F3	E1		11	11	T	D06						S1	F3
ITK-FR-27	S1	F2	E1		9		T	D26							
ITK-FR-28	S1	F3	E1		11	11	T	D29						S1	F3
NP-01	S1	F3	E1		11	11	M	D21						S1	F3
NP-02	S2	F2	E1	A-1-a	12	12	M	S21	05X			S1	F2	S2	F2
NP-03	S2	F2	E2	A-1-a	12	15	M	S21	11	S3	F2	S3	F2	S3	F2
NP-05	S2	F1	E2	A-1-a	9	11	M	D20	31X	S1	F3	S1	F3	S1	F3
NP-06	S1	F3	E1		11	11	M	D20						S1	F3
NP-07	S3	F1	E3	B-1-a	13		M	D18	14	S3	F0	S3	F0		
NP-08	S3	F2	E2	C-3-b	15	13	M	D18	15X	S3	F1	S3	F1	S3	F1
NP-09	S1	F1	E3		5		M	D18							
NP-10	S1	F2	E1		8		M	D18							
NP-11	S3	F0	E3	A-1-a	10		M	D18	11X			S3	F0		
NP-12	S1	F3	E1		11	11	M	D20						S1	F3
NP-13	S3	F2	E3	B-1-a	15	9	M	C10	14X	S2	F0	S2	F0	S2	F0
NP-14	S1	F3	E1		11	11	M	D20						S1	F3

Table A-2. Master Code Table - Part 1. (53 Sheets)

ID	Initial Safety Conc NC	Initial Freq NC	Env Conc	BN	Initial Risk Factor NC	Failed Crnt Risk Factor	Facility Code	Cause Grp	Rsp Acc	AA Safety Conc NC	AA Freq NC	App Crnt Safety	App Crnt Freq	Failed Crnt Safety Conc	Failed Crnt Freq
NP-18	S2	F3	E1	A-1-a	14	16	A	E06	05X	S3	F3	S3	F2	S3	F2
OGT-EXT3-01A	S3	F3	E3	B-1-a	18	13	PA	E25	15X			S0	F0	S3	F1
OGT-EXT3-01B	S2	F2	E2	B-2-b	12	13	PA	E25	20X	S3	F3	S1	F3	S3	F1
OGT-FLOW1-01	S1	F3	E3	RP	11	11	PA	F05						S1	F3
OGT-FLOW1-02	S2	F2	E2	C-2-b	12	13	WD	E19	20X	S3	F3	S1	F3	S3	F1
OGT-FLOW1-03A	S3	F1	E3	B-1-a	13	13	PA	E06	15X	S3	F3	Prevented	Prevented	S3	F1
OGT-FLOW1-03B	S2	F1	E2	B-2-b	8	13	PA	E06	25X	S3	F3	S1	F3	S3	F1
OGT-FLOW1-04	S2	F1	E2	B-2-b	9	13	PA	D08	25X	S3	F3	S1	F3	S3	F1
OGT-FLOW1-05	S0	F3	E1		7		T-08	D08							
OGT-FLOW1-06	S2	F2	E2	C-2-b	12	13	T-CD	E06	20X	S3	F3	S1	F3	S3	F1
OGT-FLOW2-01A	S1	F2	E2		8	8	PA	E13						S1	F2
OGT-FLOW2-01B	S2	F2	E2	B-2-b	12	13	PA	E13	25X	S3	F3	S1	F3	S3	F1
OGT-FLOW2-02	S3	F2	E2	B-1-a	15	13	PA	E18	15X	S3	F3	S0	F0	S3	F1
OGT-FLOW2-03A	S1	F1	E2		5	5	PA	E13						S1	F1
OGT-FLOW2-03B	S2	F1	E2	B-2-b	8	13	PA	E13	25X	S3	F3	S1	F3	S3	F1
OGT-INTEG3-01	S1	F1	E1		5		WD	D12							
OGT-NP3-01	S3	F1	E2	B-1-a	13	13	PA	D18	15X	S3	F2	S3	F1	S3	F1
OGT-NP3-02	S3	F1	E2	B-1-a	13	13	PA	D20	15X			S3	F1	S3	F1
OGT-OPS1-01	S1	F3	E1		11	8	PA	D14						S1	F2
OGT-PRES1-01	S2	F1	E2	C-2-b	9	13	WD	D05	20X	S3	F3	S1	F3	S3	F1

Table A-2. Master Code Table - Part 1. (63 Sheets)

ID	Initial Safety Cons. NC	Initial Freq. NC	Env. Cons.	BM	Initial Risk Factor NC	Failed Crit. Risk Factor	Facility Code	Cause Grp	Rep. Acc.	AA Safety Cons. NC	AA Freq. NC	App. Crit. Safety	App. Crit. Freq.	Failed Crit. Safety Cons.	Failed Crit. Freq.
OGT-REAC1-01	S2	F1	E2	C-2-b	9	13	WD	D01	26X	S3	F3	S1	F3	S3	F1
OGT-SPEC1-01	S1	F3	E0	RP	11	11	PA	F05						S1	F3
OGT-TEMP1-01	S1	F1	E0	RP	5		PA	D24							
OGT-TEMP1-02	S2	F1	E2	B-1-a	9	13	PA	E25	16X	S3	F3	Prevented	Prevented	S3	F1
OGT-TEMP1-03	S2	F1	E2	C-2-b	9	13	WD	ED1	26X	S3	F3	S1	F3	S3	F1
RAD-01	S1	NA	NA	RP			G	F05							
RAD-01-4	S1	NA	E1	RP			OM	F05							
RAD-02	S1	NA	NA	RP			G	F06							
RAD-02-4	S1	NA	E1	OCC			OM	F06							
RAD-03	S1	NA	NA	RP			G	F05							
RAD-03-4	S1	NA	E1	RP			OM	F05							
RSR-01	S1	F3	E1		11	11	T	E14						S1	F3
RSR-01-1	S1	F3	E1		11	11	OM	E14						S1	F3
RSR-02	S1	NA	NA	OCC			G	F05							
RSR-02-1	S1	NA	E1	OCC			OM	F05							
RSR-03	S1	NA	NA	OCC			G	F06							
RSR-03-1	S1	NA	E1	OCC			OM	F06							
RSR-04	S1	NA	NA	RP			T	F05							
RSR-04-4	S1	NA	E1	RP			OM	F06							
RSR-06	S0	F3	S3		7		T	D04							

Table A-2. Master Code Table - Part 1. (53 Sheets)

ID	Initial Safety Cons NC	Initial Prod NC	Env Cons	BN	Initial Risk Factor NC	Failed Cabl Risk Factor	Facility Code	Cause Grp	Rep App	AA Safety Cons NC	AA Freq NC	App Crit Safety	App Crit Freq	Failed Cabl Safety Cons	Failed Crit Freq
RSR-05-1A	S1	F2	E1		6		OM	D04							
RSR-05-1B	S1	F2	E2		6		OM	D04							
RSR-06-1	S2	F2	E2	A-1-a	12	13	OM	B06	05X	S3	F3	S3	F2	S3	F2
RSR-07-1	S2	F3	E2	A-1-a	14	9	OM	B09	06X	S2	F2	S2	F2	S2	F1
RSR-09-1	S1	NA	E1	CCC			OM	F14							
SFF-01	S1	F3	E1		11	11	T	E14						S1	F3
SFF-01-1	S1	NA	E1	CCC			OM	F05							
TFS-1	S2	F3	E2	C-2-b	14	13	T.CO	E06	20X	S3	F3	S1	F3	S3	F1
VEH-01	S2	F3	E2	A-1-a	14	9	T	B09	07X			Prevented	Prevented	S2	F1
VEH-01-1	S2	F2	E2	A-1-a	12	9	OM	B09	07X	S2	F3	Prevented	Prevented	S2	F1
VEH-02	S2	F1	E1	B-1-a	9		T	D18	06X			Prevented	Prevented		
VEH-02-1	S2	F1	E1	B-1-a	9		OM	D18	06X			Prevented	Prevented		
VEH-03	S2	F2	E2	A-1-a	12		T	D29	08			Prevented	Prevented		
VEH-03-1	S2	F2	E2	A-1-a	12		OM	D29	06X			Prevented	Prevented		
VEH-04	S1	NA	NA	RP			T	F05							
VEH-04-1	S1	NA	E1	RP			OM	F05							
VEH-05	S1	NA	NA	CCC			T	F25							
VEH-05-1	S1	NA	E1	CCC			OM	F25							
VEH-06	S1	NA	NA	CCC			T	F25							
VEH-06-1	S1	NA	E1	CCC			OM	F25							

Table A-2. Master Code Table - Part 1. (53 Sheets)

ID	Initial Safety Cons NC	Initial Freq NC	Env Cons	BIN	Initial Risk Factor NC	Failed Cntrl Risk Factor	Facility Code	Change Grp	Rep Acc	AA Safety Cons NC	AA Freq NC	App Cntrl Safety	App Cntrl Freq	Failed Cntrl Safety Cons	Failed Cntrl Freq
VEH-07	S0	F3	E0		7		T	D25							
VEH-07-I	S2	F3	E1	A-1-4	14	13	OM	S25	QZX	B3	F2	Prevented	Prevented	S3	F1
VEH-08-I	S0	F3	E0		7		OM	E10							
VSU-01	S1	F3	E1		11	11	SV	E14						S1	F3
VSU-02	S1	F3	E1		11	11	SV	E14						S1	F3
VSU-03	S1	F3	E1		11	11	SV	D14						S1	F3
VSU-04	S1	F3	E1		11	11	SV	D09						S1	F3
VSU-05	S1	NA	NA	CCC			SV	F05							
VSU-06	S1	NA	NA	CCC			SV	F14							
W05B-FLOW01	S2	F3	E2	C-2-b	14	13	WD	E06	20X	S3	F3	S1	F3	S3	F1
W05B-FLOW03	S2	F2	E2	C-2-b	12	13	WD	D12	20X	S3	F3	S1	F3	S3	F1
W05B-FLOW05a	S2	F3	E2	C-2-b	14	13	WD	E06	20X	S3	F3	S1	F3	S3	F1
W05B-FLOW05b	S2	F2	E2	C-2-b	12	13	WD	D12	20X	S3	F3	S1	F3	S3	F1
W05B-FLOW05c	S2	F2	E2	C-2-b	12	13	WD	D12	20X	S3	F3	S1	F3	S3	F1
W05B-FLOW07	S2	F3	E2	C-2-b	14	13	WD	E06	20X	S3	F3	S1	F3	S3	F1
W05B-FLOW09	S2	F2	E2	C-2-b	12	13	WD	D12	20X	S3	F3	S1	F3	S3	F1
W05B-FLOW11a	S2	F3	E2	C-2-b	14	13	WD	E06	20X	S3	F3	S1	F3	S3	F1
W05B-FLOW11b	S2	F2	E2	C-2-b	12	13	WD	D12	20X	S3	F3	S1	F3	S3	F1
W05B-FLOW11c	S2	F2	E2	C-2-b	12	13	WD	D12	20X	S3	F3	S1	F3	S3	F1
W05B-FLOW13	S2	F3	E2	C-2-b	14	13	WD	E06	20X	S3	F3	S1	F3	S3	F1

Table A-2. Master Code Table - Part 1. (53 Sheets)

ID	Initial Safety Code NC	Initial Freq NC	Env Code	BIN	Initial Risk Factor NC	Failed Crit Risk Factor	Facility Code	Cause Grp	Rep Acc	AA Safety Code NC	AA Freq NC	App Crit Safety	App Crit Freq	Failed Crit Safety Code	Failed Code Freq
W066-FLOW15	S3	F2	E3	B-1-a	15	15	WD	E06	15X	S3	F3	S2	F3	S3	F2
W068-FLOW18	S3	F2	E3	B-1-a	15	15	WD	D12	16X	S3	F3	S2	F3	S3	F2
W068-FLOW17a	S3	F2	E3	B-1-a	15	15	WD	E06	16X	S3	F3	S2	F3	S3	F2
W068-FLOW17b	S3	F2	E3	B-1-a	15	15	WD	D12	15X	S3	F3	S2	F3	S3	F2
W068-FLOW17c	S3	F2	E3	B-1-a	15	15	WD	D16	15X	S3	F3	S2	F3	S3	F2
W068-FLOW16	S3	F2	E3	B-1-a	15	15	WD	E06	15X	S3	F3	S2	F3	S3	F2
W068-FLOW19	S3	F2	E3	B-1-a	15	15	WD	D12	16X	S3	F3	S2	F3	S3	F2
W068-FLOW20a	S3	F2	E3	B-1-a	15	15	WD	E06	15X	S3	F3	S2	F3	S3	F2
W068-FLOW20b	S3	F2	E3	B-1-a	15	15	WD	D12	15X	S3	F3	S2	F3	S3	F2
W068-FLOW20c	S3	F2	E3	B-1-a	15	15	WD	D16	15X	S3	F3	S2	F3	S3	F2
W068-INTEG01a	S2	F2	E2	C-2-b	12	13	PD	D12	21X	S3	F3	S1	F3	S3	F1
W068-INTEG01b	S2	F2	E2	C-2-b	12	13	PD	D12	21X	S3	F3	S1	F3	S3	F1
W068-INTEG01c	S2	F2	E2	C-2-b	12	13	WD	D12	20X	S3	F3	S1	F3	S3	F1
W068-INTEG01d	S2	F2	E2	C-2-b	12	13	WD	D12	25X	S3	F3	S1	F3	S3	F1
W068-INTEG03a	S2	F2	E2	C-2-b	12	13	PD	D08	21X	S3	F3	S1	F3	S3	F1
W068-INTEG03b	S2	F2	E2	C-2-b	12	13	WD	D05	25X	S3	F3	S1	F3	S3	F1
W068-INTEG05a	S2	F2	E2	C-2-b	12	13	PD	D22	25X	S3	F3	Prevented	Prevented	S3	F1
W068-INTEG05b	S2	F3	E2	C-2-b	14	13	WD	D22	25X	S3	F3	Prevented	Prevented	S3	F1
W068-INTEG07a	S2	F3	E2	C-2-b	14	13	PD	D12	21X	S3	F3	S1	F3	S3	F1
W068-INTEG07b	S2	F2	E2	C-2-b	12	13	WD	D12	25X	S3	F3	S1	F3	S3	F1

Table A-2. Master Code Table - Part 1. (53 Sheets)

ID	Initial Safety Code NC	Initial Freq NC	Env Code	BIN	Initial Risk Factor NC	Failed Crit Risk Factor	Facility Code	Cause Grp	Rep App	AA Safety Code NC	AA Freq NC	App Crit Safety	App Crit Freq	Failed Crit Safety Code	Failed Crit Freq
W058-INTEG006a	S2	F1	E2	C-2-b	9	13	PD	D24	21X	S3	F3	S1	F3	S3	F1
W058-INTEG006b	S2	F1	E2	C-2-b	8	13	WD	D24	26X	S3	F3	S1	F3	S3	F1
W058-INTEG111a	S2	F1	E2	C-2-b	8	13	PD	D18	21X	S3	F3	S1	F2	S3	F1
W058-INTEG111b	S2	F1	E2	C-2-b	9	13	WD	D18	26X	S3	F2	S3	F2	S3	F1
W058-INTEG134	S2	F2	E2	C-2-b	12	13	PD	D06	21X	S3	F3	S1	F3	S3	F3
W058-INTEG135	S2	F2	E2	C-2-b	12	13	PD	D12	21X	S3	F3	S1	F3	S3	F1
W058-INTEG13c	S2	F2	E2	C-2-b	12	13	WD	D06	26X	S3	F3	S1	F3	S3	F1
W058-INTEG13d	S2	F2	E2	C-2-b	12	13	WD	D12	26X	S3	F3	S1	F3	S3	F1
W058-INTEG14a	S2	F2	E2	C-2-b	12	10	PD	D65	21X	S3	F3	S1	F3	S3	F0
W058-INTEG14b	S2	F2	E2	C-2-b	12	10	WD	D01	26X	S3	F2	S1	F3	S3	F0
W058-INTEG15a	S2	F3	E2	C-2-b	14	13	PD	D22	25X	S3	F3	Prevented	Prevented	S3	F1
W058-INTEG15b	S2	F3	E2	C-2-b	14	13	WD	D22	26X	S3	F3	Prevented	Prevented	S3	F1
W058-INTEG15a	S2	F2	E2	C-2-b	12	15	PD	D12	21X	S3	F3	S1	F3	S3	F2
W058-INTEG15b	S2	F2	E2	C-2-b	12	13	WD	D12	26X	S3	F3	S1	F3	S3	F1
W058-INTEG20a	S2	F1	E2	C-2-b	8	13	PD	D24	21X	S3	F3	S1	F3	S3	F1
W058-INTEG20b	S2	F1	E2	C-2-b	9	13	WD	D24	26X	S3	F3	S1	F3	S3	F1
W058-INTEG22	S2	F1	E2	C-2-b	9	13	PD	D18	21X	S3	F3	S1	F2	S3	F1
W058-INTEG24	S2	F1	E2	C-2-b	8	10	WD	D23	26X	S3	F0	S3	F0	S3	F0
W058-INTEG26	S2	F1	E2	C-2-b	9	13	WD	D16	26X	S3	F2	S3	F2	S3	F1
W058-INTEG28	S2	F1	E2	C-2-b	9	10	WD	D33	26X	S3	F0	S3	F0	S3	F0

Table A-2. Master Code Table - Part 1. (53 Sheets)

ID	Initial Safety Code NC	Initial Freq NC	Err Code	BM	Initial Risk Factor NC	Failed Ctrl Risk Factor	Facility Code	Cause Orig	Rep Acc	AA Safety Code NC	AA Freq NC	App Ctrl Safety	App Ctrl Freq	Failed Ctrl Safety Code	Failed Ctrl Freq
W058-INT EG30	S2	F1	E2	C-2-b	8	13	WD	D16	20X	S3	F2	S3	F2	S3	F1
W058-INT EG32	S3	F2	E3	B-1-a	15	10	WD	D12	15X	S3	F3	S3	F1	S3	F0
W058-INT EG34	S3	F1	E3	B-1-a	13	10	WD	D23	15X	S3	F0	S3	F0	S3	F0
W058-INT EG35	S3	F1	E3	B-1-a	13	15	WD	D15	15X	S3	F3	S3	F2	S3	F2
W058-INT EG36	S3	F1	E3	B-1-a	13	10	WD	D23	15X	S3	F0	S3	F0	S3	F0
W058-INT EG37	S3	F1	E3	B-1-a	13	15	WD	D16	15X	S3	F3	S3	F2	S3	F2
W058-PRES01	S2	F3	E2	C-2-b	14	13	WD	D17	25	S3	F3	S1	F3	S3	F1
W058-PRES03	S2	F3	E2	C-2-b	14	13	WD	D17	25X	S3	F3	S1	F3	S3	F1
XS-01-FLOW01	S2	F2	E2	A-1-a	12	15	T.CD	B01	05X	S3	F3	S3	F1	S3	F2
XS-01-FLOW02	S3	F2	E3	A-1-a	15	15	T.SD.H	B00	05X	S3	F3	S3	F2	S3	F2
XS-01-FLOW03	S3	F2	E3	A-1-a	15	18	M	B07	05	S3	F3	S3	F2	S3	F2
XS-01-FLOW04	S1	F2	E1		8		T.CD	E06							
XS-01-FLOW05	S2	F2	E2	B-1-a	12	13	WF	E05	25X	S3	F3	S1	F3	S3	F1
XS-01-FLOW06	S2	F3	E2	B-2-b	14	13	WD	E08	20X	S3	F3	S1	F3	S3	F1
XS-01-FLOW07	S2	F3	E2	B-3-b	14	5	PG	D12	20X	S1	F3	S1	F0	S1	F1
XS-01-PRES01	S2	F2	E2	B-3-b	12	13	PD	E13	21X	S3	F3	S1	F3	S3	F1
XS-01-PRES02	S1	F3	E2		11	11	PS	D12						S1	F3
XS-01-TEMP01	S2	F3	E2	B-1-a	14	13	WD	D06	15X	S3	F3	Prevented	Prevented	S3	F1
XS-01-TEMP02	S1	F3	E1		11	5	WD	E06						S1	F1
XS-02-FLOW01	S1	F2	E1		5		O	E06							

Table A-2. Master Code Table - Part 1. (53 Sheets)

ID	Initial Safety Code NC	Initial Freq NC	Env Cons	SIN	Initial Risk Factor NC	Failed Cntrl Risk Factor	Facility Code	Cause Grp	Rsp Acc	AA Safety Code NC	AA Freq NC	App Cntrl Safety	App Cntrl Freq	Failed Cntrl Safety Cons	Failed Cntrl Freq
X5-02-FLOW02	S2	F3	E1	B-1-a	14	11	T,CD	E01	32K	S1	F3	S1	F3	S1	F3
X5-02-FLOW03	S2	F2	E1	C-1-a	12	8	T,CD	E01	03K	S2	F3	Prevented	Prevented	S2	F0
X5-02-FLOW04	S2	F2	E2	B-3-b	12	5	PD	E01	20K	S1	F3	S1	F0	S1	F1
X5-02-FLOW05	S2	F3	E2	B-3-b	14	13	Pp	D12	21K	S3	F3	S1	F3	S3	F1
X5-02-FLOW05	S1	F3	E1		11	8	T,CD	E05						S1	F2
X5-03-LEVE	S1	F3	E2		11	11	T,CD	D12						S1	F3
X5-03-LEVE01 X5-21-LEVE (244-S DORT)	S2	F2	E2	A-1-a	12	15	T,CD	B08	05K	S3	F3	S3	F1	S3	F2
X5-03-LEVE02 X5-21-LEVE (244-S DORT)	S2	F3	E2	A-1-a	14	5	T,CD	A02	01X	S1	F1	Prevented	Prevented	S1	F0
X5-03-PRES01	S1	F3	E1		11	11	T,CD	D07						S1	F3
X5-03-PRES01 X5-21-PRES (244-S DORT)	S2	F2	E2	A-1-a	12	15	T,CD	B07	05K	S3	F3	S3	F1	S3	F2
X5-03-PRES01A	S1	F3	E1		11	8	T,CD	D07						S1	F2
X5-03-PRES02	S1	F3	E1		11	8	T,CD	E07						S1	F2
X5-03-PRES02 X5-21-PRES (244-S DORT)	S2	F3	E1	C-1-a	14	8	T,CD	D01	23K	S1	F3	E1	F3	S1	F2
X5-03-PRES03	S1	F3	E1		11	11	T,CD	D05						S1	F3
X5-03-PRES04	S1	F3	E1		11	8	T,CD	D07						S1	F2
X5-03-PRES05	S2	F2	E2	B-1-a	12	11	T,CD	D01	23K	S1	F3	S1	F3	S1	F3

Table A-2. Master Code Table - Part 1, (53 Sheets)

ID	Initial Safety Code NC	Initial Freq NC	Env Code	BM	Initial Risk Factor NC	Failed Crit Risk Factor	Facility Code	Cause Grp	Rep Acc	AA Safety Code NC	AA Freq NC	App Crit Safety	App Crit Freq	Failed Crit Safety Code	Failed Crit Freq
XS-03-TEMP01	S2	F2	E1	B-1-a	12	8	T.CD	D01	03X	S2	F3	Prevented	Prevented	S2	F0
XS-03-TEMP01 XS-21-TEMP (244-S DCRIT)	S0	F3	E2		7		T.CD	D01							
XS-03-TEMP02	S2	F2	E1	C-1-a	12	11	T.CD	D01	23X	S1	F3	S1	F3	S1	F3
XS-03-TEMP02 XS-21-TEMP (244-S DCRIT)	S2	F3	E2	A-1-a	14	3	T.CD	A01	01X	S1	F1	Prevented	Prevented	S1	F0
XS-03-TEMP03 XS-21-TEMP (244-S DCRIT)	S2	F2	E2	A-1-a	12	15	T.CD	B07	05X	S3	F3	S3	F1	S3	F2
XS-03-TEMP04	S1	F1	E1		5		T.CD	B06							
XS-03-TEMP04 XS-21-TEMP (244-S DCRIT)	S2	F3	E2	C-2-b	14	19	T.CD	D24	26X	S3	F3	S1	F3	S3	F1
XS-03-TEMP05	S1	F3	E1		11	8	T.CD	E15						S1	F2
XS-03-TEMP06	S1	F3	E1		11	8	T.CD	E15						S1	F2
XS-03-TEMP07	S1	F3	E1		11	8	T.CD	D07						S1	F2
XS-03-TEMP08	S1	F3	E1		11	8	T.CD	D07						S1	F2
XS-03-TEMP09	S0	F1	E3		2		T.CD	D01							
XS-05-FLOW01	S2	F2	E1	B-1-a	12	5	T.CD	E13	06X	S1	F3	S1	F2	S1	F1
XS-05-FLOW02	S0	F2	E3		4		T.CD	E13							
XS-05-TEMP01	S2	F3	E2	A-1-a	14	5	T.CD	B07	06X	S1	F3	S1	F2	S1	F1
XS-05-TEMP02	S2	F3	E2	A-1-a	14	8	T.CD	B06	06X	S1	F3	S2	F1	S1	F2

Table A-2. Master Code Table - Part 1, (53 Sheets)

ID	Initial Safety Code NC	Initial Freq NC	Env. Conc.	MN	Initial Risk Factor NC	Rated Critl Risk Factor	Facility Code	Cause Grp	Rep. App	AA Safety Code NC	AA Freq NC	App. Critl Safety	App. Critl Freq	Filled Critl Safety Conc	Filled Critl Freq
XS-06-FLOW01	S2	F3	E2	A-1-a	14	3	T,CD	A05	04X	S1	F1	Prevented	Prevented	S1	F0
XS-06-FLOW02	S3	F2	E3	B-1-a	15	15	WD	D12	15	S3	F3	S2	F3	S3	F2
XS-06-FLOW03	S3	F2	E3	B-1-a	15	15	WD	D12	15X	S3	F3	S2	F3	S3	F2
XS-06-FLOW04	S2	F2	E3	B-1-a	12	15	WD	D12	15X	S3	F3	S2	F3	S3	F2
XS-06-FLOW05	S2	F2	E2	B-3-b	12	13	PC	D12	21X	S3	F3	S1	F3	S3	F1
XS-06-FLOW06	S1	F3	E1		11	5	T,CD	E05						S1	F2
XS-07-FLOW01	S2	F3	E2	B-2-b	14	13	PC	D22	21X	S3	F3	S1	F0	S3	F1
XS-07-FLOW02	S2	F3	E2	B-3-b	14	13	PC	D16	21A	S3	F3	S1	F3	S3	F1
XS-07-FLOW03	S2	F3	E2	B-3-b	14	10	PC	D16	21X	S3	F3	S3	F0	S3	F0
XS-07-FLOW04	S2	F2	E2	B-3-b	12	13	PC	D16	21X	S3	F3	S1	F2	S3	F1
XS-07-FLOW05	S2	F3	E2	B-3-b	14	15	PC	D12	21X	S3	F3	S1	F3	S3	F2
XS-07-FLOW06	S2	F3	E2	B-3-b	14	13	PC	D17	21B	S3	F3	S1	F3	S3	F1
XS-11-LEVE01	S2	F3	E2	C-2-b	14	13	WD	E05	25X	S3	F3	S1	F3	S3	F1
XS-11-LEVE02	S2	F3	E2	C-2-b	14	13	WD	E06	25X	S3	F3	S1	F3	S3	F1
XS-11-LEVE03	S2	F3	E2	C-2-b	14	13	WD	D12	25X	S3	F3	S1	F3	S3	F1
XS-12-FLOW01	S1	F3	E1		11	11	WD	E01						S1	F3
XS-12-FLOW02	S2	F1	E1	A-1-a	9	9	WD	B01	07X	S2	F3	Prevented	Prevented	S2	F1
XS-12-FLOW03	S2	F1	E1	A-1-a	9	9	WD	B01	07X	S2	F3	Prevented	Prevented	S2	F1
XS-12-FLOW04	S1	F3	E1		11		WD	C05		S1	F1				
XS-12-FLOW05	S2	F3	E2	C-2-b	14	13	WD	C05	25X	S3	F3	S1	F3	S3	F1

Table A-2. Master Code Table - Part 1. (53 Sheets)

ID	Initial Safety Code NC	Initial Presq NC	EW Code	BN	Initial Risk Factor NC	Failed Critical Risk Factor	Facility Code	Cause Grp	Presq Acc	AA Safety Code NC	AA Presq NC	App Critical Safety	App Critical Presq	Failed Critical Safety Code	Failed Critical Presq
X3-12-FLOW06	S1	F3	E2		11	8	WDP	D12						S1	F2
X3-13-LEVE	B0	F3	E2		7		T.ON	D12							
X3-13-PRES01	B2	F3	E2	C-1-a	14	8	T.ON	D01	03K			Prevented	Prevented	S2	F0
X3-13-PRES02	S3	F2	E2	A-1-a	15	15	T.ON	B08	05K	S3	F3	S3	F1	S3	F2
X3-13-PRES03	S2	F2	E1	C-1-a	12	11	T.ON	D01	23K	S1	F3	S1	F3	S1	F3
X3-13-PRES04	S2	F1	E2	A-1-a	9	3	T.ON	A01	01X	S1	F1	Prevented	Prevented	S1	F0
X3-20-FLOW01	S2	F3	E2	C-1-a	14	8	T.CD	E06	03K			Prevented	Prevented	S2	F0
X3-20-FLOW02	S1	F2	E2		8		O	E06							
X3-20-FLOW03	S2	F2	E2	B-1-a	12	6	T.CD	B08	03K	S2	F3	Prevented	Prevented	S2	F0
X3-20-FLOW04	S2	F2	E2	C-1-a	12	11	T.CD	E06	23K	S1	F3	S1	F3	S1	F3
X3-20-FLOW05	S2	F1	E2	A-1-a	9	3	T.CD	A06	01X	S1	F1	Prevented	Prevented	S1	F0
X3-20-FLOW06	S1	F2	E2		8		O	E06							
X3-20-FLOW07	S1	F2	E2		8		O	E06							
X3-20-FLOW08	S2	F3	E2	C-2-b	14	13	T.CD	B06	25K	S3	F3	S1	F3	S3	F1
X3-20-FLOW09	S2	F3	E2	C-2-b	14	13	T.CD	B06	25K	S3	F3	S1	F3	S3	F1
X3-26-PRES X3-26-TEMP	S2	F3	E2	C-1-a	14	11	T	B06	23	S1	F3	S1	F3	S1	F3
X3-26-PRES X3-26-TEMP (FOR TK-162-AW)	S2	F1	E2	A-1-a	9	3	T.DS	A01	01X	S1	F1	Prevented	Prevented	S1	F0
X3-26-PRES01	S2	F3	E2	C-1-a	14	8	T	B06	03K			Prevented	Prevented	S2	F0

Table A-2. Master Code Table - Part 1. (53 Sheets)

ID	Initial Safety Code NC	Initial Freq NC	Env Code	SN	Initial Risk Factor NC	Failed Crit Risk Factor	Priority Code	Cause Orig	Rep Acc	AA Safety Cons NC	AA Freq NC	App Crit Safety	App Crit Freq	Failed Crit Safety Cons	Failed Crit Freq
XS-26-PRES01A 102AW-02-PRES	S1	F3	E1		11	8	T	D07						S1	F2
XS-26-PRES02	S2	F2	E2	A-1-a	15	15	T-SD-V	B06	04X	S3	F3	S3	F1	S3	F2
XS-26-PRES02A 102AW-02-PRES	S1	F3	E1		11	8	T-SD-V	D07						S1	F2
XS-26-PRES03	S1	F3	E1		11	8	T	D01						S1	F2
XS-26-PRES03 102AW-02-PRES	S1	F3	E1		11	11	T-SD-V	D07						S1	F3
XS-26-TEMP 102AW-08-TEMP	S1	F1	E1		5		T-SD-V	D07							
XS-26-TEMP01	S2	F2	E2	B-1-a	12	9	T	D01	18AX			Prevented	Prevented	S2	F1
XS-26-TEMP02	S1	F1	E1		5		T-DS-V	D07							
XS-35-FLOW01	S0	F3	E2		7	7	PD	D12						S0	F3
XS-35-FLOW02	S2	F3	E2	C-2-b	14	13	O	E06	25X	S3	F3	S1	F3	S3	F1
XS-37-FLOW01	S2	F3	E2	C-2-b	14	13	T-CN	D12	25X	S3	F3	S1	F3	S3	F1
XS-37-FLOW02	S2	F3	E2	C-3-b	14	5	PC	D12	20X	S1	F3	S1	F0	S1	F1
XS-41A-FLOW01	S2	F3	E2	C-2-b	14	13	WD	D12	25X	S3	F3	S1	F3	S3	F1
XS-41A-FLOW02	S2	F3	E2	C-2-b	14	13	WD	E06	25X	S3	F3	S1	F3	S3	F1
XS-41B-LEVEL01	S2	F2	E2	A-1-a	12	15	T-CN	B06	05X	S3	F3	S3	F1	S3	F2
XS-41B-LEVEL02	S1	F3	E1		11	11	WD	D06						S1	F3
XS-41B-LEVEL03	S2	F3	E2	C-2-b	14	13	WD	E06	25X	S3	F3	S1	F3	S3	F1
XS-41B-LEVEL04	S1	F3	E1		11	11	WD	D06						S1	F3

Table A-2. Master Code Table - Part 1. (53 Sheets)

ID	Initial Safety Code NC	Initial Freq NC	Env Code	SN	Initial Risk Factor NC	Failed Crit Risk Factor	Facility Code	Cause Grp	Rep Acc	AA Safety Code NC	AA Freq NC	App Crit Safety	App Crit Freq	Failed Crit Safety Code	Failed Crit Freq
XS-41C-LEVER1	S2	F2	E2	A-1-a	12	15	T.CN	B06	OSX	S3	Fa	S3	F1	S3	F2
XS-41C-LEVER2	S1	F1	E1		5		T.CN	D04							
XS-41C-LEVER3	S1	F3	E1		11	11	T.CN	D12						S1	F3
XS-45FLOW	S2	F3	E2	B-0-b	14	5	PC	D12	28X	S1	F3	S1	F3	S1	F1
XS-52FLOW01	S2	F2	E2	B-3-b	12	13	PD	D12	21X	S3	F3	S1	F3	S3	F1
XS-52FLOW02	S2	F3	E2	C-2-b	14	13	T.CN	S00	26X	S3	F3	S1	F3	S3	F1

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Table A-3. Master Code Table - Part 2. (90 Sheets)

ID	CNN Failure MEMO	Change MEMO
102AW-01-FLOW 102AW-02-PRES		*GAC - 6/28/96 - Chged Rep Acc because accident analysis shows some of lapses is not creditable for this type condition
102AW-01-FLOW 102AW-04-PRES	If the cover block on during transfer control fails and the consequence of concern is S3 (as for "AA Freq MC"), the frequency falls to F2 from F3 (probability of procedure failure ~1E-4 per demand (multiple independent procedural failures). Cover blocks are on all bays where possible physical connections could result in a mistransfer	GAC - 6/27/96 - Chged Rep Acc due to conservatistly check
102AW-01-FLOW01	If the cover block on during transfer control fails and the consequence of concern is S3 (as for "AA Freq MC"), the frequency falls to F2 from F3 (probability of procedure failure ~1E-4 per demand (multiple independent procedural failures). Cover blocks are on all bays where possible physical connections could result in a mistransfer	GAC - 6/27/96 - Chged Rep Acc due to conservatistly check
102AW-01-FLOW02	If the excavation controls fail and the consequence of concern is S3 (as for "AA Freq MC"), the frequency falls to F1 from F3 (probability of digging in the wrong place, 1E-2, when the time is at use, 1E-2). If excavation controls work, F0. Same as for ES-16	GAC 4/3/98 - As a result of accident brenning reconatitition meeting, chged REP ACC
102AW-01-FLOW03	"Analysis needs more work because the "no controls" frequency should start at F2 not F3 (F3 assumes encasement is already failed). If the controls fail and the consequence of concern is S3 (as for "AA Freq MC"), the frequency falls to F1 from F3 (probability of encasement leak detector failure for double encased pipe or failure of 30 minute shutdown for direct buried pipe ~1E-2). **Based on non-specifice for emergency planning. Same as for XS-07-FLOW02	
102AW-01-FLOW04	Based on Bob Marushev's analysis that shows that you can't break an encasement and the primary pipe with surface loading	
102AW-01-FLOW05	Consequences are related to XS-07-FLOW02. Frequency is related to seismic master frequency	
102AW-01-FLOW06	"Analysis needs more work because the "no controls" frequency should start at F2 not F3 (F3 assumes encasement is already failed). If the controls fail and the consequence of concern is S3 (as for "AA Freq MC"), the frequency falls to F1 from F3 (probability of encasement leak detector failure for double encased pipe or failure of 30 minute shutdown for direct buried pipe ~1E-2). **Based on non-specifice for emergency planning. Same as for XS-07-FLOW02	

Table A-3, Master Code Table - Part 2. (88 Sheets)

ID	Crit Failr MEMO	Change MEMO
102AW-01-FLOW07	*Analysis needs more work because the "no controls" frequency should start at F2 not F3 (F3 assumes encasement is already failed). If the controls fail and the consequences of concern is S3 (as for "AA Free HC"), the frequency falls to F1 (not F3 (probability of encasement leak detector failure for double crossed pipe or failure of 30 minute isolation for direct buried pipe -IE-2) **Based on non-specs for emergency planning. Same as for XS-07-FLOW02	
102AW-01-FLOW10	Bounded by W058-PRES01	GAC 4/3/95 - As a result of accident burning reconciliation meeting, changed REP ACC
102AW-01-FLOW11	Bounded by W058-PRES01 but not identical in that controls if work perfectly prevent accident	GAC 4/3/95 - As a result of accident burning reconciliation meeting, changed REP ACC
102AW-01-TEMP	Bounded by EE-16 and only applicable to aboveground buried pipe. The frequency bounded pipe may be larger than F1	
102AW-01-TEMP01	Bounded by W058-PRES01	GAC 4/3/95 - As a result of accident burning reconciliation meeting, changed REP ACC
102AW-01-TEMP01A	Bounded by W058-PRES01	GAC 4/3/95 - As a result of accident burning reconciliation meeting, changed REP ACC
102AW-01-TEMP02	Bounded by W058-PRES01	GAC 4/3/95 - As a result of accident burning reconciliation meeting, changed REP ACC
102AW-02-LEVE	Primary tank leak detector failure and failure to act on leak detection F1 event. (There is one EC leak detector and two non EC leak detectors)	
102AW-02-LEVE01		
102AW-02-LEVE02		
102AW-02-LEVE02A	Allocated controls impact frequency. Multiple independent control failures are required for this event to occur	
102AW-02-LEVE03	Bounded by W058-PRES01 but not identical in that controls if work perfectly prevent accident	GAC 4/3/95 - As a result of accident burning reconciliation meeting, changed REP ACC
102AW-02-LEVE04	Bounded by W058-PRES01 but not identical in that controls if work perfectly prevent accident	GAC 4/3/95 - As a result of accident burning reconciliation meeting, changed REP ACC
102AW-02-LEVE05	Bounded by W058-PRES01 but not identical in that controls if work perfectly prevent accident	

Table A-3. Master Code Table - Part 2. (60 Sheets)

ID	Crnt Failure MEMO	Change MEMO
102AW-02-LEVE06		
102AW-02-PRES 102AW-02-TEMP	No controls are required because the consequence with no controls is S1	
102AW-02-PRES 01 XS-25-PRES 01		
102AW-02-PRES01	If the control fails and the consequences of concern is S3 (as for "AA Freq MC"), the frequency falls to F2 from F3 (probability of system control failure for intrusive activities -1 E-2). Same as for ITK-10-b	GAC - 5/14/86 - Recal of REL ACC on 2,4,5,86 per discussion with accident analyst
102AW-02-PRES02	No controls are required because the consequence with no controls is S1 and this is a "test only" concern	
102AW-02-PRES03	Degradation has been analyzed and is not expected to result in dome failure. Vacuum or degradation can result in release of waste to the soil but will not result in opening up the tank to the atmosphere	GAC - 6/27/88 - Chged Freq MC based on accident analysis results, vacuum and degradation are very unlikely to occur
102AW-02-PRES04	Degradation has been analyzed and is not expected to result in dome failure. Vacuum or degradation can result in release of waste to the soil but will not result in opening up the tank to the atmosphere	GAC - 6/27/88 - Chged Freq MC based on accident analysis results, vacuum and degradation are very unlikely to occur
102AW-02-PRES08	Degradation has been analyzed and is not expected to result in dome failure. Vacuum or degradation can result in release of waste to the soil but will not result in opening up the tank to the atmosphere	GAC - 6/27/88 - Chged Freq MC based on accident analysis results, vacuum and degradation are very unlikely to occur
102AW-02-PRES08	Degradation has been analyzed and is not expected to result in dome failure. Vacuum or degradation can result in release of waste to the soil but will not result in opening up the tank to the atmosphere	GAC - 6/27/88 - Chged Freq MC based on accident analysis results, vacuum and degradation are very unlikely to occur
102AW-02-PRES07	Degradation has been analyzed and is not expected to result in dome failure. Vacuum or degradation can result in release of waste to the soil but will not result in opening up the tank to the atmosphere	GAC - 6/27/88 - Chged Freq MC based on accident analysis results, vacuum and degradation are very unlikely to occur
102AW-02-PRES06	No controls are required because the consequence with no controls is S1	
102AW-02-PRES08	No controls are required because the consequence with no controls is S1	GAC 9/17/88 - Rebin of hazardous condition to new representative accident group done to accommodate how accident analysis was performed and for wheel conditions GAC - 5/24/89 - Restructuring of Cause Codes

Table A-3. Master Code Table - Part 2. (80 Sheets)

ID	Cont Feature MEMO	Change MEMO
102AW-02-TEMP 102AW-06-TEMP	The pH control (at the chemical company with a manifest check at tank farms) is assumed to be applied. If the pH control fails and the consequence of concern is S2 (as for "AA Freq NC"), the frequency changes to F1 (including the probability that you will get acid when expecting caustic from a vendor and pH check at truck when caustic delivered fails). The "Applied Controls Safety" and "Applied Controls Freq" is prevented if the pH control works.	GAC - 6/27/86 - Chged Rep Acc due to consistency check.
102AW-02-TEMP01	If the controls fail and the consequence of concern is S2 (as for "AA Freq NC"), the frequency falls to F1 from F2 (probability of failing several controls over long period of time is conservatively estimated at $\sim 1E-2$). Should be represented by the Tank Bump Representative Accident (102AW-02-TEMP02) so Consequence and Frequency designations are for a Tank Bump.	
102AW-02-TEMP02	If controls are applied and work perfectly, the accident is prevented. If the controls fail and the consequence of concern is S2 (as for "AA Freq NC"), the frequency falls to F1 from F2 (probability of failing several controls over long period of time is conservatively estimated at $\sim 1E-2$ because of the long period of time the control would need to be failed (the frequency is more realistically and F0)).	GAC - 6/23/86 - Chged REP ACC as a result of reevaluation with accident analysis effort. 5/24/86 - GAC - Restructure of Cause Codes.
102AW-03-LEVE01	F OST Leak * P Flammable mixture of gas is generated * P Time flammable mixture exists * P Leak detector spark $1E-1/yr * 1E-2 * 1E-2 * 1 = 1E-6/yr$ Same as for discussion for 102AW-03-LEVE02	GAC - 6/14/86 - Report of REP ACC on 2,4,5,86 per discussion with accident analyst.
102AW-03-LEVE02	F OST Leak * P Flammable mixture of gas is generated * P Time flammable mixture exists * P Leak detector spark $1E-1/yr * 1E-2 * 1E-2 * 1 = 1E-6/yr$ Same as for discussion for 102AW-03-LEVE01	GAC - 6/14/86 - Report of REP ACC on 2,4,5,86 per discussion with accident analyst.
102AW-03-LEVE03	Degradation has been analyzed and is not expected to result in down failure. Vacuum or degradation can result in release of waste to the soil but will not result in spilling up the tank to the atmosphere.	GAC - 6/27/86 - Chged Freq NC based on accident analysis results, vacuum and degradation are very unlikely to occur.
102AW-03-PRES01 102AW-03-LEVE		
102AW-03-PRES02 102AW-03-LEVE		
102AW-03-BUMP01	If the ignition controls fail and the consequence of concern is S3 (as for "AA Freq NC"), the frequency falls to F1 from F2 (probability of ignition control failure $\sim 1E-2$).	GAC - 6/14/86 - Chged BIN and REP ACC after meeting with analysts.
102AW-03-TEMP02	If the ignition controls fail and the consequence of concern is S3 (as for "AA Freq NC"), the frequency falls to F1 from F2 (probability of ignition control failure $\sim 1E-2$).	

Table A-3. Master Code Table - Part 2. (80 Sheets)

ID	Control Failure MEMO	Change MEMO
102AW-04-LEVE01	Controls fail consequences but do not impact frequency	
102AW-04-LEVE02	Controls impact consequence and frequency but not enough to drop the frequency to the next lower category	
102AW-04-LEVE03	No allocated SBCs or TSR controls, therefore no change in consequence or frequency credited	
102AW-04-LEVE04	No allocated SBCs or TSR controls, therefore no change in consequence or frequency credited	
102AW-04-PRES 01		* JFY - 8/19/98 - Changed BIR from OCC due to S1 Control Meeting (8-12-98)
102AW-04-PRES01	Frequency of ventilation failure is anticipated. No credit given for ventilation systems reliability in this S1 event.	
102AW-04-PRES02	Failure of (low frequency) is anticipated, therefore no reduction in frequency is credited for this control. (cover blocks off sufficient time that exposure is not limited to short period)	
102AW-04-STRU 01		
102AW-04-STRU 02		
102AW-04-STRU01A	If the pressure control fails and the consequence of concern is S2 (as for AA Freq INC.), the frequency falls to F1 from F2 (probability of load drop, 1E-4, and 1E-1 for Wmg higher than 20 feet)	
102AW-04-STRU01B		
102AW-04-STRU02	Frequency based on 1E-6 per tank year - WMC-SD-CM-041	
102AW-04-STRU03	Consequences bounded by CRN-08. Frequency really related to Representative Accident for Tank Failure Due to Exposure Loads	
102AW-04-STRU04	Controls prevent significant worker radiation exposure. If the controls fail and the consequence of concern is S1 (as thus case possible acute fatality), the frequency falls to F1 from F3 (probability of failure of administrative controls and gamma badge dose failures - 1E-4). The S1 consequence under the applied controls conditions is a small exposure (i.e., much lower than possible acute fatality)	CAC - 8/14/98 - Record of REP AOC on 28 per discussion with accident analyst
102AW-04-STRU05	Based on seismic frequency for D 19g earthquake from NP-07	

Table A-3. Master Code Table - Part 2. (50 Sheets)

ID	Ctrl Failure MEMO	Change MEMO
102AW-04-TEMP	If the engine control fails and the consequence of concern is S2 (as for "AA Freq NC"), the frequency falls to F1 from F3, failure of ignition controls (1E-2), and probability of Jarmen failing to get to the pit and put out the fire in 4 hour ~1E-3)	
102AW-05-COMP01		
102AW-05-COMP02	The Nuclear Criticality Safety procedures are very sophisticated. If the control fails and the consequence of concern is S1 (as for "AA Freq NC"), the frequency falls to F0 from F1 (probability of procedure failure ~1E-3). Same as for I-PFP-1-AGT-A. Controls apply to all tank farm transfers even from outside facilities. PFP can only transfer from a "sender" tank. So transfers can't be made inadvertently without concentration control.	
102AW-05-COMP03A	The Nuclear Criticality Safety procedures are very sophisticated. If the control fails and the consequence of concern is S1 (as for "AA Freq NC"), the frequency falls to F0 from F1 (probability of procedure failure ~1E-3). Same as for I-PFP-1-AGT-A.	
102AW-05-COMP03	The Nuclear Criticality Safety procedures are very sophisticated. If the control fails and the consequence of concern is S1 (as for "AA Freq NC"), the frequency falls to F0 from F1 (probability of procedure failure ~1E-3). Same as for I-PFP-1-AGT-A.	
102AW-05-COMP04	The Nuclear Criticality Safety procedures are very sophisticated. If the control fails and the consequence of concern is S1 (as for "AA Freq NC"), the frequency falls to F0 from F1 (probability of procedure failure ~1E-3). Same as for I-PFP-1-AGT-A.	
102AW-05-COMP05	The Nuclear Criticality Safety procedures are very sophisticated. If the control fails and the consequence of concern is S1 (as for "AA Freq NC"), the frequency falls to F0 from F1 (probability of procedure failure ~1E-3). Same as for I-PFP-1-AGT-A.	
102AW-05-COMP06	No allocated SSCs or TBR controls, therefore no change in consequence or frequency credited.	GAC - 3/18/95 - Changed Cause Group Code
102AW-05-COMP01	If the controls fail and the consequence of concern is S2 (as for "AA Freq NC"), the frequency didn't decrease enough to move from F2 to F1 because lightning downsize the initiating event frequency and there is no lightning mitigation control. Same as for I-2225-1-CMP-E.	GAC - 8/5/98 - Changed the REP AGC after consequence check
102AW-05-COMP02	If the ignition controls fail and the consequence of concern is S3 (as for "AA Freq NC"), the frequency falls to F1 from F2 (probability of ignition control failure ~1E-2).	
102AW-05-COMP03	Vehicle control failure estimated to be at least as low as 1E-3 resulting in an F2 frequency (1E-2 for failure to have protected fuel tank and 1E-1 for driver error causing impact).	

Table A-3, Master Code Table - Part 2. (80 Sheets)

ID	Control Failure MEMO	Change MEMO
102AW-09-COMP04	No detected SSCs or TSR controls, therefore no change to consequence or frequency credited	
102AW-09-COMP05	Failure of transfer controls allowing transfer of separable organo estimated to be 1E-3 placing this event in the F2 category	
102AW-09-TEMP	No controls are required because the consequence with no controls is S1	
102AW-09-TEMP01	If controls are applied and work perfectly, the accident is prevented. If the controls fail and the consequence of concern is S2 (as for 'AA Freq MC'), the frequency falls to F1 from F2 (probability of failing several controls over long period of time is conservatively estimated at ~1E-2 because of the long period of time the control would need to be failed the frequency is more realistically and F0)	GAC 4/23/96 - Chgd REP ACC as a result of reconciliation with accident analysis effort. S2495 - GAC - Restructure of Cause Codes
102AW-09-TEMP02		
102AW-13-FLOW 01		JY - 8/19/96 - Changed BN from OCC due to S1 Control Meeting (6-12-96)
102AW-13-FLOW01	For 'Applied Control' the consequence drops to S2 due to pressure inside preventing a long duration spray leak and the frequency drops to F1 because the valve stems must fail with the procedure applied. For 'Failed Control' consequences taken at S3, the frequency is F1 because the cover blocks must be left off, the valves misaligned, the pump inlet lock not sealing or the separator not being action on an alarm	
102AW-13-FLOW02	Bounded by W058-PRES01, this is an overflow of flush pit - probably lower consequence	
102S-01 a1	Bounded by W058-PRES01	GAC 4/2/96 - As a result of accident learning reconciliation meeting, chgd REP ACC
102S-01 b2	Bounded by W058-PRES01	GAC 4/8/96 - As a result of accident learning reconciliation meeting, chgd REP ACC
102S-01 b3	Controls prevent significant worker radiation exposure. If the controls fail and the consequence of concern is S1 (in this case possible route fatality), the frequency falls to F1 from F3 (probability of failure of administrative controls and some hardware failures ~1E-4). The S1 consequence under the applied controls conditions is a small exposure (i.e., much lower than possible route fatality)	GAC- 5/14/96 -Revert of REP ACC on 2,4,5,63 per discussion with accident analyst
102S-02 b1	Consequences related to CP04-05. Frequency related to Plausible Gas Justification For Continued Operation (JCOP) controls coupled with a frequency of gas present in a pit	

Table A-1. Master Code Table - Part 2. (26 Sheets)

ID	Control Feature MBRNO	Change MBRNO
1023-02 b2	Consequences related to CRH-05. Frequency related to Flammable Gas Justification For Continued Operation (ACC) controls coupled with a frequency of gas present in a pit.	
1023-02 c2	If the anti-give control fails and the consequence of concern is S2 (as for 'AA Freq NC'), the frequency falls to F1 from F3, failure of ignition controls (1E-2), and probability of fire/explosion failing to get to the pit and put out the fire in 1 hour -1E-3	QAC - 8/27/96 - Chged Rep Acc due to consistency check
1023-02 d3	Failure of controls on vehicle for protected fuel tank (1E-3) and sufficient vapor release to cause personnel exposure (1E-2)	
1023-03 b3	If the ignition control fails and the consequence of concern is S3 (as for 'AA Freq NC'), the frequency falls to F1 from F2 (probability of ignition control failure -1E-2)	
1023-03 b4	If the ignition control fails and the consequence of concern is S3 (as for 'AA Freq NC'), the frequency falls to F1 from F2 (probability of ignition control failure -1E-2)	QAC - 01/4/96 -Revisit of REP ACC on 2,4,5,6,8 per discussion with accident analyst
1023-04 a1b		
1023-04 a1bb		
1023-04 a3	No controls are required because the consequence with no controls is S1	QAC 9/17/96 - Status of hazardous condition to near representative accident group done to accommodate how accident analysis was performed and for what conditions
1023-04 c	If the control fails and the consequence of concern is S3 (as for 'AA Freq NC'), the frequency falls to F2 from F3 (probability of ignition control failure for intrusive activities -1E-2). Same as for XS-01-FLOW03	
1023-04 d1	Degradation has been analyzed and is not expected to result in down failure. Vacuum or degradation can result in release of waste to the soil but will not result in opening up the tank to the atmosphere	QAC - 6/27/98 - Chged Freq NC based on accident analysis results, upsets and degradation are very unlikely to occur
1023-04 e1b	If the control fails and the consequence of concern is S3 (as for 'AA Freq NC'), the frequency falls to F2 from F3 (probability of ignition control failure for intrusive activities -1E-2). Same as for XS-01-FLOW03	
1023-04 e2		
1023-04 a3		QAC - 8/28/96 - Chged Freq NC because accident analysis determined that this event can not lead to down collapse

Table A-3. Master Code Table - Part 2. (80 Sheets)

ID	Control Failure MEMO	Change MEMO
1023-04 e4	The Nuclear Criticality Safety procedures are very sophisticated. If the control fails and the consequences of concern is S1 (as for AA Freq NC), the frequency falls to F0 (from F1 (probability of procedure failure = 1E-3)). Same as for LPPF-1-ABT-A.	
1023-05 a1e	Frequency based on 1E-6 per tank year - WHC-SD-CMO-49	
1023-05 a1ea	Frequency based on 1E-6 per tank year - WHC-SD-CMO-49	
1023-05 a2		
1023-05 a3	Degradation has been analyzed and is not expected to result in dome failure. Vacuum or degradation can result in release of waste to the soil but will not result in opening up the tank to the atmosphere.	GAC - 6/27/96 - Changed Freq NC based on accident analysis results, vacuum and degradation are very unlikely to occur.
1023-05 a3e	Degradation has been analyzed and is not expected to result in dome failure. Vacuum or degradation can result in release of waste to the soil but will not result in opening up the tank to the atmosphere.	GAC - 6/27/96 - Changed Freq NC based on accident analysis results, vacuum and degradation are very unlikely to occur.
1023-06 a	Ventilation system failure as an anticipated event (F3). However, unfiltered release for a period of one year from passively ventilated tank has been calculated to be below all risk acceptance guidelines.	GAC - 3/24/96 - Restructure of Cause Codes.
106C-01A	Degradation has been analyzed and is not expected to result in dome failure. Vacuum or degradation can result in release of waste to the soil but will not result in opening up the tank to the atmosphere.	GAC - 6/27/96 - Changed Freq NC based on accident analysis results, vacuum and degradation are very unlikely to occur.
106C-01B	Degradation has been analyzed and is not expected to result in dome failure. Vacuum or degradation can result in release of waste to the soil but will not result in opening up the tank to the atmosphere.	GAC - 6/27/96 - Changed Freq NC based on accident analysis results, vacuum and degradation are very unlikely to occur.
106C-01C	Degradation has been analyzed and is not expected to result in dome failure. Vacuum or degradation can result in release of waste to the soil but will not result in opening up the tank to the atmosphere.	GAC - 6/27/96 - Changed Freq NC based on accident analysis results, vacuum and degradation are very unlikely to occur.
106C-01D	Degradation has been analyzed and is not expected to result in dome failure. Vacuum or degradation can result in release of waste to the soil but will not result in opening up the tank to the atmosphere.	GAC - 6/27/96 - Changed Freq NC based on accident analysis results, vacuum and degradation are very unlikely to occur.
106C-01E	Degradation has been analyzed and is not expected to result in dome failure. Vacuum or degradation can result in release of waste to the soil but will not result in opening up the tank to the atmosphere.	GAC - 6/27/96 - Changed Freq NC based on accident analysis results, vacuum and degradation are very unlikely to occur.

Table A-3. Master Code Table - Part 2. (10 Sheets)

ID	Code Feature MEMO	Change MEMO
106C-01F	If the control fails and the consequence of concern is S2 (as for "AA Freq NC"), the frequency falls to F2 from F3 (probability of CAM-interlock failure ~1E-2). Same as for 106C-10J. Cause for the hazardous condition does not make sense.	GAC 01706 - Ratio of hazardous condition to new representative accident group done to accommodate how accident analysis was performed and for what contents GAC 42306 - Chgd REP ACC as a result of reevaluation with accident analysis effort
106C-01G	The pH control (at the chemical company with a manual check at tank farms) is assumed to be applied. If the pH control fails and the consequence of concern is S2 (as for "AA Freq NC"), the frequency changes to F1 (including the probability that you will get acid when expecting caustic from a vendor and pH check at truck/unload causes delayed fails). The "Applied Controls Safety" and "Applied Controls Freq" is prevented if the pH control works.	
106C-01H	If the controls fail and the consequence of concern is S2 (as for "AA Freq NC"), the frequency falls to F1 from F2 (probability of losing several controls over long period of time is conservatively estimated at ~1E-2). Should be represented by the Tank Bump Representative Accident (102AW-02-TEMP02) as Consequence and Frequency designations are for a Tank Bump.	GAC - 02706 - Chgd Rep Acc due to consistency check and best represented by this accident
106C-01I	If the control fails and the consequence of concern is S3 (as for "AA Freq NC"), the frequency falls to F2 from F3 (probability of ignition control failure for intrusive activities ~1E-2). Applied controls for DGR's frequency is F1. All other tanks the applied control frequency is F2.	
106C-01J	If the control fails and the consequence of concern is S3 (as for "AA Freq NC"), the frequency falls to F2 from F3 (probability of ignition control failure for intrusive activities ~1E-2). Applied controls for DGR's frequency is F1. All other tanks the applied control frequency is F2.	
106C-01K	Control failures causing loss of ventilation with no automatic (temperature monitoring fails) or failure of filters with no CAM response 1E-3 event.	
106C-01M	The pH control (at the chemical company with a manual check at tank farms) is assumed to be applied. If the pH control fails and the consequence of concern is S2 (as for "AA Freq NC"), the frequency changes to F2 (including the probability that you will get acid when expecting caustic from a vendor). The "Applied Controls Safety" and "Applied Controls Freq" is prevented if the pH control works.	
106C-01AA	Probability that an epileptic reaction can occur from incompatible materials is judged to be in the F0 to F1 range but definitely less than F2. Same as for 1TY-06.	GAC - 04406 - Changed BIA and REP ACC after meeting with analysts GAC- 01490 - Report of REP ACC on 2,4,6,8 per discussion with accident analyst

Table A-3. Master Code Table - Part 2. (80 Sheets)

ID	Critical Failure MEMO	Change MEMO
100C-01H	The Nuclear Casualty Safety procedures are very sophisticated. If the control fails and the consequence of concern is S1 (as for "AA, Freq NG"), the frequency falls to P0 from F1 (probability of procedure failure ~1E-3). Same as for 4-PFP-1-AGT-A.	
100C-01Ra		
100C-01S	Control failures causing loss of ventilation with no actions taken (temperature monitoring fails) or failure of filters with no CAM response (E-3 event).	
100C-01Sa	This is an environmental release only event. However, controls do not reduce frequency in any case.	
100C-01T	Control failures causing loss of ventilation with no actions taken (temperature monitoring fails) or failure of filters with no CAM response (E-3 event).	
100C-01U		
100C-01W		
100C-01X	Frequency based on 1E-6 per tank/year - WHC-SD-CM-041	
100C-01Y	If the preventive control fails and the consequence of concern is S2 (as for "AA, Freq MC"), the frequency falls to F1 from F2 (probability of failing excessive load controls is estimated at 1E-2). Same as for CRH-03 with different controls related to service water. No Spilling of tanks per WHC-SD-TWR-RPT-002.	
100C-02A	Probability that an uncontrolled reaction does occur from incompatible materials as judged to be in the P0 to F1 range but definitely less than F2. Same as for ITK-08.	
100C-02B	If the control fails and the consequence of concern is S3 (as for "AA, Freq MC"), the frequency falls to F2 from F3 (probability of ignition control failure for intrusive activities ~1E-2). Applied controls for DCRTs frequency is F1. All other tanks the applied control frequency is F2.	
100C-02C	If the control fails and the consequence of concern is S3 (as for "AA, Freq MC"), the frequency falls to F2 from F3 (probability of ignition control failure for intrusive activities ~1E-2). Applied controls for DCRTs frequency is F1. All other tanks the applied control frequency is F2.	
100C-04A	If the control fails and the consequence of concern is S3 (as for "AA, Freq MC"), the frequency falls to F2 from F3 (probability of ignition control failure for intrusive activities ~1E-2). Applied controls for DCRTs frequency is F1. All other tanks the applied control frequency is F2.	GAC-INT-495-Resort of REP AGG on 2,4,5,89 per discussion with accident analyst

Table A-3. Master Code Table - Part 2. (80 Sheets)

ID	Crash Failure MEMO	Change MEMO
105C-04Aa	If the control fails and the consequence of concern is S3 (as for "AA Freq NC"), the frequency falls to F2 from F3 (probability of ignition control failure for extreme scenarios -1E-2). Applied controls for DCRT's frequency is F1. All other tanks the applied control frequency is F2.	GAC - 5/4/95 - Changed REP ACC after meeting with analysts. QAC - 6/14/95 - Report of REP ACC on 2,4,5,89 per discussion with accident analyst.
105C-04B	If the control fails and the consequence of concern is S3 (as for "AA Freq NC"), the frequency falls to F2 from F3 (probability of ignition control failure for extreme scenarios -1E-2). Applied controls for DCRT's frequency is F1. All other tanks the applied control frequency is F2.	GAC - 6/14/95 - Report of REP ACC on 2,4,5,89 per discussion with accident analyst.
105C-05A	Verification fan failure are anticipated (F3). With cover blocks off, no mitigation credited. However, unlimited release for a period of one year from positively vented tank has been calculated to be below all risk acceptance guidelines.	
105C-05B		
105C-05D	If the mitigation control fails and the consequence of concern is S2 (as for "AA Freq NC"), the frequency falls to F1 from F3, failure of ignition controls (1E-2), and (probability of stream failing to get to the pit and pull out the fire in 1 hour -1E-3).	
105C-05F	No allocated SSCs or TSR controls, therefore no change in consequence or frequency credited.	
105C-05G	Because this is a slow developing event, the controls are effective in reducing frequency (1E-3 failure frequency for leak detection indication).	
105C-05H	No allocated SSCs or TSR controls, therefore no change in consequence or frequency credited.	
105C-05J		
105C-05K	Crane lifting failures estimated to be 2.5E-5 per lift with 100 lifts per year postulated. Failure requires only violation of hoisting and rigging manual controls. F2 frequency.	GAC - 5/2/96 - Restructure of Cause Codes
105C-05L	Consequences related to CRN-06. Frequency related to Flammable Gas Justification For Continued Operation (JCO) controls coupled with a frequency of gas present in a pit.	
105C-05M		
105C-10B		
105C-10C		

Table A-3. Master Code Table - Part 2. (88 Sheets)

ID	CAIR Failure MEMO	Change MEMO
106C-10D		
106C-10E		
106C-10F	Failure of intake HEPA filter coupled with fan failure is anticipated event (1E-2). There are no TSRs for HEPA filter. However, unfiltered release for a period of one year from passively ventilated tank has been calculated to be below all risk acceptance guidelines.	
106C-10H		* PG - 7/1/95 - Chgd S, F, E, Haz Card, Cause due to identification of hazardous condition after discussion with HA team members.
106C-10J	If the control fails and the consequence of concern is 62 (as for "AA Frq AC"), the frequency falls to P3 from P3 (probability of CAM-interlock failure - 1E-2). CAMs are functionally checked weekly, creating low likelihood of failure.	
106C-10K	Failure of intake HEPA filter coupled with fan failure is anticipated event (1E-2). There are no TSRs for HEPA filter. However, unfiltered release for a period of one year from passively ventilated tank has been calculated to be below all risk acceptance guidelines.	GAC - 5/24/95 - Restructure of Cause Codes
106C-10L	Failure of intake HEPA filter coupled with fan failure is anticipated event (1E-2). There are no TSRs for HEPA filter. However, unfiltered release for a period of one year from passively ventilated tank has been calculated to be below all risk acceptance guidelines.	
106C-11A	Failure of intake HEPA filter coupled with fan failure is anticipated event (1E-2). There are no TSRs for HEPA filter. However, unfiltered release for a period of one year from passively ventilated tank has been calculated to be below all risk acceptance guidelines.	
106C-11B		
106C-11C		
106C-11D		
106C-11E	Based on current accident analysis for passive release for 1 year, consequence is low (that frequency does not matter & no controls required). Consequence and frequency listed for "hand control" for purposes of passing 31/F3 evaluation.	GAC - 7/2/95 - Chgd BBN per consistency check. GAC - 5/27/95 - Chgd Rep Acc due to consistency check and best represented by this accident.
106C-11F		
106C-11G	A release does not occur if ventilation operates normally and HEPA filter not degraded. Frequency of HEPA filter failure 1E-4. Ventilation CAM interlocks do not reduce frequency, only severity.	GAC - 5/24/95 - Restructure of Cause Codes

Table A-3. Master Code Table - Part 2. (36 Sheets)

ID	Ctrl Failure MEMO	Change MEMO
108C-11H	Control only keep consequences at S1, no controls on reducing frequency Heat Exch failure is anticipated (FS)	
108C-11I	Ventilation system failure of ventilation heater 1E-2 and HEPA plugging due to moisture buildup without corrective action taken based on plugging indication 1E-2 Overall frequency F2	GAC - 52496 - Restructure of Cause Codes
108C-11J	If the control fails and the consequence of concern is S2 (as for "AA Freq MC"), the frequency falls to F2 from F3 (probability of CAM-interlock failure -1E-2) CAMs are functionally checked weekly, creating low likelihood of failure	GAC 8/17/86 - Return of hazardous condition to new representative accident group done to accommodate how accident analysis was performed and for what conditions GAC - 52496 - Restructure of Cause Codes - MVS - 8/14/86 - Chged S as a result of the S1 Control Meeting
108C-11K	If the control fails and the consequence of concern is S2 (as for "AA Freq MC"), the frequency falls to F2 from F3 (probability of CAM-interlock failure -1E-2) CAMs are functionally checked weekly, creating low likelihood of failure	
108C-11L	If the control fails and the consequence of concern is S2 (as for "AA Freq MC"), the frequency falls to F1 from F2 (probability of CAM-interlock failure -1E-2) CAMs are functionally checked weekly, creating low likelihood of failure	GAC - 52496 - Restructure of Cause Codes - MVS - 8/14/86 - Chged S as a result of the S1 Control Meeting
108C-11M	If the control fails and the consequence of concern is S2 (as for "AA Freq MC"), the frequency falls to F1 from F2 (probability of CAM-interlock failure -1E-2) CAMs are functionally checked weekly, creating low likelihood of failure	GAC 8/17/86 - Return of hazardous condition to new representative accident group done to accommodate how accident analysis was performed and for what conditions GAC - 52496 - Restructure of Cause Codes - MVS - 8/14/86 - Chged S as a result of the S1 Control Meeting
108C-11N	Ventilation system failure of ventilation heater 1E-2 and HEPA plugging due to moisture buildup without corrective action taken based on plugging indication 1E-2 Overall frequency F2	GAC - 52496 - Restructure of Cause Codes
108C-11O	If the control fails and the consequence of concern is S2 (as for "AA Freq MC"), the frequency falls to F1 from F2 (probability of CAM-interlock failure -1E-2) CAMs are functionally checked weekly, creating low likelihood of failure	GAC 8/17/86 - Return of hazardous condition to new representative accident group done to accommodate how accident analysis was performed and for what conditions GAC - 52496 - Chged Freq and S1 and MVS MC
108C-12A	Control failure causing loss of ventilation with no actions taken (temperature monitoring fails) or failure of filters with no CAM response 1E-3 event	
108C-12B	Control failure causing loss of ventilation with no actions taken (temperature monitoring fails) or failure of filters with no CAM response 1E-3 event	

Table A-3. Master Code Table - Part 2. (88 Sheets)

ID	Control Failure MEMO	Change MEMO
106C-12C	Control failure causing loss of ventilation with no actions taken (temperature monitoring fails) or failure of filters with no CAM response (E-3 event)	
106C-12D	Control failure causing loss of ventilation with no actions taken (temperature monitoring fails) or failure of filters with no CAM response (E-3 event)	
106C-12F	The pH control (at the chemical company with a manifest check of tank farms) is assumed to be applied. If the pH control fails and the consequence of concern is S2 (see for "AA Freq MC"), the frequency changes to F2 (involving the probability that you will get acid when selecting caustic from a vendor). The "Applied Controls-Safety" and "Applied Controls-Proc" is presented. If the pH control works	GAC 81768 - Rates of hazardous condition to non-representative accident group due to economic flow accident analysis was performed and for what controls
106C-12G		
106C-13A	Bounded by XS-01-FLOW03 but probably closer to ITK-08. If the control fails and the consequence of concern is S3 (see for "AA Freq MC"), the frequency falls to F2 from F3 (probability of ignition control failure for intrusive activities ~1E-2)	
106C-13B		
107AN-01-LEVE01	TSR controls were identified because of the toxicological hazard. A TSR control is established requiring photo sleeving around delivery piping, etc. This control ensures that the co-located worker is protected. If the TSR control fails and the consequence of concern is S2 (see only) (see for "AA Freq MC"), the frequency falls to F2 from F3 (probability of not sleeving every leak location ~1E-2, workers also wear acid suits)	
107AN-01-LEVE02	TSR controls were identified because of the toxicological hazard. A TSR control is established requiring photo sleeving around delivery piping, etc. This control ensures that the co-located worker is protected. If the TSR control fails and the consequence of concern is S2 (see only) (see for "AA Freq MC"), the frequency falls to F2 from F3 (probability of not sleeving every leak location ~1E-2, workers also wear acid suits)	
107AN-01-LEVE03	No allocated SSCs or TSR controls, therefore no change in consequence or frequency credited	
107AN-01-TEMP 01		
107AN-01-TEMP02	TSR controls were identified because of the toxicological hazard. Likelihood of random truck fire is 1E-02 which reduces frequency to F2 (see F3)	GAC - 81496 - Control type on the rep acc

Table A-3. Master Code Table - Part 2. (80 Sheets)

ID	Control Failure MEMO	Change MEMO
107AN-02-FLOW01	The pH control (at the chemical company with a manifest check at tank farms) is assumed to be applied. If the pH control fails and the consequence of concern is S2 (as for "AA Freq NC"), the frequency changes to F2 (involving the probability that you will get sold when exporting caustic from a vendor). The "Applied Controls Safety" and "Applied Controls Fire" is presented if the pH control works.	QAC - 8/27/98 - Cited Rep Acc due to consistency check and #3 contains radioactive releases while #23 contains toxic releases.
107AN-02-FLOW02	The pH control (at the chemical company with a manifest check at tank farms) is assumed to be applied. If the pH control fails and the consequence of concern is S2 (as for "AA Freq NC"), the frequency changes to F2 (involving the probability that you will get sold when exporting caustic from a vendor). The "Applied Controls Safety" and "Applied Controls Fire" is presented if the pH control works.	QAC 8/17/98 - Review of hazardous condition to new representative accident group done to accommodate how accident analysis was performed and for what conditions.
107AN-02-FLOW03		
107AN-02-PRES	TSR controls were identified because of the toxicological hazard. A TSR control is established requiring plastic sleeving around delivery piping, etc. This control ensures that the co-located worker is protected. If the TSR control fails and the consequence of concern is S2 (toxic only) (as for "AA Freq NC"), the frequency falls to F2 from F3 (probability of not sleeving every tank location - 1E-2, workers also wear acid suits).	
107AN-02-PRES02	TSR controls were identified because of the toxicological hazard. A TSR control is established requiring plastic sleeving around delivery piping, etc. This control ensures that the co-located worker is protected. If the TSR control fails and the consequence of concern is S2 (toxic only) (as for "AA Freq NC"), the frequency falls to F2 from F3 (probability of not sleeving every tank location - 1E-2, workers also wear acid suits).	
107AN-02-TEMP01		
107AN-08-FLOW	No allocated SSCs or TSR controls, therefore no change in consequence or frequency credited.	
1145X-02 b	Bounded by W036-PRES01	QAC 8/17/98 - Review of hazardous condition to new representative accident group done to accommodate how accident analysis was performed and for what conditions.
1145X-04 a 1a	Control failures causing loss of ventilation with no actions taken (temperature monitoring fails) or failure of filters with no CAME response 1E-3 event.	
1145X-04 a 1b	Control failures causing loss of ventilation with no actions taken (temperature monitoring fails) or failure of filters with no CAME response 1E-3 event.	

Table A-J. Master Code Table - Part 2. (88 Sheets)

ID	Critic Failure MEMO	Change MEMO
1148X-04 a 2	Degradation has been analyzed and is not expected to result in dome failure. Vacuum or degradation can result in release of waste to the soil but will not result in opening up the tank to the atmosphere.	GAC - 5/27/96 - Chged Presq MC based on accident analysis results; vacuum and degradation are very unlikely to occur. GAC - 4/9/96 - inaccurate transcription per NRC Staff. Chged GRP and HAZ CONG.
1148X-04 a 3	Degradation has been analyzed and is not expected to result in dome failure. Vacuum or degradation can result in release of waste to the soil but will not result in opening up the tank to the atmosphere.	
1145X-04 a 4	Failure of intake HEPA filter coupled with fan failure is anticipated event (1E-2). There are no TSRs for HEPA filter. However, unfiltered release for a period of one year from passively ventilated tank has been calculated to be below all risk acceptance guidelines.	GAC - 5/24/96 - Restructure of Cause Codes
1145X-04 b 1 a 1	Ventilation system failure of ventilation heater 1E-2 and HEPA plugging due to moisture buildup without corrective action taken based on plugging indication 1E-2. Overfill frequency F2.	
1145X-04 b 1 a 2	Degradation has been analyzed and is not expected to result in dome failure. Vacuum or degradation can result in release of waste to the soil but will not result in opening up the tank to the atmosphere.	
1145X-04 b 1 a 3		
1145X-04 b 1 b 1a	Failure of intake HEPA filter coupled with fan failure is anticipated event (1E-2). There are no TSRs for HEPA filter. However, unfiltered release for a period of one year from passively ventilated tank has been calculated to be below all risk acceptance guidelines.	
1145X-04 b 1 b 1b	Based on current accident analysis for passive release for 1 year, consequences so low that frequency does not matter & no controls required. Bounded by 100C-11E.	
1148X-04 b 1 b 2a	Degradation has been analyzed and is not expected to result in dome failure. Vacuum or degradation can result in release of waste to the soil but will not result in opening up the tank to the atmosphere.	
1148X-04 b 1 b 2b		
1148X-04 b 1 b 3a		
1148X-04 b 1 b 3b		
1145X-04 b 1 c 1	Failure of intake HEPA filter coupled with fan failure is anticipated event (1E-2). There are no TSRs for HEPA filter. However, unfiltered release for a period of one year from passively ventilated tank has been calculated to be below all risk acceptance guidelines.	GAC - 5/24/96 - Restructure of Cause Codes

Table A-3. Master Code Table - Part 2. (18 Sheets)

ID	Control Failure MEMO	Change MEMO
1145X-04 b 1 c 2	Degradation has been analyzed and is not expected to result in dome failure. Vacuum or degradation can result in release of waste to the soil but will not result in opening up the tank to the atmosphere.	GAC - 6/27/96 - Chgd Freq NC based on accident analysis results, vacuum and degradation are very unlikely to occur.
1145X-04 b 1 c 3		
1145X-04 b 1 d 1	Failure of inside HEPA filter coupled with fan failure is anticipated event (1E-2). There are no TSRs for HEPA filter. However, unlimited release for a period of one year from presently vented tank has been calculated to be below all risk acceptance guidelines.	
1145X-04 b 1 d 2	Degradation has been analyzed and is not expected to result in dome failure. Vacuum or degradation can result in release of waste to the soil but will not result in opening up the tank to the atmosphere.	
1145X-04 b 1 d 3		
1145X-04 b 1 d 3b	If the control fails and the consequence of concern is S3 (as for AA Freq NC), the frequency falls to F2 from F3 (probability of CAM interlock failure for inhibited shutdown - 1E-2). Applied controls for DCR's frequency is F1. All other tanks the applied control frequency is F2.	GAC - 6/29/96 - Chgd Rep Acc due to consistency check.
1145X-04 b 1 d 3	Control failure causing loss of ventilation with no actions taken (temperature monitoring fails) or failure of filters with no CAM response 1E-3 event.	
1145X-04 c 1	If the control fails and the consequence of concern is S2 (as for AA Freq NC), the frequency falls to F1 from F3 (probability of CAM interlock failure AND low frequency of initiating event). Onsite worker gets some effect even if all the controls work. Same as for 1145X-04 c 2 a.	GAC 4/23/98 - Chgd REP ACC as a result of reconciliation with accident analysis effort. 5/7/98 - GAC - Chgd Freq Mtl and Mxmo NC.
1145X-04 c 2 a	If the control fails and the consequence of concern is S2 (as for AA Freq NC), the frequency falls to F1 from F2 (probability of CAM interlock failure). Onsite worker gets some effect even if all the controls work. Same as for 1145X-04 c 2 a.	GAC 4/23/98 - Chgd REP ACC as a result of reconciliation with accident analysis effort.
1145X-04 c 2 b	If the control fails and the consequence of concern is S2 (as for AA Freq NC), the frequency falls to F1 from F2 (probability of CAM interlock failure). Onsite worker gets some effect even if all the controls work. Same as for 1145X-04 c 2 a.	GAC 4/23/98 - Chgd REP ACC as a result of reconciliation with accident analysis effort.
1145X-04 c 2 c	If the control fails and the consequence of concern is S2 (as for AA Freq NC), the frequency falls to F1 from F2 (probability of CAM interlock failure - 1E-2). CAMs are functionally checked weekly, creating low likelihood of failure.	GAC 6/17/96 - Robin of hazardous condition to new representative accident group done to accommodate how accident analysis was performed and for what positions. GAC 4/23/98 - Chgd REP ACC as a result of reconciliation with accident analysis effort.

Table A-3. Master Code Table - Part 2. (50 Sheets)

ID	Ctrl Failure MEMO	Change MEMO
1145X-04 c 2 d	If the control fails and the consequence of concern is S2 (as for "AA Freq NC"), the frequency falls to F1 from F2 (probability of C&M-control failure). Onsite worker gets some effect even if all the controls work. Same as for 1145X-04 c 2 a	GAC 4/23/98 - Chgd REP ACC as a result of reconsideration with accident analysis effort
1145X-05 b 1	If the control fails and the consequence of concern is S3 (as for "AA Freq NC"), the frequency falls to F2 from F3 (probability of ignition control failure for intrusive activities ~1E-2). Applied controls for DCRTs frequency is F1. All other tanks the applied control frequency is F2	
1145X-05 b 2		GAC 4/23/98 - Chgd REP ACC as a result of reconsideration with accident analysis effort
1145X-05 b 3	Degradation has been analyzed and is not expected to result in dome failure. Vacuum or degradation can result in release of waste to the soil but will not result in opening up the tank to the atmosphere	GAC - 6/27/98 - Chgd Freq NC based on accident analysis results, vacuum and degradation are very unlikely to occur
1145X-05 c 2b	Degradation has been analyzed and is not expected to result in dome failure. Vacuum or degradation can result in release of waste to the soil but will not result in opening up the tank to the atmosphere	GAC 4/23/98 - Chgd REP ACC and GRP, because chemical reaction tends to concrete degradation not an explosion
1145X-05 c 2c	The Nuclear Onsite Safety procedures are very sophisticated. If the control fails and the consequence of concern is S1 (as for "AA Freq NC"), the frequency falls to F0 from F1 (probability of procedure failure ~1E-3). Same as for 1-PFP-1-ACT-A	
1145X-05 d	If the control fails and the consequence of concern is S3 (as for "AA Freq NC"), the frequency falls to F2 from F3 (probability of ignition control failure for intrusive activities ~1E-2). Applied controls for DCRTs frequency is F1. All other tanks the applied control frequency is F2	GAC- 8/14/98 - Revert of REP ACC on 2,4,5,4,9 per discussion with accident analyst
1145X-06 a 1a	Frequency based on 1E-6 per tank year - WHC-SD-CM-041	
1145X-06 a 1b	If the control fails and the consequence of concern is S3 (as for "AA Freq NC"), the frequency falls to F2 from F3 (probability of ignition control failure for intrusive activities ~1E-2). Applied controls for DCRTs frequency is F1. All other tanks the applied control frequency is F2	
1145X-06 b 2		
1145X-06 b 3	Degradation has been analyzed and is not expected to result in dome failure. Vacuum or degradation can result in release of waste to the soil but will not result in opening up the tank to the atmosphere	GAC - 8/27/98 - Chgd Freq NC based on accident analysis results, vacuum and degradation are very unlikely to occur

Table A-3. Master Code Table - Part 2. (60 Sheets)

ID	Ctrl Failure MEMO	Change MEMO
1143X-00 b		PS - 6/26/96 - Caged BIN due to consistency check
204AR-01A	SARP provides controls to limit reactive chemicals	GAC - 6/24/96 - Restructure of Cause Codes
204AR-01B	Controls limit consequences but do not impact frequency	GAC - 6/24/96 - Restructure of Cause Codes
204AR-01C	Controls limit consequences but do not impact frequency	GAC - 6/24/96 - Restructure of Cause Codes
204AR-01D	Controls limit consequences but do not impact frequency	
204AR-01E		
204AR-01F		
204AR-01G		
204AR-01H	This potential accident is of low concern only because the consequences are limited by the input quantity of waste. SARP controls would limit the quantity of waste that could be transported. The failure of the SARP controls is unlikely due to the formal nature of the procedures for qualified shipments.	GAC - 6/4/96 - Changed REP ACC after meeting with Analysts
204AR-01I	This potential accident is of low concern only because the consequences are limited by the input quantity of waste. SARP controls would limit the quantity of waste that could be transported. The failure of the SARP controls is unlikely due to the formal nature of the procedures for qualified shipments.	
204AR-01J	Controls limit consequences but do not impact frequency	
204AR-01K	Allocated controls do not affect consequence or frequency for 31 event	
204AR-02A	This potential accident is of low concern only because the consequences are limited by the input quantity of waste. SARP controls would limit the quantity of waste that could be transported. The failure of the SARP controls is unlikely due to the formal nature of the procedures for qualified shipments.	
204AR-02B	This potential accident is of low concern only because the consequences are limited by the input quantity of waste. SARP controls would limit the quantity of waste that could be transported. The failure of the SARP controls is unlikely due to the formal nature of the procedures for qualified shipments.	
204AR-02C		GAC - 5/24/96 - Restructure of Cause Codes
204AR-02D		

Table A-3. Master Code Table - Part 2. (88 Sheets)

ID	Crit Failure MEMO	Change MEMO
204AR-02E	Controls limit consequences but do not impact frequency.	
204AR-02F	Controls limit consequences but do not impact frequency.	
204AR-03A	Controls prevent larger consequence event but do not impact frequency.	
204AR-03B	Controls prevent larger consequence event but do not impact frequency.	
204AR-03C		
204AR-04A	Controls prevent larger consequence event but do not impact frequency.	
204AR-04B	Controls prevent larger consequence event but do not impact frequency.	
204AR-04C	No allocated SSCs or TSR controls, therefore no change in consequence or frequency credited.	
204AR-04D	No allocated SSCs or TSR controls, therefore no change in consequence or frequency credited.	GAC - 31598 - Added Cause Group Code
204AR-04E	No allocated SSCs or TSR controls, therefore no change in consequence or frequency credited.	GAC - 31598 - Added Cause Group Code
204AR-04F		
204AR-05A		
204AR-05B	Controls prevent larger consequence event but do not impact frequency.	
204AR-05C		
204AR-05A	Controls prevent larger consequence event but do not impact frequency.	
204AR-05B	Controls prevent larger consequence event but do not impact frequency.	
204AR-05C	Controls prevent larger consequence event but do not impact frequency.	
204AR-07A	Accident is bounded by XS-05-FLOW02. For this accident sequence there must be an independent pump start (1E-3) with a sub-cooler (1E-2). Note spray occurs in vented zone of 204AR. Personnel use PPE in this area. Failure of building containment (1E-3) required for this release to get out to the 100 meter person or the public.	GAC - 4306 - As a result of accident binning reconciliation meeting, changed REP ACC, BN, and Cause
204AR-07B	Controls prevent larger consequence event but do not impact frequency.	

Table A-3. Master Code Table - Part 2. (90 Sheets)

ID	Critical Feature MEMO	Change MEMO
204AR-97C		
204AR-09A	This potential accident is of low concern only because the analysis is limited by the input quantity of waste. Thus, no controls are required because the consequence with no controls is 64. SARP controls would limit the quantity of waste that could be transported but if that control were to fail it is possible that the "tested control" consequences could be 52 and the "failed control" frequency F1. Same as for 204AR-01H.	GAC - 6556 - Changed the REP ACC and BHM after consistency check
204AR-09B	This potential accident is of low concern only because the consequences are limited by the input quantity of waste. SARP controls would limit the quantity of waste that could be transported. The failure of the SARP controls is unlikely due to the formal nature of the procedures for qualified shipments.	GAC - 6495 - Changed REP ACC after meeting with analysts
204AR-09C	This potential accident is of low concern only because the consequences are limited by the input quantity of waste. SARP controls would limit the quantity of waste that could be transported. The failure of the SARP controls is unlikely due to the formal nature of the procedures for qualified shipments.	
204AR-09D	This potential accident is of low concern only because the consequences are limited by the input quantity of waste. SARP controls would limit the quantity of waste that could be transported. The failure of the SARP controls is unlikely due to the formal nature of the procedures for qualified shipments.	
204AR-09E		
204AR-09F	No allocated SSCs or TSR controls, therefore no change in consequence or frequency credited.	
204AR-09G		
204AR-09H		
204AR-11A	No allocated SSCs or TSR controls, therefore no change in consequence or frequency credited.	
204AR-11B	No allocated SSCs or TSR controls, therefore no change in consequence or frequency credited.	
204AR-11C	No allocated SSCs or TSR controls, therefore no change in consequence or frequency credited.	
204AR-11D	No allocated SSCs or TSR controls, therefore no change in consequence or frequency credited.	

Table A-3. Master Code Table - Part 2. (80 Sheets)

ID	Original MEMO	Change MEMO
204AR-11E	Plugged HEPA filter given as a random event (no specific initiator indicated that would cause plugging) and with control failure resulting in no action is F2 (IE-2 level 1E-2)	
204AR-11F	If the control fails and the consequence of concern is S2 (as for "AA Freq NC"), the frequency falls to F2 level F3 (probability of DAB-interlock failure ~1E-2). CAVMs are functionally checked weekly, creating low likelihood of failure	
213 W-01	No allocated SSCs or TSR controls, therefore no change in consequences or frequency credited	
213 W-02	No allocated SSCs or TSR controls, therefore no change in consequences or frequency credited	
213 W-03		
213 W-04		
213 W-05		
213 W-06		GAC - 3/18/96 - Added Cause Group Code
213 W-07		GAC - 3/18/96 - Added Cause Group Code
213 W-08		GAC - 3/18/96 - Added Cause Group Code
213 W-09	Vehicle control failure extended to be at least as low as 1E-3 resulting in an F2 frequency	
244AR-01 a 03		MVS - 6/5/97 - Changed Initial Freq from F3 to F0 - Hazardous condition beyond extremely unlikely for steam jelling because steam has been isolated from 244-AR
244AR-01 b 01		MVS - 6/5/97 - Changed Initial Freq from F3 to F0 - Hazardous condition beyond extremely unlikely for steam jelling because steam has been isolated from 244-AR
244AR-01 b 02		MVS - 6/5/97 - Changed Initial Freq from F3 to F0 - Hazardous condition beyond extremely unlikely for steam jelling because steam has been isolated from 244-AR
244AR-01 b 03		MVS - 6/5/97 - Changed Initial Freq from F3 to F0 - Hazardous condition beyond extremely unlikely for steam jelling because steam has been isolated from 244-AR

Table A-3. Master Code Table - Part 2. (80 Sheets)

ID	Criti Failure MEMO	Change MEMO
244AR-01 b 04	Source term control failure ~1 E-2 ~ reduces frequency to F2	GAC-BH765 - Rebin of hazardous condition to new representative accident group done to accommodate how accident analysis was performed and for what conditions MVS - 01495 - Chged S as a result of the S1 Control Meeting
244AR-01 c 01	Plugged HEDPA filter given as a random event (no specific indicator indicated that would cause plugging) and with control failure resulting in the action is F2 (1E-2 times 1E-2)	
244AR-01 c 02	No allocated SSCs or TSF controls, therefore no change in consequence or frequency credited	
244AR-01 c 03	No allocated SSCs or TSF controls, therefore no change in consequence or frequency credited	
244AR-01 c 07		
244AR-01 c 08	Verdalen filter plugging and tank rupture at least 1E-3 event given cause is plugged vents with gas evolution	
244AR-01 d 03	If the control fails and the consequence of concern is B3 (as for "AA Freq KC"), the frequency falls to F2 from F3 (probability of ignition control failure for intensive activities ~1E-2). Applied controls for DCRTs frequency is F1. All other tanks the applied control frequency is F2. (No dome collapse)	GAC-BH496-Report of REP ACC on 2,4,5,68 per decision with accident analyst
244AR-01 e 10	Failure of ventilation system (plugged) with air purge occurring as F2 event (1E-3 for filter plug failure during small period of time air purge occurring)	
244AR-01 e 11		MVS - 05587 - changed Initial Freq from F3 to F0 - Hazardous condition beyond extremely unlikely for steam jetting because steam has been isolated from 244-AR
244AR-01 e 13		
244AR-02 a 03	If the control fails and the consequence of concern is B3 (as for "AA Freq KC"), the frequency falls to F2 from F3 (probability of ignition control failure for intensive activities ~1E-2). Applied controls for DCRTs frequency is F1. All other tanks the applied control frequency is F2. (No dome collapse)	GAC-BH496-Report of REP ACC on 2,4,5,68 per decision with accident analyst
244AR-02 a 05		
244AR-02 a 06		

Table A-3. Master Code Table - Part 2. (80 Sheets)

ID	Entry Failure MEMO	Change MEMO
244AR-02 a 07	Frequency of F1 (very low likelihood of tank failure from sump overflow by new water). No control applied based on low frequency	QAC - 6/17/08 - Rating of hazardous condition to new representative accident group done to accommodate how accident analysis was performed and for what condition
244AR-02 a 08	Preventive controls impact frequency of S1 exposure. (IE-3 failure to detect leak) Leak occurs within a facility that does not have personnel present during the transfer activity. If leak is detected, uncontrolled entry does not occur	
244AR-02 a 09	Controls facilitate identification that a leak is depositing material in the sump. However, the controls do not provide any indication of a leaking sump in a timely fashion	
244AR-02 a 10	Preventive controls impact frequency of S1 exposure. (IE-3 failure to detect leak) Leak occurs within a facility that does not have personnel present during the transfer activity. If leak is detected, uncontrolled entry does not occur	
244AR-02 a 11	Controls facilitate identification that a leak is depositing material in the sump. However, the controls do not provide any indication of a leaking sump in a timely fashion	
244AR-02 a 12	No allocated SSCs of TSR controls, therefore no change in consequence or frequency created	
244AR-02 a 13		
244AR-02 a 14	Same as for NP-07	
244AR-03 a 03		
244AR-03 a 04	If the control fails and the consequence of concern is S3 (as for "AA Freq MC"), the frequency falls to F2 from F3 (probability of ignition control failure for extensive activities - IE-2). Applied controls for OGCs frequency is F1. All other tanks the applied control frequency is F2. (No dome collapse)	QAC - 4/9/06 - Changed GRP from 2.2 to 2.3, type error QAC - 6/11/06 - Reset of RSP AGC on 2,4,5,89 per discussion with accident analyst
244AR-03 a 05	No controls are required because the consequence with no controls is S1	
244AR-03 a 06		MVS - 8/8/97 - Changed initial Freq from F3 to F2 - Hazardous condition beyond extremely unlikely for steam getting because steam has been isolated from 244-AR QAC - 5/24/06 - Restructure of Cause Codes
244AR-03 a 07		QAC - 5/7/06 - Changed Freq HM and Momo NC QAC - Restructure of Cause Codes

Table A-3. Master Code Table - Part 2. (80 Sheets)

ID	Crit Failure MEMO	Change MEMO
244AR-03 a 08	No controls are required because the consequence with no controls is S1	GAC - 42586 - Chgd REP ACC as a result of reevaluation with accident analysis effort. GAC- 591496 - Report of REP ACC on 2,4,5,ED per discussion with accident analyst
244AR-03 a 09	The Nuclear Criticality Safety procedures are very sophisticated. If the control Gds and the consequence of concern is S1 (as for "AA. Pwq NC"), the frequency falls to P0 from F1 (probability of procedure failure - (E-5)). Same as for I-PP-1-AQT-A	
244AR-03 a 13		MVS - 60697 - Changed Initial Freq from F3 to P0 - Hazardous condition not credible for steam jeting because steam has been isolated from 244-AR
244AR-03 a 14		MVS - 60697 - Changed Initial Freq from F3 to P0 - Hazardous condition not credible for steam jeting because steam has been isolated from 244-AR
244AR-03 a 15		
244AR-03 a 16		
244AR-03 a 17		
244AR-03 a 18		
244AR-04 a 01		
244AR-05 a 01		
244AR-06 a 02	Same as for NP-07. However, significance of size necessary to collapse structure is beyond extremely unlikely	
244AR-06 a 02		PS - 62656 - Chged BBN due to consistency check
244AR-07 a 01		MRB - 60697 - Changed Initial Freq from F3 to P0 - Hazardous condition not credible for steam jeting because steam has been isolated from 244-AR. PS - 77166 - Chgd BBN due to consistency check
244AR-07 a 02		MVS - 60697 - Changed Initial Freq from F3 to P0 - Hazardous condition not credible for steam jeting because steam has been isolated from 244-AR

Table A-3. Master Code Table - Part 2. (80 Sheets)

ID	Critl Feature MEMO	Change MEMO
244AR-07 #03		MS - 8/8/97 - Changed Initial Freq from F3 to F0 - Hazardous condition not credible for steam jacking because steam has been isolated from 244-AR.
244AR-07 #04		MS - 8/8/97 - Changed Initial Freq from F3 to F0 - Hazardous condition not credible for steam jacking because steam has been isolated from 244-AR. JV - 6/18/98 - Changed BIN from QCC due to S1 Control Meeting (6-12-98).
244AR-PH01		MS - 8/8/97 - Changed Initial Freq from F3 to F0 - Hazardous condition not credible for steam jacking because steam has been isolated from 244-AR.
244AR-PH02		
244AR-PH03		PS - 8/22/86 - Chged BIN due to consistency check.
244AR-PH04		
244AR-PH05		
244AR-PH06		
244AR-PH07		
244AR-PH08		
244AR-PH09		
244AR-PH10		
244AR-PH11		
244AR-PH12		
244AR-PH13		
244AR-PH14		
244AR-PH15		
244AR-PH16		

Table A-3. Master Code Table - Part 2. (28 Sheets)

ID	OWM Failure MEMO	Change MEMO
244AR-PH17		
244AR-PH18		
244AR-PH19		
2727W-01		
2727W-02	AA and "AA Freq NC" S2(two only)-F1 because when no controls are assumed the building fails with high frequency. But a pipe break due to building failure (1E-2, estimate) must also occur with subsequent rain (1E-1, estimate) yields F1. For controls failing involving the building failing at a lower wind but less than 1 probability, still F1	
2727W-03	AA and "AA Freq NC" S2(two only)-F1 because when no controls are assumed the building fails with high frequency. But a pipe break due to building failure (1E-2, estimate) must also occur with subsequent rain (1E-1, estimate) yields F1. For controls failing involving the building failing at a lower wind but less than 1 probability, still F1	GAC - 3/18/95 - Added Cause Group Code
2727W-04	AA and "AA Freq NC" S2(two only)-F1 because when no controls are assumed the building fails with high frequency. But a pipe break due to building failure (1E-2, estimate) must also occur with subsequent rain (1E-1, estimate) yields F1. For controls failing involving the building failing at a lower wind but less than 1 probability, still F1	
2727W-05	AA and "AA Freq NC" S2(two only)-F1 because when no controls are assumed the building fails with high frequency. But a pipe break due to building failure (1E-2, estimate) must also occur with subsequent rain (1E-1, estimate) yields F1. For controls failing involving the building failing at a lower wind but less than 1 probability, still F1	GAC - 7/30/95 - Changed REP ACC per discussion with accident analyst
2727W-06	AA and "AA Freq NC" S2(two only)-F1 because when no controls are assumed the building fails with high frequency. But a pipe break due to building failure (1E-2, estimate) must also occur with subsequent rain (1E-1, estimate) yields F1. For controls failing involving the building failing at a lower wind but less than 1 probability, still F1	GAC - 7/30/95 - Changed REP ACC per discussion with accident analyst. GAC - 3/18/95 - Added Cause Group Code
90D-01	Control limits consequences but does not impact frequency	
90D-02	Allocated controls do not change frequency	
90D-03	Allocated controls do not change frequency	GAC - 3/18/95 - Added Cause Group Code
90D-04	Controls specified do not reduce frequency of event	
90D-05		GAC - 3/18/95 - Added Cause Group Code

Table A-3. Master Code Table - Part 2. (80 Sheets)

ID	Ctrl Failure MEMO	Change MEMO
90D-06	Control limits consequence but does not impact frequency.	
90D-07	Allocated controls do not change frequency.	
90D-08	Allocated controls do not change frequency.	GAC - 3/18/06 - Added Cause Group Code
90D-09		
90D-10		GAC - 3/18/06 - Added Cause Group Code, Changed Cause statement to separate external event cause from internal phenomena cause.
90D-11	No allocated SSC or TSP controls, therefore no change in consequence or frequency credited.	
BMD-01		
BMD-01-L		
BMD-02	If the control fails and the consequence of concern is S3 (as for "AA Freq NC"), the frequency falls to F2 (less F3 (probability of ignition control failure for intrusive activities -1E-2). Applied controls for DCRT's frequency is F1. All other tanks the applied control frequency is F2.	GAC - 6/14/06 - Revert of REP ACC on 2,4,5,8,9 per discussion with accident analyst.
BMD-02-L		
CCF-01		GAC - 6/7/06 - Chgd Freq HM and Micro NC. 4/24/06 GAC - Changed BRN and REP ACC after meeting with analysts. JY 5-11-07 - Chgd 1st Freq NC to FC because chance of a 7 month loss of power without recovery actions is beyond extremely unlikely.
CCF-02	Controls keep consequence at S1. No effect on frequency.	
CCF-03	Controls keep consequence at S1, believed that sustained loss of water supply (months) is less than F3.	
CCF-04	Controls keep consequence at S1. No effect on frequency.	
CCF-05		
CCF-06		

Table A-3. Master Code Table - Part 2. (80 Sheets)

ID	Crack Failure MEMO	Change MEMO
CCF-07	This scenario is different if tank overflow is accident versus overflow of small pit. W006- PREBOT is flow into small pit. Accident frequency is driven by personnel error. Normally the tank detectors are effectuated to pump shutdown circuit. This scenario staffing requirement is the controlling factor. Currently we are allowed to go below minimum staffing for some period of time. (The frequency is applied to emphasize the importance of minimum staffing and automatic shutdown.)	GAC - 4/3/95 - As a result of accident binning re-evaluation meeting, changed REP ACC
CCF-08		
CCF-09		
CCF-10		
CCF-11		
CCF-12		
CCF-13		
CCF-14		
CCF-15		
CCF-16	Corrosion not directly controlled by allocated controls	
CCF-17	Degradation has been analyzed and is not expected to result in dome failure. Vacuum or degradation can result in release of waste to the soil but will not result in opening up the tank to the atmosphere	GAC - 8/27/95 - Changed Freq HC based on accident analysis results, vacuum and degradation are very unlikely to occur
CCF-18	Degradation has been analyzed and is not expected to result in dome failure. Vacuum or degradation can result in release of waste to the soil but will not result in opening up the tank to the atmosphere	GAC - 8/27/95 - Changed Freq HC based on accident analysis results, vacuum or required level could not be reached
CCF-19	Degradation has been analyzed and is not expected to result in dome failure. Vacuum or degradation can result in release of waste to the soil but will not result in opening up the tank to the atmosphere	GAC - 8/27/95 - Changed Freq HC based on accident analysis results, vacuum level needed could not be reached
CCF-20	The pH control (at the chemical company with a manifest check at tank farms) is assumed to be applied. If the pH control fails and the consequence of concern is S2 (gas for "AA Freq HC"), the frequency changes to F1 (involving the probability that you will get acid when expecting caustic from a vendor and pH check at tank when caustic delivered tanks). Likelihood of 2 tanks being effected is lower than 1 tank. The "Applied Controls Safety" and "Applied Controls Frez" is presented if the pH control works. Common cause problems	GAC - 6/24/95 - Restructure of Cause Codes - 6/4/95 GAC - Changed BIN after meeting with analysts

Table A-3. Master Code Table - Part 2. (90 Sheets)

ID	Cash Failure MEMO	Change MEMO
CDP-01	No allocated controls, therefore no change in consequence or frequency credited.	
CDP-02		
CDP-03	No allocated controls.	
CDP-04		
CDP-05		
CDP-06	No allocated controls, therefore no change in consequence or frequency credited.	
CDP-07		
CDP-08	Controls specified do not reduce frequency of event.	
CDP-09		
CDP-10	No controls are required because the consequence with no controls is S1.	
CDB-01	CDB covers can be removed by hand. If the cover blocks on during transfer control fails and the consequence of concern is B3 (as for "AA Freq MC"), the frequency falls to F2 from F3 (probability of procedure failure ~1E-4 per demand). Cover blocks are on all boxes where possible physical connections could result in a misdiagnosis.	
CDB-02	Allocated controls do not change frequency.	
CDB-03	Allocated controls do not change frequency.	GAC - 3/18/99 - Added words to cause "lid in place"
CDB-04	Bounded by W056-PRE501.	
CDB-05a	No SSC or TSF controls were allocated, therefore no change in consequence or frequency is credited.	
CDB-05b	Allocated controls do not change frequency.	
CDB-05c	Because this is a slow developing event, the controls impact frequency. Failure of the leak detection system is given a 1E-4 frequency making this event an F2.	
CDB-05d	Vehicle control failure estimated to be at least as low as 1E-3 resulting in an F2 frequency. (1E-2 for failure to have protected fuel tank and 1E-4 for driver error causing impact)	
CDB-05e	Allocated controls do not change frequency.	

Table A-3. Master Code Table - Part 2. (99 Sheets)

ID	Cairt Failure MEMO	Change MEMO
COB-05f	The presence of an LCO and AC create an increased awareness of their importance. Covers are essentially required to be on unless a reason exists for them to be off. Failure rate to put lid on after work is estimated to be 1E-3 per depend. Very little work on COBs are anticipated each year.	
COB-06a	No allocated SGD or T&R controls, therefore no change in consequence or frequency credited.	
COB-06b	Allocated controls do not impact frequency.	
COB-07		
COB-08	Bounded by W008-PRE001	
CRN-01	Crane lifting failures estimated to be 2 SE-6 per lift with 100 lifts per year postulated. Failure requires only violation of hoisting and rigging manual controls. P2 frequency.	
CRN-01-I	Crane lifting failures estimated to be 2 SE-5 per lift with 100 lifts per year postulated. Failure requires only violation of hoisting and rigging manual controls. P2 frequency.	
CRN-02	Crane lifting failures estimated to be 2 SE-6 per lift with 100 lifts per year postulated. Failure requires only violation of hoisting and rigging manual controls. P2 frequency.	GAC - 5/24/98 - Restructure of Cause Codes
CRN-02-I		
CRN-03	Frequency based on 1E-6 per tank year - WHC-SD-CM-041	
CRN-03-IA	Frequency based on 1E-6 per tank year - WHC-SD-CM-041	
CRN-03-IB	Consequences are related to XS-07-FLOW02. Frequency is related to CRN-03.	GAC 4/3/98 -As result of accident briefing recommendations meeting, changed REP ACC. GAC 4/18/98 made changes to incorporate NPSFs into main database.
CRN-04	If the preventive control fails and the consequence of concern is S2 (as for "AA Prog NC"), the frequency falls to P1 from P2 probability of load drop, 1E-4, and 1E-1 for lifting higher than 20 feet.	
CRN-04-1A	If the preventive control fails and the consequence of concern is S3 (as for "AA Prog NC"), the frequency falls to P1 from P2 probability of load drop, 1E-4, and 1E-1 for lifting higher than 20 feet.	

Table A-3. Master Code Table - Part 2. (80 Sheets)

ID	Crnt Failure MEMO	Change MEMO
CRN-04-18	Bounded by Consequence and Frequency for CRN-04	GAC 4/30/08 -As result of accident learning reconciliation meeting, changed REP ACC GAC 4/16/08 Made changes to incorporate ASBPs into main database
CRN-05	If the mitigative control fails and the consequence of concern is S2 (as for "AA Freq NC"), the frequency falls to P1 from F3, failure of ignition controls (1E-2), and (probability of firemen failing to get to the pit and put out the fire in 1 hour ~1E-3)	
CRN-06-1	Crane lifting failures estimated to be 2 SE-5 per lift with 100 lifts per year postulated F2 frequency	
CRN-06	If the mitigative control fails and the consequence of concern is S2 (as for "AA Freq NC"), the frequency falls to P1 from F3, failure of ignition controls (1E-2), and (probability of firemen failing to get to the pit and put out the fire in 1 hour ~1E-3)	
CRN-06-1	Crane lifting failures estimated to be 2 SE-5 per lift with 100 lifts per year postulated F2 frequency	
CRN-07	If the mitigative control fails and the consequence of concern is S2 (as for "AA Freq NC"), the frequency falls to P1 from F3, failure of ignition controls (1E-2), and (probability of firemen failing to get to the pit and put out the fire in 1 hour ~1E-3)	
CRN-07-1		
CRN-08	If the mitigative control fails and the consequence of concern is S2 (as for "AA Freq NC"), the frequency falls to P1 from F3, failure of ignition controls (1E-2), and (probability of firemen failing to get to the pit and put out the fire in 1 hour ~1E-3)	
CRN-08-1		
CRN-08	"Believe the hazardous condition could be represented by Representative Accident for 'Tank Failure Due to Excessive Loads' or 'Natural Phenomena - Seismic' Causing a filter with a crane will not result in S2 (so down to S1). Frequency for S1 drops to P1 because a crane lift failure is about 1E-4 or 1E-5 per lift Same as for CRN-19 under MPPA Filter Failure - Exposure to High Temperature or Pressure"	GAC - 5/24/06 - Restructure of Cause Codes
CRN-09-1	"Believe this hazardous condition could be represented by Representative Accident for 'Tank Failure Due to Excessive Loads' or 'Natural Phenomena - Seismic' Causing a filter with a crane will not result in S2 (so down to S1). Frequency for S1 drops to P1 because a crane lift failure is about 1E-4 or 1E-5 per lift Same as for CRN 19	

Table A-3. Master Code Table - Part 2. (88 Sheets)

ID	Crash Failure MEMO	Change MEMO
CRN-10	* Believe this hazardous condition could be represented by Representative Accident for 'Tank Failure Due to Excessive Loads' or 'Natural Phenomena - Berms'. Crushing a Rier with a crane will not result in S2 (no down to S1). Frequency for S1 drops to P1 because a crane lift failure is about 1E-4 or 1E-5 per lift. Same as for CRN-19 under 'MEPA Filter Failure - Exposure to High Temperature or Pressure'	GAC - 6/24/96 - Restructure of Cause Codes
CRN-104	* Believe this hazardous condition could be represented by Representative Accident for 'Tank Failure Due to Excessive Loads' or 'Natural Phenomena - Seismic'. Crushing a Rier with a crane will not result in S2 (no down to S1). Frequency for S1 drops to P1 because a crane lift failure is about 1E-4 or 1E-5 per lift. Same as for CRN-19	
CRN-11	If the preventive control fails and the consequence of concern is S2 (as for 'AA Freq NC'), the frequency falls to P1 from P2 (probability of load drop, 1E-4, and 1E-1 for lifting higher than 20 feet)	
CRN-11-A	If the preventive control fails and the consequence of concern is S2 (as for 'AA Freq NC'), the frequency falls to P1 from P2 (probability of load drop, 1E-4, and 1E-1 for lifting higher than 20 feet)	
CRN-11-B	No controls are required because the consequence with no controls is S1. Same as for ITK-FR-06	GAC 9/17/96 - Rebin of hazardous condition to new representative accident group done to accommodate how accident analysis was performed and for what conditions
CRN-11-C	If the preventive control fails and the consequence of concern is S2 (as for 'AA Freq NC'), the frequency falls to P0 from P2 (probability of load drop, 1E-4, and 1E-1 for lifting higher than 20 feet). Same as for CRN-04	
CRN-12	If the preventive control fails and the consequence of concern is S2 (as for 'AA Freq NC'), the frequency falls to P1 from P2 (probability of load drop, 1E-4, and 1E-1 for lifting higher than 20 feet)	
CRN-12-A	If the preventive control fails and the consequence of concern is S2 (as for 'AA Freq NC'), the frequency falls to P1 from P2 (probability of load drop, 1E-4, and 1E-1 for lifting higher than 20 feet)	
CRN-12-B	No controls are required because the consequence with no controls is S1. Same as for ITK-FR-06	GAC 9/17/96 - Rebin of hazardous condition to new representative accident group done to accommodate how accident analysis was performed and for what conditions
CRN-12-C	If the preventive control fails and the consequence of concern is S2 (as for 'AA Freq NC'), the frequency falls to P0 from P2 (probability of load drop, 1E-4, and 1E-1 for lifting higher than 20 feet). Same as for CRN-04	

Table A-3. Master Code Table - Part 2. (89 Sheets)

ID	Crnt Failure MEMO	Change MEMO
CRN-13-4a	Frequency of F1 is based on human error for the failed control condition. (failure to take action given that high wind conditions are forecast or suddenly occur)	
CRN-13-1B	No controls are required because the consequence with no controls is S1. Same as for ITC-FR-08	
CRN-13-3C	Frequency of F1 is based on human error for the failed control condition. (failure to take action given that high wind conditions are forecast or suddenly occur)	
CRN-13-a	Frequency of F1 is based on human error for the failed control condition. (failure to take action given that high wind conditions are forecast or suddenly occur)	
CRN-13-b	Frequency of earthquake is 1E-2, failure of lifting controls reduces frequency to F1	
CRN-14		JY - 8/19/95 - Changed EBN from OCC due to S1 Control Mating (8-12-95)
CRN-14-1		
CRN-15		JY - 8/19/95 - Changed EBN from OCC due to S1 Control Mating (8-12-95)
CRN-15-1		
CRN-16		JY - 8/19/95 - Changed EBN from OCC due to S1 Control Mating (8-12-95)
CRN-16-1		
CRN-17	Lifting controls do not reduce the chance of crane impacting electrical power lines sufficiently to classify as F2	
CRN-17-1		
CRN-18	No controls are required because the consequence with no controls is S1. Same as for ITC-FR-08	GAC 8/17/95 - Reben of hazardous condition to new representative accident group done to accommodate flow accident analysis was performed and for what controls GAC - 5/24/95 - Restructure of Cause Codes
CRN-18-1	No controls are required because the consequence with no controls is S1. Same as for ITC-FR-08	GAC 8/17/95 - Reben of hazardous condition to new representative accident group done to accommodate flow accident analysis was performed and for what controls

Table A-3. Master Code Table - Part 2. (80 Sheets)

ID	Ctrl Failure MENO	Change MENO
CRN-19	* Believe this hazardous condition could be represented by Representative Accident for Tank Failure Due to Excessive Loads or 'Natural Phenomena - Seismic' (source term limited on filter by control, failure probability 1E-29). Frequency for S2 drops to P1 because a crane lift failure is about 1E-4 or 1E-5 per lift.	GAC 01/7/96 - Ratio of hazardous condition to new representative accident group done to accommodate how accident analysis was performed and for what conditions. GAC - 6/24/96 - Restructure of Cause Codes
CRN-19-1	No controls are required because the consequence with no controls is S1. Same as for ITK-FR-06	GAC 3/17/98 - Ratio of hazardous condition to new representative accident group done to accommodate how accident analysis was performed and for what conditions
CRN-20	* Believe this hazardous condition could be represented by Representative Accident for Tank Failure Due to Excessive Loads or 'Natural Phenomena - Seismic' (source term limited on filter by control, failure probability 1E-29). Frequency for S2 drops to P1 because a crane lift failure is about 1E-4 or 1E-5 per lift.	GAC 01/7/96 - Ratio of hazardous condition to new representative accident group done to accommodate how accident analysis was performed and for what conditions. GAC - 3/18/96 - Added Cause Group Code
CRN-20-1	No controls are required because the consequence with no controls is S1. Same as for ITK-FR-06	
CRN-21		GAC - 10/21/96 - Removed the REP ACC number due to previous change in the Cons rating to S0. GAC - 6/27/96 - Chged Cons. due to tank bottom heater are common but lead to S0 consequence with E3
CRN-21-4A		GAC - 10/21/96 - Removed the REP ACC number due to previous change in the Cons rating to S0. GAC - 6/27/96 - Chged Cons, Grp, and Err due to consistency check
CRN-21-1B	Consequences are related to XS-07-FLOWAQ2. Frequency is related to CRN-03	
CRN-22		GAC - 10/21/96 - Removed the REP ACC number due to previous change in the Cons rating to S0. GAC - 6/27/96 - Chged Cons. due to tank bottom heater are common but lead to S0 consequence with E3
CRN-22-1A		GAC - 10/21/96 - Removed the REP ACC number due to previous change in the Cons rating to S0. GAC - 6/27/96 - Chged Cons, and Err due to consistency check
CRN-22-4B	Bounded by Consequence and Frequency for CRN-04	
CRN-23	Frequency of P1 is based on human error for the failed control condition (failure to take action given that high wind conditions are forecast or suddenly occur)	GAC - 3/18/96 - Added Cause Group Code

Table A-3. Master Code Table - Part 2. (50 Sheets)

ID	Critical Factors MEMO	Change MEMO
CRM-23-A	Frequency of F1 is based on human error for the failed control condition (failure to take action given that high wind conditions are forecast or suddenly occur)	
CRM-23-B	No controls are required because the consequence with no controls is S1 Same as for ITK-FR-08	
CRM-24		
CRM-24-I		
CRM-25		
CRM-25-A		
CRM-25-B	No controls are required because the consequence with no controls is S1 Same as for ITK-FR-08	GAC - 7/30/98 - Chged REP ACC per discussion with accident analyst
CRM-26		
CRM-26-A		
CRM-26-B	No controls are required because the consequence with no controls is S1 Same as for ITK-FR-08	GAC - 7/30/98 - Chged REP ACC per discussion with accident analyst
CRM-27		
CRM-27-A		
CRM-27-B	No controls are required because the consequence with no controls is S1 Same as for ITK-FR-08	GAC - 7/30/98 - Chged REP ACC per discussion with accident analyst
CRM-28-I		
CVR-01	No SSC or TSR controls were allocated, therefore no change in consequence or frequency is credited	
CVR-01-I	No SSC or TSR controls were allocated, therefore no change in consequence or frequency is credited	
CVR-02	No allocated SSCs or TSR controls, therefore no change in consequence or frequency credited	

Table A-3. Master Code Table - Part 2. (80 Sheets)

ID	Original Failure MEMO	Change MEMO
CVR-02-I	No allocated SSCs or TBR controls, therefore no change in consequence or frequency credited.	
CVR-03	No SSC or TBR controls were allocated, therefore no change in consequence or frequency is credited.	
CVR-05-I	No SSC or TBR controls were allocated, therefore no change in consequence or frequency is credited.	
CVR-04		GAC - 3/18/95 - Added Cause Group Code
CVR-04-I		
CVR-05	If the mitigative control fails and the consequence of concern is S2 (as for "AA Freq MC"), the frequency falls to P1 from P3, failure of ignition controls (1e-2), and probability of flames being to get to the pit and put out the fire in 1 hour ~1E-3p	
CVR-05-I		
CVR-06		PS - 6/26/96 - Chged BIN due to consistency check.
CVR-06-I		
CVR-07		PS - 6/26/96 - Chged BIN due to consistency check.
CVR-07-I		
CVR-08		PS - 6/26/96 - Chged BIN due to consistency check.
CVR-08-I		
CVR-09		PS - 6/26/96 - Chged BIN due to consistency check.
CVR-09-I		
CVR-10		
CVR-10-I		
CVR-11		
CVR-11-I		

Table A-3. Master Code Table - Part 2. (66 Sheets)

ID	Crash Failure MEMO	Change MEMO
CVR-13-1	No SSC or TSR controls were allocated, therefore no change in consequence or frequency is credited.	
CVR-13-1	No SSC or TSR controls were allocated, therefore no change in consequence or frequency is credited.	
CVR-14-1	No SSC or TSR controls were allocated, therefore no change in consequence or frequency is credited.	
CVR-15-1	Consequences bounded by CRN-05. Frequency really related to Representative Accident for 'Tank Failure Due to Excessive Load'.	
DCM-01		PS - 5/20/95 - Changed BIN due to consistency check.
DCM-01-1		JY - 5/19/95 - Changed BIN from OCC due to S1 Control Meeting (5-12-95).
DCM-02	No SSC or TSR controls were allocated, therefore no change in consequence or frequency is credited.	
DCM-02-1A		
DCM-02-1B		
DCM-03		GAC - 3/18/95 - Added Cause Group Code
DCM-03-1		
DCM-04		GAC - 3/18/95 - Added Cause Group Code
DCM-04-1		
DCM-05		
DCM-05-1		
DCM-06		JY - 6/19/95 - Changed BIN from OCC due to S1 Control Meeting (5-12-95).
DCM-06-1		JY - 6/19/95 - Changed BIN from OCC due to S1 Control Meeting (5-12-95).
DCM-07		

Table A-3. Master Code Table - Part 2. (38 Events)

ID	Chief Failure MEMO	Change Failure
DCN-07-1		
EE-01	Documentation to support an F0 frequency value is to be added in WHC-SD-WHA-RPT-270	
EE-02	Controls specified do not reduce frequency of event	
EE-03		
EE-04-a	If the ignition controls fail and the consequence of concern is S3 (as for "AA Freq NC"), the frequency falls to F1 from F2 (probability of ignition control failure ~1E-2)	
EE-04-b	If the ignition controls fail and the consequence of concern is S3 (as for "AA Freq NC"), the frequency falls to F1 from F2 (probability of ignition control failure ~1E-2)	
EE-05-a	If the ignition controls fail and the consequence of concern is S3 (as for "AA Freq NC"), the frequency falls to F1 from F2 (probability of ignition control failure ~1E-2)	
EE-05-b	If the ignition controls fail and the consequence of concern is S3 (as for "AA Freq NC"), the frequency falls to F1 from F2 (probability of ignition control failure ~1E-2)	
EE-06		
EE-07		
EE-08		
EE-09	Controls have some aspect on frequency but not sufficient to change frequency category	
EE-10		INVO - 5/13/98 - Chgs F1 to F0 per control involving an BWT/SB because tank floating from sub-surface hydrostatic head considered inexcusable (Discussion with Bob [illegible])
EE-11	The frequency of the event is based on a raw water line break and location of lines (not large over in Gates) and overflow of distillate/waste drives consequence of S2	
EE-12		
EE-13		
EE-14		
EE-15		

Table A-3. Master Code Table - Part 2. (60 Sheets)

ID	Critl Failure MEMO	Change MEMO
EE-16	If the excavation controls fail and the consequence of concern is S3 (as for "AA Freq NC"), the frequency falls to F1 from F3 (probability of digging in the wrong place, 1E-2, when the level is in use, 1E-2). If excavation controls work, accident is prevented.	
EE-17	No controls are required because the consequence with no controls is S1.	
GRN-01		
GRN-01-I		
GRN-02		
GRN-02-I		
GRN-03-I		
I-2226-I-CMP-A	pH control failure is 1E-2 and frequency of acidic transfer is less than one going F2 overall frequency.	
I-2226-I-CMP-B		
I-2226-I-CMP-C	If the cover block on during transfer control fails and the consequence of concern is S3 (as for "AA Freq NC"), the frequency falls to F2 from F3 (probability of procedure failure - 1E-4 per demand (multiple independent procedural failures). Cover blocks are on all boxes where possible physical connections could result in a maltransfer.	
I-2226-I-CMP-D		
I-2226-I-CMP-E	If the controls fail and the consequence of concern is S2 (as for "AA Freq NC"), the frequency didn't decrease enough to move from F2 to F1 because lightning determines the initiating event frequency and there is no lightning mitigation control. Same as for I-2226-I-CMP-E.	GAC-6/14/96 - Report of REP ACC on 2,4,5,99 per discussion with accident analyst.
I-2226-I-LVL-A	The toxicological consequences are S2 for with controls successful and with controls failed because there are no controls that mitigate the toxicological consequences. Same as for I-2426-I-CMP-A.	
I-2226-I-RDN-A	Applied controls frequency and consequences reflect the transfer control on pH. The HEPA filter control additionally provides mitigation of accident consequences from an S2 to an S1. However the frequency of S2 on failed controls is based on failure of both controls (1E-1 inferior "1E-2 pH control failure" "1E-4 filter failure). The HEPA filter control only applies to DCRTs. An applied control is that no more than 110 gallons of S7 wt HNO3 can be transferred from a facility to a DCRT at one time.	GAC 6/17/96 - Review of hazardous condition to new representative accident group done to accommodate how accident analyses was performed and for what controls.

Table A-3. Master Code Table - Part 2. (80 Sheets)

ID	Event Failure MEMO	Change MEMO
I-2228-2-FLW-A	No credit for frequency reduction based on allocated controls. If credit given for no steam supply present this item is FO	
I-2228-2-FLW-B		
I-2228-2-FLW-C	Applied controls frequency and consequences reflect the transfer control on pH. The HEPA filter control additionally provided mitigation of accident consequences from an S2 to an S4. However, the frequency of S2 on (inlet controls) is based on failure of both controls (1E-4 initiator + 1E-2 pH control failure + 1E-4 filter failure). The HEPA filter control only applies to DCRTs. An implied control is that no more than 110 gallons of 57 M HNCS can be transferred from a facility to a DCRT at one time.	GAC 8/17/98 - Review of hazardous condition to new representative accident group done to accommodate how accident analysis was performed and for what conditions.
I-2228-2-FLW-D		
I-2228-2-LEK-A		
I-2228-2-LEK-B	If the cover block on during transfer control fails and the consequence of concern is S3 (as for "AA Freq INC"), the frequency falls to F2 from F3 (probability of procedure failure - 1E-4 per demand (multiple independent procedural failures). Cover blocks are on all boxes where possible physical connections could result in a mistransfer.	
I-2228-2-LEK-C	If the excavation controls fail and the consequence of concern is S3 (as for "AA Freq INC"), the frequency falls to F1 from F3 (probability of digging in the wrong place, 1E-2, when the line is in use, 1E-2). If excavation controls work, accident is prevented.	GAC 8/17/98 - Review of hazardous condition to new representative accident group done to accommodate how accident analysis was performed and for what conditions.
I-2228-2-LEK-D		
I-2228-2-LEK-E	The seismic event is assumed to be 0.10g evaluation basis level + 1 E-3 frequency (F2). Transfer controls and pump interlocks prevent spills before after a seismic event and other events. Emergency preparedness provides for shutdown of transfers if seismic event occurs. Accident consequence based on representative accident analysis (no analysis available for the effect of rubble on release).	
I-2228-2-PRS-A	The toxicological consequences are S2 for both controls successful and with controls failed because there are no controls that mitigate the toxicological consequences. Same as for I-242A-4-CMP-A.	
I-242A-1-FLW-A	If the control fails and the consequence of concern is S3 (as for "AA Freq INC"), the frequency falls to F2 from F3 (probability of injection control failure for intrusive activities - 1E-2). Same as for ITK-10-b.	GAC-8/14/98 - Review of REP AGC on 2,4,6,8 per discussion with accident analyst.

Table A-3. Master Code Table - Part 2. (80 Sheets)

ID	Crn'l Failure MEMO	Change MEMO
I-242A-1-FLW-B	If the control fails and the consequence of concern is S3 (as for "AA Freq NC"), the frequency falls to F2 from F3 (probability of ignition control failure for intrusive activities ~1E-2). Same as for ITX-10-b	GAC-0/1498 -Report of REP ACC on 2,4,5,6B per discussion with accident analyst
I-242A-1-FLW-C	If the control fails and the consequence of concern is S3 (as for "AA Freq NC"), the frequency falls to F2 from F3 (probability of ignition control failure for intrusive activities ~1E-2). Same as for ITX-10-b	GAC-0/1498 -Report of REP ACC on 2,4,5,6B per discussion with accident analyst
I-242A-1-FLW-D	If the control fails and the consequence of concern is S3 (as for "AA Freq NC"), the frequency falls to F2 from F3 (probability of ignition control failure for intrusive activities ~1E-2). Same as for ITX-10-b	GAC-0/1498 -Report of REP ACC on 2,4,5,6B per discussion with accident analyst
I-242A-1-FLW-E	If the control fails and the consequence of concern is S3 (as for "AA Freq NC"), the frequency falls to F2 from F3 (probability of ignition control failure for intrusive activities ~1E-2). Same as for ITX-10-b	GAC-0/1498 -Report of REP ACC on 2,4,5,6B per discussion with accident analyst
I-242A-1-FLW-F		
I-242A-1-LEK-A		
I-242A-1-LEK-B	If the cover block on during transfer control fails and the consequence of concern is S3 (as for "AA Freq NC"), the frequency falls to F2 from F3 (probability of procedure failure ~1E-4 per demand (multiple independent procedural failures). Cover blocks are on all boxes where possible physical corrections could result in a retransfer	
I-242A-1-LEK-C	If the excavation controls fail and the consequence of concern is S3 (as for "AA Freq NC"), the frequency falls to F1 from F3 (probability of digging in the wrong place, 1E-2, when the line is in use, 1E-2). If excavation controls work, accident is prevented	
I-242A-1-LEK-D		
I-242A-1-LEK-E	The seismic event is assumed to be 0.18g (evaluation basis level ~ 1E-3 frequency (F2). Transfer controls and pump interlock prevent spray leaks after a seismic event and other events. Emergency preparedness provides for shutdown of transfers if seismic event occurs. Accident consequence based on representative accident analysis (no analysis available for the effect of rubble on release). Same as for I-222B-2-LEK-E	
I-242A-2-CMP-A	Controls come from FSAR accident 26 and 34. Assume failure of primary tank (analysis indicates that this type of failure is not possible) and failure is detected (1E-3 for annular leak detector) and mitigate results in F3 frequency	

Table A-3. Master Code Table - Part 2. (80 Sheets)

ID	Ctrl Failure MEMO	Change MEMO
I-242A-2-CMP-B	The toxicological consequences are S2 for with controls successful and with controls failed because there are no controls that mitigate the toxicological consequences. Same as for I-242A-6-CMP-A.	
I-242A-2-FLW-A	No controls are required because the consequence with no controls is S1.	
I-242A-2-FLW-B	No controls are required because the consequence with no controls is S1.	
I-242A-2-LEK-A		
I-242A-2-LEK-B	If the cover block on during transfer control fails and the consequence of concern is S3 (as for 'AA Freq NC'), the frequency falls to F2 from F3 (probability of procedure failure ~1E-4 per demand (multiple independent procedural failures)). Cover blocks are on all boxes where possible physical connections could result in a miswire.	
I-242A-2-LEK-C	If the excavation controls fail and the consequence of concern is S3 (as for 'AA Freq NC'), the frequency falls to F4 from F3 (probability of digging in the wrong place, 1E-2, when the line is in use, 1E-2). If excavation controls work, accident is prevented.	
I-242A-2-LEK-D		
I-242A-2-LEK-E	The seismic event is assumed to be D 19g evaluation base level ~ 1E-3 frequency (F2). Transfer controls and pump interlock prevent spray leaks after a seismic event and other events. Emergency preparedness provides for shutdown of transfers if seismic event occurs. Accident consequence based on representative accident analysis (no analysis available for the effect of rupture on release). Same as for I-2225-2-LEK-E.	
I-242A-2-TMP-A		
I-242A-2-VBC-A	No controls are required because the consequence with no controls is S1.	GAC 017793 - Retain of hazardous condition is now representative accident group done to account for how accident analysis was performed and for what conditions.
I-242A-2-VBC-B		
I-242A-3-FLW-A	No controls are required because the consequence with no controls is S1.	
I-242A-3-FLW-B	No controls are required because the consequence with no controls is S1.	
I-242A-4-FLW-A	Approved controls inspect frequency. Failure to detect overfill condition with leak defectors 1E-3. However there is some uncertainty as to how liquid source is identified.	
I-242A-4-TMP-A		

Table A-3. Master Code Table - Part 2. (80 Sheets)

ID	Critl Failure MEMO	Change MEMO
I-242A-5-FLW-A		
I-242A-6-CMP-A	The radiological consequences are \$2 for with controls successful and with controls failed because there are no controls that mitigate the radiological consequences.	
I-242A-8-FLW-A	Allocated controls impact frequency. Failure to detect overfill condition with leak detectors. 1E-5. However there is some uncertainty as to how liquid outlets are identified.	
I-242A-9-FLW-B	Bounded by W055-PRES01; however this outside the scope of the TVR3 PSAR. No additional controls outside 242-A SAR.	
I-242A-9-FLW-C		
I-242A-7-CMP-A		
I-242A-7-FLW-A	No controls are required because the consequence with no controls is \$1.	
I-242A-7-FLW-B	No controls are required because the consequence with no controls is \$1.	
I-242A-7-FLW-C	No controls are required because the consequence with no controls is \$1.	
I-242A-7-PRB-A		
I-242B-1-PRB-A	No allocated SSCs or TBR controls, therefore no change in consequence or frequency credited.	
I-242S-1-TMP-A	No allocated SSCs or TBR controls, therefore no change in consequence or frequency credited.	
I-242S-1-FLW-A	Bounded by W055-PRES01.	
I-242S-2-FLW-B		
I-242S-2-FLW-C		
I-242S-2-FLW-D		
I-242S-2-FLW-E	Bounded by W055-PRES01.	
I-242B-2-LEK-A		

Table A-3. Master Code Table - Part 2. (80 Sheets)

ID	Orbit Failure MEMO	Change MEMO
I-242S-2-LEK-B	If the cover block on during transfer control fails and the consequence of concern is S3 (as for "AA Freq NG"), the frequency falls to F2 (probability of procedure failure ~1E-4 per demand (multiple independent procedural failures)). Cover blocks are on all trains where possible physical connections could result in a misalignment.	
I-242S-2-LEK-C	If the excitation controls fail and the consequence of concern is S3 (as for "AA Freq NG"), the frequency falls to F1 from F3 (probability of dipping in the wrong phase, 1E-2, when the line is in use, 1E-2). If excitation controls work, accident is prevented.	
I-242S-2-LEK-D		
I-242S-2-LEK-E	The seismic event is assumed to be 0.19g evaluation basis level - 1E-3 frequency (F2). Transfer controls and pump interlock prevent spray leaks after a seismic event and other events. Emergency preparedness provides for shutdown of transfers if seismic event occurs. Accident consequence based on representative accident analyses (no analysis available for the effect of rubble on escape). Same as for I-222S-2-LEK-E.	
I-242S-4-FLW-A		
I-242S-4-FLW-B		
I-242S-4-FLW-C	Bounded by W05S-PRES01	
I-242S-4-FLW-D	Bounded by W05S-PRES01	
I-242S-4-LEK-A		
I-242S-4-LEK-B	Not a TWRB PSAR controlled event	
I-242S-4-LEK-C		
I-242S-4-LEK-D		
I-242S-4-LEK-E	The seismic event is assumed to be 0.19g evaluation basis level - 1E-3 frequency (F2). Transfer controls and pump interlock prevent spray leaks after a seismic event and other events. Emergency preparedness provides for shutdown of transfers if seismic event occurs. Accident consequence based on representative accident analyses (no analysis available for the effect of rubble on release). Same as for I-222S-2-LEK-E.	
I-242S-5-CMP-A		
I-242S-5-CMP-B		

Table A-3. Master Code Table - Part 2. (88 Sheets)

ID	Crit Failure MEMO	Change MEMO
I-2423-5-CMP-C		
I-2423-5-CMP-D		
I-2423-5-FLW-A		
I-2423-5-FLW-B		
I-2423-5-FLW-C		
I-2423-5-PRS-A		
I-242T-3-FLW-A		
I-242T-3-FLW-A	Controls reduce likelihood of event.	
I-242T-4-FLW-A	Controls reduce likelihood of event.	
I-BPLANT-1-CMP-A		
I-BPLANT-1-CMP-B	If the cover block on during transfer control fails and the consequence of action is S3 (as for "AA Freq NC"), the frequency falls to F2 from F3 (probability of procedure failure ~1E-4 per demand (multiple independent procedural failures)). Cover blocks are on all boxes where possible physical connections could result in a mistransfer.	
I-BPLANT-1-CMP-C		
I-BPLANT-1-CMP-D		
I-BPLANT-1-CMP-E	If the controls fail and the consequence of controls is S2 (as for "AA Freq NC"), the frequency didn't decrease enough to move from F2 to F1 because lightning eliminates the inflating steam frequency and there is no lightning mitigation control. Same as for I-2223-1-CMP-E.	
I-BPLANT-1-TMP-A		
I-BPLANT-2-FLW-A		
I-BPLANT-2-FLW-B		
I-BPLANT-2-FLW-C		

Table A-3. Master Code Table - Part 2. (28 Sheets)

ID	Orig. Failure MEMO	Change MEMO
I-BPLANT-2-FLW-D	Applied controls frequency and consequences reflect the transfer control on pH. The NEPA Tier control additionally provides mitigation of accident consequences from S2 to an S1. However the frequency of S2 on failed controls is based on failure of both controls (1E-1 initiator * 1E-2 pH control failure * 1E-4 filter failure). The NEPA Tier control only applies to DCRTs. An implied control is that no more than 110 gallons of S7 wt. HNO3 can be transferred from a facility to a DCRT at one time.	GAC 2/17/98 - Review of hazardous condition in new representative accident group done to accommodate new accident analyses was performed and for what conditions
I-BPLANT-2-LEK-A		
I-BPLANT-2-LEK-B	If the cover block on during transfer control fails and the consequence of concern is S3 (as for "AA. Freq. NC"), the frequency falls to F2 from F3 (probability of procedure failure ~1E-4 per demand (multiple independent procedural failures)). Cover blocks are on all boxes where possible physical connections could result in a misbehavior.	
I-BPLANT-2-LEK-C	If the excavation controls fail and the consequence of concern is S3 (as for "AA. Freq. NC"), the frequency falls to F1 from F3 (probability of digging in the wrong place, 1E-2, when the line is in use, 1E-2). If excavation controls work, accident is prevented.	
I-BPLANT-2-LEK-D		
I-BPLANT-2-LEK-E	The seismic event is assumed to be 0.15g evaluation basis level - 1E-3 frequency (F2). Transfer controls and pump interlock prevent spray leaks after a seismic event and other events. Emergency preparedness provides for shutdown of transfers if seismic event occurs. Accident consequences based on representative accident analyses (no analysis available for the effect of rubble on Nileses). Same as for I-2225-2-LEK-E.	
I-PEP-1-AGT-A	The Nuclear Criticality Safety procedures are very sophisticated. If the control fails and the consequence of concern is S1 (as for "AA. Freq. NC"), the frequency falls to P0 from F1 (probability of procedure failure ~1E-3).	GAC - 6/25/98 - Chged REP ACC due to reconciliation between accident and hazard analysis
I-PEP-1-CMP-A		
I-PEP-1-CMP-B	The Nuclear Criticality Safety procedures are very sophisticated. If the control fails and the consequence of concern is S1 (as for "AA. Freq. NC"), the frequency falls to P0 from F1 (probability of procedure failure ~1E-3). Same as for I-PEP-1-AGT-A.	
I-PEP-1-CMP-C		
I-PEP-1-CMP-D	The Nuclear Criticality Safety procedures are very sophisticated. If the control fails and the consequence of concern is S1 (as for "AA. Freq. NC"), the frequency falls to P0 from F1 (probability of procedure failure ~1E-3). Same as for I-PEP-1-AGT-A.	

Table A-3. Master Code Table - Part 2. (80 Sheets)

ID	Crnti Failure MEMO	Charge MEMO
1-PFP-1-CMP-E	If the controls fail and the consequence of concern is S2 (as for "AA Freq NC"), the frequency didn't decrease enough to move from F2 to F1 because lightning dominates the initiating event frequency and there is no lightning mitigation control. Same as for 1-2225-1-CMP-E	
1-PFP-1-LVL-A	Transfer control failure combined with Wetland of the inhibitor (in the low F3 range) produce an F2 category	
1-PFP-1-MTN-A		
1-PFP-2-FLW-A		
1-PFP-2-LEK-A		
1-PFP-2-LEK-B	If the cover block on during transfer control fails and the consequence of concern is S3 (as for "AA Freq NC"), the frequency falls to F2 from F3 (probability of procedure failure ~1E-4 per demand (multiple independent procedural failure). Cover blocks are on all boxes where possible physical connections could result in a mistransfer.	
1-PFP-2-LEK-C	If the detection controls fail and the consequence of concern is S3 (as for "AA Freq NC"), the frequency falls to F1 from F3 (probability of digging in the wrong place, 1E-2, when the line is in use, 1E-2). If detection controls work, accident is prevented.	GAC 9/1788 - Rebut of hazardous conditions to new representative accident group done to accommodate larger accident analysis was performed and for what conditions
1-PFP-2-LEK-D		
1-PFP-2-LEK-E	The seismic event is assumed to be 0.18g evaluation basis level - 1E-3 frequency (F2). Transfer controls and pump interlock prevent spray leaks after a seismic event and other events. Emergency preparedness provides for shutdown of transfers if seismic event occurs. Accident consequence based on representative accident analysis (no analysis available for the effect of subleak on release). Same as for 1-2225-2-LEK-E	
1-PFP-2-TMP-A		
1-PFP-2-TMP-B	The toxicological consequences are S2 for both controls successful and with controls failed because there are no controls that mitigate the toxicological consequences. Same as for 1-242A-3-CMP-A	
1-PFP-3-CMP-A		
1-PFP-3-FLW-B		

Table A-3. Master Code Table - Part 2. (80 Sheets)

ID	Ctrl Failure MEMO	Change MEMO
LFPF-3-FLV-C	Controls impact frequency. Failure of controls (1E-3 for overall during transfer) places frequency in the F2 category. This hazardous condition may be lower in frequency but no credit taken for FPF controls.	
LFPF-3-LEK-A		
LFPF-3-LEK-B	If the cover block on during transfer control fails and the consequence of concern is B3 (as for "AA Freq NG"), the frequency falls to F2 from F3 (probability of procedure failure - 1E-4 per demand (multiple independent procedural failures). Cover blocks are on all buses where possible physical connections could result in a mistransfer.	
LFPF-3-LEK-C	If the excitation controls fail and the consequence of concern is B3 (as for "AA Freq NG"), the frequency falls to F1 from F3 (probability of digging in the wrong place, 1E-2, when the line is in use, 1E-2). If excitation controls work, accident is prevented.	GAC B17788 - Robin of hazardous condition to new representative accident group seems to accommodate how accident analysis was performed and for what conditions.
LFPF-3-LEK-D		
LFPF-3-LEK-E	The seismic event is assumed to be 0.9g swachen base level - 1E-3 frequency (F2). Transfer controls and pump interlock prevent spray leaks after a seismic event and other events. Emergency preparedness provides for shutdown of train lines if seismic event occurs. Accident consequence based on representative accident analysis (no analysis available for the effect of rubble on release). Same as for F-2225-2-LEK-E.	
LPUREX-1-AGT-A		
LPUREX-1-AGT-B	If the cover block on during transfer control fails and the consequence of concern is B3 (as for "AA Freq NG"), the frequency falls to F2 from F3 (probability of procedure failure - 1E-4 per demand (multiple independent procedural failures). Cover blocks are on all buses where possible physical connections could result in a mistransfer.	
LPUREX-1-AGT-C		
LPUREX-1-GMP-A		
LPUREX-1-GMP-B	If the cover block on during transfer control fails and the consequence of concern is B3 (as for "AA Freq NG"), the frequency falls to F2 from F3 (probability of procedure failure - 1E-3). Cover blocks are on all buses where possible physical connections could result in a mistransfer. If leak detectors are working, credit could be taken for lowering the consequence by 1 order of magnitude. Leak detectors were cracked in the pool leak scenario. Same as for XS-06-FLCWD2.	
LPUREX-1-GMP-C		

Table A-3. Master Code Table - Part 2. (90 Sheets)

ID	Crit Feature MEMO	Change MEMO
1-PUREX-1-CMP-D		
1-PUREX-1-VL-A	The toxicological consequences are \$2 for with controls successful and with controls failed because there are no controls that mitigate the toxicological consequences. Same as for 1-242A-6-CMP-A.	
1-PUREX-1-TMP-A	This event is not like an evaporator dump, the transfer rate is limited by jelling rate. Fans are sufficient to maintain negative pressure on tank during transfer. Likelihood of failure of fans (even though in the anticipated range) during the transfer (limited time) reduces the frequency to P2.	
1-PUREX-2-FLW-A		
1-PUREX-2-LEK-A		
1-PUREX-2-LEK-B	If the cover block on during transfer control fails and the consequence of concern is \$3 (as for AA Freq HC), the frequency falls to P2 from P3 (probability of procedure failure -1E-4 per demand (multiple independent procedural failures). Cover blocks are on all boxes where possible physical connections could result in a maltransfer.	
1-PUREX-2-LEK-C	If the Accascaben controls fail and the consequence of concern is \$3 (as for AA Freq HC), the frequency falls to P1 from P3 (probability of dipping in the wrong place, 1E-2, when the line is in use, 1E-2). If Accascaben controls work, accident is prevented.	
1-PUREX-2-LEK-D		
1-PUREX-2-LEK-E	The seismic event is assumed to be 0.19g evaluation basis level - 1E-3 (frequency P2). Transfer controls and pump interlock prevent spary leaks after a seismic event and other events. Emergency preparedness provides for shutdown of lines/area if seismic event occurs. Accident consequence based on representative accident analysis (no analysis available for the effect of rupture on release). Same as for 1-2225-2-LEK-E.	
1-PUREX-2-PRS-A	The toxicological consequences are \$2 for with controls successful and with controls failed because there are no controls that mitigate the toxicological consequences. Same as for 1-242A-6-CMP-A.	
1-PUREX-2-PRS-B	Ventilation system failure during the limited time that this activity is going on is sufficiently infrequent to give P2 frequency.	
1-PUREX-2-PRS-C		JY - 8/19/86 - Changed \$IN from OCC due to \$1 Corred Meeting (5-12-86)
1-PUREX-3-AGT-A		

Table A-3. Master Code Table - Part 2. (88 Sheets)

ID	Cont Failure MEMO	Change MEMO
1-PUREX-3-AGT-B	If the cover block on during transfer control fails and the consequence of concern is S3 (as for "AA Freq NC"), the frequency falls to F2 from F3 (probability of procedure failure ~1E-4 per demand (multiple independent procedural failures)). Cover blocks are on all boxes where possible physical connections could result in a mistransfer.	
1-PUREX-3-AGT-C		
1-PUREX-3-CMP-A		
1-PUREX-3-CMP-B	If the cover block on during transfer control fails and the consequence of concern is S3 (as for "AA Freq NC"), the frequency falls to F2 from F3 (probability of procedure failure ~1E-4 per demand (multiple independent procedural failures)). Cover blocks are on all boxes where possible physical connections could result in a mistransfer.	
1-PUREX-3-CMP-C		
1-PUREX-3-CMP-D		
1-PUREX-3-CMP-E	The Nuclear Criticality Safety procedures are very sophisticated. If the control fails and the consequence of concern is S1 (as for "AA Freq NC"), the frequency falls to F0 from F1 (probability of procedure failure ~1E-3). Same as for 1-PPF-1-AGT-A.	
1-PUREX-3-LVL-A	The toxicological consequences are S2 for with controls successful and with controls failed because there are no controls that mitigate the toxicological consequences. Same as for 1-222A-8-CMP-A.	
1-PUREX-3-TMP-A	Ventilation system failure during the period time that this activity is going on is sufficiently infrequent to give F2 frequency.	
1-PUREX-4-FLY-B	Bounded by V006-PRES01	
1-PUREX-4-LEK-A		
1-PUREX-4-LEK-B	If the cover block on during transfer control fails and the consequence of concern is S3 (as for "AA Freq NC"), the frequency falls to F2 from F3 (probability of procedure failure ~1E-4 per demand (multiple independent procedural failures)). Cover blocks are on all boxes where possible physical connections could result in a mistransfer.	
1-PUREX-4-LEK-C	If the evacuation controls fail and the consequence of concern is S3 (as for "AA Freq NC"), the frequency falls to F1 from F3 (probability of slipping in the wrong place, 1E-2, when the line is in use, 1E-2). If evacuation controls work, accident is prevented.	GAD - 6/25/86 - Cited REP ACC due to misconnection between accident and hazard analysis
1-PUREX-4-LEK-D		

Table A-3. Master Code Table - Part 2. (60 Sheets)

ID	Crnt Failure MEMO	Change MEMO
1-PUREX-4-LEK-E	The seismic event is assumed to be 0.10g evaluation basic level - 1E-3 frequency (F2). Transfer controls and pump interlock prevent spray leaks after a seismic event and other events. Emergency procedures provide for shutdown of transfers if seismic event occurs. Accident consequence based on representative accident analysis (no analysis available for the effect of rupture on release). Same as for 1-222S-2-LEK-E.	
1-PUREX-4-PRS-A	The toxicological consequences are S2 for both controls successful and with controls failed because there are no controls that mitigate the toxicological consequences. Same as for 1-242A-5-CMP-A.	
1-PUREX-4-PRS-B	Verification system failure during the limited time that this activity is going on is sufficiently infrequent to give F2 frequency.	
1-PUREX-4-PRS-C		JY = 6/19/88 - Changed BM from OCC due to S1 Control Meeting (6-12-88)
1-PUREX-5-FLW-A	Verification system failure during the limited time that this activity is going on is sufficiently infrequent to give F2 frequency.	
1-PUREX-5-FLW-B		
1-PUREX-5-FLW-A		
1-PUREX-5-FLW-B		
1-PUREX-5-FLW-C		
1-PUREX-5-FLW-D		
1-TPLANT-1-CMP-A		
1-TPLANT-1-CMP-B	If the power block on during transfer control fails and the consequence of concern is S3 (as for "AA Freq NG"), the frequency falls to F2 from F3 (probability of procedural failure ~1E-4 per demand (multiple independent procedural failures). Cover blocks are on all boxes where possible physical connections could result in a misbehavior.	
1-TPLANT-1-CMP-C		
1-TPLANT-1-CMP-D		
1-TPLANT-1-TMP-A		

Table A-3. Master Code Table - Part 2. (88 Sheets)

ID	Cont Failure MEMO	Change MEMO
I-TP/LANT-2-CMP-A	The consequences in the previous 4 columns are related to radiological consequences. The consequences with controls successful are calculated based on the source term on the HEPA filter not exceeding a certain value. The consequences with controls failed are calculated based on the source term on the HEPA filter being able to exceed a certain value. The toxicological consequences are S2 for with controls successful and with controls failed because there are no controls that mitigate the toxicological consequences. Same as for I-242A-6-CMP-A.	
I-TP/LANT-2-FLW-A		
I-TP/LANT-2-FLW-B		
I-TP/LANT-2-LEK-A		
I-TP/LANT-2-LEK-B	If the cover block on during transfer control fails and the consequence of concern is S3 (as for "AA Freq NC"), the frequency falls to F2 from F3 (probability of procedure failure ~1E-4 per demand (multiple independent procedural failures). Cover blocks are on all boxes where possible physical connections could result in a mistransfer.	
I-TP/LANT-2-LEK-C	If the accumulation controls fail and the consequence of concern is S3 (as for "AA Freq NC"), the frequency falls to F1 from F3 (probability of slipping in the wrong place, 1E-2, when the line is in use, 1E-2). If accumulation controls work, accident is prevented.	GAC - 6/25/96 - Cited REP ACC due to reconnection between accident and hazard analysis
I-TP/LANT-2-LEK-D		
I-TP/LANT-2-LEK-E	The seismic event is assumed to be 0.1 g evaluation basis level - 1E-3 frequency (F2). Transfer controls and pump interlock prevent spray leaks after a seismic event and other events. Emergency preparedness provided for shutdown of transfers if seismic event occurs. Accident consequences based on representative accident analysis (no analysis available for the effect of rupture on release). Same as for I-222B-2-LEK-E.	
I-MPLANT-1-FLW-A		
I-MPLANT-1-LEK-A		
I-MPLANT-1-LEK-B	Consequences bounded by W066-FR301. Frequency represented by EE-16.	
I-MPLANT-1-LEK-C		
I-MPLANT-1-RAM-A		
ITK-01		GAC - 8/24/95 - Restructure of Cause Codes

Table A-3. Master Code Table - Part 2. (66 Sheets)

ID	CAIR Failure MEMO	Change MEMO
ITK001-I	No SSC or TSR controls were allocated, therefore no change in consequence or frequency is credited	
ITK002		GAC - 5/24/99 - Restructure of Cause Codes
ITK002-I		
ITK003	No SSC or TSR controls were allocated, therefore no change in consequence or frequency is credited	
ITK003-I	No SSC or TSR controls were allocated, therefore no change in consequence or frequency is credited	
ITK004	Allocated controls do not change frequency	GAC - 3/18/98 - Added Cause Group Code
ITK004-I		
ITK005	No controls are required because the consequence with no controls is S1	
ITK005-I		
ITK006	The Nuclear Criticality Safety procedures are very sophisticated. If the control fails and the consequence of concern is S1 (as for "AA Freq. NC"), the frequency falls to F0 from F1 (probability of procedure failure = 1E-3). Same as for I-PPF-1-AQT-A	
ITK006-I	The Nuclear Criticality Safety procedures are very sophisticated. If the control fails and the consequence of concern is S1 (as for "AA Freq. NC"), the frequency falls to F0 from F1 (probability of procedure failure = 1E-3). Same as for I-PPF-1-AQT-A	GAC 4/14/98 Made changes to incorporate MRFs into main database
ITK007	Crane lifting failures estimated to be 2.9E-5 per lift with 100 lifts per year postulated. F2 frequency	
ITK007-IA		
ITK007-IB		
ITK008	Probability that an earthquake reaction can occur from incompatible materials is judged to be in the F0 to F1 range but definitely less than F2	GAC- 8/14/98 -Report of REP ACC on 2,4,5,6B per discussion with accident analyst
ITK008-I	Probability that an earthquake reaction can occur from incompatible materials is judged to be in the F0 to F1 range but definitely less than F2. Same as for ITK008	GAC - 8/4/98 - Changed REP ACC after meeting with analysts. GAC 4/16/99 Made changes to incorporate MRFs into main database. GAC- 8/14/98 -Report of REP ACC on 2,4,5,6B per discussion with accident analyst

Table A-3. Master Code Table - Part 2. (80 Sheets)

ID	Crash Factors MEMO	Change MEMO
ITK-09	If the control fails and the consequence of concern is S3 (as for "AA Freq MC"), the frequency falls to F2 from F3 (probability of ignition control failure for intrusive activities -1E-2). Applied controls for DCRTs frequency is F1. All other links the applied control frequency is F2.	GAC- 8/14/95 -Resort of REP ACC on 2,4,5,89 per discussion with accident analyst
ITK-09-1	If the control fails and the consequence of concern is S3 (as for "AA Freq MC"), the frequency falls to F2 from F3 (probability of ignition control failure for intrusive activities -1E-2). Applied controls for DCRTs frequency is F1. All other links the applied control frequency is F2.	GAC 4/16/96 Made changes to incorporate MSFs into main database. GAC- 8/14/95 -Resort of REP ACC on 2,4,5,89 per discussion with accident analyst
ITK-10-1	If the control fails and the consequence of concern is S3 (as for "AA Freq MC"), the frequency falls to F2 from F3 (probability of ignition control failure for intrusive activities -1E-2). Applied controls for DCRTs frequency is F1. All other links the applied control frequency is F2.	GAC 4/16/96 Made changes to incorporate MSFs into main database. GAC- 8/14/95 -Resort of REP ACC on 2,4,5,89 per discussion with accident analyst
ITK-10-2	If the control fails and the consequence of concern is S3 (as for "AA Freq MC"), the frequency falls to F2 from F3 (probability of ignition control failure for intrusive activities -1E-2). Applied controls for DCRTs frequency is F1. All other links the applied control frequency is F2.	GAC- 8/14/95 -Resort of REP ACC on 2,4,5,89 per discussion with accident analyst
ITK-10-3	If the control fails and the consequence of concern is S3 (as for "AA Freq MC"), the frequency falls to F2 from F3 (probability of ignition control failure for intrusive activities -1E-2). Motor pump removal resulting in ignition is rated F1.	GAC- 8/14/95 -Resort of REP ACC on 2,4,5,89 per discussion with accident analyst
ITK-11	If the control fails and the consequence of concern is S3 (as for "AA Freq MC"), the frequency falls to F2 from F3 (probability of ignition control failure for intrusive activities -1E-2). Same as for ITK-10-4	GAC- 8/14/95 -Resort of REP ACC on 2,4,5,89 per discussion with accident analyst
ITK-11-1	Frequency of surge fire for all tanks, no controls required (pneumatic and lightning events have been considered elsewhere)	GAC 4/16/96 Made changes to incorporate MSFs into main database
ITK-FR-01	No allocated SSCs or TSR controls, therefore no change in consequence or frequency credited	
ITK-FR-02	No allocated SSCs or TSR controls, therefore no change in consequence or frequency credited	
ITK-FR-03	No controls are required because the consequence with no controls is S1. Same as for ITK-FR-08	GAC - 6/27/98 - Urged REP ACC due to consistency check

Table A-9. Master Code Table - Part 2. (68 Sheets)

ID	Cont Failure MEMO	Change MEMO
ITK-FR-04	If the preventive control fails and the consequence of concern is S2 (as for "AA Freq MC"), the frequency falls to F1 from F2 (probability of load drop, 1E-4, and 1E-1 for Sling higher than 20 feet).	
ITK-FR-05	No allocated SSCs or TSR controls, therefore no change in consequence or frequency credited.	
ITK-FR-06	No allocated SSCs or TSR controls, therefore no change in consequence or frequency credited.	
ITK-FR-07	No allocated SSCs or TSR controls, therefore no change in consequence or frequency credited.	
ITK-FR-08	No controls are required because the consequence with no controls is S1.	
ITK-FR-09		
ITK-FR-10		
ITK-FR-11		
ITK-FR-12		
ITK-FR-13	If the control fails and the consequence of concern is S3 (as for "AA Freq MC"), the frequency falls to F2 from F3 (probability of ignition control failure for intrusive activities ~1E-2). Same as for ITK-10-3.	SAC - 6/14/88 - Report of REP ACC on 2,4,5,89 per discussion with accident analyst.
ITK-FR-14	No allocated SSCs or TSR controls, therefore no change in consequence or frequency credited.	
ITK-FR-15	No allocated SSCs or TSR controls, therefore no change in consequence or frequency credited.	
ITK-FR-16		
ITK-FR-17		
ITK-FR-18	No allocated SSCs or TSR controls, therefore no change in consequence or frequency credited.	
ITK-FR-19	Bounded by CR04-04. If the preventive control fails and the consequence of concern is S2 (as for "AA Freq MC"), the frequency falls to F1 from F2 (probability of load drop, 1E-4, and 1E-1 for Sling higher than 20 feet).	SAC - 8/27/88 - Chged Freq MC based on consistency check.

Table A-3. Master Code Table - Part 2. (90 Sheets)

ID	Ctrl Failure MEMO	Change MEMO
ITK-FR-20	No allocated SSCs or TSR controls, therefore no change in consequence or frequency credited.	
ITK-FR-21	No allocated SSCs or TSR controls, therefore no change in consequence or frequency credited.	
ITK-FR-22	No controls are required because the consequence with no controls is S1. Same as for ITK-FR-06.	GAC - 5/27/98 - Chged REP AGC due to consistency check.
ITK-FR-23	No allocated SSCs or TSR controls, therefore no change in consequence or frequency credited.	
ITK-FR-24		
ITK-FR-25		
ITK-FR-26	No allocated SSCs or TSR controls, therefore no change in consequence or frequency credited.	
ITK-FR-27		
ITK-FR-28	No allocated SSCs or TSR controls, therefore no change in consequence or frequency credited.	
NP-01	Allocated control does not impact frequency.	
NP-02	Frequency dominated by lightning strike. Consequences reduced by CAM-interlock.	
NP-03	If the preventive control fails and the consequence of concern is S3 (as for "AA-Pre NG"), the frequency doesn't change because the frequency of F2 is dominated by the flammable gas ignition caused by lightning and the preventive controls only get workers away from tank before lightning might strike the tank.	
NP-05	No controls are required because the consequence with no controls is S1. Same as for ITK-FR-06.	
NP-06	No allocated SSCs or TSR controls, therefore no change in consequence or frequency credited.	
NP-07		
NP-08	The frequency of F1 is based on a controls evaluation estimate of the size of earthquake necessary but there is no accident analysis estimate.	

Table A-3. Master Code Table - Part 2. (88 Sheets)

ID	Control Failure MEMO	Change MEMO
NP-09		
NP-10		
NP-11		
NP-12	No allocated SSCs or TSR controls, therefore no change in consequence or frequency credited	
NP-13	WHC-SD-TWR-RPT-002 indicates that 17 ft of wet cover (density of 130 lbm/ft ³) beyond the existing wet cover is required to fail the dome. If all the predicted snow turned to ice, over 3-ft of ice would be required to cover the dome to fail it. Thus the frequency of this much snow and rain to fail the dome is estimated to be F0. There are no preventive or mitigative controls for this scenario.	
NP-14	No allocated SSCs or TSR controls, therefore no change in consequence or frequency credited	
NP-15	Bounded by XS-01-FLCWN03. If the control fails and the consequence of copress is S3 (as for "AA Freq NC"), the frequency falls to F2 from F3 (probability of ignition control failure for nitrous activities ~1E-2).	QAC-011406 - Record of REP ACC on 2,4,5,43 per discussion with accident analyst
OGT-EXT3-01A	If the OGT concrete striking blocks are not in place during a transfer and the consequence of concern is S3 (as for "AA Freq NC"), the frequency falls to F1 from F3 (probability of truck running into unshielded transfer line head enough while a transfer is occurring such that a spray leak is created ~1E-4).	QAC - 6/25/06 - Cited REP ACC due to reconciliation between accident and hazard analysts
OGT-EXT3-01B	Consequence bounded by W058-PRSS01. Frequency based on overground transfer spray leak.	QAC - 6/27/06 - Cited REP ACC due to ogt is initiated at surface
OGT-FLCWN-01	No SSC or TSR controls were allocated, therefore no change in consequence or frequency is credited	JY - 6/18/03 - Changed SIN from OCC due to S1 Control Meeting (5-12-03)
OGT-FLCWN-02	Bounded by W058-PRSS01 consequences and frequencies	
OGT-FLCWN-03A	The "AA Freq NC" is F3 because mis-positioned JR-1 and check valves are not checked in the no-control case. For "Failed Control" consequences taken at S3, the frequency is F1 because of probability of pressure switch and route verification failure.	QAC-7/19/06 - Cited REP ACC due to OGT spray leak; failure should be 1E5
OGT-FLCWN-03B	Consequence bounded by W058-PRSS01. Frequency based on overground transfer spray leak.	QAC - 6/27/06 - Cited REP ACC due to ogt is initiated at SURF06

Table A-3. Master Code Table - Part 2. (88 Sheets)

ID	Ctrl Failure MEMO	Change MEMO
OGT-FLOW1-04	Consequence bounded by W058-PRES01 Frequency based on overground transfer spray leak	GAC - 8/27/86 - Chged REP ACC due to ogt is initiated at surface
OGT-FLOW1-05		
OGT-FLOW1-06	Bounded by W058-PRES01 consequences and frequencies	
OGT-FLOW2-01A	Allocated controls impact frequency Failure to detect overfill condition with leak detectors 1E-3 However there is some uncertainty as to how liquid source is identified	
OGT-FLOW2-01B	Bounded by W058-PRES01 consequences and frequencies	GAC - 8/27/86 - Chged REP ACC due to ogt is initiated at surface
OGT-FLOW2-02	If the OGT concrete shielding blocks are not in place during a transfer AND an over-rated pump is being used AND the spray pipe fails and the consequence of contain is 32 (as for "AA Prog NC"), the frequency falls to F1 from F3 (probability of shielding blocks left AND over-rated pump used AND primary pipe fails AND the containment retention value is closed is at least $\sim 1E-4$)	GAC-7/18/96 - Chged REP ACC due to OGT spray leaks failure should be 15X
OGT-FLOW2-03A	Allocated controls impact frequency Failure to detect overfill condition with leak detectors 1E-3 However there is some uncertainty as to how liquid source is identified	
OGT-FLOW2-03B	Consequence bounded by W058-PRES01 Frequency based on overground transfer spray leak	GAC - 8/27/86 - Chged REP ACC due to ogt is initiated at surface
OGT-INTE03-01		
OGT-NP3-01	Consequence and frequency are related to seismic fragility Emergency preparedness (seismic only) provides for shutdown of ongoing transfers and evacuations (1E-3/yr (earthquake) * 1E-2 control failure)	GAC - 8/28/86 - Chged REP ACC due to reconciliation between accident and hazard analysis
OGT-NP3-02	Frequency related to high wind return period (1E-5/yr) & structural capacity of line and cover Design specifications such that the line can be blown off the abutments with no damage to the line Presence of concrete covers lowers the event frequency also	GAC - 8/28/86 - Chged REP ACC due to reconciliation between accident and hazard analysis
OGT-OP31-01	Crane lifting failures estimated to be 2 SE-5 per HL with 100 lifts per year postulated F2 frequency	
OGT-PRES1-01	Consequence bounded by W058-PRES01 Frequency based on overground transfer spray leak	
OGT-REAC1-01	Consequence bounded by W058-PRES01 Frequency based on overground transfer spray leak	

Table A-3. Master Code Table - Part 2. (80 Streets)

ID	Crash Failure MBAC	Change MEMO
OQT-SPEC1-01	No SSC or TSR controls were allocated, therefore no change in consequence or frequency is credited.	JY - 6/19/96 - Changed BIN from OCC due to S1 Control Meeting (5-12-95).
OQT-TEMP1-01		JY - 6/19/96 - Changed BIN from OCC due to S1 Control Meeting (5-12-95).
OQT-TEMP1-02	This hazardous condition relates to a vehicle accident with a resulting fire and no cover shielding. Failure of controls to keep vehicle out of tank farm while pumping occurs when no cover blocks are installed (IE-3 because the fire is a radiation pump) and vehicle hits line and has fire started (IE-2).	GAC-7/19/96 - Changed REP ACC due to OQT spray leak failure should be 15X.
OQT-TEMP1-03	Consequence bounded by W058-PRES01. Frequency based on overground transfer spray leak.	
RAD-01		JY - 6/19/96 - Changed BIN from OCC due to S1 Control Meeting (5-12-95).
RAD-01-1		JY - 6/19/96 - Changed BIN from OCC due to S1 Control Meeting (5-12-95).
RAD-02		JY - 6/19/96 - Changed BIN from OCC due to S1 Control Meeting (5-12-95).
RAD-02-1		
RAD-03		JY - 6/19/96 - Changed BIN from OCC due to S1 Control Meeting (5-12-95).
RAD-03-1		
RSR-01	No SSC or TSR controls were allocated, therefore no change in consequence or frequency is credited.	GAC - 3/19/96 - Added Cause Group Code
RSR-01-1	No SSC or TSR controls were allocated, therefore no change in consequence or frequency is credited.	
RSR-02		
RSR-02-1		JY - 6/19/96 - Changed BIN from OCC due to S1 Control Meeting (5-12-95).
RSR-03		

Table A-3. Master Code Table - Part 2. (88 Sheets)

ID	Control Failure MEMO	Change MEMO
RBR-03-I		JY - 8/18/98 - Changed BIN from OCC due to S1 Control Mapping (8-12-98)
RBR-04		JY - 8/18/98 - Changed BIN from OCC due to S1 Control Mapping (8-12-98)
RBR-04-I		JY - 8/18/98 - Changed BIN from OCC due to S1 Control Mapping (8-12-98)
RBR-05		
RBR-05-1A		
RBR-05-1B		
RBR-06-4	If the control fails and the consequence of concern is S3 (as for "AA Freq NC"), the frequency falls to P2 from P3 (probability of ignition control failure for intrusive activities -1E-2). Applied controls for DCRT's frequency is P1. All other times the applied control frequency is P2.	GAC 4/18/98 Made changes to incorporate MRSPs into main database. GAC- 6/14/98 - Report of REP ADG on 2,4,5,63 per discussion with accident analyst
RBR-07-4	Frequency of P1 based on human error frequency	GAC 4/18/98 Made changes to incorporate MRSPs into main database
RBR-08-I		
SFF-01	No SRC or TSR controls were allocated, therefore no change in consequence or frequency is credited	GAC - 3/18/98 - Added Cause Group Code
SFF-01-I		
TFS-1	Bounded by W058-PRES01	5/28/98-GAC for B. Gabbit
VEN-01	SARP controls analysis. Consequence bounded by CRN-05. Frequency of failed control related to the rate of vehicle stop and the fire resistance of the cask to the fire and the effectiveness of the fire department to put out the fire before material release occurs. Typically, the frequency for DOT shipments is in the extremely unlikely category.	
VEH-01-I	SARP controls analysis. Consequence bounded by CRN-05. Frequency of failed control related to the rate of vehicle fire and the fire resistance of the cask to the fire and the effectiveness of the fire department to put out the fire before material release occurs. Typically, the frequency for DOT shipments is in the extremely unlikely category.	GAC - 6/27/98 - Chged Freq NC based on discussion with accident analyst. GAC 4/18/98 Made changes to incorporate MRSPs into main database
VEH-02	SARP controls analysis	GAC - 3/18/98 - Added Cause Group Code

Table A-3. Master Code Table - Part 2. (90 Sheets)

ID	Ctrl Failure MEMO	Change MEMO
VEH-02-1	SARP controls analysis.	
VEH-03	SARP controls analysis.	
VEH-03-1	SARP controls analysis.	GAC 8/16/93 Made changes to incorporate MISFs into main database.
VEH-04		JY - 8/19/93 - Changed SRR from OCC due to S1 Control Meeting (5-12-93).
VEH-04-1		JY - 8/19/93 - Changed SRR from OCC due to S1 Control Meeting (5-12-93).
VEH-05		
VEH-05-1		
VEH-06		
VEH-06-1		
VEH-07		
VEH-07-1	If the ignition controls fail and the consequence of concern is S3 (as for "AA Freq NC"), the frequency falls to F1 from F2 (probability of ignition control failure ~1E-2).	GAC 8/17/93 - Part of a hazardous condition to new representative accident group done to accommodate how accident analysis was performed and for what conditions. GAC 8/14/96 - Result of REP ACC on 2,4,8,8B per discussion with accident analyst.
VEN-08-1		
VSL-01	No SSC or TSR controls were allocated, therefore no change in consequence or frequency is credited.	
VSL-02	No SSC or TSR controls were allocated, therefore no change in consequence or frequency is credited.	
VSL-03	No SSC or TSR controls were allocated, therefore no change in consequence or frequency is credited.	
VSL-04	No SSC or TSR controls were allocated, therefore no change in consequence or frequency is credited.	

Table A-3. Master Code Table - Part 2. (80 Sheets)

ID	Critl Failure MEMO	Change MEMO
VSIU-05		
VSIU-05		
W058-FLOW01	Bounded by W058-PRES01	GAC 4/3/95 - As a result of accident burning reconciliation meeting, chged REP ACC
W058-FLOW03	Bounded by W058-PRES01	GAC 4/3/95 - As a result of accident burning reconciliation meeting, chged REP ACC
W058-FLOW04a	Bounded by W058-PRES01	GAC 4/3/95 - As a result of accident burning reconciliation meeting, chged REP ACC
W058-FLOW05b	Bounded by W058-PRES01	GAC 4/3/95 - As a result of accident burning reconciliation meeting, chged REP ACC
W058-FLOW06a	Bounded by W058-PRES01	GAC 4/3/95 - As a result of accident burning reconciliation meeting, chged REP ACC
W058-FLOW07	Bounded by W058-PRES01	GAC 4/3/95 - As a result of accident burning reconciliation meeting, chged REP ACC
W058-FLOW09	Bounded by W058-PRES01	GAC 4/3/95 - As a result of accident burning reconciliation meeting, chged REP ACC
W058-FLOW11a	Bounded by W058-PRES01	GAC 4/3/95 - As a result of accident burning reconciliation meeting, chged REP ACC
W058-FLOW11b	Bounded by W058-PRES01	GAC 4/3/95 - As a result of accident burning reconciliation meeting, chged REP ACC
W058-FLOW11c	Bounded by W058-PRES01	GAC 4/3/95 - As a result of accident burning reconciliation meeting, chged REP ACC
W058-FLOW13	Bounded by W058-PRES01	GAC 4/3/95 - As a result of accident burning reconciliation meeting, chged REP ACC
W058-FLOW15	If the cover block on during transfer control fails and the consequence of concern is S3 (as for "AA, Pres NG"), the frequency falls to P2 from P3 (probability of procedure failure ~1E-4 per demand (multiple independent procedural failures). Cover blocks are on all boxes where possible physical connections could result in a mistransfer	

Table A-3. Master Code Table - Part 2. (66 Sheets)

ID	Circuit Failure MEMO	Change MEMO
W058-FLOW16	If the cover block on during transfer control fails and the consequence of concern is S3 (as for "AA Freq NC"), the frequency falls to F2 from F3 (probability of procedure failure ~1E-4 per demand (multiple independent procedural failures). Cover blocks are on all boxes where possible physical connections could result in a mis-transfer.	
W058-FLOW17a	If the cover block on during transfer control fails and the consequence of concern is S3 (as for "AA Freq NC"), the frequency falls to F2 from F3 (probability of procedure failure ~1E-4 per demand (multiple independent procedural failures). Cover blocks are on all boxes where possible physical connections could result in a mis-transfer.	
W058-FLOW17b	If the cover block on during transfer control fails and the consequence of concern is S3 (as for "AA Freq NC"), the frequency falls to F2 from F3 (probability of procedure failure ~1E-4 per demand (multiple independent procedural failures). Cover blocks are on all boxes where possible physical connections could result in a mis-transfer.	
W058-FLOW17c	If the cover block on during transfer control fails and the consequence of concern is S3 (as for "AA Freq NC"), the frequency falls to F2 from F3 (probability of procedure failure ~1E-4 per demand (multiple independent procedural failures). Cover blocks are on all boxes where possible physical connections could result in a mis-transfer.	
W058-FLOW18	If the cover block on during transfer control fails and the consequence of concern is S3 (as for "AA Freq NC"), the frequency falls to F2 from F3 (probability of procedure failure ~1E-4 per demand (multiple independent procedural failures). Cover blocks are on all boxes where possible physical connections could result in a mis-transfer.	
W058-FLOW19	If the cover block on during transfer control fails and the consequence of concern is S3 (as for "AA Freq NC"), the frequency falls to F2 from F3 (probability of procedure failure ~1E-4 per demand (multiple independent procedural failures). Cover blocks are on all boxes where possible physical connections could result in a mis-transfer.	
W058-FLOW20a	If the cover block on during transfer control fails and the consequence of concern is S3 (as for "AA Freq NC"), the frequency falls to F2 from F3 (probability of procedure failure ~1E-4 per demand (multiple independent procedural failures). Cover blocks are on all boxes where possible physical connections could result in a mis-transfer.	
W058-FLOW20b	If the cover block on during transfer control fails and the consequence of concern is S3 (as for "AA Freq NC"), the frequency falls to F2 from F3 (probability of procedure failure ~1E-4 per demand (multiple independent procedural failures). Cover blocks are on all boxes where possible physical connections could result in a mis-transfer.	GAC 4/24/98 - Chgd GRP from 7.2 to 6.4 due to coding error.

Table A-3. Master Code Table - Part 2. (60 Sheets)

ID	Ctrl Feature MEMO	Change MEMO
W056-FLOW20c	If the cover block on during transfer control fails and the consequence of concern is S3 (as for "AA Freq NC"), the frequency falls to F2 from F3 (probability of procedure failure ~1E-4 per demand (multiple independent procedural failures)). Cover blocks are on all boxes where possible physical connections could result in a misconnection.	GAC 4/24/96 - Chgd GRP from T 2 to d 4 due to coding error
W056-INTEG01a	"Analysis needs more work because the "no controls" frequency should start at F2 not F3 (F3 assumes encasement is already failed). If the controls fail and the consequence of concern is S3 (as for "AA Freq NC"), the frequency falls to F1 from F3 (probability of encasement leak detector failure for double enclosed pipe or failure of 30 minute withdrawal for direct buried pipe ~1E-2). **Based on non-specs for emergency planning. Same as for XS-07-FLOW02.	GAC - 6/27/95 - Chged Rep Acc due to this accident is initiated subsequent so should be under accident #21
W056-INTEG01b	"Analysis needs more work because the "no controls" frequency should start at F2 not F3 (F3 assumes encasement is already failed). If the controls fail and the consequence of concern is S3 (as for "AA Freq NC"), the frequency falls to F1 from F3 (probability of encasement leak detector failure for double enclosed pipe or failure of 30 minute withdrawal for direct buried pipe ~1E-2). **Based on non-specs for emergency planning. Same as for XS-07-FLOW02.	GAC - 6/27/95 - Chged Rep Acc due to this accident is initiated subsequent so should be under accident #21
W056-INTEG01c	Bounded by W056-PRES01	GAC 4/3/96 - As a result of accident burning reconciliation meeting, chged REP ACC
W056-INTEG01d	Bounded by W056-PRES01	GAC 4/3/96 - As a result of accident burning reconciliation meeting, chged REP ACC
W056-INTEG03a	"Analysis needs more work because the "no controls" frequency should start at F2 not F3 (F3 assumes encasement is already failed). If the controls fail and the consequence of concern is S3 (as for "AA Freq NC"), the frequency falls to F1 from F3 (probability of encasement leak detector failure for double enclosed pipe or failure of 30 minute withdrawal for direct buried pipe ~1E-2). **Based on non-specs for emergency planning. Same as for XS-07-FLOW02.	GAC 5/17/96 - Refm of hazardous condition to new representative accident group done to accommodate how accident analyses were performed and for what conditions.
W056-INTEG03b	Bounded by W056-PRES01	GAC 4/3/96 - As a result of accident burning reconciliation meeting, chged REP ACC
W056-INTEG05a	Consequences bounded by W056-PRES01. Frequency represented by EE-16	
W056-INTEG05b	Consequences bounded by W056-PRES01. Frequency represented by EE-16	GAC 4/3/96 - As a result of accident burning reconciliation meeting, chged REP ACC

Table A-3. Master Code Table - Part 2. (88 Sheets)

ID	Critical Failure MEMO	Change MEMO
W058-INTEG07a	*Analysis needs more work because the "no controls" frequency should start at F2 not F3 (F3 assumes encasement is already failed). If the controls fail and the consequence of concern is S3 (as for "AA Freq NC"), the frequency falls to F1 from F3 (probability of encasement leak detector failure for double encased pipe or failure of 30 minute shutdown for direct buried pipe ~1E-2). **Based on non-specific for emergency planning. Same as for XS-07-FLOW02.	GAC 8/17/86 - Rebin of hazardous condition to new representative accident group done to accommodate how accident analysis was performed and for what conditions.
W058-INTEG07b	Bounded by W058-PRES01	GAC 4/3/86 - As a result of accident burning reconciliation meeting, changed REP ACC.
W058-INTEG09a	Bounded by XS-07-FLOW02. Initiating event frequency may be lower than for XS-07-FLOW02.	GAC 8/17/86 - Rebin of hazardous condition to new representative accident group done to accommodate how accident analysis was performed and for what conditions.
W058-INTEG09b	Bounded by W058-PRES01	GAC 4/3/86 - As a result of accident burning reconciliation meeting, changed REP ACC.
W058-INTEG11a	Consequences are related to XS-07-FLOW02. Frequency is related to seismic initiator frequency.	GAC 8/17/86 - Rebin of hazardous condition to new representative accident group done to accommodate how accident analysis was performed and for what conditions.
W058-INTEG11b	Consequences of W058-PRES01. Frequency based on seismic event that can damage piping.	GAC 4/3/86 - As a result of accident burning reconciliation meeting, changed REP ACC.
W058-INTEG13a	*Analysis needs more work because the "no controls" frequency should start at F2 not F3 (F3 assumes encasement is already failed). If the controls fail and the consequence of concern is S3 (as for "AA Freq NC"), the frequency falls to F1 from F3 (probability of encasement leak detector failure for double encased pipe or failure of 30 minute shutdown for direct buried pipe ~1E-2). **Based on non-specific for emergency planning. Same as for XS-07-FLOW02.	GAC 8/17/86 - Rebin of hazardous condition to new representative accident group done to accommodate how accident analysis was performed and for what conditions.
W058-INTEG13b	*Analysis needs more work because the "no controls" frequency should start at F2 not F3 (F3 assumes encasement is already failed). If the controls fail and the consequence of concern is S3 (as for "AA Freq NC"), the frequency falls to F1 from F3 (probability of encasement leak detector failure for double encased pipe or failure of 30 minute shutdown for direct buried pipe ~1E-2). **Based on non-specific for emergency planning. Same as for XS-07-FLOW02.	GAC 8/17/86 - Rebin of hazardous condition to new representative accident group done to accommodate how accident analysis was performed and for what conditions.
W058-INTEG13c	Bounded by W058-PRES01	GAC 4/3/86 - As a result of accident burning reconciliation meeting, changed REP ACC.

Table A-3. Master Code Table - Part 2. (30 Sheets)

ID	Crnt Failure MEMO	Change MEMO
W058-INTEG13d	Bounded by W058-PRES01	GAC 4/3/95 - As a result of accident baring reconciliation meeting, changed REP ACC
W058-INTEG14a	"Analysis needs more work because the "no controls" frequency should start at F2 not F3 (F3 assumes encasement is already failed). Frequency based on initiator beyond extremely unlikely for aircraft crash or vulcanism	GAC 9/17/95 - Rebin of hazardous condition to new representative accident group done to accommodate how accident analysis was performed and for what conditions
W058-INTEG14b	Bounded by W058-PRES01	GAC 4/3/95 - As a result of accident baring reconciliation meeting, changed REP ACC
W058-INTEG15a	Consequences bounded by W058-PRES01 Frequency represented by EE-10	
W058-INTEG15b	Consequences bounded by W058-PRES01 Frequency represented by EE-10	GAC 4/3/95 - As a result of accident baring reconciliation meeting, changed REP ACC
W058-INTEG18a	"Analysis needs more work because the "no controls" frequency should start at F2 not F3 (F3 assumes encasement is already failed). If the controls fail and the consequence of concern is S3 (as for "AA Free MC"), the frequency falls to F2 from F3. **Based on non-specifics for emergency planning. Same as for XE-07-FLOW02	GAC 9/17/95 - Rebin of hazardous condition to new representative accident group done to accommodate how accident analysis was performed and for what conditions
W058-INTEG18b	Bounded by W058-PRES01	GAC 4/3/95 - As a result of accident baring reconciliation meeting, changed REP ACC
W058-INTEG20a	Bounded by XE-07-FLOW02 Initiating event frequency may be lower than for XE-07-FLOW02	GAC 9/17/95 - Rebin of hazardous condition to new representative accident group done to accommodate how accident analysis was performed and for what conditions
W058-INTEG20b	Bounded by W058-PRES01	GAC 4/3/95 - As a result of accident baring reconciliation meeting, changed REP ACC
W058-INTEG22	Consequences are related to XE-07-FLOW02. Frequency is related to seismic initiator frequency	GAC 9/17/95 - Rebin of hazardous condition to new representative accident group done to accommodate how accident analysis was performed and for what conditions
W058-INTEG24	Consequences of W058-PRES01 and frequency based on aircraft crash + pumping occurring -> F0	GAC 4/3/95 - As a result of accident baring reconciliation meeting, changed REP ACC
W058-INTEG26	Consequences of W058-PRES01 Frequency based on seismic event that can damage piping	GAC 4/3/95 - As a result of accident baring reconciliation meeting, changed REP ACC
W058-INTEG28	Consequences of W058-PRES01 and frequency based on aircraft crash + pumping occurring -> F0	GAC 4/3/95 - As a result of accident baring reconciliation meeting, changed REP ACC

Table A-3. Master Code Table - Part 2. (88 Sheets)

ID	Critl Failure MEMO	Change MEMO
W058-INTEG30	Consequences of W058-PRES01. Frequency based on seismic event that can damage piping	GAC 4/3/96 - As a result of accident timing reconciliation meeting, changed RBP ACC
W058-INTEG32	The "AA Freq NC" is F1 because the primary pipe must fail exactly at the last near position. For "Applied Controls" the consequence drops to S3 due to mitigative controls and the frequency remains unchanged because no pipe failure preventive measures. For "Failed Controls" consequences taken at S3, the frequency drops to P0 because of all the failures that would have to occur to get an S3 consequence spray leak.	GAC 9/17/96 - Retain of hazardous condition to new representative accident group done to accommodate how accident analysis was performed and for what conditions
W058-INTEG34	An airplane crash is beyond extremely unlikely. Accident consequences and frequency are driven by crash - not controls.	GAC 9/17/96 - Retain of hazardous condition to new representative accident group done to accommodate how accident analysis was performed and for what conditions
W058-INTEG35	Controls appear to prevent spray leaks after a seismic event. Seismic event frequency drives the accident frequency. Controls do not affect event frequency.	
W058-INTEG36	An airplane crash is beyond extremely unlikely. Accident consequences and frequency are driven by crash - not controls.	GAC 9/17/96 - Retain of hazardous condition to new representative accident group done to accommodate how accident analysis was performed and for what conditions
W058-INTEG37	Controls appear to prevent spray leaks after a seismic event. Seismic event frequency drives the accident frequency. Controls do not affect event frequency.	
W058-PRES01	If the controls fail and the consequence of concern is S3 (as for "AA Freq NC"), the frequency falls to F1 from F3 (probability of at least two independent controls at 1E-2 each is ~1E-4). Drain back override psi. Can't prevent the drain back after break.	
W058-PRES03	Same as for W058-PRES01	GAC 4/3/96 - As a result of accident timing reconciliation meeting, changed RBP ACC
X5-01-FLOW01	If the control fails and the consequence of concern is S3 (as for "AA Freq NC"), the frequency falls to F2 from F3 (probability of ignition control failure for intrusive activities ~1E-2). Applied controls for DCRTs frequency is F1. All other tanks the applied control frequency is F2.	GAC 9/17/96 - Retain of hazardous condition to new representative accident group done to accommodate how accident analysis was performed and for what conditions
X5-01-FLOW02	If the control fails and the consequence of concern is S3 (as for "AA Freq NC"), the frequency falls to F2 from F3 (probability of ignition control failure for intrusive activities ~1E-2). Applied controls for DCRTs frequency is F1. All other tanks the applied control frequency is F2.	

Table A-3. Master Code Table - Part 2. (80 Sheets)

ID	Code Feature MEMO	Change MEMO
XS-01-FLOW03	If the control fails and the consequence of concern is S3 (as for "AA Freq NG"), the frequency falls to F2 from F3 (probability of ignition control failure for intrusive activities -1E-2). Applied controls for DCR to frequency is F1. All other risks the applied control frequency is F2.	
XS-01-FLOW04		
XS-01-FLOW05	Bounded by W05B-PRE01	QAC 017355 - Rates of hazardous condition to new representative accident group done to accommodate new accident analysis was performed and for vessel conditions QAC 43593 - As a result of accident burning recognition meeting, changed REP ACC, BWH, Heat Cond, and Cruise
XS-01-FLOW06	Same as for W05B-PRE01	
XS-01-FLOW07	Correctly prevent significant worker radiation exposure. If the controls fail and the consequence of concern is S1 (in this case possible acute lethality), the frequency falls to F1 from F3 (probability of failure of administrative controls and some hardware failures -1E-4). The S1 consequence under the applied controls conditions is a small exposure (i.e., much lower than possible acute lethality).	
XS-01-PRE01	*Analysis needs more work because the no controls frequency should start at F2 not F3 (F3 assumes measurement is already failed). If the controls fail and the consequence of concern is S3 (as for "AA Freq NG"), the frequency falls to F1 from F3 (probability of environmental leak detector failure for double enclosed pipe or failure of 30 minute walkdown for direct banded pipe -1E-2). **Based on non-specific for emergency planning. Same as for XS-07-FLOW02	
XS-01-PRE02	Corrects level consequence but do not impact frequency	
XS-01-TEMP01	Controls that work prevent the accident. For control failure that is a special case where opening the valve with the cover off is a 1E-3 (cover off) * 1E-2 (manipulate valve with cover off and pump running) [two independent errors]	
XS-01-TEMP02	The failed control frequency is not based on the allocated controls but on the accident scenario details. The operation of the subwell pumping system places the event in the F1 category due to the physics of the system. It is almost impossible to create this condition.	
XS-02-FLOW01		

Table A-3. Master Code Table - Part 2. (50 Sheets)

NO	CRN Failure MEMO	Change MEMO
XS-02-FLOW02	The toxicological consequences are S2 for both controls successful and with controls failed because there are no controls that mitigate the toxicological consequences. Same as for 1-242A-8-CMP-A.	
XS-02-FLOW03	Applied controls frequency and consequences reflect that transfer control on pH. The HEPA filter control additionally provides mitigation of accident consequences from an S2 to an S1. However the frequency of S2 on failed controls is based on failure of both controls (1E-1 initiator + 1E-2 pH control failure + 1E-4 filter failure). The HEPA filter control only applies to DCRTs. An applied control is that no more than 910 gallons of S2 wt HNO3 can be transferred from a facility to a DCRT at one time.	GAC-01/7/95 - Review of hazardous condition to new representative accident group done to accommodate how accident analysis was performed and for label corrections.
XS-02-FLOW04	Controls prevent significant worker radiation exposure. If the controls fail and the consequence of concern is S1 (in this case possible acute fatality), the frequency falls to F1 from F3 (probability of failure of administrative controls and some hardware failures ~1E-4). The S1 consequence under the applied controls condition is a small exposure () s, much lower than possible acute fatality.	
XS-02-FLOW05	"Analysis needs more work because the "no controls" frequency should start at F2 not F3 (F3 assumes movement is already failed). If the controls fail and the consequence of concern is S3 (as for "AA Freq NC"), the frequency falls to F1 from F3 (probability of uncontrolled leak detector failure for double ended pipe or failure of 30 minute shutdown for direct bled pipe ~1E-2). "Based on non-specific for emergency planning. Same as for XS-07-FLOW02.	GAC-01/7/98 - Review of hazardous condition to new representative accident group done to accommodate how accident analysis was performed and for label corrections. GAC - 02/7/98 - Changed Rep Acc due to consistency check.
XS-02-FLOW06	Failure of transfer controls coupled with reverse flow is an F2 event.	
XS-03-LEVE	Allocated controls do not impact frequency.	
XS-03-LEVE01 XS-21-LEVE (244-S DCRT)	If the control fails and the consequence of concern is S3 (as for "AA Freq NC"), the frequency falls to F2 from F3 (probability of ignition control failure for inhibitive electrodes ~1E-3). Applied controls for DCRTs frequency is F1. All other tanks the applied control frequency is F2.	GAC - 04/08 - Changed REP ACC after meeting with analysts. GAC- 01/4/95 - Shifted REP ACC on 2,4,5,89 per discussion with accident analyst.
XS-03-LEVE02 XS-21-LEVE (244-S DCRT)	The Nuclear Criticality Safety procedures are very sophisticated. If the control fails and the consequence of concern is S1 (as for "AA Freq NC"), the frequency falls to PD from F1 (probability of procedure failure ~1E-3). Same as for 1-499A-1-AGT-A.	GAC - 01/25/98 - Changed REP ACC due to recalculation between accident and hazard analysis.
XS-03-PRES01	No allocated SSCs or TSR controls, therefore no change in consequence or frequency considered.	

Table A-3. Master Code Table - Part 2. (III Sheets)

ID	Defn Failure MEMO	Change MEMO
XS-03-PRES01 XS-21-PRES (244-S DCRT)	If the control fails and the consequence of concern is S3 (as for "AA Freq HC"), the frequency falls to F2 from F3 (probability of ignition control failure for pressure activation -1E-2). Applied controls for DCRTs frequency is P1. All other tanks the applied control frequency is F2.	GAC - 8/4/96 - Changed REP ACC after meeting with analysts. GAC - 8/14/96 - Report of REP ACC on 2,4,5,39 per discussion with accident analyst.
XS-03-PRES01A	DCRT breathes through filter regardless whether powered ventilation present. Failure of filter estimated to be 1E-4.	
XS-03-PRES02	Compens. being closed and sealing tightly and no failure detected estimated to be F2 event.	
XS-03-PRES02 XS-21-PRES (244-S- DCRT)	pH control results in reduction of frequency by 1E-2.	GAC - 3/18/96 - Added Cause Group Code.
XS-03-PRES03	Controls should have been associated with external events like vehicle or lifting and corresponding controls applied. The controls specified do not reduce frequency.	
XS-03-PRES04	DCRT breathes through filter regardless whether powered ventilation present. Failure of filter estimated to be 1E-4.	
XS-03-PRES05	No controls are required because the consequence with no controls is S1 and this is a "time only" concern.	GAC 8/17/95 - Rebas of hazardous condition to new representative accident group done to accommodate how accident analysis was performed and for what conditions. PS - 7/10/96 - Chgd E and B1N due to consistency check.
XS-03-TEMP01	Applied controls frequency and consequences reflect the transfer control on pH. The HEPA filter control additionally provides mitigation of accident consequences from S2 to an S1. However the frequency of S2 on failed controls is based on failure of both controls (1E-1 initiator + 1E-2 pH control failure + 1E-4 filter failure). The HEPA filter control only applies to DCRTs. An applied control is that no more than 110 gallons of 57 wt HNO3 can be transferred from a facility to a DCRT at one time.	GAC - 6/4/96 - Changed B1N after meeting with analysts.
XS-03-TEMP01 XS-21-TEMP (244-S DCRT)		MVA - 5/16/95 - Chgd S1 to S0 - consistent with environmental terms of like character.
XS-03-TEMP02	No controls are required because the consequence with no controls is S1 and this is a "time only" concern.	
XS-03-TEMP02 XS-21-TEMP (244-S- DCRT)	The Nuclear Criticality Safety procedures are very sophisticated. If the control fails and the consequence of concern is S1 (as for "AA Freq HC"), the frequency falls to F0 from F1 (probability of procedure failure -1E-3). Same as for LFWP-1-AUT-A.	

Table A-3. Master Code Table - Part 2. (80 Sheets)

ID	Old Feature MEMO	Change MEMO
X8-03-TEMP03 X8-21-TEMP (244-S-DCRT)	If the control fails and the consequence of concern is S3 (as for 'AA' Freq MC'), the frequency falls to F2 from F3 (probability of ignition control failure for intensive activities -1E-2). Applied controls for DCRT's frequency is F1. All other tanks the applied control frequency is F2.	GAC - 6/4/95 - Changed REP ACC after meeting with analysts. GAC- 6/14/95 -Revisit of REP ACC on 2,4,5,89 per discussion with accident analyst.
X8-03-TEMP04		
X8-03-TEMP04 X8-21-TEMP (244-S-DCRT)	Bounded by W058-PRES01	GAC 4/3/96 - As a result of accident burning reconciliation meeting, changed REP ACC
X8-03-TEMP05	DCRT breathes through filter regardless whether powered ventilation present. Failure of filter estimated to be 1E-4	
X8-03-TEMP06	DCRT breathes through filter regardless whether powered ventilation present. Failure of filter estimated to be 1E-4	
X8-03-TEMP07	DCRT breathes through filter regardless whether powered ventilation present. Failure of filter estimated to be 1E-4	
X8-03-TEMP08	DCRT breathes through filter regardless whether powered ventilation present. Failure of filter estimated to be 1E-4	
X8-03-TEMP09		GAC - 10/21/95 - Removed the REP ACC number due to previous change in the Core rating to S0. M/S 9/17/96 Chgd E2 to E3 per Sept -88 control meeting determined that this is similar to other hazardous conditions with E3 consequence. JY 9/11/96 - Chgd Safety Cons from S2 to S0 to account for DCRT leak to soil well below grade.
X8-05-FLOW01	If the control fails and the consequence of concern is S1 (as for 'AA' Freq NC'), the frequency falls to F1 from F2 (probability of CAN-initiated failure -1E-2). CANs are functionally checked weekly, creating low likelihood of failure.	GAC 9/17/96 - Rebin of hazardous conditions to new representative accident group done to accommodate how accident analysis was performed and for what conditions.
X8-05-FLOW02		GAC - 10/21/95 - Revisited the REP ACC number due to previous change in the Core rating to S0. M/S 9/17/96 Chgd E2 to E3 per Sept -88 control meeting determined that this is similar to other hazardous conditions with E3 consequence. JY 9/11/96 - Chgd Safety Cons from S2 to S0 to account for DCRT leak to soil well below grade. GAC 4/9/98 - Chgd Freq MC from F3 to F2 after re-evaluation of cause.

Table A-3. Master Code Table - Part 2. (80 Sheets)

ID	Ctrl Failure MEMO	Change MEMO
XS-05-TEMP01	If the control fails and the consequence of concern is S1 (as for "AA Freq NC"), the frequency falls to F1 from F2 (probability of CMM-interlock failure ~1E-2). CAME are functionally checked weekly, creating low likelihood of failure.	
XS-05-TEMP02	If the control fails and the consequence of concern is S1 (as for "AA Freq NC"), the frequency falls to F2 from F3 (probability of ignition control failure for intrusive activities ~1E-2). Same as for XS-01-FLOW03.	
XS-05-FLOW01	The Nuclear Criticality Safety procedures are very sophisticated. If the control fails and the consequence of concern is S1 (as for "AA Freq NC"), the frequency falls to F0 from F1 (probability of procedure failure ~1E-3). Same as for L-PPF-1-ACT-A.	
XS-05-FCAM02	If the cover block on during transfer control fails and the consequence of concern is S3 (as for "AA Freq NC"), the frequency falls to F2 from F3 (probability of procedure failure ~1E-4 per demand (multiple independent procedural failures). Cover blocks are on all boxes where possible physical connections could result in a mistransfer.	
XS-05-FCAM03	If the cover block on during transfer control fails and the consequence of concern is S3 (as for "AA Freq NC"), the frequency falls to F2 from F3 (probability of procedure failure ~1E-4 per demand (multiple independent procedural failures). Cover blocks are on all boxes where possible physical connections could result in a mistransfer.	
XS-05-FCAM04	If the cover block on during transfer control fails and the consequence of concern is S3 (as for "AA Freq NC"), the frequency falls to F2 from F3 (probability of procedure failure ~1E-4 per demand (multiple independent procedural failures). Cover blocks are on all boxes where possible physical connections could result in a mistransfer.	BAC - 3/15/98 - Changed Safety Cons., because Spiller doesn't provide an aluminum spray (SS spray).
XS-05-FCAM05	"Analysis needs more work because the "no controls" frequency should start at F2 not F3 (F3 assumes encasement is already failed). If the controls fail and the consequence of concern is S3 (as for "AA Freq NC"), the frequency falls to F1 from F3 (probability of encasement leak/detector failure for double encased pipe or failure of 30 minute shutdown for diesel based pipe ~1E-2). **Based on non-specifics for emergency planning. Same as for XS-07-FLOW02.	
XS-05-FCAM06	Controls impact frequency. Failure of transfer controls to prevent overfilling DCRT is estimated to be 1E-3. (Failure of miss balance, failure to note transfer exceeding expected time, failure to shut up spouts correctly).	
XS-07-FLOW01	Consequences are related to XS-07-FLOW02. Frequency is related to GSI-10.	DAC 4/3/98 - As a result of accident burning reconciliation meeting, changed REP ACC.

Table A-3. Master Code Table - Part 2. (80 Sheets)

ID	Critical Failure MEMO	Change MEMO
XS-07-FLOW02	"Analysis needs more work because the 'no controls' frequency should start at F2 not F3 (F3 assumes encasement is already failed). If the controls fail and the consequences of concern is S3 (as for 'AA Freq NC'), the frequency falls to F1 from F3 (probability of encasement leak detector failure for double checked pipe or failure of 30 minute shutdown for direct buried pipe ~1E-2). **Based on non-specs for emergency planning	
XS-07-FLOW03	Based on Bob Marshall's analysis that shows that you can't break an encasement and the primary pipe with surface loading	
XS-07-FLOW04	Consequences are related to XS-07-FLOW02. Frequency is related to seismic initiator frequency	
XS-07-FLOW05	"Analysis needs more work because the 'no controls' frequency should start at F2 not F3 (F3 assumes encasement is already failed). If the controls fail and the consequences of concern is S3 (as for 'AA Freq NC'), the frequency falls to F2 from F3. **Based on non-specs for emergency planning. Same as for XS-07-FLOW02	
XS-07-FLOW06	"Analysis needs more work because the 'no controls' frequency should start at F2 not F3 (F3 assumes encasement is already failed). If the controls fail and the consequences of concern is S3 (as for 'AA Freq NC'), the frequency falls to F1 from F3 (probability of encasement leak detector failure for double checked pipe or failure of 30 minute shutdown for direct buried pipe ~1E-2). **Based on non-specs for emergency planning. Same as for XS-07-FLOW02	
XS-11-LEVE01	Bounded by W058-PRES01	GAC 4398 - As a result of accident burning reconciliation meeting, changed REP ACC
XS-11-LEVE02	Bounded by W058-PRES01	GAC 4398 - As a result of accident burning reconciliation meeting, changed REP ACC
XS-11-LEVE03	Bounded by W058-PRES01	GAC 4398 - As a result of accident burning reconciliation meeting, changed REP ACC
XS-12-FLOW01	No SSC or TBR controls were allocated, therefore no change in consequences or frequency is created	
XS-12-FLOW02	If the mitigative control fails and the consequence of concern is S2 (as for 'AA Freq NC'), the frequency falls to F1 from F3, failure of ignition controls (1e-2), and probability of firemen being to get to the pit and put out the fire is 1 hour ~1E-3	

Table A-3, Master Code Table - Part 2. (80 Sheets)

ID	Control Failure MEMO	Change MEMO
XS-12-FLOW03	If the mitigative control fails and the consequence of concern is S2 (as for "AA Freq NC"), the frequency falls to F1 from F3, failure of gaseous controls (1E-2), and probability of breem failing to get to the pit and put out the fire in 1 hour ~1E-3)	
XS-12-FLOW04		
XS-12-FLOW05	Bounded by W05S-PRES01	GAC 4/5/96 - As a result of accident burning misconception meeting, changed REP ACC
XS-12-FLOW06	This hazardous condition is actually an environmental release. The frequency is F2 based on the requirement that a leak be present in downcom box drain line, and the leak must be large enough to cause worker upset, requiring failure of several independent controls.	
XS-13-LEVE		
XS-13-PRES01	Statement made in Section 2.6 of the calculation note (WMC-9D-WM-CN-073) for the representative accident for this group that indicates identified event would be not a problem compared to straight acid addition. Consequence indicated for Analyzed Accident is for acid addition which is bounding for this condition.	GAC - 6/27/96 - Changed Rep Acc due to consistency check and #3 contains radioactive releases while #23 contains toxic releases
XS-13-PRES02	If the control fails and the consequence of concern is S3 (as for "AA Freq NC"), the frequency falls to F2 from F3 (probability of gaseous control failure for idiosyncratic activities ~1E-2). Applied controls for DGRTS frequency is F1. All other limits the applied control frequency is F2.	GAC - 6/4/96 - Changed REP ACC after meeting with analysts. GAC-6/14/96 - Revisit of REP ACC on 2,4,5,3p per discussion with accident analyst.
XS-13-PRES03	No controls are required because the consequence with no controls is S1 and this is a "toxic only" concern.	
XS-13-PRES04	The Nuclear Criticality Safety procedures are very sophisticated. If the control fails and the consequence of concern is S1 (as for "AA Freq NC"), the frequency falls to F0 from F1 (probability of procedure failure ~1E-3). Same as for LPFP-1-AQT-A.	
XS-20-FLOW01	Applied controls frequency and consequences reflect the transfer control on pH. The HEPA filter control additionally provides mitigation of accident consequences from an S2 to an S1. However the frequency of S2 on failed controls is based on failure of both controls (1E-1 in total * 1E-2 pH control failure * 1E-4 filter failure). The HEPA filter control only applies to DGRTS. An implied control is that no more than 150 gallons of S2 wt HNO3 can be transferred from a facility to a DGRT at one time.	GAC - 6/27/96 - Changed Rep Acc due to consistency check and #3 contains radioactive releases while #23 contains toxic releases
XS-20-FLOW02		

Table A-3. Master Code Table - Part 2. (80 Sheets)

ID	Crnt Failure MEMO	Change MEMO
X3-20-FLOW03	Applied controls frequency and consequences reflect the transfer control on pH. The HEPA filter control additionally provides mitigation of accident consequences from an S2 to an S1. However the frequency of S2 on failed controls is based on failure of both controls (1E-1 initiator + 1E-2 pH control failure + 1E-4 filter failure). The HEPA filter control only applies to DCRTs. An untripped control is that no more than 110 gallons of SF wt HNO3 can be transferred from a facility to a DCRT at one time.	QAC 017466 - Rabin of hazardous condition to more representative accident group data to accommodate how accident analysis was performed and for what conditions.
X3-20-FLOW04	No controls are required because the consequence with no controls is S1 and this is a "low only" concern.	
X3-20-FLOW05	The Nuclear Criticality Safety procedures are very sophisticated. If the control fails and the consequence of concern is S1 (as for "AA Freq MC"), the frequency falls to P0 from P1 (probability of procedure failure ~1E-3). Same as for I-PP-1-A-GT-A.	
X3-20-FLOW06		
X3-20-FLOW07		
X3-20-FLOW08	Bounded by W058-PRES01	QAC 43398 - As a result of accident timing reconciliation meeting, changed REP ACC
X3-20-FLOW09	Bounded by W068-PRES01	QAC 43398 - As a result of accident timing reconciliation meeting, changed REP ACC
X3-26-PRES X3-26-TEMP	No controls are required because the consequence with no controls is S1 and this is a "low only" concern.	
X3-26-PRES X3-26-TEMP (02-AVR-TEMP (FOR TK-102-AV))	The Nuclear Criticality Safety procedures are very sophisticated. If the control fails and the consequence of concern is S1 (as for "AA Freq MC"), the frequency falls to P0 from P1 (probability of procedure failure ~1E-3). Same as for I-PP-1-A-GT-A.	
X3-26-PRES01	Statement made in calculation note for the representative accident for this group that indicates transferred radioactive waste is not a problem compared to straight acid addition. Consequence indicated for Analyzed Accident is for acid addition which is bounding for this condition.	QAC - 02786 - Changed Rep Acc due to consistency check and it contains radioactive release while R23 contains toxic release.
X3-26-PRES01A 102AV-02-PRES	Ventilation system has to be blocked and go undetected. Control failure places this hazardous condition in the F2 category (1E-2 for not detecting blockage and 1E-1 for the blockage event itself).	

Table A-3. Master Code Table - Part 2. (80 Sheets)

ID	Crit Failure MEMO	Change MEMO
X5-25-PRES02	If the control fails and the consequence of concern is B3 (as for "AA Freq NC"), the frequency falls to F2 from F3 (probability of ignored control failure for intrusive activities ~1E-2). Same as for ITX-10-b	GAC - 6/14/95 - Resort of REP ACC on 2,4,5,6/95 per discussion with accident analyst
X5-25-PRES02A 102AV-02-PRES	Ventilation system has to be blocked and go undetected. Control failure places this hazardous condition in the F2 category (1E-2 for not detecting blockage and 1E-1 for the blockage event itself)	
X5-25-PRES03	Pressurization event from hot water requires large volume, this quantity of hot water not sufficient to overcome opening ventilation. Event requires failure of ventilation while the hot water is introduced into the tank. Frequency of ventilation failure given that this activity is occurring is F2 (very limited exposure)	
X5-25-PRES03 102AV-02-PRES	Loss of power event frequency is in the anticipated range. Long outages are considered unlikely to extremely unlikely but even short outages have the potential for rad material release. However, unfilled release for a period of one year from passively ventilated tank has been calculated to be below all risk acceptance guidelines	
X5-25-TEMP 102AV-06-TEMP		
X5-25-TEMP01	If controls are applied and work perfectly, the accident is prevented. If the controls fail and the consequence of concern is B2 (as for "AA Freq NC"), the frequency falls to F1 from F2 (probability of failing several controls over long period of time is conservatively estimated at ~1E-2 because of the long period of time the control would need to be failed (the frequency is more realistically and F0))	GAC - 4/23/95 - Chgd REP ACC as a result of reevaluation with accident analysts effort. 5/24/95 - GAC - Restructure of Cause Codes
X5-25-TEMP02		
X5-35-FLOW01	No allocated SSCs or TSR controls, therefore no change in consequences or frequency needed	GAC - 10/21/95 - Removed the REP ACC number due to previous change in the Cons. rating to S0. 11/18/95 Chgd S1 to S0 per 5-sept -95 control meeting determined that this is similar to other hazardous conditions with S0 consequences. 1/11/96 - Chgd Safety Cons from S2 to S1 because MAR is only residual w/ evaporator pump
X5-35-FLOW02	Definitely bounded by W05B-PRES01	GAC - 4/9/96 - Chgd 6/1N and REP ACC - Event is a surface leak per Judy Sherer
X5-37-FLOW01	Bounded by W05B-PRES01	

Table A-3. Master Code Table - Part 2. (90 Sheets)

ID	Crit Feature MEMO	Change MEMO
XS-37-FLOW02	Controls prevent significant worker radiation exposure. If the controls fail and the consequence of concern is S1 (in this case possible acute fatality), the frequency falls to F1 from F3 (probability of failure of administrative controls and some hardware features -1E-4). The S1 consequence under the applied controls conditions is a small exposure (i.e., much lower than possible acute fatality).	
XS-41A-FLOW01	Bounded by W058-PRES01	GAC - 4/3/98 - As a result of accident binning reconciliation meeting, changed REP ACC.
XS-41A-FLOW02	Bounded by W058-PRES01	GAC - 4/3/98 - As a result of accident binning reconciliation meeting, changed REP ACC.
XS-41B-LEVEL01	If the control fails and the consequence of concern is S3 (as for "AA Freq MC"), the frequency falls to F2 from F3 (probability of system control failure for intrusive activities -1E-2). Applied controls for DCRTs frequency is F1. All other limits the applied control frequency is F2.	GAC - 6/4/98 - Changed REP ACC after meeting with analysts. GAC- 8/14/98 -Revisit of REP ACC on 2,4,5,60 per discussion with accident analyst.
XS-41B-LEVEL02	Allocated controls impact frequency. The event that could initiate this hazardous condition has occurred at least once in the life of this plant already. Detection of the leak and timely action would prevent gas evolution. However, failure of the controls is in the 1E-2 range, which is insufficient to justify a category change.	
XS-41B-LEVEL03	Bounded by W058-PRES01	GAC - 4/3/98 - As a result of accident binning reconciliation meeting, changed REP ACC.
XS-41B-LEVEL04	Allocated controls impact frequency. The event that could initiate this hazardous condition has occurred at least once in the life of this plant already. Detection of the leak and timely action would prevent gas evolution. However, failure of the controls is in the 1E-2 range, which is insufficient to justify a category change.	
XS-41C-LEVEL01	If the control fails and the consequence of concern is S3 (as for "AA Freq MC"), the frequency falls to F2 from F3 (probability of system control failure for intrusive activities -1E-2). Applied controls for DCRTs frequency is F1. All other limits the applied control frequency is F2.	GAC - 6/4/98 - Changed BIN and REP ACC after meeting with analysts. GAC- 8/14/98 -Revisit of REP ACC on 2,4,5,60 per discussion with accident analyst.
XS-41C-LEVEL02		
XS-41C-LEVEL03	Allocated controls do not impact the frequency of the hazardous condition.	

Table A-3. Master Code Table - Part 2. (80 Sheets)

ID	Critical Failure MEMO	Change MEMO
XS-48-FLOW	Controls prevent significant worker radiation exposure. If the controls fail and the consequence of concern is S1 (in this case possible acute fatality), the frequency falls to F1 from F3 (probability of failure of administrative controls and some hardware failures ~1E-4). The S1 consequence under the applied controls conditions is a small exposure (i.e., much lower than possible acute fatality).	
XS-52-FLOW01	*Analysis needs more work because the "no controls" frequency should start at F2 not F3 (F3 assumes encasement is already failed). If the controls fail and the consequence of concern is S3 (as for "AA Freq NC"), the frequency falls to F1 from F3 (probability of encasement leak/detector failure for double threaded pipe or failure of 30 minute walkdown for deep buried pipe ~1E-2). ***Based on non-specific for emergency planning. Same as for XS-02-FLOW02.	
XS-52-FLOW02	Bounded by W058-PRES01.	GAC 4/3/98 - As a result of accident binning reconciliation meeting, changed REP ACC.

- * GAC - Garita, Cesar
- * JY - Jonathan Young
- * MVS - Milton V. Shultz
- * PS - Paul Stevenson

Table A-4. Master Control Table. (381 Sheets)

ID	Prev SSC	Mit SSC	Prev TSR	Mit TSR
ABBREVIATION LIST	AWF - Aging Waste Facility Cntrl - Controls Dist - Distribution Equip - Equipment Inst - Instrumentation Mon - Monitoring SL - Safety Limit SST - Single Shell Tank Syst - Systems Trans or XFR - Transfer	AC - Administrative Controls Camp - Contaminated DST - Double Shell Tank Plant - Plant/Module LCO - Limiting Condition for Operation Prep - Preparedness SS - Safety Significant Structs - Structures Temp - Temperature Vent - Ventilation	Admin - Administrative DCRT - Double Shell Receiver Tank Elect - Electrical HEPA - High Efficiency Particulate Air LCS - Limiting Control Setting Pri - Primary SSC - Structures, Systems & Components Sup - Supporting Test - Testing	CAM - Continuous Air Monitors Detect - Detection Encl - Encasement Ign - Ignition Miss - Missing SC - Safety Class Syz - Syntex TK - Tank
102AW-01-FLOW 102AW-02-PRES	None required	None required	None required	None required
102AW-01-FLOW 102AW-04-PRES	None required	BC Trans eye covers SS Above grade portions of waste air struct (integrity)	AC Trans entrie (spray leaks) AC Trans pump admin lock entrie	LCO Trans eye covers AC Trans eye cover removal entrie AC Emergency prep (waste leak)
102AW-01-FLOW01	None required	BC Trans eye covers SS Above grade portions of waste air struct (integrity)	AC Trans entrie (spray leaks) AC Trans pump admin lock entrie	LCO Trans eye covers AC Trans eye cover removal entrie AC Emergency prep (waste leak)
102AW-01-FLOW02	None required	None required	AC Excavation entrie	AC Evacuation entrie
102AW-01-FLOW03	BC Pipe encasements	SC Trans leak detect eyes SS Tank level select eyes SS Self seal new tanks SS Trans eye covers SS Above grade portions of waste air struct (splash and spatter) Sup SSC SS Tank farm elect dist sys	AC Trans entrie (good) AC Encas new loop entrie AC Trans pump admin lock entrie	LCO Trans eye covers LCO Trans leak detect eyes AC Emergency prep (waste leak) AC Trans eye cover removal entrie
102AW-01-FLOW04	None required	None required	None required	None required

Table A-4. Master Control Table. (161 Sheets)

ID	Prev SSC	Ma SSC	Prev TSR	Ma TSR
102AW-01-FLOW06	SC Pipe encasements	SC Trans leak detect sys SS Tank level detect sys SS Salt well flow totalizers SS Trans eye covers SS Above grade portions of waste air structure (uplash and splitter)	AC Trans cable good AC Encase seal loop cable AC Trans pump alarm lock cable	LCO Trans eye covers LCO Trans leak detect sys AC Emergency prep (waste leak) AC Trans eye cover removal cable AC Emergency prep (seismic)
102AW-01-FLOW08	SC Pipe encasements	SC Trans leak detect sys SS Tank level detect sys SS Salt well flow totalizers SS Trans eye covers SS Above grade portions of waste air structure (uplash and splitter) Bsp SSC SS Tank farm elect dist eye	AC Trans cable good AC Encase seal loop cable AC Trans pump alarm lock cable	LCO Trans eye covers LCO Trans leak detect sys AC Emergency prep (waste leak) AC Trans eye cover removal cable
102AW-01-FLOW07	SC Pipe encasements	SC Trans leak detect sys SS Tank level detect sys SS Salt well flow totalizers SS Trans eye covers SS Above grade portions of waste air structure (uplash and splitter) Sup SSC SS Tank farm elect dist eye	AC Trans cable good AC Encase seal loop cable AC Trans pump alarm lock cable	LCO Trans eye covers LCO Trans leak detect sys AC Emergency prep (waste leak) AC Trans eye cover removal cable
102AW-01-FLOW10	SC Trans leak detect sys SC Above grade portions of waste air structure (integrity) SS Tank level detect sys SS Salt well flow totalizers Sup SSC SC Tank farm elect dist eye	SC Trans leak detect sys SS Above grade portions of waste air structure (uplash and splitter) SC Pn tank leak detect sys SS Tank level detect sys SS Trans eye covers SS Salt well flow totalizers Sup SSC SC Tank farm elect dist eye	LCO Trans leak detect sys AC Trans cable good AC Trans pump alarm lock cable	LCO Trans eye covers LCO Trans leak detect sys LCO Pn tank leak detect sys AC Emergency prep (waste leak) AC Trans eye cover removal cable

Table A-4. Master Control Table. (101 Sheets)

ID	Prev SSC	Min SSC	Prev TSP	Min TSP
102AW-01- FLOW11	SC Trans leak detect sys SC Above grade portions of waste xir struts (integrity) SS Tank level detect sys SS Silt well flow indicators Sup SSC SC Tank farm elect dist sys	SC Trans leak detect sys SS Above grade portions of waste xir struts (splash and splatter) SC PFI tank leak detect sys SS Tank level detect sys SS Trans sys covers SS Silt well flow indicators Sup SSC SC Tank farm elect dist sys	LCO Trans leak detect sys AC Trans cables (post) AC Trans pump driven leak cables	LCO Trans sys covers LCO Trans leak detect sys LCO PFI tank leak detect sys AC Emergency prep (waste leak) AC Trans sys cover removal cables
102AW-01-TEMP	None required	SS Above grade portions of waste xir struts (splash and splatter) SS Trans sys covers	AC Trans cables AC Trans pump driven leak cables	LCO Trans sys covers AC Trans sys cover removal cables
102AW-01- TEMP01	SC Trans leak detect sys SC Above grade portions of waste xir struts (integrity) SS Tank level detect sys SS Silt well flow indicators Sup SSC SC Tank farm elect dist sys	SC Trans leak detect sys SS Above grade portions of waste xir struts (splash and splatter) SS Tank level detect sys SS Trans sys covers SS Silt well flow indicators Sup SSC SC Tank farm elect dist sys	LCO Trans leak detect sys AC Trans cables (post) AC Encas seal loop cables AC Trans pump driven leak cables	LCO Trans sys covers LCO Trans leak detect sys AC Emergency prep (waste leak) AC Trans sys cover removal cables
102AW-01- TEMP01A	SC Trans leak detect sys SC Above grade portions of waste xir struts (integrity) SS Tank level detect sys SS Silt well flow indicators Sup SSC SC Tank farm elect dist sys	SC Trans leak detect sys SS Above grade portions of waste xir struts (splash and splatter) SS Tank level detect sys SS Trans sys covers SS Silt well flow indicators Sup SSC SC Tank farm elect dist sys	LCO Trans leak detect sys AC Trans cables (post) AC Encas seal loop cables AC Trans pump driven leak cables	LCO Trans sys covers LCO Trans leak detect sys AC Emergency prep (waste leak) AC Trans sys cover removal cables

Table A-4. Master Control Table. (101 Sheets)

ID	Prev SSC	Alt SSC	Prev TSR	Alt TSR
102AW-01-TEMP02	SC Trans leak detect eyes SC Above grade portions of waste xtr structure (integrity) SS Tank level detect eyes SS Soil wet flow totalizers Sup SSC SC Tank farm elect shut eye	SC Trans leak detect eyes SS Above grade portions of waste xtr structure (upflow and splash) SS Tank level detect eyes SS Trans eye covers SS Soil wet flow totalizers Sup SSC SC Tank farm elect shut eye	LOO Trans leak detect eyes AC Trans crisis (pool) AC Encase seal loop entry AC Trans pump down lock entry	LOO Trans eye covers LOO Trans leak detect eyes AC Emergency prep (waste leak) AC Trans eye cover removal entry
102AW-02-LEVE	None required	SC Pn tank leak detect eyes Sup SSC SC Tank farm elect shut eye	None required	LOO Pn tank leak detect eyes
102AW-02-LEVE01	None required	None required	None required	None required
102AW-02-LEVE02	None required	SC Pn tank leak detect eyes SS Tank level detect eyes Sup SSC SC Tank farm elect shut eye	AC Trans pump down lock entry	LOO Pn tank leak detect eyes AC Emergency prep (waste leak)
102AW-02-LEVE02A	None required	SC Pn tank leak detect eyes	AC Trans crisis (pool)	LOO Pn tank leak detect eyes AC Emergency prep (waste leak)
102AW-02-LEVE03	SC Trans leak detect eyes SC Above grade portions of waste xtr structure (integrity) SC Pn tank leak detect eyes SS Tank level detect eyes SS Soil wet flow totalizers Sup SSC SC Tank farm elect shut eye	SC Trans leak detect eyes SS Above grade portions of waste xtr structure (upflow and splash) SC Pn tank leak detect eyes SS Tank level detect eyes SS Trans eye covers Sup SSC SC Tank farm elect shut eye	LOO Pn tank leak detect eyes LOO Trans leak detect eyes AC Trans crisis (pool) AC Trans pump down lock entry	LOO Trans eye covers LOO Trans leak detect eyes LOO Pn tank leak detect eyes AC Emergency prep (waste leak) AC Trans eye cover removal entry

Table A-4. Master Control Table. (101 Sheets)

ID	Prev SSC	Mid SSC	Prev TBR	Mid TBR
102AW-02- LEVE04	SC Trans leak detect sys SC Above grade portions of waste xfr strucs (integrity) SS Tank level detect sys SS Silt well flow totalizers Sup SSC SC Tank farm elect dist sys	SC Trans leak detect sys SS Above grade portions of waste xfr strucs (splash and splatter) SC Pn tank leak detect sys SS Tank level detect sys SS Trans sys covers SS Silt well flow totalizers Sup SSC SC Tank farm elect dist sys	LCO Trans leak detect sys AC Trans entry (pool) AC Trans pump admin lock entrie	LCO Trans sys covers LCO Trans leak detect sys LCO Pn tank leak detect sys AC Emergency prep (waste leak) AC Trans sys cover removal entrie
102AW-02- LEVE06	SC Trans leak detect sys SC Above grade portions of waste xfr strucs (integrity) SS Tank level detect sys SS Silt well flow totalizers Sup SSC SC Tank farm elect dist sys	SC Trans leak detect sys SS Above grade portions of waste xfr strucs (splash and splatter) SC Pn tank leak detect sys SS Tank level detect sys SS Trans sys covers SS Silt well flow totalizers Sup SSC SC Tank farm elect dist sys	LCO Trans leak detect sys AC Trans entry (pool) AC Trans pump admin lock entrie	LCO Trans sys covers LCO Trans leak detect sys LCO Pn tank leak detect sys AC Emergency prep (waste leak) AC Trans sys cover removal entrie
102AW-02- LEVE08	None required	SC Pn tank leak detect sys SS Tank level detect sys Sup SSC SC Tank farm elect dist sys	AC Trans pump admin lock entrie	LCO Pn tank leak detect sys AC Emergency prep (waste leak)
102AW-02-PRES 102AW-02-TEMP	None required	None required	None required	None required
102AW-02- PRES 01 XS-28-PRES 01	None required	None required	None required	None required
102AW-02- PRES01	SC D&V&WF Pn tank vent sys SC Pn tank leak detect sys SC D&V strum Sup SSC SC Comp air sys SC Tank farm elect dist sys	None required	LCO GST and ANF tank vent sys LCO Pn tank leak detect sys AC Flammability entrie AC Ign entrie (flam gas) AC Flam gas mon entrie AC Process inst and move and test equip	AC NEPA R&R entrie AC Emergency prep (fire and waste leak)

Table A-4. Master Control Table. (101 Sheets)

ID	Prev SSC	Mt SSC	Prev TSR	Mt TSR
102AW-02-PRES02	None required	None required	None required	AC Transfer Controls
102AW-02-PRES03	SS D&T alarm	None required	None required	None required
102AW-02-PRES04	SS D&T alarm	None required	None required	None required
102AW-02-PRES05	BB D&T alarm	None required	None required	None required
102AW-02-PRES06	SS D&T alarm	None required	None required	None required
102AW-02-PRES07	SS D&T alarm	None required	None required	None required
102AW-02-PRES08	None required	None required	None required	None required
102AW-02-PRES09	None required	None required	None required	None required
102AW-02-TEMP 102AW-03-TEMP	None required	None required	AC Trans. criteria (pH)	None required
102AW-02-TEMP01	SS Temp alarm sys. Bsp SSC SS Tank farm elect det. sys.	None required	LCO D&T and AWW tank waste bump criteria AC Trans. criteria AC Process Inlet and mass and level equip.	None required
102AW-02-TEMP02	SS Temp alarm sys. SS Tank level detect sys. Bsp SSC SS Tank farm elect det. sys.	None required	LCO D&T and AWW tank waste bump criteria AC Trans. criteria AC Process Inlet and mass and level equip.	None required

Table A-4, Master Control Table. (101 Sheets)

ID	Prev SSC	Int SSC	Prev TSR	Int TSR
102AW-03- LEV801	SC Pn tank leak detect sys SC DST struct Sup SSC SC Tank farm elect dist sys	None required	LOO Pn tank leak detect sys	AC NEPA filter crits AC Emergency prep (fire and waste leak)
102AW-03- LEV802	SC Pn tank leak detect sys Sup SSC SC Tank farm elect dist sys	None required	LOO Pn tank leak detect sys AC Trans crits (surface leak resulting in pool hydrography)	None required
102AW-03- LEV803	SS DBT struct	None required	None required	None required
102AW-03- PRE901 102AW-03-LEVE	None required	SC Pn tank leak detect sys SS Tank level detect sys Sup SSC SC Tank farm elect dist sys	None required	LOO Pn tank leak detect sys AC Emergency prep (waste leak)
102AW-03- PRE902 102AW-03-LEVE	None required	SC Pn tank leak detect sys SS Tank level detect sys Sup SSC SC Tank farm elect dist sys	None required	LOO Pn tank leak detect sys AC Emergency prep (waste leak)
102AW-03- TEMP01	SS Physical barriers to vehicle access	None required	AC Ign crits (vehicle crits)	AC Emergency prep (fire)
102AW-03- TEMP02	SS Physical barriers to vehicle access	None required	AC Ign crits (vehicle crits)	AC Emergency prep (fire)
102AW-04- LEV601	SC Trans leak detect sys SC Above grade portions of waste vlr structure (integrity) Sup SSC SC Tank farm elect dist sys	SC Trans leak detect sys SS Above grade portions of waste vlr structure (upstream and spillage) SS Tank level detect sys SS Trans vlr covers Sup SSC SC Tank farm elect dist sys	LOO Trans leak detect sys AC Trans crits (pool) AC Trans pump scheme leak crits	LOO Trans vlr covers LOO Trans leak detect sys AC Trans crits (pool) AC Trans crits (pool) AC Emergency prep (waste leak) AC Trans vlr cover removal crits

Table A-4. Master Control Table. (101 Sheets)

ID	Prev SSC	Mk SSC	Prev TBR	Mk TBR
102AW-04-LEVED2	None required	SC Trans leak detect eyes SS Above-grade portions of waste xrt struts (splash and spiller) SS Trans eye covers Sup SSC SC Tank farm elect dist eye	LCO Trans leak detect eyes AC Trans pump admin lock crabs	LCO Trans eye covers LCO Trans leak detect eyes AC Trans crabs (pool) AC Emergency prep (waste leak) AC Trans eye cover removal crabs
102AW-04-LEVED3	None required	None required	None required	None required
102AW-04-LEVED4	None required	None required	None required	None required
102AW-04-PRES 01	None required	None required	None required	None required
102AW-04-PRES01	SC DSTAWF Pn tank vent eyes Sup SSC SC Tank farm elect dist eye	SC Trans eye covers SS Above-grade portions of waste xrt struts (splash and spiller)	LCO DST and AWW tank vent eyes	LCO Trans eye covers AC Trans eye cover removal crabs
102AW-04-PRES02	None required	SC DSTAWF Pn tank vent eyes	None required	LCO DST and AWW tank vent eyes
102AW-04-STRU 01	None required	None required	None required	None required
102AW-04-STRU 02	SC DSTAWF Pn tank vent eyes Sup SSC SC Tank farm elect dist eye	None required	LCO DST and AWW tank vent eyes	None required
102AW-04-STRU01A	SS DST strut	None required	AC Deme loading crabs - Limits on load height - Handed Site Hoisting and Rigging Manual for critical lifts	None required
102AW-04-STRU01B	None required	None required	None required	AC Emergency prep (seismic- verify SSC integrity)

Table A-4. Master Control Tables. (101 Sheets)

ID	Priv SSC	MM SSC	Per TSR	MTSR
102AW-04-STRU02	SS DST struct	None required	AC: Demo loading crane - Uniform and concentrated load limits	None required
102AW-04-STRU03	SS DST struct	None required	AC: Demo loading crane - Limits on load height - Hanford Site Hoisting and Rigging Manual for critical lifts	None required
102AW-04-STRU04	None required	None required	LCO: Trans eye covers AC: Trans eye cover removal crane AC: Trans pump down lock crane AC: Demo loading crane - Limits on load height - Hanford Site Hoisting and Rigging Manual for critical lifts	None required
102AW-04-STRU05	None required	SC: Trans leak detect sys SS: Tank level detect sys SS: Self seal flow indicators Sup SSC SS: Tank farm elect dist sys	AC: Trans crane (subsurface plume) AC: Trans pump down lock crane	LCO: Trans leak detect sys AC: Trans crane (subsurface plume) AC: Emergency prep (seismic)
102AW-04-TEMP	None required	None required	None required	AC: Emergency prep (fire)
102AW-08-COMP01	None required	SC: DST/AMF Pt tank vent sys Sup SSC SC: Tank farm elect dist sys	None required	LCO: DST and AMF tank vent sys
102AW-08-COMP02	None required	None required	AC: Nuclear criticality safety	None required
102AW-08-COMP02A	None required	None required	AC: Nuclear criticality safety	None required
102AW-08-COMP03	None required	None required	AC: Nuclear criticality safety	None required
102AW-08-COMP04	None required	None required	AC: Nuclear criticality safety	None required

Table A-4. Master Control Table. (101 Sheets)

ID	Prev SSC	Mit SSC	Prev TSR	Mit TSR
102AW-08-COMP05	None required	None required	AC Nuclear criticality safety	None required
102AW-08-COMP06	None required	None required	None required	None required
102AW-08-COMP01	SS Physical barriers to vehicle access SC DST alarm	None required	AC Ignition (org solvent) AC Trans. enable (org solvent) AC/lev. flam gas prev. enable	AC Emergency prep (line) AC HEPA filter enable
102AW-08-COMP02	SS Physical barriers to vehicle access	None required	AC Ign. enable (vehicle enable)	AC Emergency prep (line)
102AW-08-COMP03	None required	None required	AC Ign. enable (vehicle enable)	None required
102AW-08-COMP04	None required	None required	None required	None required
102AW-08-COMP05	None required	None required	AC Trans. enable (org solvent)	None required
102AW-08-TEMP	None required	None required	None required	None required
102AW-08-TEMP01	SS Temp mon eyes SS Tank level detect eyes Sup SSC SS Tank flam elect. det. eye	None required	LCO SST and AMF tank waste temp. enable AC Trans. enable AC Process exit and mass end seal equip	None required
102AW-08-TEMP02	None required	SC Pn tank leak detect eyes SS Tank level detect eyes Sup SSC SS Tank flam elect. det. eye	SL SST waste temp LCS/LCO SST waste temp enable AC Trans. enable	BL SST waste temp LCS/LCO SST waste temp enable LCO Pn tank leak detect eyes AC Emergency prep (waste leak)
102AW-13-FLOW-01	None required	None required	AC Trans. enable	None required

Table A-4, Master Control Table. (101 Sheets)

ID	Prev SSC	Mt SSC	Prev TSR	Mt TSR
102A-W-13- FLOW01	SC Probe switch interlock or alarm sys (service water lines) SS Blow gun devices Sup SSC SC Tank farm elect det sys	SC Trans eye covers BC Above grade portions of waste xfr struts (integrity) Sup SSC SC Tank farm elect det sys	LCO Service water press detect sys AC Trans ontris (pump leaked) AC Trans pump edwin lock ontris	LCO Trans eye covers AC Trans eye cover removal ontris AC Emergency prep (waste leak)
102A-W-13- FLOW02	SC Trans leak detect sys SC Above grade portions of waste xfr struts (integrity) SC Probe switch indicator alarm sys (service water) SS Tank level detect sys SS Salt well flow totalizers SS Blow gun devices Sup SSC SC Tank farm elect det sys	SC Trans leak detect sys SS Above grade portions of waste xfr struts (splash and splitter) SS Tank level detect sys SS Trans eye covers SS Salt well flow totalizers Sup SSC SC Tank farm elect det sys	LCO Service water press detect sys LCO Trans leak detect sys AC Trans ontris (pool) AC Trans pump edwin lock ontris	LCO Trans eye covers LCO Trans leak detect sys AC Trans ontris (pool) AC Emergency prep (waste leak) AC Trans eye cover removal ontris
102S-01 a1	BC Trans leak detect sys SC Above grade portions of waste xfr struts (integrity) SS Tank level detect sys SS Salt well flow totalizers Sup SSC SC Tank farm elect det sys	SC Trans leak detect sys SS Above grade portions of waste xfr struts (splash and splitter) SC Pn tank leak detect sys SS Tank level detect sys SS Trans eye covers SS Salt well flow totalizers Sup SSC SC Tank farm elect det sys	LCO Trans leak detect sys AC Trans ontris (pool) AC Trans pump edwin lock ontris	LCO Trans eye covers LCO Trans leak detect sys LCO Pn tank leak detect sys AC Emergency prep (waste leak) AC Trans eye cover removal ontris
102S-01 b2	SC Trans leak detect sys SC Above grade portions of waste xfr struts (integrity) SS Tank level detect sys SS Salt well flow totalizers Sup SSC SC Tank farm elect det sys	SC Trans leak detect sys SS Above grade portions of waste xfr struts (splash and splitter) SC Pn tank leak detect sys SS Tank level detect sys SS Trans eye covers SS Salt well flow totalizers Sup SSC SC Tank farm elect det sys	LCO Trans leak detect sys AC Trans ontris (pool) AC Trans pump edwin lock ontris	LCO Trans eye covers LCO Trans leak detect sys LCO Pn tank leak detect sys AC Emergency prep (waste leak) AC Trans eye cover removal ontris

Table A-4. Master Control Table. (181 Sheets)

ID	Prev SSC	Alt SSC	Prev TSR	Alt TSR
102S-01 b3	SS Pipe encasement Sup SSC SS Tank farm elect dist sys	SC Trans leak detect sys SS Tank level detect sys SS Salt well flow totalizers Sup SSC SS Tank farm elect dist sys	AC Encas joint leak critris AC Trans critris (subsurface plasma) AC Trans pump admin lock critris	LCO Trans leak detect sys AC Trans critris (subsurface plasma)
102S-02 b1	SC Trans leak detect sys SC SST vent sys SS Salt well flow totalizers SS SST shut Sup SSC SC Tank farm elect dist sys	None required	LCO SST vent sys - active and passive LCO Trans leak detect sys AC Trans critris (pool) AC Flammability critris AC Ign critris (flam gas) AC Flam gas mon critris AC Process mat and mess and test equip AC Ign critris (lightning)	AC HEPA filter critris AC Emergency prep (fire and waste leak)
102S-02 b2	SC SST vent sys SC DCRT vent sys SC 244-AR TK-002 vent sys SC 244-CR TK-003 vent sys SC SST shut Sup SSC SC Comp air sys SC Tank farm elect dist sys	None required	LCO SST vent sys - active and passive LCO DCRT vent sys LCO 244-AR TK-002 vent sys AC Flammability critris AC Ign critris (flam gas) AC Flam gas mon critris AC Trans critris AC Process mat and mess and test equip	AC HEPA filter critris AC Emergency prep (fire)
102S-02 d2	SS Physical barriers to vehicle access	None required	AC Ign critris (vehicle critris)	AC Emergency prep (fire)
102S-02 d3	SS Physical barriers to vehicle access	None required	AC Ign critris (vehicle critris)	AC Emergency prep (fire)
102S-03 b3	SS Physical barriers to vehicle access	None required	AC Ign critris (vehicle critris)	AC Emergency prep (fire)
102S-03 b4	SS Physical barriers to vehicle access	None required	AC Ign critris (vehicle critris)	AC Emergency prep (fire)

Table A-4. Master Control Table. (181 Sheets)

ID	Prev SSC	Int SSC	Prev TSR	Int TSR
102S-04 a1b	SS Service water flow totalizers	SS Service water flow totalizers	AC Tank service water intrusion mon program	AC Tank service water intrusion mon program AC Emergency prep (waste leak)
102S-04 a1bb	SS Service water flow totalizers	SS Service water flow totalizers	AC Tank service water intrusion mon program	AC Tank service water intrusion mon program AC Emergency prep (waste leak)
102S-04 a3	None required	None required	None required	None required
102S-04 c	SC SST vent sys. SC SST struct Sup SSC SC Tank farm elect det eye	None required	LCO SST vent sys - active and passive AC Flammability criteria AC Ign criteria (flam gas) AC Flam gas mon criteria AC Process inlet and meter and level equip AC Ign criteria (Lightning)	AC HEPA filter criteria AC Emergency prep (fire and waste leak)
102S-04 d1	SS SST struct	None required	None required	None required
102S-04 a11b	SC SST vent sys SC SST struct Sup SSC SC Tank farm elect det eye	None required	LCO SST vent sys - active and passive AC Flammability criteria AC Ign criteria (flam gas) AC Flam gas mon criteria AC Process inlet and meter and level equip AC Ign criteria (Lightning)	AC HEPA filter criteria AC Emergency prep (fire and waste leak)
102S-04 e2	None required	SC SST vent sys Sup SSC SC Tank farm elect det eye	AC Transfer Controls	LCO SST vent sys - active and passive
102S-04 e3	None required	None required	AC Tank criteria (pool)	None required
102S-04 e4	None required	None required	AC Nuclear criticality safety	None required
102S-05 a1a	SS SST struct	None required	AC Dome loading criteria - Uniform and concentrated load limits	None required

Table A-4. Master Control Table. (901 Sheets)

ID	Prev SSC	ML SSC	Prev TSP	ML TSP
1025-05 e1a	SS SST struct	None required	AC Dome loading cable - Uniform and concentrated load limits	None required
1025-05 e2	SS SST struct	None required	AC Dome loading cable - Limits on load height	AC Emergency prep (assume & verify SSC integrity)
1025-05 e3	SS SST struct	None required	None required	None required
1025-05 e3a	SS SST struct	None required	None required	None required
1025-05 a	None required	None required	None required	AC HEPA filter cables (power lines)
106C-01A	SS SST struct	None required	None required	None required
106C-01B	SS SST struct	None required	None required	None required
106C-01C	SS SST struct	None required	None required	None required
106C-01D	SS SST struct	None required	None required	None required
106C-01E	SS SST struct	None required	None required	None required
106C-01F	None required	SS Vent stack CAM interlock sys Sup SSC SS Tank farm elect dist sys	None required	LOO Vent stack CAM interlock sys AC HEPA filter cable
106C-01G	None required	None required	AC Trans cables (pH)	None required
106C-01H	SS Temp mon sys SS Tank level detect sys Sup SSC SS Tank farm elect dist sys	None required	LOO SST safety lamp cable AC Trans cables (dash bump topography) AC Process mat and mass and test equip	None required

Table A-4. Master Control Table. (104 Sheets)

ID	Proc SSC	Mat SSC	Prev TSR	Int TSR
106C-01I	SC Temp mon sys SC SST vent sys SC SST shutt Sup SSC SC Tank farm elect del sys	None required	SL SST waste temp LCS/LCO SST waste temp crits LCO SST vent sys - active and passive AC Flammability crits AC Ign crits (flam gas) AC Flam gas mon crits AC Process shut and miss and test equip AC Ign crits (lightning)	AC HEPA filter crits AC Emergency prep (fire and waste leak)
106C-01J	SC Temp mon sys SC SST vent sys SC SST shutt Sup SSC SC Tank farm elect del sys	None required	SL SST waste temp LCS/LCO SST waste temp crits LCO SST vent sys - active and passive AC Flammability crits AC Ign crits (flam gas) AC Flam gas mon crits AC Process shut and miss and test equip AC Ign crits (lightning)	AC HEPA filter crits AC Emergency prep (fire and waste leak)
106C-01K	SC Temp mon sys SC SST vent sys Sup SSC SC Tank farm elect del sys	SS Vent stack CAM interlock sys Sup SSC SS Tank farm elect del sys	SL SST waste temp LCS/LCO SST waste temp crits LCO SST vent sys - active and passive	LCO Vent stack CAM interlock sys
106C-01M	None required	None required	AC Trans crits (pH)	None required
106C-01Ma	SC SST vent sys SC SST shutt Sup SSC SC Tank farm elect del sys	None required	LCO SST vent sys - active and passive AC Flammability crits AC Ign crits (flam gas) AC Flam gas mon crits AC Process shut and miss and test equip	AC HEPA filter crits AC Emergency prep (fire and waste leak)
106C-01N	None required	None required	AC Nuclear orthogonality safety	None required

Table A-4. Master Control Table. (101 Sheets)

ID	Prev SSC	Mt SSC	Prev TSR	Mt TSR
106C-01Pa	None required	SS Tank level detect eyes Sup SSC SS Tank farm elect dist eye	None required	None required
106C-01B	SC Temp mon eyes SC SST vent eyes Sup SSC SC Tank farm elect dist eye	SS Vent stack CAM interlock eyes Sup SSC SS Tank farm elect dist eye	SL SST waste temp LCS/LCO SST waste temp critris LCO SST vent eyes - active and passive	LCO Vent stack CAM interlock eyes
106C-01Sa	SS Temp mon eyes Sup SSC SS Tank farm elect dist eye	SS Temp mon eyes SS Tank level detect eyes Sup SSC SS Tank farm elect dist eye	LCO SST tank waste temp critris AC Process melt and mass and loss equip	LCO SST tank waste temp critris AC Process melt and mass and loss equip
106C-01T	SC SST vent eyes Sup SSC SC Tank farm elect dist eye	SS Vent stack CAM interlock eyes Sup SSC SS Tank farm elect dist eye	LCO SST vent eyes - active and passive	LCO Vent stack CAM interlock eyes AC HEPA filter critris (source term)
106C-01U	None required	None required	None required	None required
106C-01V	None required	None required	None required	None required
106C-01X	SS SST select	None required	AC Dome loading critris • Uniform and concentrated load inputs	None required
106C-01Y	SS Service water flow totalizers Sup SSC SC Tank farm elect dist eye	None required	AC Tank service water intrusion mon program	None required
106C-02A	SC Temp mon eyes SC SST vent eyes SC SST select Sup SSC SC Tank farm elect dist eye	None required	LCS/LCO SST waste temp critris LCO SST vent eyes - active and passive AC Flammability critris AC Ign critris (flam gas) AC Flank gas mon critris AC Process melt and mass and loss equip	AC HEPA filter critris AC Emergency prep (fire and waste tank)

Table A-4. Master Control Table. (101 Sheets)

ID	Prev SSC	Mit SSC	Prev T3R	Mit T3R
106C-028	SC Temp mon eyes SC SST vent eyes SC SST struct Sup SSC SC Tank farm elect dist eye	None required	SL SST waste temp LCS/LCO SST waste temp onbts LCO SST vent eyes - active and passive AC Flammability onbts AC Ign onbts (flam gas) AC Flam gas mon onbts AC Process hot and masses and loss equip AC Ign onbts (lightning)	AC HEPA filter onbts AC Emergency prep (fire and waste leak)
106C-02C	BC Temp mon eyes BC SST vent eyes SC SST struct Sup SSC SC Tank farm elect dist eye	None required	SL SST waste temp LCS/LCO SST waste temp onbts LCO SST vent eyes - active and passive AC Flammability onbts AC Ign onbts (flam gas) AC Flam gas mon onbts AC Process hot and mass and loss equip AC Ign onbts (lightning)	AC HEPA filter onbts AC Emergency prep (fire and waste leak)
106C-04A	BC Temp mon eyes BC SST vent eyes SC SST struct Sup SSC SC Tank farm elect dist eye	None required	SL SST waste temp LCS/LCO SST waste temp onbts LCO SST vent eyes - active and passive AC Flammability onbts AC Ign onbts (flam gas) AC Flam gas mon onbts AC Process hot and mass and loss equip AC Ign onbts (lightning)	AC HEPA filter onbts AC Emergency prep (fire and waste leak)

Table A-4. Master Control Table. (101 Sheets)

ID	Prev SSC	IM SSC	Prev TBR	Mc TBR
105C-04Aa	BC Temp mon eyes SC SST vent eyes BC SST struct Sup SSC SC Tank farm abct dist eye	None required	SL SST waste temp LCB/LCO SST waste temp onrte LCO SST vent eyes - active and passive AC Flammability onrte AC Ign onrte (flam gas) AC Flare gas when onrte AC Process inlet and mass and test equip AC Ign onrte (lightning)	AC HEPA filter onrte AC Emergency prep (fire and waste leak)
105C-04B	BC Temp mon eyes SC SST vent eyes BC SST struct Sup SSC SC Tank farm abct dist eye	None required	SL SST waste temp LCB/LCO SST waste temp onrte LCO SST vent eyes - active and passive AC Flammability onrte AC Ign onrte (flam gas) AC Flare gas when onrte AC Process inlet and mass and test equip AC Ign onrte (lightning)	AC HEPA filter onrte AC Emergency prep (fire and waste leak)
105C-05A	SC SST vent eyes Sup SSC SC Tank farm abct dist eye	SC SST vent eyes Sup SSC SC Tank farm abct dist eye	LCO SST vent eyes - active and passive	LCO SST vent eyes - active and passive
105C-05B	None required	None required	None required	None required
105C-05D	SS Physical barriers to vehicle access	None required	AC Ign onrte (vehicle onrte)	AC Emergency prep (fire)
105C-05F	None required	None required	None required	None required
105C-05G	BC Train leak detect eyes BC Above grade portions of waste str struct (integrity) Sup SSC BC Tank farm abct dist eye	None required	LCO Train leak detect eyes AC Train onrte (pool) AC Train pump electric lock onrte	None required
105C-05H	None required	None required	None required	None required

Table A-4. Master Control Table. (191 Sheets)

ID	Prev SSC	Me SSC	Prev TSR	Me YSR
106C-06J	None required	None required	None required	None required
106C-06K	None required	None required	AC Dome loading crane - Limits on load height - Monitored Safe Hoisting and Rigging Manual for critical lifts	None required
106C-06L	SC SST vent sys SC DCRT vent sys SC 244-UR TK-003 vent sys SC 244-CR TK-003 vent sys SC BST stack Sup SSC SC Comp air sys SC Tank farm elect dist sys	None required	LCO SST vent sys - active and passive LCO DCRT vent sys LCO 244-UR TK-003 vent sys AC Flammability control AC Ign control (flam gas) AC Flam gas mon control AC Trans control AC Process inlet and mass and fuel equip	AC HEPA filter control AC Emergency pump (flr)
106C-06M	None required	None required	None required	None required
106C-10B	None required	None required	None required	None required
106C-10C	None required	None required	None required	None required
106C-10D	None required	None required	None required	None required
106C-10E	None required	None required	None required	None required
106C-10F	SC SST vent sys Sup SSC SC Tank farm elect dist sys	None required	LCO SST vent sys - active and passive	AC HEPA filter control (source term)
106C-10H	None required	SS Vent stack CAM interlock sys Sup SSC SS Tank farm elect dist sys	None required	LCO Vent stack CAM interlock sys AC HEPA filter control
106C-10J	None required	SS Vent stack CAM interlock sys Sup SSC SS Tank farm elect dist sys	None required	LCO Vent stack CAM interlock sys AC HEPA filter control

Table A-4. Master Control Table, (104 Sheets)

ID	Prev SSC	Mat SSC	Prev TSR	Mat TSK
105C-10K	SC SST vent eyes Sup SSC SC Tank farm elect dist eye	None required	LCO SST vent eyes - active and passive	AC HEPA filter outlets (source term)
105C-10L	SC SST vent eyes Sup SSC BC Tank farm elect dist eye	None required	LCO SST vent eyes - active and passive	AC HEPA filter outlets (source term)
105C-11A	SC SST vent eyes Sup SSC SC Tank farm elect dist eye	None required	LCO SST vent eyes - active	AC HEPA filter outlets (source term)
105C-11B	None required	None required	None required	None required
105C-11C	None required	None required	None required	None required
105C-11D	None required	None required	None required	None required
105C-11E	None required	None required	None required	None required
105C-11F	None required	None required	None required	None required
105C-11G	None required	SS Vent stack CAM interlock eyes Sup SSC SS Tank farm elect dist eye	None required	LCO Vent stack CAM interlock eyes
105C-11H	None required	SS Vent stack CAM interlock eyes Sup SSC SS Tank farm elect dist eye	None required	LCO Vent stack CAM interlock eyes AC HEPA filter outlets (source term)
105C-11I	None required	SS Vent stack CAM interlock eyes Sup SSC SS Tank farm elect dist eye	None required	LCO Vent stack CAM interlock eyes AC HEPA filter outlets (source term)

Table A-4. Master Control Table. (101 Sheets)

ID	Prev SSC	Mt SSC	Prev T&R	Mt T&R
106C-11J	None required	SB Vent stack CAM interlock sys Sup SSC SS Tank farm elect dist sys	None required	LCO Vent stack CAM interlock sys AC NEPA filter crits
106C-11K	None required	SB Vent stack CAM interlock sys Sup SSC SS Tank farm elect dist sys	None required	LCO Vent stack CAM interlock sys AC NEPA filter crits
106C-11L	None required	SB Vent stack CAM interlock sys Sup SSC SB Tank farm elect dist sys	None required	LCO Vent stack CAM interlock sys AC NEPA filter crits
106C-11M	None required	SB Vent stack CAM interlock sys Sup SSC SB Tank farm elect dist sys	None required	LCO Vent stack CAM interlock sys AC NEPA filter crits
106C-11N	None required	SB Vent stack CAM interlock sys Sup SSC SB Tank farm elect dist sys	None required	LCO Vent stack CAM interlock sys AC NEPA filter crits (source term)
106C-11O	None required	SB Vent stack CAM interlock sys Sup SSC SS Tank farm elect dist sys	None required	LCO Vent stack CAM interlock sys AC NEPA filter crits
106C-12A	SC Temp mon sys SC SST vent sys Sup SSC SC Tank farm elect dist sys	SC Temp mon sys SC Tank level detect sys SS Vent stack CAM interlock sys Sup SSC SS Tank farm elect dist sys	SL SST waste temp LC&LCO SST waste temp crits LCO SST vent sys - active	SL SST waste temp LC&LCO SST waste temp crits AC NEPA filter controls (source term) AC Emergency prep (waste leak)

Table A-4. Master Control Table. (101 Sheets)

ID	Prev SSC	Mt SSC	Prev TSTR	Mt TSTR
100C-128	SC Temp mon sys SC SST vent sys Sup SSC SC Tank farm elect dist sys	SC Temp mon sys SS Tank level detect sys SS Vent stack CAM interlock sys Sup SSC SS Tank farm elect dist sys	SL SST waste temp LCB/LCO SST waste temp entrie LCO SST vent eyes - active	SL SST waste temp LCB/LCO SST waste temp entrie AC HEPA filter controls (source term) AC Emergency prep (waste leak)
100C-129	SC Temp mon sys SC SST vent sys Sup SSC SC Tank farm elect dist sys	SC Temp mon sys SS Tank level detect sys SS Vent stack CAM interlock sys Sup SSC SS Tank farm elect dist sys	SL SST waste temp LCB/LCO SST waste temp entrie LCO SST vent eyes - active	SL SST waste temp LCB/LCO SST waste temp entrie AC HEPA filter controls (source term) AC Emergency prep (waste leak)
100C-120	SC Temp mon sys SC SST vent sys Sup SSC SC Tank farm elect dist sys	SC Temp mon sys SS Tank level detect sys SS Vent stack CAM interlock sys Sup SSC SS Tank farm elect dist sys	SL SST waste temp LCB/LCO SST waste temp entrie LCO SST vent eyes - active	SL SST waste temp LCB/LCO SST waste temp entrie AC HEPA filter controls (source term) AC Emergency prep (waste leak)
100C-12F	None required	None required	AC Trans entrie (SH)	None required
100C-12G	None required	SS Tank level detect sys Sup SSC SS Tank farm elect dist sys	None required	None required
100C-13A	SC Temp mon sys SC SST vent sys SC SST struc Sup SSC SC Tank farm elect dist sys	None required	SL SST waste temp LCB/LCO SST waste temp entrie LCO SST vent eyes - active and passive AC Flammability entrie AC Ign entrie (flam gas) AC Flammable mon entrie AC Process Mol and dens and test equip AC Ign entrie (lighting)	AC HEPA filter entrie AC Emergency prep (flam and waste leak)
100C-13B	None required	None required	None required	None required
107AN-01-LEVER01	None required	None required	AC Caustic trans entrie	None required

Table A-4. Master Control Table. (181 Sheets)

ID	Prev SSC	Int SSC	Prev TSP	Int TSP
107AN-01-LEVER	None required	None required	AC Causeless trans. entrie	None required
107AN-01-LEVER03	None required	None required	None required	None required
107AN-01-TEMP 01	None required	None required	None required	None required
107AN-01-TEMP02	None required	None required	AC Causeless trans. entrie	None required
107AN-02-FLOW01	None required	None required	AC Trans. entrie (pH)	None required
107AN-02-FLOW02	None required	None required	None required	AC Transfer Controls
107AN-02-FLOW03	None required	None required	AC Causeless addition entrie	None required
107AN-02-PRES	None required	None required	AC Causeless trans. entrie	None required
107AN-02-PRES02	None required	None required	AC Causeless trans. entrie	None required
107AN-02-TEMP01	None required	None required	AC Causeless addition entrie	None required
107AN-03-FLOW	None required	None required	None required	None required
114SX-02 b	SC Trans tank detect eyes SC Above grade portions of waste air structure (upblast and diplexer) SS Tank level detect eyes SS Self well flow (upblast) Sup SSC SC Tank farm elect shut eye	SC Trans tank detect eyes SS Above grade portions of waste air structure (upblast and diplexer) SC Tank level detect eyes SS Tank level detect eyes SS Trans eye covers SS Self well flow (upblast) Sup SSC SC Tank farm elect shut eye	LCD Trans tank detect eyes AC Trans. entrie (pool) AC Trans pump admin lock entrie	LCD Trans eye covers LCO Trans tank detect eyes LCO Tank level detect eyes AC Emergency prep (waste tank) AO Trans eye cover removal entrie
114SX-04 a (b)	SC SST vent eyes Sup SSC SC Tank farm elect shut eye	SS Vent stack CAM interlock eyes Sup SSC SS Tank farm elect shut eye	LCO SST vent eyes - active and passive	LCO Vent stack CAM interlock eyes AC HEPA filter entrie (pump test)

Table A-4. Master Control Table. (101 Sheets)

ID	Prev SSC	Int SSC	Prev TDR	Int TDR
1145X-04 a 1b	SC BBT vent eyes Sup SSC SC Tank farm elect dist eye	SS Vent stack CAM interlock eyes Sup SSC SS Tank farm elect dist eye	LOO BBT vent eyes - active and passive	LOO Vent stack CAM interlock eyes AC HEPA filter carts (source term)
1145X-04 a 2	SS BBT struct	None required	None required	None required
1145X-04 a 3	SS BBT struct	None required	None required	None required
1145X-04 a 4	SC BBT vent eyes Sup SSC SC Tank farm elect dist eye	None required	LOO BBT vent eyes - active and passive	AC HEPA filter carts (source term)
1145X-04 b 1 a 1	None required	None required	None required	AC HEPA filter carts (source term)
1145X-04 b 1 a 2	SS BBT struct	None required	None required	None required
1145X-04 b 1 a 3	SC Temp room eyes SC BBT vent eyes Sup SSC SC Tank farm elect dist eye	None required	SL BBT waste temp LCS/LOO BBT waste temp carts LOO BBT vent eyes - active and passive	AC Emergency pump (waste leak)
1145X-04 b 1 b 1a	SC BBT vent eyes Sup SSC SC Tank farm elect dist eye	None required	LOO BBT vent eyes - active and passive	AC HEPA filter carts (source term)
1145X-04 b 1 b 1b	None required	None required	None required	None required
1145X-04 b 1 b 2a	SS BBT struct	None required	None required	None required
1145X-04 b 1 b 2b	SC BBT struct	None required	None required	AC Emergency pump (seismic & vent SSC integrity)
1145X-04 b 1 b 3a	SC Temp room eyes SC BBT vent eyes Sup SSC SC Tank farm elect dist eye	None required	SL BBT waste temp LCS/LOO BBT waste temp carts LOO BBT vent eyes - active and passive	AC Emergency pump (waste leak)

Table A-4. Master Control Table. (161 Sheets)

ID	Prev SSC	Int SSC	Prev TSR	Int TSR
114SX-04 b 1 b 3b	None required	None required	None required	AC: Emergency prep (general) & verify SSC integrity
114SX-04 b 1 c 1	SC: SST vent sys Sup SSC SC: Tank farm elect dist sys	None required	LCO: SST vent sys - active and passive	AC: HEPA filter canister (source term)
114SX-04 b 1 c 2	SS: SST struct	None required	None required	None required
114SX-04 b 1 c 3	SC: Temp mon sys SC: SST vent sys Sup SSC SC: Tank farm elect dist sys	None required	SL: SST waste temp LCS/LCO: SST waste temp canister LCO: SST vent sys - active and passive	AC: Emergency prep (waste leak)
114SX-04 b 1 d 1	SC: SST vent sys Sup SSC SC: Tank farm elect dist sys	None required	LCO: SST vent sys - active and passive	AC: HEPA filter canister (source term)
114SX-04 b 1 d 2	SS: SST struct	None required	None required	None required
114SX-04 b 1 d 3	SC: Temp mon sys SC: SST vent sys Sup SSC SC: Tank farm elect dist sys	None required	SL: SST waste temp LCS/LCO: SST waste temp canister LCO: SST vent sys - active and passive	AC: Emergency prep (waste leak)
114SX-04 b 3b	SC: Temp mon sys SC: SST vent sys SC: SST struct Sup SSC SC: Tank farm elect dist sys	None required	SL: SST waste temp LCS/LCO: SST waste temp canister LCO: SST vent sys - active and passive AC: Flammability canister AC: Ign canister (flam gas) AC: Flare gas mon canister AC: Process lost and monitor and leak equip AC: Ign canister (lightning)	AC: HEPA filter canister AC: Emergency prep (fire and waste leak)

Table A-4. Master Control Table. (101 Sheets)

ID	Prev SSC	Alt SSC	Prev TSR	Alt TSR
114SX-04 b 5	SC SST vent sys Sup SSC SC Tank farm elect dist sys	None required	LCO SST vent sys - active and passive	AC HEPA filter online (source term)
114SX-04 c 1	None required	SS Vent stack CAM interlock sys Sup SSC SS Tank farm elect dist sys	None required	LCO Vent stack CAM interlock sys AC HEPA filter online
114SX-04 c 2 a	None required	SS Vent stack CAM interlock sys Sup SSC SS Tank farm elect dist sys	None required	LCO Vent stack CAM interlock sys AC HEPA filter online
114SX-04 c 2 b	None required	SS Vent stack CAM interlock sys Sup SSC SS Tank farm elect dist sys	None required	LCO Vent stack CAM interlock sys AC HEPA filter online
114SX-04 c 2 c	None required	SS Vent stack CAM interlock sys Sup SSC SS Tank farm elect dist sys	None required	LCO Vent stack CAM interlock sys
114SX-04 c 2 d	None required	SS Vent stack CAM interlock sys Sup SSC SS Tank farm elect dist sys	None required	LCO Vent stack CAM interlock sys AC HEPA filter online
114SX-05 b 1	SC Temp mon sys SC SST vent sys SC SST strval Sup SSC SC Tank farm elect dist sys	None required	SL SST waste temp LCS/LCO SST waste temp online LCO SST vent sys - active and passive AC Flammability online AC Ign online (flam gas) AC Flam gas mon online AC Process heat and energy prod equip AC Ign cable (lightning)	AC HEPA filter online AC Emergency prep (fire and waste leak)
114SX-05 b 2	None required	None required	None required	None required

Table A-4. Master Control Table. (101 Sheets)

ID	Prev SSC	Mt SSC	Prev T3R	Mt T3R
1145X-06 b 3	SS SST struct	None required	None required	None required
1145X-06 c 2b	SS SST struct	None required	None required	None required
1145X-05 c 2c	None required	None required	AC Nuclear criticality safety	None required
1145X-06 d	SC Temp mon sys SC SST vent sys SC SST struct Sup SSC SC Tank farm elect dist sys	None required	SL SST waste temp LC/LC/CO SST waste temp criteria LOO SST vent sys - active and passive AC Flammability criteria AC Ign criteria (flam gas) AC Flam gas mon criteria AC Process inst and mass and test equip AC Ign criteria (lightning)	AC HEPA filter criteria AC Emergency prep (fire and waste leak)
1145X-06 a 1a	SS SST struct	None required	AC Core loading criteria - Uniform and concentrated load limits	None required
1145X-06 a 1b	SC Temp mon sys SC SST vent sys SC SST struct Sup SSC SC Tank farm elect dist sys	None required	SL SST waste temp LC/LC/CO SST waste temp criteria LOO SST vent sys - active and passive AC Flammability criteria AC Ign criteria (flam gas) AC Flam gas mon criteria AC Process inst and mass and test equip AC Ign criteria (lightning)	AC HEPA filter criteria AC Emergency prep (fire and waste leak)
1145X-06 a 2	None required	None required	None required	None required
1145X-06 a 3	SS SST struct	None required	None required	None required
1145X-06 b	None required	None required	None required	None required
204AR-01A	None required	None required	None required	AC Source inventory criteria (SARF)
204AR-01B	None required	None required	None required	AC Source inventory criteria (SARF)
204AR-01C	None required	None required	None required	AC Source inventory criteria (SARF)

Table A-4. Master Control Table. (101 Sheets)

ID	Prev SSC	Mkt SSC	Prev YGR	Mkt YGR
204AR-01D	None required	None required	None required	AC Source inventory crisis (SARP)
204AR-01E	None required	None required	None required	AC Source inventory crisis
204AR-01F	None required	None required	None required	AC Source inventory crisis
204AR-01G	None required	SC Trans leak detect sys SS 204-AR waste unloading facility struct	LCD Trans leak detect sys AC Trans pump admin lock critis	LCD Trans leak detect sys LCD 204-AR door closed (pending) AC Emergency prep (waste leak)
204AR-01H	None required	None required	None required	AC Source inventory crisis (SARP)
204AR-01I	None required	None required	None required	AC Source inventory crisis (SARP)
204AR-01J	SC Trans leak detect sys	SC Trans leak detect sys SS 204-AR waste unloading facility struct	LCD Trans leak detect sys AC Trans pump admin lock critis	LCD Trans leak detect sys AC Trans critis (spray leak) AC Emergency prep (waste leak)
204AR-01K	SC Trans leak detect sys	SC Trans leak detect sys SS 204-AR waste unloading facility struct	LCD Trans leak detect sys AC Trans pump admin lock critis	LCD Trans leak detect sys AC Trans critis (spray leak) AC Emergency prep (waste leak)
204AR-02A	None required	None required	None required	AC Source inventory crisis (SARP)
204AR-02B	None required	None required	None required	AC Source inventory crisis (SARP)
204AR-02C	None required	None required	None required	AC Source inventory crisis
204AR-02D	None required	None required	None required	AC Source inventory crisis
204AR-02E	None required	SC Trans leak detect sys	None required	LCD Trans leak detect sys AC Source inventory crisis AC Emergency prep (waste leak)
204AR-02F	SC Trans leak detect sys	SC Trans leak detect sys SS 204-AR waste unloading facility struct	LCD Trans leak detect sys AC Trans pump admin lock critis	LCD Trans leak detect sys AC Trans critis (spray leak) AC Emergency prep (waste leak)
204AR-03A	None required	SC Trans leak detect sys Ship SSC SC Tank farm elect dist sys	AC Trans pump admin lock critis	LCD Trans leak detect sys AC Trans critis (pool)

Table A-4. Master Control Table. (101 Sheets)

ID	Prev SSC	Int SSC	Prev TSN	Int TSN
204AR-03B	SC Trans leak detect eyes	SC Trans leak detect eyes SS 204-AR waste unloading facility struct	LCO Trans leak detect eyes AC Trans pump admin lock controls	LCO Trans leak detect eyes AC Trans controls (spray leaks) AC Emergency prep (waste leak)
204AR-03C	None required	None required	None required	None required
204AR-04A	None required	SC Trans leak detect eyes Sup SSC SC Tank farm elect dist eyes	AC Trans pump admin lock controls	LCO Trans leak detect eyes AC Trans controls (pool)
204AR-04B	SC Trans leak detect eyes	SC Trans leak detect eyes SB 204-AR waste unloading facility struct	LCO Trans leak detect eyes AC Trans pump admin lock controls	LCO Trans leak detect eyes AC Trans controls (spray leaks) AC Emergency prep (waste leak)
204AR-04C	None required	None required	None required	None required
204AR-04D	None required	None required	None required	None required
204AR-04E	None required	None required	None required	None required
204AR-04F	None required	None required	None required	None required
204AR-05A	None required	SC Trans leak detect eyes SS 204-AR waste unloading facility struct	LCO Trans leak detect eyes AC Trans pump admin lock controls	LCO Trans leak detect eyes LCO 204-AR door closed (spending) AC Emergency prep (waste leak)
204AR-05B	SC Trans leak detect eyes	SC Trans leak detect eyes SS 204-AR waste unloading facility struct	LCO Trans leak detect eyes AC Trans pump admin lock controls	LCO Trans leak detect eyes AC Trans controls (spray leaks) AC Emergency prep (waste leak)
204AR-05C	None required	SC Trans leak detect eyes SS 204-AR waste unloading facility struct	LCO Trans leak detect eyes AC Trans pump admin lock controls	LCO Trans leak detect eyes LCO 204-AR door closed (spending) AC Emergency prep (waste leak)
204AR-05A	None required	SC Trans leak detect eyes SS Service water flow inhibitors Sup SSC SC Tank farm elect dist eyes	None required	LCO Trans leak detect eyes AC Tank service water intrusion mgn program AC Emergency prep (waste leak)

Table A-4. Master Control Table. (101 Sheets)

ID	Prev SSC	Mt SSC	Prev TSR	Mt TSR
204AR-05B	None required	SC Trans leak detect eyes SS Service water flow low/loss Sup SSC SC Tank farm elect det eye	None required	LOO Trans leak detect eyes AC Tank service water intrusion alarm program AC Emergency prep (nucleo leak)
204AR-060	SC Trans leak detect eyes	SC Trans leak detect eyes SS 204-AR waste unloading facility struct	LOO Trans leak detect eyes AC Trans pump admin lock controls	LOO Trans leak detect eyes AC Trans controls (spray/leak) AC Emergency prep (nucleo leak)
204AR-07A	None required	SC 204-AR waste unloading facility struct	AC Trans controls (spray/leak) AC Trans pump admin lock controls	AC Trans controls (spray/leak) AC Emergency prep (nucleo leak)
204AR-07B	None required	SC Trans leak detect eyes Sup SSC SC Tank farm elect det eye	AC Trans controls (good)	LOO Trans leak detect eyes AC Emergency prep (nucleo leak) AC Trans pump admin lock controls
204AR-07C	None required	SC Trans leak detect eyes Sup SSC SC Tank farm elect det eye	AC Trans controls AC Trans pump admin lock controls	LOO Trans leak detect eyes AC Emergency prep (nucleo leak)
204AR-08A	None required	SS 204-AR waste unloading facility struct	None required	AC Source inventory controls
204AR-09B	None required	None required	None required	AC Source inventory controls (SARP)
204AR-09C	None required	None required	None required	AC Source inventory controls (SARP)
204AR-09D	None required	None required	None required	AC Source inventory controls (SARP)
204AR-09E	None required	None required	None required	None required
204AR-09F	None required	None required	None required	None required
204AR-09G	None required	None required	None required	None required
204AR-09H	None required	None required	None required	None required
204AR-11A	None required	None required	None required	None required

Table A-4. Master Control Table. (10 of 8 sheets)

ID	Prev SSC	IM SSC	Rev TSR	MT TSR
204AR-11B	None required	None required	None required	None required
204AR-11C	None required	None required	None required	None required
204AR-11D	None required	None required	None required	None required
204AR-11E	None required	None required	None required	AC HEPA filter critique (source term)
204AR-11F	None required	SS Vent stack CAM inlet/outlet sys Sup SSC SS Tank farm select dist sys	None required	CCO Vent stack CAM inlet/outlet sys AC HEPA filter critique
213 VV-01	None required	None required	None required	None required
213 VV-02	None required	None required	None required	None required
213 VV-03	None required	None required	None required	None required
213 VV-04	None required	None required	None required	None required
213 VV-05	None required	None required	None required	None required
213 VV-06	None required	None required	None required	None required
213 VV-07	None required	None required	None required	AC Emergency prep (evaluate verify SSC integrity)
213 VV-08	None required	None required	None required	None required
213 VV-09	None required	None required	AC Ign critique (vehicle only)	None required
244AR-01 a 03	None required	None required	None required	None required
244AR-01 b 01	None required	None required	None required	None required
244AR-01 b 02	None required	None required	None required	AC HEPA filter critique (source term)
244AR-01 b 03	None required	None required	None required	AC HEPA filter critique (source term)
244AR-01 b 04	None required	None required	None required	AC HEPA filter critique
244AR-01 c 01	None required	None required	None required	AC HEPA filter critique (source term)

Table A-4. Master Control Table. (101 Sheets)

ID	Prev SSC	Ma SSC	Prev TSR	Act TGR
244AR-01 c 02	None required	None required	None required	None required
244AR-01 c 03	None required	None required	None required	None required
244AR-01 c 07	None required	None required	AC HEPA transfer criteria	None required
244AR-01 c 08	SC 244-AR TK-002 vent sys Sup SSC SC Tank farm elect dist sys	None required	LCO 244-AR TK-002 vent sys	None required
244AR-01 c 09	SC 244-AR TK-002 vent sys Sup SSC SC Tank farm elect dist sys	None required	LCO 244-AR TK-002 vent sys AC Ign criteria (flam gas) AC Flm gas mon criteria AC Process shut and mass and test equip	AC HEPA filter criteria AC Emergency prep (fire and waste leak)
244AR-01 c 10	None required	None required	None required	AC HEPA filter criteria (source term)
244AR-01 c 11	None required	None required	None required	AC HEPA filter criteria (source term)
244AR-01 c 13	None required	None required	None required	None required
244AR-02 a 03	SC 244-AR TK-002 vent sys Sup SSC SC Tank farm elect dist sys	None required	LCO 244-AR TK-002 vent sys AC Ign criteria (flam gas) AC Flm gas mon criteria AC Process shut and mass and test equip	AC HEPA filter criteria AC Emergency prep (fire and waste leak)
244AR-02 a 05	None required	None required	None required	None required
244AR-02 a 06	None required	None required	None required	None required
244AR-02 a 07	None required	None required	None required	None required
244AR-02 a 08	SC Trans tank defect sys Sup SSC SC Tank farm elect dist sys	None required	LCO Trans tank defect sys AC Trans crits (good) AC Trans pump alarm lock criteria	AC Emergency prep (waste leak)

Table A-4. Master Control Table. (161 Sheets)

ID	Prev SSC	Me SSC	Peri TSR	Alt TSR
244AR-02 a 09	SS Trans leak detect sys	SC Trans leak detect sys SS Tank level detect sys SS Salt well flow totalizers Sup SSC SS Tank farm elect dist sys	LCO Trans leak detect sys AC Trans ontris (subsurface plume) AC Trans pump adms leak ontris	LCO Trans leak detect sys AC Trans ontris (subsurface plume)
244AR-02 a 10	SC Trans leak detect sys Sup SSC SC Tank farm elect dist sys	None required	LCO Trans leak detect sys AC Trans ontris (pool) AC Trans pump adms leak ontris	AC Emergency prep (waste leak)
244AR-02 a 11	SS Trans leak detect sys	SC Trans leak detect sys SS Tank level detect sys SS Salt well flow totalizers Sup SSC SS Tank farm elect dist sys	LCO Trans leak detect sys AC Trans ontris (subsurface plume) AC Trans pump adms leak ontris	LCO Trans leak detect sys AC Trans ontris (subsurface plume)
244AR-02 a 12	None required	None required	None required	None required
244AR-02 a 13	None required	None required	None required	None required
244AR-02 a 14	None required	None required	None required	AC Emergency prep (seismic & verify SSC integrity)
244AR-03 a 03	None required	None required	AC Trans ontris	None required
244AR-03 a 04	SC 244-AR TK-002 vent sys Sup SSC SC Tank farm elect dist sys	None required	LCO 244-AR TK-002 vent sys AC Ign ontris (flam gas) AC Flamm gas mon ontris AC Process int and seams and leak equip	AC HIRPA flow ontris AC Emergency prep (fire and waste leak)
244AR-03 a 05	None required	None required	None required	None required
244AR-03 a 06	None required	None required	None required	None required
244AR-03 a 07	None required	None required	None required	None required
244AR-03 a 08	None required	None required	None required	None required

Table A-4. Master Control Table. (101 Sheets)

ID	Prev SSC	Mit SSC	Prev TBR	Mit TBR
244AR-03 a 09	None required	None required	AC Nuclear criticality safety	None required
244AR-03 a 13	None required	None required	None required	None required
244AR-03 a 14	None required	None required	None required	None required
244AR-03 a 15	None required	None required	None required	None required
244AR-03 a 16	None required	None required	None required	None required
244AR-03 a 17	None required	None required	None required	None required
244AR-03 a 18	None required	None required	None required	AC Emergency prep (sabotage event)
244AR-04 a 01	None required	None required	None required	AC Emergency prep (seismic event)
244AR-05 a 01	None required	None required	None required	None required
244AR-08 a 02	None required	None required	None required	AC Emergency prep (summit & verify SSC eligibility)
244AR-09 a 02	None required	None required	None required	None required
244AR-07 a 01	None required	None required	None required	None required
244AR-07 a 02	None required	None required	None required	None required
244AR-07 a 03	None required	None required	None required	None required
244AR-07 a 04	None required	None required	None required	None required
244AR-PH01	None required	None required	None required	None required
244AR-PH02	None required	None required	None required	None required
244AR-PH03	None required	None required	None required	None required
244AR-PH04	None required	None required	None required	None required
244AR-PH05	None required	None required	None required	None required
244AR-PH06	None required	None required	None required	None required

Table A-4. Master Control Table. (101 Sheets)

ID	Prev SSC	Mt SSC	Prev TBR	Mt TBR
244AR-PH07	None required	None required	None required	None required
244AR-PH08	None required	None required	None required	None required
244AR-PH09	None required	None required	None required	None required
244AR-PH10	None required	None required	None required	None required
244AR-PH11	None required	None required	None required	None required
244AR-PH12	None required	None required	None required	None required
244AR-PH13	None required	None required	None required	None required
244AR-PH14	None required	None required	None required	None required
244AR-PH15	None required	None required	None required	None required
244AR-PH16	None required	None required	None required	None required
244AR-PH17	None required	None required	None required	None required
244AR-PH18	None required	None required	None required	None required
244AR-PH19	None required	None required	None required	None required
2727W-01	SS 2727 W Building	None required	None required	None required
2727W-02	SS 2727 W Building	Not required	None required	AC Emergency prep (verify SSC struct integrity)
2727W-03	SS 2727 W Building	Not required	None required	AC Emergency prep (verify SSC struct integrity)
2727W-04	SS 2727 W Building	Not required	None required	AC Emergency prep (verify SSC struct integrity)
2727W-05	SS 2727 W Building	Not required	None required	AC Emergency prep (verify SSC struct integrity)
2727W-06	SS 2727 W Building	Not required	None required	AC Emergency prep (verify SSC struct integrity)

Table A-4. Master Control Table- (101 Sheets)

ID	Prev SSC	Mit SSC	Prev TBR	Mit TBR
900-01	None required	None required	None required	None required
900-02	None required	None required	None required	AC Emergency prep (seismic & verify SSC integrity)
900-03	None required	None required	None required	AC Emergency prep (seismic & verify SSC integrity)
900-04	None required	None required	None required	AC Emergency prep (fire)
900-05	None required	None required	None required	AC Emergency prep (flood)
900-06	None required	None required	None required	None required
900-07	None required	None required	None required	AC Emergency prep (seismic & verify SSC integrity)
900-08	None required	None required	None required	AC Emergency prep (seismic & verify SSC integrity)
900-09	None required	None required	None required	AC Emergency prep (flood)
900-10	None required	None required	None required	AC Emergency prep (flood)
900-11	Critics contained in SARPs	Critics contained in SARPs	Critics contained in SARPs	Critics contained in SARPs
END-01	None required	None required	None required	None required
END-01-1	None required	None required	None required	None required
END-02	SC SST vent sys SC SST struct Sup-SSC SC Tank from steel dist sys	None required	LCD SST vent sys - active and passive AC Filterability critics AC Ign critics (flam gas) AC FWM gas mon critics AC Trains critics AC Process inst and mass and heat equip	AC HEPA filter critics AC Emergency prep (fire and waste leak)
END-02-1	None required	None required	None required	None required
CCF-01	None required	None required	None required	None required

Table A-4. Master Control Table. (104 Sheets)

ID	Prev SSC	Nil SSC	Prev T&R	Nil T&R
CCF-02	None required	None required	AC: HEPA filter onlets (244-B - 244-TX - and 244-A) (filter efficiency)	AC: HEPA filter onlets (source term)
CCF-03	None required	SS: Vent stack CAM interlock eyes Sup SSC SB: Tank farm elect dist sys	None required	LOD: Vent stack CAM interlock eyes AC: HEPA filter onlets (source term)
CCF-04	None required	SB: Vent stack CAM interlock eyes Sup SSC SB: Tank farm elect dist sys	None required	LOD: Vent stack CAM interlock eyes AC: HEPA filter onlets (source term)
CCF-05	None required	None required	None required	None required
CCF-06	None required	None required	None required	None required
CCF-07	SC: Trans leak detect eyes Sup SSC SC: Tank farm elect dist sys	SC: Trans leak detect eyes SB: Above grade portions of waste eff streams (toplash and splitter) SC: Pm tank leak detect eyes SB: Trans eye covers Sup SSC SC: Tank farm elect dist sys	LOD: Trans leak detect eyes AC: Trans pump alarm lock onlets AC: Organization (minimum staffing)	LOD: Trans eye covers LOD: Trans leak detect eyes LOD: Pm tank leak detect eyes AC: Emergency prep (waste leak) AC: Trans eye cover removal onlets
CCF-08	None required	None required	None required	None required
CCF-09	None required	None required	None required	None required
CCF-10	None required	None required	None required	None required
CCF-11	None required	None required	None required	None required
CCF-12	None required	None required	None required	None required
CCF-13	None required	None required	None required	None required
CCF-14	None required	None required	None required	None required
CCF-15	None required	None required	None required	None required

Table A-4. Master Control Table. (101 Sheets)

ID	Prev SSC	Int SSC	Prev TSR	Int TSR
CCF-16	SC Temp mon sys SS Tank level sys Sup SSC SC Tank farm elect start sys	SC Pn Tank leak detect sys SS Tank level detect sys Sup SSC SS Tank farm elect start sys	SL SBT waste temp LC/SLCO SBT waste temp on/off LCO SBT vent sys - alarm and pressure AC Trans on/off	LCO Vent stack C&I interlock sys LCO Pn tank leak detect sys
CCF-17	SS SBT struct	None required	None required	None required
CCF-18	SS SBT struct SS DST struct SS AWW tank struct	None required	None required	None required
CCF-19	SS SBT struct SS DST struct SS AWW tank struct	None required	None required	None required
CCF-20	None required	None required	AC Trans on/off (gdt)	None required
CDP-01	None required	None required	None required	None required
CDP-02	None required	None required	None required	None required
CDP-03	None required	None required	None required	None required
CDP-04	None required	None required	None required	None required
CDP-05	None required	None required	None required	None required
CDP-06	None required	None required	None required	None required
CDP-07	None required	None required	None required	None required
CDP-08	None required	None required	None required	AC Emergency prep (flow)
CDP-09	None required	None required	None required	None required
CDP-10	None required	None required	None required	None required
COB-01	None required	SC Trans eye covers SS Above grade portions of waste dr struct integrity	AC Trans on/off (spray leaks) AC Trans pump alarm lock on/off	LCO Trans eye covers AC Trans eye cover removal on/off AC Emergency prep (waste leak)

Table A-4. Master Control Table. (101 Sheets)

ID	Prev SSC	Mt SSC	Prev TSR	Mt TSR
COB-02	None required	SC Trans eye covers SS Above grade portions of waste xfr struct (integrity)	AC Trans orbits (spray leaks) AC Trans pump admin leak orbits	LCO Trans eye covers AC Trans eye cover removal orbits AC Emergency prep (waste leak)
COB-03	None required	SC Trans eye covers SS Above grade portions of waste xfr struct (integrity)	AC Trans orbits (spray leaks) AC Trans pump admin leak orbits	LCO Trans eye covers AC Trans eye cover removal orbits AC Emergency prep (waste leak)
COB-04	SC Trans leak detect sys SC Above grade portions of waste xfr struct (integrity) SB Tank level detect sys SS Salt well flow totalizers Sup SSC SC Tank farm elect dist sys	BC Trans leak detect sys SS Above grade portions of waste xfr struct (splash and splatter) SC Pn tank leak detect sys SS Tank level detect sys BS Trans eye covers SS Salt well flow totalizers Sup SSC SC Tank farm elect dist sys	LCO Trans leak detect sys AC Trans orbits (pool) AC Trans pump admin leak orbits	LCO Trans eye covers LCO Trans leak detect sys LCO Pn tank leak detect sys AC Emergency prep (waste leak) AC Trans eye cover removal orbits
COB-05a	None required	None required	None required	None required
COB-05b	None required	SC Trans eye covers	None required	LCO Trans eye covers AC Trans eye cover removal orbits
COB-05c	None required	SC Trans leak detect sys Sup SSC SC Tank farm elect dist sys	None required	LCO Trans leak detect sys AC Emergency prep (waste leak)
COB-05d	None required	None required	AC Ign orbits (refuels orbits)	None required
COB-05e	None required	None required	None required	AC Emergency prep (subsonic & verify SSC integrity)
COB-05f	SS Trans eye covers	None required	LCO Trans eye covers AC Trans eye cover removal orbits	None required
COB-06a	None required	None required	None required	None required

Table A-4. Master Control Table. (101 Sheets)

ID	Prev SSC	Mat SSC	Prev TBR	Mat TBR
COB-06b	SC Above grade portions of waste xfr structure (integrity)	SC Trans leak detect sys SS Above grade portions of waste xfr structure (uplash and splash) SS Trans eye covers Sup SSC SC Tank farm elect dist sys	None required	LOO Trans eye covers LOO Trans leak detect sys AC Emergency prep (waste leak) AC Trans sys cover removal critis
COB-07	None required	SC Trans leak detect sys Sup SSC SC Tank farm elect dist sys	AC Trans sys	LOO Trans leak detect sys
COB-08	SC Trans leak detect sys SC Above grade portions of waste xfr structure (integrity) SS Tank level detect sys SS Self wall blow hole leaks Sup SSC SC Tank farm elect dist sys	SC Trans leak detect sys SS Above grade portions of waste xfr structure (uplash and splash) SC Pn tank leak detect sys SS Tank level detect sys SS Trans eye covers SS Self wall blow hole leaks Sup SSC SC Tank farm elect dist sys	LOO Trans leak detect sys AC Trans critis (pool) AC Tanks pump alarm loop critis	LOO Trans eye covers LOO Trans leak detect sys LOO Pn tank leak detect sys AC Emergency prep (waste leak) AC Trans sys cover removal critis
CRN-01	None required	None required	AC Dome loading critis - Hatched Safe Hoisting and Rigging Manual for critical lifts	None required
CRN-01-1	None required	None required	AC Dome loading critis - Hatched Safe Hoisting and Rigging Manual for critical lifts	None required
CRN-02	None required	None required	AC Dome loading critis - Hatched Safe Hoisting and Rigging Manual for critical lifts	None required
CRN-02-1	None required	None required	AC Dome loading critis - Hatched Safe Hoisting and Rigging Manual for critical lifts	None required

Table A-4. Master Control Table. (101 Sheets)

ID	Prev SSC	Mt SSC	Prev TSR	Mt TSR
CRN-03	SS SST struct (100 series tanks only for load drop) SS DST struct SS AWH tank struct	None required	AC Dome loading cranes - Uniform and concentrated load limits	None required
CRN-03-1A	SS SST struct (100 series tanks only for load drop) SS DST struct SS AWH tank struct	None required	AC Dome loading cranes - Uniform and concentrated load limits	None required
CRN-03-1B	None required	None required	AC Dome loading cranes - Uniform and concentrated load limits	None required
CRN-04	SS SST struct (100 series tanks only for load drop) SS DST struct SS AWH tank struct	None required	AC Dome loading cranes - Limits on load height - Hanford Site Hoisting and Rigging Manual for critical lifts	None required
CRN-04-1A	None required	None required	AC Dome loading cranes - Limits on load height - Hanford Site Hoisting and Rigging Manual for critical lifts	None required
CRN-04-1B	None required	None required	AC Dome loading cranes - Limits on load height - Hanford Site Hoisting and Rigging Manual for critical lifts	None required
CRN-05	SS Physical barriers to vehicle access	None required	AC Ignition cranes (vehicle cranes)	AC Emergency prep (fire)
CRN-05-1	None required	None required	AC Ignition cranes (vehicle cranes) AC Dome loading cranes - Hanford Site Hoisting and Rigging Manual for critical lifts	AC Emergency prep (fire)
CRN-06	SS Physical barriers to vehicle access	None required	AC Ignition cranes (vehicle cranes) AC Dome loading cranes - Hanford Site Hoisting and Rigging Manual for critical lifts	AC Emergency prep (fire)

Table A-4. Master Control Table. (101 Sheets)

ID	Prim SSC	Mr SSC	Prim TGR	MM TGR
CRN-05-I	None required	None required	AC Ignition (vehicle engine) AC Dome loading crane - Hanford Site Hoisting and Rigging Manual for critical lifts	AC Emergency prep (fire)
CRN-07	SS Physical barriers to vehicle access	None required	AC Ignition (vehicle engine) AC Dome loading crane - Hanford Site Hoisting and Rigging Manual for critical lifts	AC Emergency prep (fire)
CRN-07-4	SS Physical barriers around structures that have the potential to direct liquids into people tanks	None required	AC Ignition (vehicle engine)	AC Emergency prep (fire)
CRN-08	None required	None required	AC Ignition (lightning)	AC Emergency prep (fire)
CRN-08-I	None required	None required	AC Ignition (lightning)	AC Emergency prep (fire)
CRN-09	SS SST strut (100 series tanks only for load drop) SS DST strut SS AWW tank strut	None required	AC Dome loading crane - Limits on load height - Hanford Site Hoisting and Rigging Manual for critical lifts	None required
CRN-09-I	None required	None required	AC Dome loading crane - Limits on load height - Hanford Site Hoisting and Rigging Manual for critical lifts	None required
CRN-10	SS SST strut (100 series tanks only for load drop) SS DST strut SS AWW tank strut	None required	AC Dome loading crane - Limits on load height - Hanford Site Hoisting and Rigging Manual for critical lifts	None required
CRN-10-I	None required	None required	AC Dome loading crane - Limits on load height - Hanford Site Hoisting and Rigging Manual for critical lifts	None required
CRN-11	SS SST strut (100 series tanks only for load drop) SS DST strut SS AWW tank strut	None required	AC Dome loading crane - Limits on load height - Hanford Site Hoisting and Rigging Manual for critical lifts	None required

Table A-4. Master Control Table. (101 Sheets)

ID	Prev SSC	Mid SSC	Prev TSR	Mid TSR
CRN-11-1A	None required	None required	AC: Dome loading criteria - Limits on load height - Hanford Site Hoisting and Rigging Manual for critical lifts	None required
CRN-11-1B	None required	None required	None required	None required
CRN-11-1C	None required	None required	AC: Dome loading criteria - Limits on load height - Hanford Site Hoisting and Rigging Manual for critical lifts	AC: Emergency prep (waste leak)
CRN-12	SS: SST struct (100-same tank, only for load drop) SS: DBT struct SS: AWWF tank struct	None required	AC: Dome loading criteria - Limits on load height - Hanford Site Hoisting and Rigging Manual for critical lifts	None required
CRN-12-1A	None required	None required	AC: Dome loading criteria - Limits on load height - Hanford Site Hoisting and Rigging Manual for critical lifts	None required
CRN-12-4B	None required	None required	None required	None required
CRN-12-4C	None required	None required	AC: Dome loading criteria - Limits on load height - Hanford Site Hoisting and Rigging Manual for critical lifts	AC: Emergency prep (waste leak)
CRN-13-1A	None required	None required	AC: Dome loading criteria - Limits on load height - Hanford Site Hoisting and Rigging Manual for critical lifts	AC: Emergency prep (possible vent SSC integrity)
CRN-13-1B	None required	None required	None required	None required
CRN-13-1C	None required	None required	AC: Dome loading criteria - Limits on load height - Hanford Site Hoisting and Rigging Manual for critical lifts	AC: Emergency prep (possible vent SSC integrity)

Table A-4. Master Control Table, (101 Sheets)

ID	Prev SSC	Mt SSC	Pen TSR	Mt TSR
CRN-13-a	None required	None required	AC Dome loading crnls - Limits on load height - Hanford Site Hoisting and Rigging Manual for critical lifts	None required
CRN-13-b	SC SST struct SC DST struct BC AWWF tank struct	None required	None required	AC Emergency prep (seismic & verify SSC integrity)
CRN-14	None required	None required	None required	None required
CRN-14-1	None required	None required	None required	None required
CRN-15	None required	None required	None required	None required
CRN-15-1	None required	None required	None required	None required
CRN-16	None required	None required	None required	None required
CRN-16-1	None required	None required	None required	None required
CRN-17	None required	None required	AC Dome loading crnls - Hanford Site Hoisting and Rigging Manual for critical lifts	None required
CRN-17-1	None required	None required	None required	None required
CRN-18	None required	None required	None required	None required
CRN-18-1	None required	None required	None required	None required
CRN-19	None required	None required	AC Dome loading crnls - Limits on load height - Hanford Site Hoisting and Rigging Manual for critical lifts	AC HEPA filter crnls
CRN-19-1	None required	None required	None required	None required
CRN-20	None required	None required	AC Dome loading crnls - Limits on load height - Hanford Site Hoisting and Rigging Manual for critical lifts	AC HEPA filter crnls AC Emergency prep (seismic)

Table A-4. Master Control Table. (101 Sheets)

ID	Prev SSC	MISG	Per TSR	M TSR
CRN-20-I	None required	None required	None required	None required
CRN-21	None required	None required	AC Dome loading criteria - Limits on load height - Hanford Site Hoisting and Rigging Manual for critical lifts	None required
CRN-21-IA	None required	None required	AC Dome loading criteria - Limits on load height - Hanford Site Hoisting and Rigging Manual for critical lifts	None required
CRN-21-IB	None required	None required	AC Dome loading criteria - Limits on load height - Hanford Site Hoisting and Rigging Manual for critical lifts	None required
CRN-22	None required	None required	AC Dome loading criteria - Limits on load height - Hanford Site Hoisting and Rigging Manual for critical lifts	None required
CRN-22-IA	None required	None required	AC Dome loading criteria - Limits on load height - Hanford Site Hoisting and Rigging Manual for critical lifts	None required
CRN-22-IB	None required	None required	AC Dome loading criteria - Limits on load height - Hanford Site Hoisting and Rigging Manual for critical lifts	None required
CRN-23	None required	None required	AC Dome loading criteria - Limits on load height - Hanford Site Hoisting and Rigging Manual for critical lifts	AC Emergency prep (seismic- verify SSC integrity)
CRN-23-IA	None required	None required	AC Dome loading criteria - Limits on load height - Hanford Site Hoisting and Rigging Manual for critical lifts	AC Emergency prep (seismic- verify SSC integrity)

Table A-4. Master Control Table. (161 Sheets)

ID	Prey SSC	Alt SSC	Prey TSR	Alt TSR
CRM-23-B	None required	None required	None required	None required
CRM-24	None required	None required	None required	None required
CRM-24-1	None required	None required	None required	None required
CRM-25	None required	None required	None required	None required
CRM-25-1A	None required	None required	None required	None required
CRM-25-B	None required	None required	None required	None required
CRM-26	None required	None required	None required	None required
CRM-26-1A	None required	None required	None required	None required
CRM-26-B	None required	None required	None required	None required
CRM-27	None required	None required	None required	None required
CRM-27-1A	None required	None required	None required	None required
CRM-27-B	None required	None required	None required	None required
CRM-28	None required	None required	None required	None required
CVR-01	None required	None required	None required	None required
CVR-01-1	None required	None required	None required	None required
CVR-02	None required	None required	None required	None required
CVR-02-1	None required	None required	None required	None required
CVR-03	None required	None required	None required	None required
CVR-03-1	None required	None required	None required	None required
CVR-04	None required	None required	None required	AC Emergency prep (seismic-ready SSC integrity)
CVR-04-1	None required	None required	None required	AC Emergency prep (seismic-ready SSC integrity)

Table A-4. Master Control Table. (101 Sheets)

ID	Per SSC	MR SSC	Per TSR	MR TSR
CVR-06	BS Physical barriers to vehicle access	None required	AC Ign cables (vehicle crisis)	AC Emergency prep (fire)
CVR-06-I	SS Physical barriers around structures that have the potential to direct liquids into waste tanks	None required	AC Ign cables (vehicle crisis)	AC Emergency prep (fire)
CVR-08	None required	None required	None required	None required
CVR-08-I	None required	None required	None required	None required
CVR-09	None required	None required	None required	None required
CVR-09-I	None required	None required	None required	None required
CVR-09	None required	None required	None required	None required
CVR-09-I	None required	None required	None required	None required
CVR-09	None required	None required	None required	None required
CVR-09-I	None required	None required	None required	None required
CVR-10	None required	None required	None required	None required
CVR-10-I	None required	None required	None required	None required
CVR-11	None required	None required	None required	None required
CVR-11-I	None required	None required	None required	None required
CVR-12-I	None required	None required	None required	None required
CVR-13-I	None required	None required	None required	None required
CVR-14-I	None required	None required	None required	None required
CVR-15-I	SS SST struct (100 games tanks only for load drop) SS D&T struct SS AWW tank struct	None required	AC Crane loading crabs. - Limits on load height - Handrail Side Monitoring and Rigging Manual for critical lifts	None required
DCN-01	None required	None required	None required	None required

Table A-4. Master Control Table. (101 Sheets)

ID	Prev SSC	MM SSC	Prev TSR	MM TSR
DCN-01-4	None required	None required	None required	None required
DCN-02	None required	None required	None required	None required
DCN-02-1A	None required	None required	None required	None required
DCN-02-1B	None required	None required	None required	None required
DCN-03	None required	None required	None required	None required
DCN-03-4	None required	None required	None required	None required
DCN-04	None required	None required	None required	None required
DCN-04-1	None required	None required	None required	None required
DCN-05	None required	None required	None required	None required
DCN-05-1	None required	None required	None required	None required
DCN-06	None required	None required	None required	None required
DCN-06-1	None required	None required	None required	None required
DCN-07	None required	None required	None required	None required
DCN-07-1	None required	None required	None required	None required
EE-01	None required	None required	None required	AC: Emergency Prep (fire)
EE-02	None required	None required	None required	AC: Emergency prep (fire)
EE-03	None required	None required	None required	None required
EE-04-a	SS: Physical barriers to vehicle access	None required	AC: Ign enable (vehicle enable)	AC: Emergency prep (fire)
EE-04-b	SS: Physical barriers to vehicle access	None required	AC: Ign enable (vehicle enable)	AC: Emergency prep (fire)
EE-05-a	SS: Physical barriers to vehicle access	None required	AC: Ign enable (vehicle enable)	AC: Emergency prep (fire)

Table A-4. Master Control Table. (101 Sheets)

ID	Prev SSC	Mt SSC	Prev TSR	Mt TSR
EE-05-b	SS Physical barriers to vehicle access	None required	AC Ignition (vehicle controls)	AC Emergency prep (fire)
EE-06	None required	None required	None required	AC Emergency Prep (fire)
EE-07	None required	None required	None required	None required
EE-08	None required	None required	None required	None required
EE-09	SS Service water flow totalizers Sup SSC SC Tank farm elect dist sys	None required	AC Tank service water intrusion mon program	None required
EE-10	SS Service water flow totalizers Sup SSC SC Tank farm elect dist sys	SS Service water flow totalizers Sup SSC SC Tank farm elect dist sys	None required	None required
EE-11	SS Service water flow totalizers	SS Service water flow totalizers	AC Tank service water intrusion mon program	AC Tank service water intrusion mon program AC Emergency prep (vehicle leak)
EE-12	None required	None required	None required	None required
EE-13	None required	None required	None required	None required
EE-14	None required	None required	AC Excavation controls	None required
EE-15	None required	None required	AC Excavation controls	None required
EE-16	None required	None required	AC Excavation controls	AC Excavation controls
EE-17	None required	None required	AC Excavation controls	AC Excavation controls
GRN-01	None required	None required	None required	None required
GRN-01-1	None required	None required	None required	None required
GRN-02	None required	None required	None required	None required
GRN-024	None required	None required	None required	None required

Table A-4. Master Control Table. (101 Sheets)

ID	Prev SSC	Alt SSC	Prev TSS	Alt TSS
GRN-03-I	None required	None required	None required	None required
I-2225-1-CMP-A	None required	None required	AC Trans entry (pH)	None required
I-2225-1-CMP-B	None required	None required	None required	None required
I-2225-1-CMP-C	None required	SC Trans eye covers SS Above grade portions of waste M structures (integrity)	AC Trans entry (spray leaks) AC Trans entry (pH) AC Trans pump admin lock entry	LCO Trans eye covers AC Trans eye cover removal entry AC Emergency prep (waste leak)
I-2225-1-CMP-D	None required	None required	None required	None required
I-2225-1-CMP-E	SS Physical barriers to vehicle access SC SST struct SC DST struct SC AWWF tank struct	None required	AC Ign entry (eng solvent) AC Trans entry (eng solvent) ACs Inc flam gas prev entry	AC Emergency prep (flam) AC HEPA filter entry
I-2225-1-LVL-A	None required	None required	None required	AC HEPA filter entry
I-2225-1-RXN-A	None required	SS HEPA filter (minimum one stage required on 244-B, 244-TX, and 244-A)	AC Trans entry (pH)	AC HEPA filter entry (244-B, 244- TX, and 244-A)
I-2225-2-FLW-A	None required	None required	AC Trans entry (pH)	None required
I-2225-2-FLW-B	None required	None required	None required	None required
I-2225-2-FLW-C	None required	None required	AC Trans entry (pH)	None required
I-2225-2-FLW-D	None required	None required	None required	None required
I-2225-2-LEK-A	None required	None required	None required	None required
I-2225-2-LEK-B	None required	SC Trans eye covers SS Above grade portions of waste M structures (integrity)	AC Trans entry (spray leaks) AC Trans pump admin lock entry	LCO Trans eye covers AC Trans eye cover removal entry AC Emergency prep (waste leak)
I-2225-2-LEK-C	None required	None required	AC Evaporation entry	AC Evaporation entry
I-2225-2-LEK-D	None required	None required	None required	None required

Table A-4. Master Control Table. (101 Sheets)

ID	Prev SSC	Mit SSC	Prev TSR	Mit TSR
I-222S-2-UEX-E	None required	SC Trans sys covers	AC Trans ontris (spray leaks) AC Trans pump admit lock ontris	LOO Trans sys covers AC Trans sys cover removal ontris AC Emergency prep (waste leak) AC Emergency prep (seismic)
I-222S-2-PRS-A	None required	None required	None required	AC HEPA filter ontris
I-242A-1-FLW-A	SC DSTAWVF Pn tank vent sys SC Pn tank leak detect sys SC DST strut Sup SSC SC Tank farm elect dist sys	None required	LOO DST and AWW tank vent sys LOO Pn tank leak detect sys AC Flammability ontris AC Ign ontris (flam gas) AC Flam gas mon ontris AC Trans ontris AC Process inst and meas and test equip	AC HEPA filter ontris AC Emergency prep (fire and waste leak)
I-242A-1-FLW-B	SC DSTAWVF Pn tank vent sys SC Pn tank leak detect sys SC DST strut Sup SSC SC Tank farm elect dist sys	None required	LOO DST and AWW tank vent sys LOO Pn tank leak detect sys AC Flammability ontris AC Ign ontris (flam gas) AC Flam gas mon ontris AC Trans ontris AC Process inst and meas and test equip	AC HEPA filter ontris AC Emergency prep (fire and waste leak)
I-242A-1-FLW-C	SC DSTAWVF Pn tank vent sys SC Pn tank leak detect sys SC DST strut Sup SSC SC Tank farm elect dist sys	None required	LOO DST and AWW tank vent sys LOO Pn tank leak detect sys AC Flammability ontris AC Ign ontris (flam gas) AC Flam gas mon ontris AC Trans ontris AC Process inst and meas and test equip	AC HEPA filter ontris AC Emergency prep (fire and waste leak)
I-242A-1-FLW-D	SC DSTAWVF Pn tank vent sys SC Pn tank leak detect sys SC DST strut Sup SSC SC Tank farm elect dist sys	None required	LOO DST and AWW tank vent sys LOO Pn tank leak detect sys AC Flammability ontris AC Ign ontris (flam gas) AC Flam gas mon ontris AC Trans ontris AC Process inst and meas and test equip	AC HEPA filter ontris AC Emergency prep (fire and waste leak)

Table A-4. Master Control Table. (101 Sheets)

ID	Prer SSC	Mr SSC	Prer TSR	Mr TSR
I-242A-1-FLW-E	SC DST/ANF Pn tank vent sys BC Pn tank leak detect sys SC DST struct Sup SSC SC Tank farm select dist sys	None required	LCO DST and ANF tank vent sys LCO Pn tank leak detect sys AC Flammable/Toxic ontris AC Ign ontris (flam gas) AC Flare gas mon ontris AC Trans ontris AC Process ing and mps and test equip	AC HEPA filter ontris AC Emergency prep (fire and waste leak)
I-242A-1-FLW-F	None required	None required	None required	None required
I-242A-1-LEK-A	None required	None required	None required	None required
I-242A-1-LEK-B	None required	SC Trans sys covers SS Above grade portions of waste str structure (integrity)	AC Trans ontris (spray leaks) AC Trans pump admit lock ontris	LCO Trans sys covers AC Trans sys cover removal ontris AC Emergency prep (waste leak)
I-242A-1-LEK-C	None required	None required	AC Excavation ontris	AC Excavation ontris
I-242A-1-LEK-D	None required	None required	None required	None required
I-242A-1-LEK-E	None required	SC Trans sys covers SS Above grade portions of waste str structure (integrity)	AC Trans ontris (spray leaks) AC Trans pump admit lock ontris	LCO Trans sys covers AC Trans sys cover removal ontris AC Emergency prep (waste leak) AC Emergency prep (seismic)
I-242A-2-CMP-A	None required	None required	None required	None required
I-242A-2-CMP-B	None required	None required	None required	AC HEPA filter ontris
I-242A-2-FLW-A	None required	None required	None required	None required
I-242A-2-FLW-B	None required	None required	None required	None required
I-242A-2-LEK-A	None required	None required	None required	None required
I-242A-2-LEK-B	None required	SC Trans sys covers SS Above grade portions of waste str structure (integrity)	AC Trans ontris (spray leaks) AC Trans pump admit lock ontris	LCO Trans sys covers AC Trans sys cover removal ontris AC Emergency prep (waste leak)
I-242A-2-LEK-C	None required	None required	AC Excavation ontris	AC Excavation ontris

Table A-4. Master Control Table. (161 Sheets)

ID	Prev SSC	MR SSC	Prev TSR	MR TSR
I-242A-2-LEK-D	None required	None required	None required	None required
I-242A-2-LEK-E	None required	SC Trans eye covers	AC Trans onerts (spray tests) AC Trans pump admin lock onerts	LCO Trans eye covers AC Trans eye cover removal onerts AC Emergency prep (waste leak) AC Emergency prep (sewerage)
I-242A-2-TMP-A	None required	None required	None required	None required
I-242A-2-VSC-A	None required	None required	None required	None required
I-242A-2-VSC-B	None required	None required	None required	None required
I-242A-3-FLW-A	None required	None required	None required	None required
I-242A-3-FLW-B	None required	None required	None required	None required
I-242A-4-FLW-A	SC Trans leak detect eyes SS Tank level detect eyes Sup SSC SC Tank farm elect dist eyes	SC Trans leak detect eyes SC Pn tank leak detect eyes SS Trans eye covers Sup SSC SC Tank farm elect dist eyes	LCO Trans leak detect eyes AC Trans onerts (pool) AC Trans pump admin lock onerts	LCO Trans eye covers LCO Trans leak detect eyes LCO Pn tank leak detect eyes AC Trans onerts (pool) AC Emergency prep (waste leak) AC Trans eye cover removal onerts
I-242A-4-TMP-A	SC SST shut SC DST shut SD AWW tank shut	None required	None required	AC Emergency prep (fire) AC NEPA after onerts
I-242A-5-FLW-A	None required	None required	None required	None required
I-242A-6-CMP-A	None required	None required	None required	AC NEPA after onerts
I-242A-6-FLW-A	SC Trans leak detect eyes SS Service water flow trip/stop Sup SSC SC Tank farm elect dist eyes	SC Trans leak detect eyes SC Pn tank leak detect eyes SS Tank level detect eyes SS Trans eye covers SS Service water flow trip/stop Sup SSC SC Tank farm elect dist eyes	LCO Trans leak detect eyes AC Trans pump admin lock onerts	LCO Trans eye covers LCO Trans leak detect eyes LCO Pn tank leak detect eyes AC Emergency prep (waste leak) AC Trans eye cover removal onerts
I-242A-8-FLW-B	None required	None required	None required	None required

Table A-4. Master Control Table. (10 Sheets)

ID	Prev SSC	MM SSC	Prev TSR	MT TSR
I-242A-6-FLW-C	None required	None required	None required	None required
I-242A-7-CMP-A	None required	None required	None required	None required
I-242A-7-FLW-A	None required	None required	None required	None required
I-242A-7-FLW-B	None required	None required	None required	None required
I-242A-7-FLW-C	None required	None required	None required	None required
I-242A-7-PRS-A	None required	None required	None required	None required
I-242S-1-PRS-A	None required	None required	None required	None required
I-242S-1-TMP-A	None required	None required	None required	None required
I-242S-2-FLW-A	BC Trans leak detect sys BC Above grade portions of waste off structure (integrity) SB Tank level detect sys SS Salt wall flow indicators Sup SSC SC Tank farm elect det sys	SC Trans leak detect sys SB Above grade portions of waste off structure (splash and spillage) SC Pn tank leak detect sys SB Tank level detect sys SS Trans eye covers SS Salt wall flow indicators Sup SSC SC Tank farm elect det sys	LCO Trans leak detect sys AC Trans entris (pool) AC Trans pump down leak ords	LCO Trans eye covers LCO Trans leak detect sys LCO Pn tank leak detect sys AC Emergency prep (waste leak) AC Tanks eye cover (serious) entris
I-242S-2-FLW-B	None required	None required	None required	None required
I-242S-2-FLW-C	None required	None required	None required	None required
I-242S-2-FLW-D	None required	None required	None required	None required
I-242S-2-FLW-E	SS Tank level detect sys Sup SSC SC Tank farm elect det sys	SS Tank level detect sys Sup SSC SC Tank farm elect det sys	AC Trans entris (pool)	AC Trans entris (pool) AC Emergency prep (waste leak)
I-242S-2-UEK-A	None required	None required	None required	None required

Table A-4. Master Control Table. (101 Sheets)

ID	Prev SSC	Me SSC	Prev TSR	Me TSR
1-242S-2-LEK-B	None required	SC Trans eye covers SS Above grade portions of waste structure (integrity)	AC Trans on/off (spray tests) AC Trans pump down lock on/off	LCO Trans eye covers AC Trans eye cover removal on/off AC Emergency prep (vacu leak)
1-242S-2-LEK-C	None required	None required	AC Expansion on/off	AC Expansion on/off
1-242S-2-LEK-D	None required	None required	None required	None required
1-242S-2-LEK-E	None required	SC Trans eye covers	AC Trans on/off (spray tests) AC Trans pump down lock on/off	LCO Trans eye covers AC Trans eye cover removal on/off AC Emergency prep (vacu leak) AC Emergency prep (seismic)
1-242S-4-FLW-A	None required	None required	None required	None required
1-242S-4-FLW-B	None required	None required	None required	None required
1-242S-4-FLW-C	SS Tank level detect eyes Sup SSC SC Tank farm elect shut eye	SS Tank level detect eyes Sup SSC SC Tank farm elect shut eye	AC Trans on/off (good)	AC Trans on/off (good) AC Emergency prep (vacu leak)
1-242S-4-FLW-D	SC Trans leak detect eyes SC Above grade portions of waste structure (integrity) SS Tank level detect eyes SS Sulf well flow totalizers Sup SSC SC Tank farm elect shut eye	SC Trans leak detect eyes SS Above grade portions of waste structure (uplash and splash) SC Pre tank leak detect eyes SS Tank level detect eyes SS Trans eye covers SS Sulf well flow totalizers Sup SSC SC Tank farm elect shut eye	LCO Trans leak detect eyes AC Trans on/off (good) AC Trans pump down lock on/off	LCO Trans eye covers LCO Trans leak detect eyes LCO Pre tank leak detect eyes AC Emergency prep (vacu leak) AC Trans eye cover removal on/off
1-242S-4-LEK-A	None required	None required	None required	None required
1-242S-4-LEK-B	None required	None required	None required	None required
1-242S-4-LEK-C	None required	None required	None required	AC Expansion on/off
1-242S-4-LEK-D	None required	None required	None required	None required

Table A-4. Master Control Table. (101 Sheets)

ID	Prev SSC	Alt SSC	Prev TSR	Alt TSR
1-242S-4-LDCE	None required	SC: Train eye covers	AC: Train orbits (spray leaks) AC: Train pump down look orbits	LCO: Train eye covers AC: Train eye cover removal orbits AC: Emergency prep (waste leak) AG: Emergency prep (seismic)
1-242S-5-CMP-A	None required	None required	None required	None required
1-242S-5-CMP-B	None required	None required	None required	None required
1-242S-5-CMP-C	None required	None required	None required	None required
1-242S-5-CMP-D	None required	None required	None required	None required
1-242S-5-FLW-A	None required	None required	None required	None required
1-242S-5-FLW-B	None required	None required	None required	None required
1-242S-5-FLW-C	None required	None required	None required	None required
1-242S-5-PRS-A	None required	None required	None required	None required
1-242T-2-FLW-A	None required	None required	None required	None required
1-242T-3-FLW-A	SC: Above grade portions of waste w/ structure (integrity)	SS: Above grade portions of waste w/ structure (splash and spatter)	None required	AC: Emergency prep (waste leak)
1-242T-4-FLW-A	SC: Above grade portions of waste w/ structure (integrity)	SS: Above grade portions of waste w/ structure (splash and spatter)	None required	AC: Emergency prep (waste leak)
1-SPPLANT-1-CMP-A	None required	None required	None required	None required
1-SPPLANT-1-CMP-B	None required	SC: Train eye covers SS: Above grade portions of waste w/ structure (integrity)	AC: Train orbits (spray leaks) AC: Train pump down look orbits	LCO: Train eye covers AC: Train eye cover removal orbits AC: Emergency prep (waste leak)
1-SPPLANT-1-CMP-C	None required	None required	None required	None required
1-SPPLANT-1-CMP-D	None required	None required	None required	None required

Table A-4. Master Control Table. (101 Sheets)

ID	Prev SSC	Alt SSC	Prev TSB	Alt TSB
I-BPLANT-1-CMP-E	SS Physical barriers to vehicle access SC SST struct SC DST struct SC AMV tank struct	None required	AC Ign orifice (org solvent) AC Trans orifice (org solvent) ACs etc from gas prev orifice	AC Emergency prep (flm) AC HEPA filter cases
I-BPLANT-1-TMP-A	None required	None required	None required	None required
I-BPLANT-2-FLW-A	None required	None required	None required	None required
I-BPLANT-2-FLW-B	None required	None required	None required	None required
I-BPLANT-2-FLW-C	None required	None required	AC Transfer orifice (pool) Operating requirements	None required
I-BPLANT-2-FLW-D	None required	None required	AC Trans orifice (pH)	None required
I-BPLANT-2-LEK-A	None required	None required	None required	None required
I-BPLANT-2-LEK-B	None required	SC Trans eye covers ES Above grade portions of waste str. struct integrity	AC Trans orifice (spray leaks) AC Trans pump admission lock orifice	LOO Trans eye covers AC Trans eye cover removal orifice AC Emergency prep (waste leak)
I-BPLANT-2-LEK-C	None required	None required	AC Evacuation orifice	AC Evacuation orifice
I-BPLANT-2-LEK-D	None required	None required	None required	None required
I-BPLANT-2-LEK-E	None required	SC Trans eye covers	AC Trans orifice (spray leaks) AC Trans pump admission lock orifice	LOO Trans eye covers AC Trans eye cover removal orifice AC Emergency prep (waste leak) AC Emergency prep (seismic)
I-PFA-1-AGT-A	None required	None required	AC Nuclear criticality safety	None required
I-PFA-1-CMP-A	None required	None required	None required	None required
I-PFA-1-CMP-B	None required	None required	AC Nuclear criticality safety	None required

Table A-4. Master Control Table. (101 Sheets)

ID	Prev SSC	Mt SSC	Prev TSR	Mt TSR
I-PFP-1-CMP-C	None required	None required	None required	None required
I-PFP-1-CMP-D	None required	None required	AC Nuclear criticality safety	None required
I-PFP-1-CMP-E	SS Physical barriers to vehicle access SC SST strut SC DST strut SC JMW back strut	None required	AC Ign orifices (org solvent) AC Trans orifices (org solvent) ACs rec atm gas pres orifices	AC Emergency prep (line) AC HEPA filter orifices
I-PFP-1-LVL-A	SS Pipe encasements	SS Pipe encasements SC Front leak detect eyes SS Trans sys covers Sup SSC SS Tank farm effect drill eye	AC Encas seal loop orifices AC Trans orifices (subsurface plume) AC Trans pump admit lock orifices	LCO Trans leak detect eyes LCO Trans eye covers AC Trans eye cover removal orifices
I-PFP-1-MIX-A	None required	None required	None required	None required
I-PFP-2-FLW-A	None required	None required	None required	None required
I-PFP-2-LEK-A	None required	None required	None required	None required
I-PFP-2-LEK-B	None required	SC Trans eye covers SS Above grade portions of waste discharge (integrity)	AC Trans orifices (spray leaks) AC Trans pump admit lock orifices	LCO Trans eye covers AC Trans eye cover removal orifices AC Emergency prep (waste leak)
I-PFP-2-LEK-C	None required	None required	AC Excavation orifices	AC Excavation orifices
I-PFP-2-LEK-D	None required	None required	None required	None required
I-PFP-2-LEK-E	None required	SC Trans sys covers	AC Trans orifices (spray leaks) AC Trans pump admit lock orifices	LCO Trans eye covers AC Trans eye cover removal orifices AC Emergency prep (waste leak) AC Emergency prep (subrec)
I-PFP-2-TMP-A	None required	None required	None required	None required
I-PFP-2-TMP-B	None required	None required	None required	AC HEPA filter orifices
I-PFP-3-CMP-A	None required	None required	None required	None required

Table A-4. Master Control Table. (101 Sheets)

ID	Prev SSC	Mt SSC	Prev TSR	Mt TSR
LPFP-3-FLW-B	None required	None required	None required	None required
LPFP-3-FLW-C	BC Trans leak detect sys SC Above grade portions of waste xdr structure (integrity) SS Tank level detect sys Sup SSC SC Tank farm elect shut sys	BC Trans leak detect sys SS Above grade portions of waste xdr structure (splash and spiller) SS Tank level detect sys SS Trans sys covers Sup SSC SC Tank farm elect shut sys	LCO Trans leak detect sys AC Trans critris (pool) AC Trans pump admin lock critris	LCO Trans sys covers LCO Trans leak detect sys AC Trans critris (pool) AC Emergency prep (waste leak) AC Trans sys cover removal critris
LPFP-3-LEK-A	None required	None required	None required	None required
LPFP-3-LEK-B	None required	SC Trans sys covers SS Above grade portions of waste xdr structure (integrity)	AC Trans critris (spray leaks) AC Trans pump admin lock critris	LCO Trans sys covers AC Trans sys cover removal critris AC Emergency prep (waste leak)
LPFP-3-LEK-C	None required	None required	AC Excavation critris	AC Excavation critris
LPFP-3-LEK-D	None required	None required	None required	None required
LPFP-3-LEK-E	None required	SC Trans sys covers	AC Trans critris (spray leaks) AC Trans pump admin lock critris	LCO Trans sys covers AC Trans sys cover removal critris AC Emergency prep (waste leak) AC Emergency prep (pressure)
LPUREX-1-AGT-A	None required	None required	None required	None required
LPUREX-1-AGT-B	None required	None required	None required	None required
LPUREX-1-AGT-C	None required	None required	None required	None required
LPUREX-1-CMP-A	None required	None required	None required	None required
LPUREX-1-CMP-B	None required	None required	None required	None required
LPUREX-1-CMP-C	None required	None required	None required	None required
LPUREX-1-CMP-D	None required	None required	None required	None required
LPUREX-1-LVL-A	None required	None required	None required	None required

Table A-4. Master Control Table. (101 Sheets)

ID	Prev SSC	MM SSC	Prev TSR	MM TSR
LPUREX-1-TMP-A	None required	None required	None required	None required
LPUREX-2-FLW-A	None required	None required	None required	None required
LPUREX-2-LEX-A	None required	None required	None required	None required
LPUREX-2-LEX-B	None required	None required	None required	None required
LPUREX-2-LEX-C	None required	None required	None required	None required
LPUREX-2-LEX-D	None required	None required	None required	None required
LPUREX-2-LEX-E	None required	None required	None required	None required
LPUREX-2-PRS-A	None required	None required	None required	None required
LPUREX-2-PRS-B	None required	None required	None required	None required
LPUREX-2-PRS-C	None required	None required	None required	None required
LPUREX-3-AGT-A	None required	None required	None required	None required
LPUREX-3-AGT-B	None required	None required	None required	None required
LPUREX-3-AGT-C	None required	None required	None required	None required
LPUREX-3-CMP-A	None required	None required	None required	None required
LPUREX-3-CMP-B	None required	None required	None required	None required
LPUREX-3-CMP-C	None required	None required	None required	None required
LPUREX-3-CMP-D	None required	None required	None required	None required
LPUREX-3-CMP-E	None required	None required	None required	None required
LPUREX-3-LVL-A	None required	None required	None required	None required
LPUREX-3-TMP-A	None required	None required	None required	None required
LPUREX-4-FLW-B	None required	None required	None required	None required
LPUREX-4-LEX-A	None required	None required	None required	None required

Table A-4. Master Control Table, (181 Sheets)

ID	Prey SSC	Mt SSC	Prey TSR	Mt TSR
I-PUREX-4-LEX-B	None required	None required	None required	None required
I-PUREX-4-LEX-C	None required	None required	None required	None required
I-PUREX-4-LEX-D	None required	None required	None required	None required
I-PUREX-4-LEX-E	None required	None required	None required	None required
I-PUREX-4-PRS-A	None required	None required	None required	None required
I-PUREX-4-PRS-B	None required	None required	None required	None required
I-PUREX-4-PRS-C	None required	None required	None required	None required
I-PUREX-6-FLW-A	None required	None required	None required	None required
I-PUREX-6-FLW-B	None required	None required	None required	None required
I-PUREX-6-FLW-C	None required	None required	None required	None required
I-PUREX-6-FLW-D	None required	None required	None required	None required
I-TPANT-1-CMP-A	None required	None required	None required	None required
I-TPANT-1-CMP-B	None required	SC: Trans eye covers SB: Above grade portions of waste struts (integrity)	AC: Trans cribs (spray leaks) AC: Trans cribs (pH) AC: Trans pump admin lock cribs	LCO: Trans eye covers AC: Trans eye cover removal cribs AC: Emergency prep (waste leak)
I-TPANT-1-CMP-C	None required	None required	None required	None required
I-TPANT-1-CMP-D	None required	None required	None required	None required
I-TPANT-1-TMP-A	None required	None required	None required	None required

Table A-4, Master Control Table, (101 Sheets)

ID	Prev SSC	Int SSC	Prev TSR	Int TSR
I-PLANT-2-CMP-A	None required	None required	None required	AC MEPA filter units
I-PLANT-2-FW-A	None required	None required	None required	None required
I-PLANT-2-FW-B	None required	None required	AC Transfer crabs (pool opening requirements)	None required
I-PLANT-2-LEK-A	None required	None required	None required	None required
I-PLANT-2-LEK-B	None required	SC Trans sys covers SS Above grade portions of waste xrf structure (integrity)	AC Trans crabs (spray leaks) AC Trans pump alarm lock crabs	LCO Trans sys covers AC Trans sys cover removal crabs AC Emergency prep (waste leak)
I-PLANT-2-LEK-C	None required	None required	AC Excavation crabs	AC Excavation crabs
I-PLANT-2-LEK-D	None required	None required	None required	None required
I-PLANT-2-LEK-E	None required	SC Trans sys covers	AC Trans crabs (spray leaks) AC Trans pump alarm lock crabs	LCO Trans sys covers AC Trans sys cover removal crabs AC Emergency prep (waste leak) AC Emergency prep (alarm)
I-PLANT-1-FW-A	None required	None required	None required	None required
I-PLANT-1-LEK-A	None required	None required	None required	None required
I-PLANT-1-LEK-B	None required	None required	AC Excavation crabs	AC Excavation crabs
I-PLANT-1-LEK-C	None required	None required	None required	None required
I-PLANT-1-RAN-A	None required	None required	None required	None required
ITK-01	None required	None required	None required	None required
ITK-01-H	None required	None required	None required	None required

Table A-4. Master Control Table. (101 Sheets)

ID	Prev SSC	Alt SSC	Prev T&R	Alt T&R
ITK-02	None required	None required	None required	None required
ITK-02-I	None required	None required	None required	None required
ITK-03	None required	None required	None required	None required
ITK-03-I	None required	None required	None required	None required
ITK-04	None required	None required	None required	AC Emergency prep (seismic & verify SSC integrity)
ITK-04-I	None required	None required	None required	None required
ITK-05	None required	None required	None required	None required
ITK-05-I	None required	None required	None required	None required
ITK-06	None required	None required	AC Nuclear criticality safety	None required
ITK-06-I	None required	None required	AC Nuclear criticality safety	None required
ITK-07	None required	None required	AC Dome loading entries - Limits on load height - Hanford Site Hoisting and Rigging Manual for critical lifts	None required
ITK-07-IA	None required	None required	None required	None required
ITK-07-IB	None required	None required	AC Dome loading entries - Limits on load height - Hanford Site Hoisting and Rigging Manual for critical lifts	None required

Table A-4. Master Control Table. (101 Sheets)

ID	Prev SSC	MF SSC	Prev TSR	MF TSR
ITK-08	SC SST vent eyes SC DCRT vent eyes SC 244-AR TK-002 vent eye SC 244-CR TK-003 vent eye SC SST skirt Sup SSC SC Comp air eye SC Tank farm elect dist eye	None required	LCO SST vent eyes - active and passive LCO DCRT vent eyes LCO 244-AR TK-002 vent eye AC Flammable gas orifice AC Ign orifice (flam gas) AC Flam gas mon orifice AC Trans orifice AC Process inlet and mass and test equip	AC HEPA filter orifice AC Emergency prep (fire and waste leak)
ITK-08-I	None required	None required	AC Ign orifice (flam gas) AC Flam gas mon orifice AC Process inlet and mass and test equip	AC HEPA filter orifice AC Emergency prep (fire and waste leak)
ITK-09	SC SST vent eyes SC DCRT vent eyes SC 244-AR TK-002 vent eye SC 244-CR TK-003 vent eye SC SST skirt Sup SSC SC Comp air eye SC Tank farm elect dist eye	None required	LCO SST vent eyes - active and passive LCO DCRT vent eyes LCO 244-AR TK-002 vent eye AC Ign orifice (flam gas) AC Flam gas mon orifice AC Process inlet and mass and test equip	AC HEPA filter orifice AC Emergency prep (fire and waste leak)
ITK-09-I	None required	None required	AC Ign orifice (flam gas) AC Flam gas mon orifice AC Process inlet and mass and test equip	AC HEPA filter orifice AC Emergency prep (fire and waste leak)
ITK-10-I	None required	None required	AC Ign orifice (flam gas) AC Flam gas mon orifice AC Process inlet and mass and test equip	AC HEPA filter orifice AC Emergency prep (fire and waste leak)

Table A-4. Master Control Table. (101 Sheets)

UD	Prev SSC	NA SSC	Prev TBR	NA TBR
ITK-10-a	SC SST vent eyes SC DCRT vent eyes SC 244-AR TK-002 vent eye SC 244-GR TK-003 vent eye SC SST struct Sup SSC SC Comp air eye SC Tank farm elect dist eye	None required	LCO SST vent eyes - active and passive LCO DCRT vent eyes LCO 244-AR TK-002 vent eye AC Ign orifice (flam gas) AC Flam gas mon orifice AC Process inlet and outlet and heat equip	AC HEPA filter orifice AC Emergency prep (fire and waste leak)
ITK-10-b	SC DST/AWFF Pn tank vent eyes SC Pn tank leak detect eyes SC SY-101 heater pump SC SY-101 monitoring SC DST struct SC AWFF tank struct Sup SSC SC Comp air eye SC Tank farm elect dist eye	None required	LCO DST and AWFF tank vent eyes LCO Pn tank leak detect eyes AC Flammability orifice AC Ign orifice (flam gas) AC Flam gas mon orifice AC Trans orifice AC Process inlet and outlet and heat equip	AC HEPA filter orifice AC Emergency prep (fire and waste leak)
ITK-11	SC DST/AWFF Pn tank vent eyes SC Pn tank leak detect eyes SC SY-101 heater pump SC SY-101 monitoring SC DST struct Sup SSC SC Comp air eye SC Tank farm elect dist eye	None required	LCO DST and AWFF tank vent eyes LCO Pn tank leak detect eyes AC Flammability orifice AC Ign orifice (flam gas) AC Ign orifice (lightning) AC Flam gas mon orifice AC Process inlet and outlet and heat equip	AC HEPA filter orifice AC Emergency prep (fire and waste leak)
ITK-11-1	None required	None required	AC Ign orifice (lightning)	AC Emergency prep (fire and waste leak)
ITK-FR-01	None required	None required	None required	None required
ITK-FR-02	None required	None required	None required	None required
ITK-FR-03	None required	None required	None required	None required

Table A-4. Master Control Table. (101 Sheets)

ID	Prev SSC	Mt SSC	Prev T&E	Mt T&E
ITK-FR-04	SS SST struct (100 gaseous tanks only for load drop)	None required	AC Dome loading cable AC Mainframe Hoisting and Rigging Manual for critical lifts	None required
ITK-FR-05	None required	None required	None required	None required
ITK-FR-06	None required	None required	None required	None required
ITK-FR-07	None required	None required	None required	None required
ITK-FR-08	None required	None required	None required	None required
ITK-FR-09	None required	None required	None required	None required
ITK-FR-10	None required	None required	None required	None required
ITK-FR-11	None required	None required	None required	None required
ITK-FR-12	None required	None required	None required	None required
ITK-FR-13	None required	None required	AC Ignition cable (flam gas) AC Flare gas main cable AC Process unit and media shell test equip	AC HEPA filter cable AC Emergency prep (fire and waste leak)
ITK-FR-14	None required	None required	None required	None required
ITK-FR-15	None required	None required	None required	None required
ITK-FR-16	None required	None required	None required	None required
ITK-FR-17	None required	None required	None required	None required
ITK-FR-18	None required	None required	None required	None required
ITK-FR-19	SS SST struct (100 gaseous tanks only for load drop) SS DST struct SS AWW tank struct	None required	None required	None required
ITK-FR-20	None required	None required	None required	None required
ITK-FR-21	None required	None required	None required	None required

Table A-4. Master Control Table. (101 Sheets)

ID	Prev SSC	MM SSC	Prev TSR	Me TSR
ITK-FR-22	None required	None required	None required	None required
ITK-FR-23	None required	None required	None required	None required
ITK-FR-24	None required	None required	None required	None required
ITK-FR-25	None required	None required	None required	None required
ITK-FR-26	None required	None required	None required	None required
ITK-FR-27	None required	None required	None required	None required
ITK-FR-28	None required	None required	None required	None required
MP-01	None required	None required	AC Ign on/offs (lighting)	None required
MP-02	None required	SS Vent stack CAM Interlock eyes Sup SSC SS Tank farm select deal eye	None required	LCO Vent stack CAM interlock eyes AC HEPA filter on/offs
NP-03	None required	None required	AC Ign on/offs (lighting)	AC Emergency prep (fire and waste tank)
NP-05	None required	None required	None required	None required
NP-06	None required	None required	None required	None required
NP-07	SC SBT select SC DBT select SC AWP tank select	None required	None required	AC Emergency prep (seismic & verify SSC integrity)
NP-08	None required	None required	None required	AC Emergency prep (seismic & verify SSC integrity)
NP-09	None required	None required	None required	AC Emergency prep (seismic & verify SSC integrity)
NP-10	None required	None required	None required	None required
NP-11	None required	None required	None required	None required
NP-12	None required	None required	None required	None required

Table A-4. Master Control Table. (161 Sheets)

ID	Prev SSC	Mt SSC	Prev TBR	Mt TBR
NP-13	SC SST shut SC DST shut SC AWT tank shut	None required	None required	None required
NP-14	None required	None required	None required	None required
NP-15	None required	None required	AC Ign on/off (flam gas) AC Flare gas mon on/off AC Process in/out and press and test equip	AC HEPA filter on/off AC Emergency prep (fire and waste leak)
OGT-EXT3-01A	SC OGT concrete shielding sys	None required	AC Trans on/off (papy leaks) AC Trans pump alarm lock on/off AC Ign on/off (vehicle on/off)	AC Emergency prep (waste leak)
OGT-EXT3-01B	SC OGT concrete shielding sys	None required	AC Trans on/off (good) AC Ign on/off (vehicle on/off)	LCO Trans leak detect sys AC Excess seal loop on/off AC Emergency prep (waste leak)
OGT-FLOW1-01	None required	None required	None required	None required
OGT-FLOW1-02	BC Trans leak detect sys SC OGT valves and connect SS Tank level detect sys SS Spill wet flow totalizers Step SSC SC Tank farm select dist sys	BC Trans leak detect sys SS Tank level detect sys SS Trans sys covers SS Spill wet flow totalizers Step SSC SC Tank farm select dist sys	LCO Trans leak detect sys AC Trans on/off (good) AC Trans pump alarm lock on/off	LCO Trans sys covers LCO Trans leak detect sys AC Excess seal loop on/off AC Emergency prep (waste leak) AC Trans sys cover removal on/off
OGT-FLOW1-03A	SC Press switch interlock or alarm sys (sewage water line) Step SSC SC Tank farm select dist sys	None required	LCO Service water press detect sys AC Trans on/off (papy leaks) AC Trans pump alarm lock on/off	AC Emergency prep (waste leak)
OGT-FLOW1-03B	SC Press switch interlock or alarm sys (sewage water) SS Blower press stoppers Step SSC SC Tank farm select dist sys	None required	LCO Service water press detect sys AC Trans on/off (good) AC Trans pump alarm lock on/off	None required

Table A-4. Master Control Table. (101 Sheets)

ID	Per SSC	Me SSC	Per TGR	Me TGR
OGT-FLOW1-04	SC Press switch interlock alarm eyes (service water) BB Blower press devices Sup SSC SC Tank farm elect dist eye	None required	LCO Service water press detect eyes AC Trans onrte (good) AC Trans pump admin lock onrte	None required
OGT-FLOW1-05	None required	None required	None required	None required
OGT-FLOW1-08	SC Trans leak detect eyes SC Above grade portions of waste str structure (integrity) SS Tank level detect eyes SS Salt well flow totalizers Sup SSC SC Tank farm elect dist eye	SC Trans leak detect eyes SS Above grade portions of waste str structure (uplash and spillage) SC Pm tank leak detect eyes SS Tank level detect eyes SS Trans eye covers SS Salt well flow totalizers Sup SSC SC Tank farm elect dist eye	LCO Trans leak detect eyes AC Trans onrte (good) AC Trans pump admin lock onrte	LCO Trans eye covers LCO Trans leak detect eyes LCO Pm tank leak detect eyes AC Emergency prep (waste leak) AC Trans eye cover removal onrte
OGT-FLOW2-01A	SC Trans leak detect eyes SC OGT encas and connect SS Tank level detect eyes SS Salt well flow totalizers Sup SSC SC Tank farm elect dist eye	SC Trans leak detect eyes SS Tank level detect eyes SS Salt well flow totalizers Sup SSC SC Tank farm elect dist eye	LCO Trans leak detect eyes AC Trans onrte (good) AC Encas seal loop onrte AC Trans pump admin lock onrte	LCO Trans leak detect eyes AC Encas seal loop onrte AC Trans onrte (good) AC Emergency prep (waste leak)
OGT-FLOW2-01B	SC Trans leak detect eyes SC OGT encas and connect SS Tank level detect eyes SS Salt well flow totalizers Sup SSC SC Tank farm elect dist eye	SC Trans leak detect eyes SS Tank level detect eyes SS Trans eye covers SS Salt well flow totalizers Sup SSC SC Tank farm elect dist eye	LCO Trans leak detect eyes AC Trans onrte (good) AC Trans pump admin lock onrte	LCO Trans eye covers LCO Trans leak detect eyes LCO Encas seal loop onrte AC Emergency prep (waste leak) AC Trans eye cover removal onrte
OGT-FLOW2-02	SC OGT concrete shielding eye	SC Trans eye covers SC OGT encas and connections	AC Trans onrte (spray leaks) AC Encas seal loop onrte AC Trans pump admin lock onrte	LCO Trans eye covers AC Trans eye cover removal onrte AC Emergency prep (waste leak)

Table A-4. Master Control Table. (101 Sheets)

ID	Prev SSC	Md SSC	Prev TSR	Md TSR
OGT-FLOW2-03A	SC Trans leak detect eyes SC OGT encas and connect SS Tank level detect eyes SS Salt well flow totalizers Sup SSC SC Tank farm elect dist eye	SC Trans leak detect eyes SS Tank level detect eyes SS Salt well flow totalizers Sup SSC SC Tank farm elect dist eye	LCO Trans leak detect eyes AC Trans ontris (good) AC Encas seal loop ontris AC Tanks pump adrmn lock ontris	LCO Trans leak detect eyes AC Encas seal loop ontris AC Trans ontris (good) AC Emergency prep (waste leak)
OGT-FLOW2-03B	SC Trans leak detect eyes SC OGT encas and connect SS Tank level detect eyes SS Salt well flow totalizers Sup SSC SC Tank farm elect dist eye	SC Trans leak detect eyes SS Tank level detect eyes SS Trans eye covers SS Salt well flow totalizers Sup SSC SC Tank farm elect dist eye	LCO Trans leak detect eyes AC Trans ontris (good) AC Tanks pump adrmn lock ontris	LCO Trans eye covers LCO Trans leak detect eyes AC Encas seal loop ontris AC Emergency prep (waste leak) AC Trans eye cover removal ontris
OGT-INTE03-01	SC Trans leak detect eyes SC OGT encas and connect SS Tank level detect eyes SS Salt well flow totalizers Sup SSC SC Tank farm elect dist eye	SC Trans leak detect eyes SS Tank level detect eyes SS Trans eye covers SS Salt well flow totalizers Sup SSC SC Tank farm elect dist eye	LCO Trans leak detect eyes AC Trans ontris (good) AC Encas seal loop ontris AC Tanks pump adrmn lock ontris	LCO Trans leak detect eyes AC Encas seal loop ontris AC Emergency prep (waste leak)
OGT-NP3-01	None required	SC OGT encas and connections	None required	AC Emergency prep (waste leak) AC Emergency prep (solvents)
OGT-NP3-02	None required	SC OGT encas and connections	None required	AC Emergency prep (waste leak)
OGT-DPS1-01	None required	None required	AC Dome loading ontris - Limits on load height - Manual Site Blocking and Tagging Manual for critical lifts	None required
OGT-PRES1-01	SC Trans leak detect eyes SC OGT encas and connect SS Tank level detect eyes SS Salt well flow totalizers Sup SSC SC Tank farm elect dist eye	SC Trans leak detect eyes SS Tank level detect eyes SS Trans eye covers SS Salt well flow totalizers Sup SSC SC Tank farm elect dist eye	LCO Trans leak detect eyes AC Trans ontris (good) AC Tanks pump adrmn lock ontris	LCO Trans eye covers LCO Trans leak detect eyes AC Encas seal loop ontris AC Emergency prep (waste leak) AC Trans eye cover removal ontris

Table A-4. Master Control Table. (101 Sheets)

ID	Prev SSC	Mit SSC	Prev TSR	Mit TSR
OGT-REAC1-01	SC Trans leak detect sys SC OGT ancs and connect SS Tank level detect sys SS Salt well flow totalizers Sup SSC SC Tank farm elect det sys	SC Trans leak detect sys SS Tank level detect sys SS Trans sys covers SS Salt well flow totalizers Sup SSC SC Tank farm elect det sys	LCO Trans leak detect sys AC Trans entris (pod) AC Trans pump admin lock entris	LCO Trans sys covers LCO Trans leak detect sys AC Encas seal loop entris AC Emergency prep (waste leak) AC Trans sys cover removed entris
OGT-SPEC1-01	None required	SS OGT concrete shielding sys	None required	None required
OGT-TEMP1-01	None required	SS OGT concrete shielding sys	None required	None required
OGT-TEMP1-02	SC OGT concrete shielding sys	None required	AC Trans entris (spray hoses) AC Ign entris (vehicle entrie)	AC Emergency prep (waste leak)
OGT-TEMP1-03	SC Trans leak detect sys SC OGT ancs and connect SS Tank level detect sys SS Trans sys covers SS Salt well flow totalizers Sup SSC SC Tank farm elect det sys	SC Trans leak detect sys SS Tank level detect sys SS Trans sys covers SS Salt well flow totalizers Sup SSC SC Tank farm elect det sys	LCO Trans leak detect sys AC Trans entris (pod) AC Trans pump admin lock entris	LCO Trans sys covers LCO Trans leak detect sys AC Encas seal loop entris AC Emergency prep (waste leak) AC Trans sys cover removed entris
RAD-01	None required	None required	None required	None required
RAD-01-1	None required	None required	None required	None required
RAD-02	None required	None required	None required	None required
RAD-02-1	None required	None required	None required	None required
RAD-03	None required	None required	None required	None required
RAD-03-1	None required	None required	None required	None required
RSR-01	None required	None required	None required	None required
RSR-01-1	None required	None required	None required	None required
RSR-02	None required	None required	None required	None required
RSR-02-1	None required	None required	None required	None required

Table A-4. Master Control Table. (161 Sheets)

ID	Prev SSC	Mt SSC	Prev TBR	Mt TBR
RSR-03	None required	None required	None required	None required
RSR-03-1	None required	None required	None required	None required
RSR-04	None required	None required	None required	None required
RSR-04-1	None required	None required	None required	None required
RSR-05	None required	None required	AC Dome loading crabs - Limits on load height - Hanford Site Hoisting and Rigging Manual for critical lifts	None required
RSR-05-4A	None required	None required	None required	None required
RSR-05-4B	None required	None required	None required	None required
RSR-06-1	None required	None required	AC Ign crabs (flam gas) AC Flam gas Atch crabs AC Process mat and mass and test equip	AC HEPA filter crabs AC Emergency prep (fls and waste levels)
RSR-07-1	SC SST struct SC DBT struct SC AWW tank struct	None required	AC Ign crabs (org self-nitrate) AC Moisture crabs AC Trans crabs (org salt-nitrate) AC Process mat and mass and test equip ACs inc flam gas prev crabs	AC Emergency prep (fls) AC HEPA filter crabs
RSR-08-1	None required	None required	None required	None required
SFF-01	None required	None required	None required	None required
SFF-01-1	None required	None required	None required	None required

Table A-4. Master Control Table. (101 Sheets)

ID	Prm SSC	Mt SSC	Prm TSR	Mt TSR
TPS-1	SC Trans leak detect sys SC Above grade portions of waste of struts (integrity) SS Tank level detect sys SS Silt wall flow solenoids Sup SSC SC Tank form elect det eye	SC Trans leak detect sys SS Above grade portions of waste of struts (seal and splatter) SC PFI leak leak detect sys SS Tank level detect sys SS Trans eye covers SS Silt wall flow solenoids Sup SSC SC Tank form elect det eye	LCO Trans leak detect sys AC Trans onrils (pool) AC Trans pump edema lock onrils	LCO Trans eye covers LCO Trans leak detect sys LCO PFI tank leak detect sys AC Emergency prep (waste leak) AC Trans eye cover removal onrils
VEH-01	None required	None required	None required	None required
VEH-01-J	None required	None required	None required	None required
VEH-02	Onrils contained in SARPs	Onrils contained in SARPs	Onrils contained in SARPs	Onrils contained in SARPs
VEH-02-I	Onrils contained in SARPs	Onrils contained in SARPs	Onrils contained in SARPs	Onrils contained in SARPs
VEH-03	Onrils contained in SARPs	Onrils contained in SARPs	Onrils contained in SARPs	Onrils contained in SARPs
VEH-03-I	Onrils contained in SARPs	Onrils contained in SARPs	Onrils contained in SARPs	Onrils contained in SARPs
VEH-04	Onrils contained in SARPs	Onrils contained in SARPs	Onrils contained in SARPs	Onrils contained in SARPs
VEH-04-I	Onrils contained in SARPs	Onrils contained in SARPs	Onrils contained in SARPs	Onrils contained in SARPs
VEH-05	None required	None required	None required	None required
VEH-05-I	None required	None required	None required	None required
VEH-06	None required	None required	None required	None required
VEH-06-I	None required	None required	None required	None required
VEH-07	SS Physical barriers around struts that have the potential to direct liquids into waste tanks	None required	None required	None required
VEH-07-I	SS Physical barriers to vehicle access	None required	AC Ign onrils (vehicle onrils)	AC Emergency prep (HMI)

Table A-4. Master Control Table. (1st Sheets)

ID	Prev SSC	Alt SSC	Prev TSA	Alt TSA
VEN-05-1	SS Physical barriers around structures that have the potential to direct liquids into waste tanks	None required	None required	None required
VSU-01	None required	None required	None required	None required
VSU-02	None required	None required	None required	None required
VSU-03	None required	None required	None required	None required
VSU-04	None required	None required	None required	None required
VSU-05	None required	None required	None required	None required
VSU-06	None required	None required	None required	None required
W055-FLOW01	SC Trans leak detect sys SC Above grade portions of waste str structure (integrity) SS Tank level detect sys SS Silt well flow totalizers Sup SSC SC Tank farm elect dist sys	SC Trans leak detect sys SS Above grade portions of waste str structure (uplash and splash) SC Pn tank leak detect sys SS Tank level detect sys SS Trans eye covers SS Silt well flow totalizers Sup SSC SC Tank farm elect dist sys	LCO Trans leak detect sys AC Trans onlts (pool) AC Trans pump admn lock onlts	LCO Trans eye covers LCO Trans leak detect sys LCO Pn tank leak detect sys AC Emergency prep (waste leak) AC Trans eye cover removal onlts
W058-FLOW03	SC Trans leak detect sys SC Above grade portions of waste str structure (integrity) SS Tank level detect sys SS Silt well flow totalizers Sup SSC SC Tank farm elect dist sys	SC Trans leak detect sys SS Above grade portions of waste str structure (uplash and splash) SC Pn tank leak detect sys SS Tank level detect sys SS Trans eye covers SS Silt well flow totalizers Sup SSC SC Tank farm elect dist sys	LCO Trans leak detect sys AC Trans onlts (pool) AC Trans pump admn lock onlts	LCO Trans eye covers LCO Trans leak detect sys LCO Pn tank leak detect sys AC Emergency prep (waste leak) AC Trans eye cover removal onlts

Table A-4. Master Control Table. (164 Sheets)

ID	Prev SSC	Me SSC	Prev TGR	Me TGR
W056-FLOW056	SC Trans leak detect sys SC Above grade portions of waste xfr struct (integrity) SS Tank level detect sys SS Salt well flow totalizers Sup SSC SC Tank farm elect dist sys	SC Trans leak detect sys SS Above grade portions of waste xfr struct (splash and splitter) SC Pn tank leak detect sys SS Tank level detect sys SS Trans sys covers SS Salt well flow totalizers Sup SSC SC Tank farm elect dist sys	LCO Trans leak detect sys AC Trans entris (pool) AC Trans pump admin lock entris	LCO Trans sys covers LCO Trans leak detect sys LCO Pn tank leak detect sys AC Emergency prep (waste leak) AC Trans sys cover removal entris
W056-FLOW056	SC Trans leak detect sys SC Above grade portions of waste xfr struct (integrity) SS Tank level detect sys SS Salt well flow totalizers Sup SSC SC Tank farm elect dist sys	SC Trans leak detect sys SS Above grade portions of waste xfr struct (splash and splitter) SC Pn tank leak detect sys SS Tank level detect sys SS Trans sys covers SS Salt well flow totalizers Sup SSC SC Tank farm elect dist sys	LCO Trans leak detect sys AC Trans entris (pool) AC Trans pump admin lock entris	LCO Trans sys covers LCO Trans leak detect sys LCO Pn tank leak detect sys AC Emergency prep (waste leak) AC Trans sys cover removal entris
W056-FLOW056	SC Trans leak detect sys SC Above grade portions of waste xfr struct (integrity) SS Tank level detect sys SS Salt well flow totalizers Sup SSC SC Tank farm elect dist sys	SC Trans leak detect sys SS Above grade portions of waste xfr struct (splash and splitter) SC Pn tank leak detect sys SS Tank level detect sys SS Trans sys covers SS Salt well flow totalizers Sup SSC SC Tank farm elect dist sys	LCO Trans leak detect sys AC Trans entris (pool) AC Trans pump admin lock entris	LCO Trans sys covers LCO Trans leak detect sys LCO Pn tank leak detect sys AC Emergency prep (waste leak) AC Trans sys cover removal entris

Table A-4. Master Control Table. (101 Sheets)

ID	Prev SSC	Next SSC	Prev TGR	Next TGR
W055-FLOW07	SC Trans leak detect sys SC Above grade portions of waste air structure (integrity) SS Tank level detect sys SS Silt well flow totalizers Sup SSC SC Tank farm elect dist sys	SC Trans leak detect sys SS Above grade portions of waste air structure (splash and splitter) SC Pn tank leak detect sys SS Tank level detect sys SS Trans eye covers SS Silt well flow totalizers Sup SSC SC Tank farm elect dist sys	LCD Trans leak detect sys AC Trans onrte (pool) AC Trans pump admin lock onrte	LCD Trans eye covers LCD Trans leak detect sys LCD Pn tank leak detect sys AC Emergency prep (waste leak) AC Trans eye cover removal onrte
W056-FLOW08	SC Trans leak detect sys SC Above grade portions of waste air structure (integrity) SS Tank level detect sys SS Silt well flow totalizers Sup SSC SC Tank farm elect dist sys	SC Trans leak detect sys SS Above grade portions of waste air structure (splash and splitter) SS Tank level detect sys SS Trans eye covers SS Silt well flow totalizers Sup SSC SC Tank farm elect dist sys	LCD Trans leak detect sys AC Trans onrte (pool) AC Encos seal loop onrte AC Trans pump admin lock onrte	LCD Trans eye covers LCD Trans leak detect sys AC Emergency prep (waste leak) AC Trans eye cover removal onrte
W059-FLOW11a	SC Trans leak detect sys SC Above grade portions of waste air structure (integrity) SS Tank level detect sys SS Silt well flow totalizers Sup SSC SC Tank farm elect dist sys	SC Trans leak detect sys SS Above grade portions of waste air structure (splash and splitter) SC Pn tank leak detect sys SS Tank level detect sys SS Trans eye covers SS Silt well flow totalizers Sup SSC SC Tank farm elect dist sys	LCD Trans leak detect sys AC Trans onrte (pool) AC Trans pump admin lock onrte	LCD Trans eye covers LCD Trans leak detect sys LCD Pn tank leak detect sys AC Emergency prep (waste leak) AC Trans eye cover removal onrte
W058-FLOW11b	SC Trans leak detect sys SC Above grade portions of waste air structure (integrity) SS Tank level detect sys SS Silt well flow totalizers Sup SSC SC Tank farm elect dist sys	SC Trans leak detect sys SS Above grade portions of waste air structure (splash and splitter) SC Pn tank leak detect sys SS Tank level detect sys SS Trans eye covers SS Silt well flow totalizers Sup SSC SC Tank farm elect dist sys	LCD Trans leak detect sys AC Trans onrte (pool) AC Trans pump admin lock onrte	LCD Trans eye covers LCD Trans leak detect sys LCD Pn tank leak detect sys AC Emergency prep (waste leak) AC Trans eye cover removal onrte

Table A-4. Master Control Table. (181 Sheets)

ID	Prev SSC	Mit SSC	Prev T&R	Mit T&R
W058-FLOW11e	SC Trans leak detect sys SC Above grade portions of waste x/r structure (integrity) SS Tank level detect sys SS S&S well flow totalizers Sup SSC SC Tank farm elect dist sys	SC Trans leak detect sys SS Above grade portions of waste x/r structure (splash and spatter) SC Pn tank leak detect sys SS Tank level detect sys SS Trans eye covers SS S&S well flow totalizers Sup SSC SC Tank farm elect dist sys	LCO Trans leak detect sys AC Trans cable (pool) AC Trans pump admin lock on/offs	LCO Trans eye covers LCO Trans leak detect sys LCO Pn tank leak detect sys AC Emergency prep (waste leak) AC Trans eye cover removal on/offs
W058-FLOW13	SC Trans leak detect sys SC Above grade portions of waste x/r structure (integrity) SS Tank level detect sys SS S&S well flow totalizers Sup SSC SC Tank farm elect dist sys	SC Trans leak detect sys SS Above grade portions of waste x/r structure (splash and spatter) SS Tank level detect sys SS Trans eye covers Sup SSC SC Tank farm elect dist sys	LCO Trans leak detect sys AC Trans cable (pool) AC Trans pump admin lock on/offs	LCO Trans eye covers LCO Trans leak detect sys AC Echos well loop on/offs AC Emergency prep (waste leak) AC Trans eye cover removal on/offs
W058-FLOW15	None required	SC Trans eye covers SS Above grade portions of waste x/r structure (integrity)	AC Trans cable (spray leaks) AC Trans pump admin lock on/offs	LCO Trans eye covers AC Trans eye cover removal on/offs AC Emergency prep (waste leak)
W058-FLOW16	None required	SC Trans eye covers SS Above grade portions of waste x/r structure (integrity)	AC Trans cable (spray leaks) AC Trans pump admin lock on/offs	LCO Trans eye covers AC Trans eye cover removal on/offs AC Emergency prep (waste leak)
W058-FLOW17a	None required	SC Trans eye covers SS Above grade portions of waste x/r structure (integrity)	AC Trans cable (spray leaks) AC Trans pump admin lock on/offs	LCO Trans eye covers AC Trans eye cover removal on/offs AC Emergency prep (waste leak)
W058-FLOW17b	None required	SC Trans eye covers SS Above grade portions of waste x/r structure (integrity)	AC Trans cable (spray leaks) AC Trans pump admin lock on/offs	LCO Trans eye covers AC Trans eye cover removal on/offs AC Emergency prep (waste leak)
W058-FLOW17c	None required	SC Trans eye covers SS Above grade portions of waste x/r structure (integrity)	AC Trans cable (spray leaks) AC Trans pump admin lock on/offs	LCO Trans eye covers AC Trans eye cover removal on/offs AC Emergency prep (waste leak)

Table A-4. Master Control Table. (101 Sheets)

ID	Prev SSC	Mk SSC	Prev TSB	Mk TSB
W058-FLOW18	None required	SC Trans eye covers SS Above grade portions of waste xtr structure (integrity)	AC Trans entrie (spray leaks) AC Trans pump admin lock entrie	LCO Trans eye covers AC Trans eye cover removal entrie AC Emergency prep (waste leak)
W058-FLOW19	None required	SC Trans eye covers SS Above grade portions of waste xtr structure (integrity)	AC Trans entrie (spray leaks) AC Trans pump admin lock entrie	LCO Trans eye covers AC Trans eye cover removal entrie AC Emergency prep (waste leak)
W058-FLOW20a	None required	SC Trans eye covers SS Above grade portions of waste xtr structure (integrity)	AC Trans entrie (spray leaks) AC Trans pump admin lock entrie	LCO Trans eye covers AC Trans eye cover removal entrie AC Emergency prep (waste leak)
W058-FLOW20b	None required	SC Trans eye covers SS Above grade portions of waste xtr structure (integrity)	AC Trans entrie (spray leaks) AC Trans pump admin lock entrie	LCO Trans eye covers AC Trans eye cover removal entrie AC Emergency prep (waste leak)
W058-FLOW20c	None required	SC Trans eye covers SS Above grade portions of waste xtr structure (integrity)	AC Trans entrie (spray leaks) AC Trans pump admin lock entrie	LCO Trans eye covers AC Trans eye cover removal entrie AC Emergency prep (waste leak)
W058-INTEG01a	SC Pipe encasements	SC Trans leak detect eyes SS Tank level detect eyes SS Salt well flow totalizers SS Trans eye covers SS Above grade portions of waste xtr structure (splash and splatter) Sup SSC SS Tank firm elect shut eye	AC Trans entrie (pco) AC Encas seal loop cable AC Trans pump admin lock entrie	LCO Trans eye covers LCO Trans leak detect eyes AC Emergency prep (waste leak) AC Trans eye cover removal entrie
W058-INTEG01b	SC Pipe encasements	SC Trans leak detect eyes SS Tank level detect eyes SS Salt well flow totalizers SS Trans eye covers SS Above grade portions of waste xtr structure (splash and splatter) Sup SSC SS Tank firm elect shut eye	AC Trans entrie (pco) AC Encas seal loop cable AC Trans pump admin lock entrie	LCO Trans eye covers LCO Trans leak detect eyes AC Emergency prep (waste leak) AC Trans eye cover removal entrie

Table A-4. Master Control Table. (101 Sheets)

ID	Prev SSC	Mt SSC	Prev TSA	Mt TSA
W058-INTEG01c	SC Trans leak detect eyes SC Above grade portions of waste air ducts (integrity) SS Tank level detect eyes BS Sdk well flow totalizers Sup SSC SC Tank farm elect dist eye	SC Trans leak detect eyes SS Above grade portions of waste air ducts (splash and splatter) SS Tank level detect eyes BS Trans eye covers BS Sdk well flow totalizers Sup SSC SC Tank farm elect dist eye	LCO Trans leak detect eyes AC Trans cable (pool) AC Encas seal loop entrie AC Trans pump admin lock entrie	LCO Trans eye covers LCO Trans leak detect eyes AC Emergency prep (waste leak) AC Trans eye cover removal entrie
W058-INTEG01d	SC Trans leak detect eyes SC Above grade portions of waste air ducts (integrity) BS Tank level detect eyes SS Sdk well flow totalizers Sup SSC SC Tank farm elect dist eye	SC Trans leak detect eyes BS Above grade portions of waste air ducts (splash and splatter) BS Tank level detect eyes BS Trans eye covers SS Sdk well flow totalizers Sup SSC SC Tank farm elect dist eye	LCO Trans leak detect eyes AC Trans entrie (pool) AC Encas seal loop entrie AC Trans pump admin lock entrie	LCO Trans eye covers LCO Trans leak detect eyes AC Emergency prep (waste leak) AC Trans eye cover removal entrie
W058-INTEG03a	BC Pipe encasements	SC Trans leak detect eyes BS Tank level detect eyes SS Sdk well flow totalizers SS Trans eye covers BS Above grade portions of waste air ducts (splash and splatter)	AC Trans entrie (pool) AC Encas seal loop entrie AC Trans pump admin lock entrie	LCO Trans eye covers LCO Trans leak detect eyes AC Emergency prep (waste leak) AC Trans eye cover removal entrie AC Emergency prep (seismic)
W058-INTEG03b	SC Trans leak detect eyes SC Above grade portions of waste air ducts (integrity) SS Tank level detect eyes SS Sdk well flow totalizers Sup SSC SC Tank farm elect dist eye	SC Trans leak detect eyes BS Above grade portions of waste air ducts (splash and splatter) SS Tank level detect eyes BS Trans eye covers SS Sdk well flow totalizers Sup SSC SC Tank farm elect dist eye	LCO Trans leak detect eyes AC Trans entrie (pool) AC Trans pump admin lock entrie	LCO Trans eye covers LCO Trans leak detect eyes AC Trans entrie (pool) AC Emergency prep (waste leak) AC Trans eye cover removal entrie AC Emergency prep (seismic)
W058-INTEG05a	None required	None required	AC Expansion cable	AC Expansion entrie
W058-INTEG05b	None required	None required	AC Expansion entrie	AC Expansion entrie

Table A-4. Master Control Table. (101 Sheets)

ID	Prev SSC	Mk SSC	Prev TSR	Mk TSR
W05B-INTEG07a	SC Pipe encasements	SC Trans leak detect eyes SS Tank level detect eyes SS Salt well flow totalizers SS Trans eye covers SS Above grade portions of waste vtr struts (splash and splitter) Sup SSC SC Tank farm elect dist eye	AC Trans exits (pool) AC Encas seal loop orbits AC Trans pump admin lock orbits	LCO Trans eye covers LCO Trans leak detect eyes AC Emergency prep (waste leak) AC Trans eye cover removal orbits
W05B-INTEG07b	SC Trans leak detect eyes SC Above grade portions of waste vtr struts (integrity) SS Tank level detect eyes SS Salt well flow totalizers Sup SSC SC Tank farm elect dist eye	SC Trans leak detect eyes SS Above grade portions of waste vtr struts (splash and splitter) SS Tank level detect eyes SS Trans eye covers SS Salt well flow totalizers Sup SSC SC Tank farm elect dist eye	LCO Trans leak detect eyes AC Trans orbits (pool) AC Encas seal loop orbits AC Trans pump admin lock orbits	LCO Trans eye covers LCO Trans leak detect eyes AC Emergency prep (waste leak) AC Trans eye cover removal orbits
W05B-INTEG08a	SC Pipe encasements	SC Trans leak detect eyes SS Tank level detect eyes SS Salt well flow totalizers SS Trans eye covers SS Above grade portions of waste vtr struts (splash and splitter) Sup SSC SC Tank farm elect dist eye	AC Trans exits (pool) AC Encas seal loop orbits AC Trans pump admin lock orbits	LCO Trans eye covers LCO Trans leak detect eyes AC Emergency prep (waste leak) AC Trans eye cover removal orbits
W05B-INTEG08b	SC Trans leak detect eyes SC Above grade portions of waste vtr struts (integrity) SS Tank level detect eyes SS Salt well flow totalizers Sup SSC SC Tank farm elect dist eye	SC Trans leak detect eyes SS Above grade portions of waste vtr struts (splash and splitter) SS Tank level detect eyes SS Trans eye covers SS Salt well flow totalizers Sup SSC SC Tank farm elect dist eye	LCO Trans leak detect eyes AC Trans exits (pool) AC Encas seal loop orbits AC Trans pump admin lock orbits	LCO Trans eye covers LCO Trans leak detect eyes AC Emergency prep (waste leak) AC Trans eye cover removal orbits

Table A-4. Master Control Table. (101 Sheets)

ID	Prev SSC	Mit SSC	Prev TSR	Mit TSR
W055-INTEG11a	SC Pipe encasements	SC Trans leak detect sys SS Tank level detect sys SS Salt well flow totalizers SS Trans sys covers SS Above grade portions of waste str structures (splash and splatter)	AC Trans onbte (good) AC Encase seal loop onbte AC Trans pump admit lock onbte	LCO Trans sys covers LCO Trans leak detect sys AC Emergency prep (waste leak) AC Trans sys cover removal onbte AC Emergency prep (sursum)
W055-INTEG11b	SC Trans leak detect sys SC Above grade portions of waste str structures (integrity) SS Tank level detect sys SS Salt well flow totalizers Sup SSC SC Tank farm elect det sys	SC Trans leak detect sys SS Above grade portions of waste str structures (splash and splatter) SS Tank level detect sys SS Trans sys covers SS Salt well flow totalizers Sup SSC SC Tank farm elect det sys	LCO Trans leak detect sys AC Trans onbte (good) AC Trans pump admit lock onbte	LCO Trans sys covers LCO Trans leak detect sys AC Trans onbte (good) AC Emergency prep (waste leak) AC Trans sys cover removal onbte AC Emergency prep (sursum)
W055-INTEG13a	SC Pipe encasements	SC Trans leak detect sys SS Tank level detect sys SS Salt well flow totalizers SS Trans sys covers SS Above grade portions of waste str structures (splash and splatter) Sup SSC SS Tank farm elect det sys	AC Trans onbte (good) AC Encase seal loop onbte AC Trans pump admit lock onbte	LCO Trans sys covers LCO Trans leak detect sys AC Emergency prep (waste leak) AC Trans sys cover removal onbte
W055-INTEG13b	SC Pipe encasements	SC Trans leak detect sys SS Tank level detect sys SS Salt well flow totalizers SS Trans sys covers SS Above grade portions of waste str structures (splash and splatter) Sup SSC SS Tank farm elect det sys	AC Trans onbte (good) AC Encase seal loop onbte AC Trans pump admit lock onbte	LCO Trans sys covers LCO Trans leak detect sys AC Emergency prep (waste leak) AC Trans sys cover removal onbte

Table A-4. Master Control Table. (181 Sheets)

ID	Pre SSC	Mt SSC	Pre TBR	Mt TBR
W056-INTEG13a	SC Trans leak detect sys SC Above grade portions of waste vr struct (integrity) SS Tank level detect sys SS Salt well flow totalizers Sup SSC SC Tank farm elect dist sys	SC Trans leak detect sys SS Above grade portions of waste vr struct (splash and spillover) SS Tank level detect sys SS Trans eye covers SS Salt well flow totalizers Sup SSC SC Tank farm elect dist sys	LCO Trans leak detect sys AC Trans onrte (pool) AC Excess seal loop onrte AC Trans pump admin lock onrte	LCO Trans eye covers LCO Trans leak detect sys AC Emergency prep (waste leak) AC Trans eye cover removal onrte
W056-INTEG13b	SC Trans leak detect sys SC Above grade portions of waste vr struct (integrity) SS Tank level detect sys SS Salt well flow totalizers Sup SSC SC Tank farm elect dist sys	SC Trans leak detect sys SS Above grade portions of waste vr struct (splash and spillover) SS Tank level detect sys SS Trans eye covers SS Salt well flow totalizers Sup SSC SC Tank farm elect dist sys	LCO Trans leak detect sys AC Trans onrte (pool) AC Excess seal loop onrte AC Trans pump admin lock onrte	LCO Trans eye covers LCO Trans leak detect sys AC Emergency prep (waste leak) AC Trans eye cover removal onrte
W056-INTEG14a	SC Pipe excitations	SC Trans leak detect sys SS Tank level detect sys SS Salt well flow totalizers SS Trans eye covers SS Above grade portions of waste vr struct (splash and spillover)	AC Trans onrte (pool) AC Excess seal loop onrte AC Trans pump admin lock onrte	LCO Trans eye covers LCO Trans leak detect sys AC Emergency prep (waste leak) AC Trans eye cover removal onrte AC Emergency prep (isobaric)
W056-INTEG14b	SC Trans leak detect sys SC Above grade portions of waste vr struct (integrity) SS Tank level detect sys SS Salt well flow totalizers Sup SSC SC Tank farm elect dist sys	SC Trans leak detect sys SS Above grade portions of waste vr struct (splash and spillover) SS Tank level detect sys SS Trans eye covers SS Salt well flow totalizers Sup SSC SC Tank farm elect dist sys	LCO Trans leak detect sys AC Trans onrte (pool) AC Trans pump admin lock onrte	LCO Trans eye covers LCO Trans leak detect sys AC Trans onrte (pool) AC Emergency prep (waste leak) AC Trans eye cover removal onrte AC Emergency prep (isobaric)
W056-INTEG15a	None required	None required	AC Excitation onrte	AC Excitation onrte
W056-INTEG15b	None required	None required	AC Excitation onrte	AC Excitation onrte

Table A-4. Master Control Table. (101 Sheets)

ID	Prev SSC	Mt SSC	Prev TSR	Mt TSR
W055-INTEG18a	SC Pipe encasements	SC Trans leak detect sys SS Tank level detect sys SS Self well flow totalizers SS Trans eye covers SS Above grade portions of waste vtr structure (splash and splatter) Sup SSC SC Tank farm elect dist sys	AC Trans entry (pool) AC Encas well loop cable AC Trans pump alarm lock cable	LCO Trans eye covers LCO Trans leak detect sys AC Emergency prep (waste leak) AC Trans eye cover removal cable
W055-INTEG18b	SC Trans leak detect sys SC Above grade portions of waste vtr structure (integrity) SS Tank level detect sys SS Self well flow totalizers Sup SSC SC Tank farm elect dist sys	SC Trans leak detect sys SS Above grade portions of waste vtr structure (splash and splatter) SS Tank level detect sys SS Trans eye covers SS Self well flow totalizers Sup SSC SC Tank farm elect dist sys	LCO Trans leak detect sys AC Trans cable (pool) AC Encas well loop cable AC Trans pump alarm lock cable	LCO Trans eye covers LCO Trans leak detect sys AC Emergency prep (waste leak) AC Trans eye cover removal cable
W055-INTEG20a	SC Pipe encasements	SC Trans leak detect sys SS Tank level detect sys SS Self well flow totalizers SS Trans eye covers SS Above grade portions of waste vtr structure (splash and splatter) Sup SSC SS Tank farm elect dist sys	AC Trans cable (pool) AC Encas well loop cable AC Trans pump alarm lock cable	LCO Trans eye covers LCO Trans leak detect sys AC Emergency prep (waste leak) AC Trans eye cover removal cable
W055-INTEG20b	SC Trans leak detect sys SC Above grade portions of waste vtr structure (integrity) SS Tank level detect sys SS Self well flow totalizers Sup SSC SC Tank farm elect dist sys	SC Trans leak detect sys SS Above grade portions of waste vtr structure (splash and splatter) SS Tank level detect sys SS Trans eye covers SS Self well flow totalizers Sup SSC SC Tank farm elect dist sys	LCO Trans leak detect sys AC Trans entry (pool) AC Encas well loop cable AC Trans pump alarm lock cable	LCO Trans eye covers LCO Trans leak detect sys AC Emergency prep (waste leak) AC Trans eye cover removal cable

Table A-4. Master Control Table. (101 Sheets)

ID	Prev SSC	MM SSC	Prev TSP	MM TSP
W058-INTEG22	None required	SC Trans leak detect sys SS Tank level detect sys SS Silt well flow totalizers SS Trans sys covers SS Above grade portions of waste str. struts (splash and splitter) Sup SSC SC Tank farm elect dist sys	AC Trans onbts (good) AC Encas sump leak onbts AC Trans pump admin lock onbts	LCO Trans sys covers LCO Trans leak detect sys AC Emergency prep (waste leak) AC Trans sys cover removal onbts AC Emergency prep (sewerage)
W058-INTEG24	SC Trans leak detect sys SS Tank level detect sys SS Silt well flow totalizers Sup SSC SC Tank farm elect dist sys	SC Trans leak detect sys SC Pn tank leak detect sys SS Tank level detect sys SS Trans sys covers Sup SSC SC Tank farm elect dist sys	LCO Trans leak detect sys AC Trans onbts (good) AC Trans pump admin lock onbts	LCO Trans sys covers LCO Trans leak detect sys LCO Pn tank leak detect sys AC Trans onbts (pool) AC Emergency prep (waste leak) AC Trans sys cover removal onbts AC Emergency prep (sewerage)
W058-INTEG26	SC Trans leak detect sys SC Above grade portions of waste str. struts (splash and splitter) SS Tank level detect sys SS Silt well flow totalizers Sup SSC SC Tank farm elect dist sys	SC Trans leak detect sys SS Above grade portions of waste str. struts (splash and splitter) SS Tank level detect sys SS Trans sys covers SS Silt well flow totalizers Sup SSC SC Tank farm elect dist sys	LCO Trans leak detect sys AC Trans onbts (good) AC Trans pump admin lock onbts	LCO Trans sys covers LCO Trans leak detect sys AC Trans onbts (pool) AC Emergency prep (waste leak) AC Trans sys cover removal onbts AC Emergency prep (sewerage)
W058-INTEG28	SC Trans leak detect sys SS Tank level detect sys SS Silt well flow totalizers Sup SSC SC Tank farm elect dist sys	SC Trans leak detect sys SC Pn tank leak detect sys SS Tank level detect sys SS Trans sys covers Sup SSC SC Tank farm elect dist sys	LCO Trans leak detect sys AC Trans onbts (pool) AC Trans pump admin lock onbts	LCO Trans sys covers LCO Trans leak detect sys LCO Pn tank leak detect sys AC Trans onbts (pool) AC Emergency prep (waste leak) AC Trans sys cover removal onbts AC Emergency prep (sewerage)

Table A-4. Master Control Table. (101 Sheets)

ID	Prep SSC	Mid SSC	Prep TSR	Mid TSR
W058-INTEG30	SC Trans leak detect sys SC Above grade portions of waste xfr structure (integrity) SS Tank level detect sys BS Ball wall flow totalizers Sup SSC SC Tank farm select dist sys	SC Trans leak detect sys SS Above grade portions of waste xfr structure (splash and spill/ov) SS Tank level detect sys BS Trans sys covers BS Ball wall flow totalizers Sup SSC SC Tank farm select dist sys	LCO Trans leak detect sys AC Trans onerts (pool) AC Trans pump admin lock onerts	LCO Trans sys covers LCO Trans leak detect sys AC Trans onerts (pool) AC Emergency prep (waste leak) AC Trans sys cover removal onerts AC Emergency prep (test/mc)
W058-INTEG32	None required	SC Pipe encasements SC Trans sys covers BS Above grade portions of waste xfr structure (integrity)	AC Trans onerts (spray leaks) AC Encase seal loop onerts AC Trans pump admin lock onerts	LCO Trans sys covers AC Trans sys cover removal onerts AC Emergency prep (waste leak)
W058-INTEG34	None required	None required	None required	None required
W058-INTEG36	None required	SC Trans sys covers	AC Trans onerts (spray leaks) AC Trans pump admin lock onerts	LCO Trans sys covers AC Trans sys cover removal onerts AC Emergency prep (waste leak) AC Emergency prep (seismic)
W058-INTEG38	None required	None required	None required	None required
W058-INTEG37	None required	SC Trans sys covers	AC Trans onerts (spray leaks) AC Trans pump admin lock onerts	LCO Trans sys covers AC Trans sys cover removal onerts AC Emergency prep (waste leak) AC Emergency prep (seismic)
W058-PRES01	SC Trans leak detect sys SC Above grade portions of waste xfr structure (integrity) SS Tank level detect sys BS Ball wall flow totalizers Sup SSC SC Tank farm select dist sys	SC Trans leak detect sys SS Above grade portions of waste xfr structure (splash and spill/ov) SS Tank level detect sys SS Trans sys covers BS Ball wall flow totalizers Sup SSC SC Tank farm select dist sys	LCO Trans leak detect sys AC Trans onerts (pool) AC Encase seal loop onerts AC Trans pump admin lock onerts	LCO Trans sys covers LCO Trans leak detect sys AC Emergency prep (waste leak) AC Trans sys cover removal onerts

Table A-4. Master Control Table. (101 Sheets)

ID	Per SSC	Mt SSC	Per TBR	Mt TBR
WD68-PRES03	SC Trans leak detect sys SC Above grade portions of waste xfr struts (refractory) SS Tank level detect sys SS Self vent flow totalizers Sup SSC SC Tank form elect det sys	SC Trans leak detect sys SS Above grade portions of waste xfr struts (splash and splatter) SS Tank level detect sys SS Trans eye covers SS Self vent flow totalizers Sup SSC SC Tank form elect det sys	LCO Trans leak detect sys AC Trans cribs (pool) AC Encas wall top cribs AC Trans pump adman lock cribs	LCO Trans eye covers LCO Trans leak detect sys AC Emergency prep (waste leak) AC Trans eye cover removal cribs
XS-01-FLOW01	BC DCRT vent sys Sup SSC SC Tank form elect det sys	None required	LCO DCRT vent sys AC Ign cribs (flam gas) AC Flam gas mon cribs AC Process unit and man and test equip	AC HEPA filter cribs AC Emergency prep (fire and waste leak)
XS-01-FLOW02	SC SST vent sys SC SST struct Sup SSC SC Tank form elect det sys	None required	LCO SST vent sys - active and passive AC Flammability cribs AC Ign cribs (flam gas) AC Flam gas mon cribs AC Process unit and man and test equip	AC HEPA filter cribs AC Emergency prep (fire and waste leak)
XS-01-FLOW03	SC SST vent sys SC DCRT vent sys SC 244-AR TK-002 vent sys SC 244-CR TK-002 vent sys SC SST struct Sup SSC BC Comp air sys SC Tank form elect det sys	None required	LCO SST vent sys - active and passive LCO DCRT vent sys LCO 244-AR TK-002 vent sys AC Flammability cribs AC Ign cribs (flam gas) AC Flam gas mon cribs AC Trans cribs AC Process unit and man and test equip	AC HEPA filter cribs AC Emergency prep (fire and waste leak)
XS-01-FLOW04	None required	None required	None required	None required

Table A-4. Master Control Table. (104 Sheets)

ID	Prev SSC	Md SSC	Prev TSR	Md TSR
XS-01-FLOW05	SC Trans leak detect sys SC Above grade portions of waste xfr struts (integrity) SC Press switch (waste or alarm sys) (service water) SS Tank level detect sys SS Salt well flow totalizers SS Bilge pump devices Sup SSC SC Tank farm elect dist sys	SC Trans leak detect sys SS Above grade portions of waste xfr struts (splash and splitter) SS Tank level detect sys SS Trans sys covers SS Salt well flow totalizers Sup SSC SC Tank farm elect dist sys	LCO Service water press detect sys LCO Trans leak detect sys AC Trans ctnrle (good) AC Trans ctnrle (good) AC Trans pump alarm lock ctnrle	LCO Trans sys covers LCO Trans leak detect sys AC Trans ctnrle (good) AC Emergency prep (waste leak) AC Trans sys cover removal ctnrle
XS-01-FLOW06	SC Trans leak detect sys SC Above grade portions of waste xfr struts (integrity) SS Tank level detect sys SS Salt well flow totalizers Sup SSC SC Tank farm elect dist sys	SC Trans leak detect sys SS Above grade portions of waste xfr struts (splash and splitter) SC Pot tank leak detect sys SS Tank level detect sys SS Trans sys covers SS Salt well flow totalizers Sup SSC SC Tank farm elect dist sys	LCO Trans leak detect sys AC Trans ctnrle (good) AC Trans pump alarm lock ctnrle	LCO Trans sys covers LCO Trans leak detect sys LCO Pot tank leak detect sys AC Emergency prep (waste leak) AC Trans sys cover removal ctnrle
XS-01-FLOW07	SS Pipe encasements	SC Trans leak detect sys SS Pipe encasements SS Tank level detect sys SS Salt well flow totalizers Sup SSC SC Tank farm elect dist sys	AC Trans ctnrle (subsurface plume) AC Trans pump alarm lock ctnrle	LCO Trans leak detect sys AC Trans ctnrle (subsurface plume)
XS-01-PRE901	SC Pipe encasements	SC Trans leak detect sys SS Tank level detect sys SS Salt well flow totalizers SS Trans sys covers SS Above grade portions of waste xfr struts (splash and splitter) Sup SSC SS Tank farm elect dist sys	AC Trans ctnrle (pool) AC Exhaust seal leak ctnrle AC Trans pump alarm lock ctnrle	LCO Trans sys covers LCO Trans leak detect sys AC Emergency prep (waste leak) AC Trans sys cover removal ctnrle

Table A-4, Master Control Table. (101 Sheets)

ID	Pen SSC	Mt SSC	Pen TSR	Mt TSR
XS-01-PRES02	None required	SC Trans leak detect sys SS Tank level detect sys SS Salt well flow totalizers SS Trans sys covers SS Above grade portions of waste air ducts (splash and splitter) Sup SSC SS Tank farm elect dist sys	AC Trans onbts (pool) AC Encos seal loop onbts AC Trans pump admin lock onbts	LCO Trans sys covers LCO Trans leak detect sys AC Emergency prep (waste leak) AC Trans sys cover removal onbts
XS-01-TIEMPD1	None required	SC Trans sys covers SS Above grade portions of waste air ducts (integrity)	AC Trans onbts (spray leaks) AC Trans pump admin lock onbts	LCO Trans sys covers AC Trans sys cover removal onbts AC Emergency prep (waste leak)
XS-01-TIEMPD2	None required	SC Trans leak detect sys SS Above grade portions of waste air ducts (splash and splitter) SS Trans sys covers Sup SSC SC Tank farm elect dist sys	AC Trans onbts (pool)	LCO Trans sys covers AC Trans sys cover removal onbts
XS-02-FLOW01	None required	None required	None required	None required
XS-02-FLOW02	None required	None required	None required	AC HEPA filter onbts
XS-02-FLOW03	None required	None required	AC Trans onbts (pH)	None required
XS-02-FLOW04	SS Pipe encasements	SC Trans leak detect sys SS Tank level detect sys SS Salt well flow totalizers Sup SSC SS Tank farm elect dist sys	AC Encos seal loop onbts AC Trans onbts (subsurface plumes) AC Trans pump admin lock onbts	LCO Trans leak detect sys AC Trans onbts (subsurface plumes)

Table A-4. Master Control Table. (101 Sheets)

ID	Prev SSC	Mt SSC	Prev TSR	Mt TSR
XS-02-FLOW05	SC Pipe encasements	SC Trans leak detect sys SS Tank level detect sys SS Bulk wall flow totalizers SS Trans eye covers SS Above grade portions of waste xrf struts (apileak and apileak) Sup SSC SS Tank farm elect dist sys	AC Trans ontris (pool) AC Enclose steel loop ontris AC Trans pump admin lock ontris	LCO Trans eye covers LCO Trans leak detect sys AC Emergency prep (waste leak) AC Trans eye cover removal ontris
XS-02-FLOW06	None required	None required	AC Trans ontris (pool)	None required
XS-03-LEVE	SC Above grade portions of waste xrf struts (integrity)	SC Trans leak detect sys SS Above grade portions of waste xrf struts (apileak and apileak) SS Tank level detect sys SS Trans eye covers SS Bulk wall flow totalizers Sup SSC SC Tank farm elect dist sys	None required	LCO Trans eye covers LCO Trans leak detect sys AC Emergency prep (waste leak) AC Trans eye cover removal ontris AC Trans pump admin lock ontris
XS-03-LEVED1 XS-21-LEVE (244-S DCRT)	SC DCRT vent sys Sup SSC SC Tank farm elect dist sys	None required	LCO DCRT vent sys AC Ign ontris (flam gas) AC Flam gas mon ontris AC Process vent and reason and test equip	AC HEPA filter ontris AC Emergency prep (fire and waste leak)
XS-03-LEVED2 XS-21-LEVE (244-S DCRT)	None required	None required	AC Nuclear custody safety	None required
XS-03-PRES01	None required	None required	None required	None required
XS-03-PRES01 XS-21-PRES (244-S DCRT)	SC DCRT vent sys Sup SSC SC Tank farm elect dist sys	None required	LCO DCRT vent sys AC Ign ontris (flam gas) AC Flam gas mon ontris AC Process vent and reason and test equip	AC HEPA filter ontris AC Emergency prep (fire and waste leak)

Table A-4. Master Control Table. (101 Sheets)

ID	Prev SSC	IM SSC	Prev TSR	MT TSR
XS-03-PRES01A	None required	SS Trans eye covers SS HEPA filters (one stage required on 244-S - 244-TX - and 244-A)	AC HEPA filter crits (244-S - 244-TX - and 244-A) (filter efficiency)	LCO Trans eye covers AC HEPA filter crits (244-S - 244-TX - and 244-A) (filter efficiency and source term) AC Trans eye cover removal crits
XS-03-PRES02	None required	SS Trans eye covers SS HEPA filters (one stage required on 244-S - 244-TX - and 244-A)	AC HEPA filter crits (244-S - 244-TX - and 244-A) (filter efficiency)	LCO Trans eye covers AC HEPA filter crits (244-S - 244-TX - and 244-A) (filter efficiency and source term) AC Trans eye cover removal crits
XS-03-PRES02 XS-21-PRES (244-S-OCRT)	None required	None required	AC Trans crits (pH)	None required
XS-03-PRES03	None required	SS Trans eye covers SS HEPA filters (one stage required on 244-S - 244-TX - and 244-A)	AC HEPA filter crits (244-S - 244-TX - and 244-A) (filter efficiency)	LCO Trans eye covers AC HEPA filter crits (244-S - 244-TX - and 244-A) (filter efficiency and source term) AC Trans eye cover removal crits
XS-03-PRES04	None required	SS Trans eye covers SS HEPA filters (one stage required on 244-S - 244-TX - and 244-A)	AC HEPA filter crits (244-S - 244-TX - and 244-A) (filter efficiency)	LCO Trans eye covers AC HEPA filter crits (244-S - 244-TX - and 244-A) (filter efficiency and source term) AC Trans eye cover removal crits
XS-03-PRES05	None required	None required	None required	None required
XS-03-TEMP01	None required	SS HEPA filters (minimum one stage required on 244-S - 244-TX - and 244-A)	AC Trans crits (pH)	AC HEPA filter crits (244-S - 244-TX - and 244-A)
XS-03-TEMP01 XS-21-TEMP (244-S-OCRT)	None required	SS Tank level detect sys SS Self seal flow indicators Dep ESC SS Tank from elect shut sys	None required	AC Trans crits (subsurface plane)
XS-03-TEMP02	None required	None required	None required	AC Transer crits

Table A-4. Master Control Table. (101 Sheets)

ID	Prev SSC	Mit SSC	Prev TBR	Mit TBR
XS-03-TEMP02 XS-21-TEMP (244-S-DCRT)	None required	None required	AC Nuclear criticality safety	None required
XS-03-TEMP03 XS-21-TEMP (244-B-DCRT)	SC DCRT vent sys Sup SSC SC Tank farm elect dist sys	None required	LCO DCRT vent sys AC Ign orifices (flam gas) AC Flam gas mon orifices AC Process rel and meas and test equip	AC HEPA filter orifices AC Emergency prep (fire and waste tank)
XS-03-TEMP04	SC DCRT vent sys Sup SSC SC Tank farm elect dist sys	None required	LCO DCRT vent sys AC Ign orifices (flam gas) AC Flam gas mon orifices	None required
XS-03-TEMP04 XS-21-TEMP (244-S-DCRT)	SS Service water flow totalizers	SS Service water flow totalizers	AC Tank service water intrusion mon program	AC Tank service water intrusion mon program AC Emergency prep (waste tank)
XS-03-TEMP05	None required	SS Trans sys covers SS HEPA filters (one stage required on 244-S - 244-TX - and 244-A)	AC HEPA filter orifices (244-S - 244-TX - and 244-A) (filter efficiency)	LCO Trans sys covers AC HEPA filter orifices (244-S - 244-TX - and 244-A) (filter efficiency and source term) AC Trans sys cover removal orifices
XS-03-TEMP06	None required	SS Trans sys covers SS HEPA filters (one stage required on 244-S - 244-TX - and 244-A)	AC HEPA filter orifices (244-S - 244-TX - and 244-A) (filter efficiency)	LCO Trans sys covers AC HEPA filter orifices (244-S - 244-TX - and 244-A) (filter efficiency and source term) AC Trans sys cover removal orifices
XS-03-TEMP07	None required	SS Trans sys covers SS HEPA filters (one stage required on 244-S - 244-TX - and 244-A)	AC HEPA filter orifices (244-S - 244-TX - and 244-A) (filter efficiency)	LCO Trans sys covers AC HEPA filter orifices (244-S - 244-TX - and 244-A) (filter efficiency and source term) AC Trans sys cover removal orifices
XS-03-TEMP08	None required	SS Trans sys covers SS HEPA filters (one stage required on 244-S - 244-TX - and 244-A)	AC HEPA filter orifices (244-S - 244-TX - and 244-A) (filter efficiency)	LCO Trans sys covers AC HEPA filter orifices (244-S - 244-TX - and 244-A) (filter efficiency and source term) AC Trans sys cover removal orifices

Table A-4. Master Control Table. (101 Sheets)

ID	Prev SSC	MM SSC	Prev TSR	MM TSR
XS-03-TEMP08	None required	SS Tank level detect eyes Sup SSC SB Tank farm elect dist eye	None required	AC Transmits (subsurface plume)
XS-05-FLOW01	None required	SB Vent stack CAM interlock eyes Sup SSC SB Tank farm elect dist eye	None required	LCO Vent stack CAM interlock eyes AC HEPA filter orifice
XS-05-FLOW02	None required	SB Tank level detect eyes Sup SSC SB Tank farm elect dist eye	None required	AC Transmits (subsurface plume)
XS-05-TEMP01	None required	SB Vent stack CAM interlock eyes Sup SSC SB Tank farm elect dist eye	None required	LCO Vent stack CAM interlock eyes AC HEPA filter orifice
XS-05-TEMP02	SC DORT vent eyes Sup SSC SC Tank farm elect dist eye	None required	LCO DORT vent eyes AC Ign orifice (flame gas) AC Flare gas meter orifice AC Process test and assess and test equip	AC HEPA filter orifice AC Emergency prep (fire and waste leak)
XS-06-FLOW01	None required	None required	AC Nuclear criticality safety	None required
XS-06-FLOW02	None required	SC Trans eye covers SS Above grade portions of waste air ducts (leakage)	AC Transmits (spray leaks) AC Trans pump admin lock orifice	LCO Trans eye covers AC Trans eye cover removal orifice AC Emergency prep (waste leak)
XS-06-FLOW03	None required	SC Trans eye covers SS Above grade portions of waste air ducts (leakage)	AC Transmits (spray leaks) AC Trans pump admin lock orifice	LCO Trans eye covers AC Trans eye cover removal orifice AC Emergency prep (waste leak)
XS-06-FLOW04	None required	SC Trans eye covers SS Above grade portions of waste air ducts (leakage)	AC Transmits (spray leaks) AC Trans pump admin lock orifice	LCO Trans eye covers AC Trans eye cover removal orifice AC Emergency prep (waste leak)

Table A-4. Master Control Table. (101 Sheets)

ID	Prev SSC	MI SSC	Prev TSR	ME TSR
XS-06-FLOW05	SC Pipe encasements	SC Trans leak detect sys SS Tank level detect sys SS Self vent flow indicators SE Trans eye covers SS Above grade portions of waste air structure (splash and splatter) Sup SSC SS Tank farm elect det sys	AC Trans ontris (pool) AC Encas pool loop ontris AC Trans pump admin lock ontris	LOO Trans eye covers LOO Trans leak detect sys AC Emergency prep (waste leak) AC Trans eye cover removal ontris
XS-06-FLOW06	SC Trans leak detect sys SC Above grade portions of waste air structure (splash and splatter) SS Tank level detect sys Sup SSC SC Tank farm elect det sys	SC Trans leak detect sys SS Above grade portions of waste air structure (splash and splatter) SS Tank level detect sys SS Trans eye covers Sup SSC SC Tank farm elect det sys	LOO Trans leak detect sys AC Trans ontris (pool) AC Trans pump admin lock ontris	LOO Trans eye covers LOO Trans leak detect sys AC Trans ontris (pool) AC Emergency prep (waste leak) AC Trans eye cover removal ontris
XS-07-FLOW01	None required	None required	AC Excavation ontris	AC Excavation ontris
XS-07-FLOW02	SC Pipe encasements	SC Trans leak detect sys SS Tank level detect sys SS Self vent flow indicators SE Trans eye covers SS Above grade portions of waste air structure (splash and splatter) Sup SSC SS Tank farm elect det sys	AC Trans ontris (pool) AC Encas pool loop ontris AC Trans pump admin lock ontris	LOO Trans eye covers LOO Trans leak detect sys AC Emergency prep (waste leak) AC Trans eye cover removal ontris
XS-07-FLOW03	None required	None required	None required	None required
XS-07-FLOW04	SC Pipe encasements	SC Trans leak detect sys SS Tank level detect sys SS Self vent flow indicators SE Trans eye covers SS Above grade portions of waste air structure (splash and splatter)	AC Trans ontris (pool) AC Encas pool loop ontris AC Trans pump admin lock ontris	LOO Trans eye covers LOO Trans leak detect sys AC Emergency prep (waste leak) AC Trans eye cover removal ontris

Table A-4. Master Control Table. (101 Sheets)

ID	Prm SSC	Mt SSC	Prm TSR	Mt TSR
XS-07-FLOW05	SC Pipe encasements	SC Trans leak detect sys SS Tank level detect sys SS Ball wall flow totalizers SS Trans eye covers SS Above grade portions of waste xtr structure (splash and splitter) Sup SSC SS Tank farm elect dist sys	AC Trans entris (pool) AC Encas wall loop entris AC Trans pump admin lock entris	LCO Trans eye covers LCO Trans leak detect sys AC Emergency prep (waste leak) AC Trans eye cover removal entris
XS-07-FLOW06	SC Pipe encasements	SC Trans leak detect sys SS Tank level detect sys SS Ball wall flow totalizers SS Trans eye covers SS Above grade portions of waste xtr structure (splash and splitter) Sup SSC SS Tank farm elect dist sys	AC Trans entris (pool) AC Encas wall loop entris AC Trans pump admin lock entris	LCO Trans eye covers LCO Trans leak detect sys AC Emergency prep (waste leak) AC Trans eye cover removal entris
XS-11-LEVEL01	SC Trans leak detect sys SC Above grade portions of waste xtr structure (integrity) SS Tank level detect sys SS Ball wall flow totalizers Sup SSC SC Tank farm elect dist sys	SC Trans leak detect sys SS Above grade portions of waste xtr structure (splash and splitter) SC Pn tank leak detect sys SS Tank level detect sys SS Trans eye covers SS Ball wall flow totalizers Sup SSC SC Tank farm elect dist sys	LCO Trans leak detect sys AC Trans entris (pool) AC Trans pump admin lock entris	LCO Trans eye covers LCO Trans leak detect sys LCO Pn tank leak detect sys AC Emergency prep (waste leak) AC Trans eye cover removal entris
XS-11-LEVEL02	SC Trans leak detect sys SC Above grade portions of waste xtr structure (integrity) SS Tank level detect sys SS Ball wall flow totalizers Sup SSC SC Tank farm elect dist sys	SC Trans leak detect sys SS Above grade portions of waste xtr structure (splash and splitter) SC Pn tank leak detect sys SS Tank level detect sys SS Trans eye covers SS Ball wall flow totalizers Sup SSC SC Tank farm elect dist sys	LCO Trans leak detect sys AC Trans entris (pool) AC Trans pump admin lock entris	LCO Trans eye covers LCO Trans leak detect sys LCO Pn tank leak detect sys AC Emergency prep (waste leak) AC Trans eye cover removal entris

Table A-4. Master Control Table. (181 Sheets)

ID	Prev SSC	Mid SSC	Prev TSR	Mid TSR
XS-11-LEVE03	SC Trans leak detect sys SC Above grade portions of waste xfr ducts (integrity) SS Tank level detect sys SS Silt wall flow detectors Sup SSC SC Tank farm elect det sys	SC Trans leak detect sys SS Above grade portions of waste xfr ducts (splash and spatter) SS Tank level detect sys SS Trans sys covers SS Silt wall flow detectors Sup SSC SC Tank farm elect det sys	LCO Trans leak detect sys AC Trans on/off (good) AC Encas seal loop on/off AC Trans pump alarm lock on/off	LCO Trans sys covers LCO Trans leak detect sys AC Emergency prep (waste leak) AC Trans sys cover removal on/off
XS-12-FLOW01	None required	None required	AC Transfer on/off	None required
XS-12-FLOW02	None required	None required	AC Flammability on/off AC Ign on/off (flam gas) AC Flam gas mon on/off AC Process seal and mess and test equip	AC Emergency prep (fire and waste leak)
XS-12-FLOW03	None required	None required	AC Flammability on/off AC Ign on/off (flam gas) AC Flam gas mon on/off AC Process hot and mess and test equip	AC Emergency prep (fire and waste leak)
XS-12-FLOW04	None required	None required	None required	None required
XS-12-FLOW05	SC Trans leak detect sys SC Above grade portions of waste xfr ducts (integrity) SS Tank level detect sys SS Silt wall flow detectors Sup SSC SC Tank farm elect det sys	SC Trans leak detect sys SS Above grade portions of waste xfr ducts (splash and spatter) SS Tank level detect sys SS Trans sys covers SS Silt wall flow detectors Sup SSC SC Tank farm elect det sys	LCO Trans leak detect sys AC Trans on/off (good) AC Encas seal loop on/off AC Trans pump alarm lock on/off	LCO Trans sys covers LCO Trans leak detect sys AC Emergency prep (waste leak) AC Trans sys cover removal on/off

Table A-4. Master Control Table. (101 Sheets)

ID	Prev SRC	Met SSC	Prev TBR	Met TBR
X6-12-FLOW08	None required	SC Trans leak detect sys SS Tank level detect sys SS Salt well flow detectors SS Trans eye covers SS Above grade portions of waste wr stacks (splash and splatter) Sup SSC SS Tank form sheet det sys	AC Trans debris (pool) AC Encase seal loop crits AC Trans pump station lock crits	LCO Trans eye covers LCO Trans leak detect sys AC Emergency prep (waste leak) AC Trans eye cover removal crits
X8-13-LEVEL	None required	SS Tank level detect sys Sup SSC SS Tank form sheet det sys	None required	AC Trans crits (subsurface plume)
X5-13-PRES01	None required	None required	AC Transfer crits	None required
X5-13-PRES02	None required	None required	AC Ign crits (flam gas) AC Flare gas with crits AC Process not and access and test equip	AC HEPA filter crits AC Emergency prep (fire and waste leak)
X6-13-PRES03	None required	None required	AC Transfer crits	None required
X5-13-PRES04	None required	None required	AC Nuclear criticality safety	None required
X5-20-FLOW01	None required	SS HEPA filters (minimum one stage required on 244-S, 244-TX, and 244-A)	AC Trans crits (pH)	AC HEPA filter crits (244-S, 244- TX, and 244-A)
X5-20-FLOW02	None required	None required	AC Trans crits (pool)	None required
X8-20-FLOW03	None required	None required	AC Transfer crits	None required
X5-20-FLOW04	None required	None required	AC Transfer crits	None required
X5-20-FLOW05	None required	None required	AC Nuclear criticality safety	None required
X6-20-FLOW06	None required	None required	AC Trans crits (pool)	None required
X8-20-FLOW07	None required	None required	AC Trans crits (pool)	None required

Table A-4. Master Control Table. (101 Sheets)

ID	Prin SSC	Mit SSC	Prin YSR	Mit YSR
XS-20-FLOW08	SC Trans leak detect eyes SC Above grade portions of waste x/r structure (integrity) SS Tank level detect eyes SS Salt well flow totalizers Sup SSC SC Tank farm elect dist eye	SC Trans leak detect eyes SS Above grade portions of waste x/r structure (uplash and splatter) SC Pn tank leak detect eyes SS Tank level detect eyes SS Trans sys covers SS Salt well flow totalizers Sup SSC SC Tank farm elect dist eye	LCO Trans leak detect eyes AC Trans crlts (pool) AC Trans pump admin lock crlts	LCO Trans sys covers LCO Trans leak detect eyes LCO Pn tank leak detect eyes AC Emergency prep (waste leak) AC Trans eye cover removal crlts
XS-25-FLOW09	SC Trans leak detect eyes SC Above grade portions of waste x/r structure (integrity) SS Tank level detect eyes SS Salt well flow totalizers Sup SSC SC Tank farm elect dist eye	SC Trans leak detect eyes SS Above grade portions of waste x/r structure (uplash and splatter) SC Pn tank leak detect eyes SS Tank level detect eyes SS Trans sys covers SS Salt well flow totalizers Sup SSC SC Tank farm elect dist eye	LCO Trans leak detect eyes AC Trans crlts (pool) AC Trans pump admin lock crlts	LCO Trans sys covers LCO Trans leak detect eyes LCO Pn tank leak detect eyes AC Emergency prep (waste leak) AC Trans eye cover removal crlts
XS-26-PRES XB-26-TEMP	None required	None required	AC Transfer crlts	None required
XS-26-PRES XB-26-TEMP 102-AW-TEMP (FOR TC-102-AW)	None required	None required	AC Nuclear criticality safety	None required
XS-26-PRES01	None required	None required	AC Transfer crlts	None required
XS-26-PRES01A 102AW-02-PRES	SC DST/ANF Pn tank vent eyes Sup SSC SC Tank farm elect dist eye	SC Trans eye covers SS Above grade portions of waste x/r structure (uplash and splatter)	LCO DST and ANF tank vent eyes	LCO Trans eye covers AC Trans eye cover removal crlts

Table A-4. Master Control Table. (101 Sheets)

ID	Proc SSC	Mit SSC	Proc TSS	Mit TSS
XS-25-PRE902	SC DST/ANF Pn tank vent syte SC Pn tank leak detect syte SC DGT struct Sup SSC SC Comp air syte SC Tank farm elect dist syte	None required	LCO DST and ANF tank vent syte LCO Pn tank leak detect syte AC Flammability critris AC Ign critris (flow gas) AC Flam gas mon critris AC Process shut and mess and test equip	AC HEPA filter critris AC Emergency prep (fire and waste leak)
XS-25-PRE902A 102AW-02-PRE8	SC DST/ANF Pn tank vent syte Sup SSC SC Tank farm elect dist syte	SC Trans syte covers SS Above grade portions of waste strustruct (splash and splitter)	LCO DST and ANF tank vent syte	LCO Trans syte covers AC Trans syte cover removal critris
XS-25-PRE903	SC DST/ANF Pn tank vent syte Sup SSC SC Tank farm elect dist syte	SC Trans syte covers SS Above grade portions of waste strustruct (splash and splitter)	LCO DST and ANF tank vent syte	LCO Trans syte covers AC Trans syte cover removal critris
XS-25-PRE903 102AW-02-PRE8	SC DST/ANF Pn tank vent syte Sup SSC SC Tank farm elect dist syte	SC Trans syte covers SS Above grade portions of waste strustruct (splash and splitter)	LCO DST and ANF tank vent syte	LCO Trans syte covers AC Trans syte cover removal critris
XS-25-TEMP 102AW-06-TEMP	SC Temp mon syte Sup SSC SC Tank farm elect dist syte	None required	LCO DST waste temp critris	None required
XS-25-TEMP01	SS Temp mon syte SS Tank level detect syte Sup SSC SC Tank farm elect dist syte	None required	LCO DST and ANF tank waste temp critris AC Trans critris AC Process shut and mess and test equip	None required
XS-25-TEMP02	SC Temp mon syte Sup SSC SC Tank farm elect dist syte	None required	LCO DST waste temp critris	None required
XS-25-FLOW01	None required	None required	None required	None required

Table A-4. Master Control Table. (101 Sheets)

ID	Prev SSC	Min SSC	Prev TBR	Min TBR
XS-35-FLOW02	SS Tank level detect sys Sup SSC SC Tank farm elect dist sys	SS Tank level detect sys Sup SSC SC Tank farm elect dist sys	AC Trans crits (pod)	AC Trans crits (pod) AC Emergency prep (waste tank)
XS-37-FLOW01	SC Trans leak detect sys SC Above grade portions of waste x/r structure (integrity) SS Tank level detect sys SS Salt well flow totalizers Sup SSC SC Tank farm elect dist sys	SC Trans leak detect sys SS Above grade portions of waste x/r structure (splash and speller) SS Tank level detect sys SS Trans sys covers SS Salt well flow totalizers Sup SSC SC Tank farm elect dist sys	LCO Trans leak detect sys AC Trans crits (pod) AC Exhaust vent loop crits AC Trans pump admin lock crits	LCO Trans sys covers LCO Trans leak detect sys AC Emergency prep (waste tank) AC Trans sys cover removal crits
XS-37-FLOW02	SS Pipe encasement	SC Trans leak detect sys SS Tank level detect sys SS Salt well flow totalizers Sup SSC SC Tank farm elect dist sys	AC Exhaust vent loop crits AC Trans crits (subsurface phase) AC Trans pump admin lock crits	LCO Trans leak detect sys AC Trans crits (subsurface phase)
XS-41A-FLOW01	SC Trans leak detect sys SC Above grade portions of waste x/r structure (integrity) SS Tank level detect sys SS Salt well flow totalizers Sup SSC SC Tank farm elect dist sys	SC Trans leak detect sys SS Above grade portions of waste x/r structure (splash and speller) SS Tank level detect sys SS Trans sys covers SS Salt well flow totalizers Sup SSC SC Tank farm elect dist sys	LCO Trans leak detect sys AC Trans crits (pod) AC Exhaust vent loop crits AC Trans pump admin lock crits	LCO Trans sys covers LCO Trans leak detect sys AC Emergency prep (waste tank) AC Trans sys cover removal crits
XS-41A-FLOW02	SC Trans leak detect sys SC Above grade portions of waste x/r structure (integrity) SS Tank level detect sys SS Salt well flow totalizers Sup SSC SC Tank farm elect dist sys	SC Trans leak detect sys SS Above grade portions of waste x/r structure (splash and speller) SS Tank level detect sys SS Trans sys covers SS Salt well flow totalizers Sup SSC SC Tank farm elect dist sys	LCO Trans leak detect sys AC Trans crits (pod) AC Exhaust vent loop crits AC Trans pump admin lock crits	LCO Trans sys covers LCO Trans leak detect sys AC Emergency prep (waste tank) AC Trans sys cover removal crits

Table A-4. Master Control Table. (101 Streets)

ID	Prep SSC	Mt SSC	Prep TSR	Mt TSR
XS-41B-LEVE01	None required	None required	AC Ign orifice (flam gas) AC Flam gas mon orifice AC Process shut and reset and test equip	AC HEPA filter orifice AC Emergency prep (fire and waste leak)
XS-41B-LEVE02	GC Trans leak detect eyes Sup SSC SC Tank farm elect dist eye	None required	LCO Trans leak detect eyes AC Trans orifice (pool) AC Trans pump admin lock orifice	AC Emergency prep (waste leak)
XS-41B-LEVE03	GC Trans leak detect eyes SC Above grade portions of waste x/r structure (integrity) SS Tank level detect eyes SS Salt well flow telepanels Sup SSC SC Tank farm elect dist eye	SC Trans leak detect eyes SS Above grade portions of waste x/r structure (splash and spillover) SS Tank level detect eyes SS Trans eye covers SS Salt well flow telepanels Sup SSC SC Tank farm elect dist eye	LCO Trans leak detect eyes AC Trans orifice (pool) AC Encos seal loop orifice AC Trans pump admin lock orifice	LCO Trans eye covers LCO Trans leak detect eyes AC Emergency prep (waste leak) AC Trans eye cover removal orifice
XS-41B-LEVE04	GC Trans leak detect eyes Sup SSC SC Tank farm elect dist eye	None required	LCO Trans leak detect eyes AC Trans orifice (pool) AC Trans pump admin lock orifice	AC Emergency prep (waste leak)
XS-41C-LEVE01	None required	None required	AC Ign orifice (flam gas) AC Flam gas mon orifice AC Process shut and reset and test equip	AC HEPA filter orifice AC Emergency prep (fire and waste leak)
XS-41C-LEVE02	None required	None required	None required	None required
XS-41C-LEVE03	GC Trans leak detect eyes SC Above grade portions of waste x/r structure (integrity) Sup SSC SC Tank farm elect dist eye	SC Trans leak detect eyes SS Above grade portions of waste x/r structure (splash and spillover) SS Tank level detect eyes SS Trans eye covers Sup SSC SC Tank farm elect dist eye	LCO Trans leak detect eyes AC Trans orifice (pool) AC Trans pump admin lock orifice	LCO Trans eye covers LCO Trans leak detect eyes AC Trans orifice (pool) AC Emergency prep (waste leak) AC Trans eye cover removal orifice

Table A-4. Master Control Table. (101 Sheets)

ID	Prev SSC	Int SSC	Prev TSR	Int TSR
X5-48-FLOW	SS Pipe encasement	SS Trans leak detect sys SS Tank level detect sys Sup SSC SS Tank farm elect det sys	AC Encas seal loop crits AC Trans crits (subsurface plume) AC Trans pump alarm lock crits	LCD Trans leak detect sys AC Trans crits (subsurface plume)
X5-52-FLOW01	SC Pipe detection/monitor	SC Trans leak detect sys SS Tank level detect sys SS Spill well flow totalizers SS Trans eye covers SS Above grade portions of waste off structure (splitter and splitter) Sup SSC SS Tank farm elect det sys	AC Trans crits (pool) AC Encas seal loop crits AC Trans pump alarm lock crits	LCD Trans eye covers LCD Trans leak detect sys AC Emergency prep (seal leak) AC Trans eye cover removal crits
X5-52-FLOW02	SC Trans leak detect sys SC Above grade portions of waste off structure (integrity) SS Tank level detect sys SS Spill well flow totalizers Sup SSC SC Tank farm elect det sys	SC Trans leak detect sys SS Above grade portions of waste off structure (splitter and splitter) SS Tank level detect sys SS Trans eye covers SS Spill well flow totalizers Sup SSC SC Tank farm elect det sys	LCD Trans leak detect sys AC Trans crits (pool) AC Encas seal loop crits AC Trans pump alarm lock crits	LCD Trans eye covers LCD Trans leak detect sys AC Emergency prep (waste leak) AC Trans eye cover removal crits

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Table A-5. Master Database-In-Depth Controls. (60 Sheets)

ID	DID-Preventive	DID-Negative
102AW-01-FLOW 102AW-02-PRIS	Flammable gas monitor Leak detectors, material balances and tank level monitoring	None
102AW-01-FLOW 102AW-04-PRES	Leak testing of junctions	Leak detection systems (transfer leak detection and encasement leak detection) Material balance calculations during waste transfers Tank level monitoring during transfer Ground level radiation surveys
102AW-01-FLOW01	Leak testing of junctions	Leak detection systems (transfer leak detection and encasement leak detection) Material balance calculations during waste transfers Tank level monitoring during transfer Ground level radiation surveys
102AW-01-FLOW02	None	Encasement leak detectors Test runs provided on long transfer lines
102AW-01-FLOW03	None	Encasement leak detectors Test runs provided on long transfer lines
102AW-01-FLOW04	None	Encasement leak detectors Test runs provided on long transfer lines
102AW-01-FLOW05	None	Encasement leak detectors Test runs provided on long transfer lines
102AW-01-FLOW06	None	Encasement leak detectors Test runs provided on long transfer lines
102AW-01-FLOW07	None	Encasement leak detectors Test runs provided on long transfer lines
102AW-01-FLOW10	Drains in waste transfer system structures Encasement leak detection systems	Visual survey of tank farms at least once a day Ground level radiation surveys
102AW-01-FLOW11	Drains in waste transfer system structures Encasement leak detection systems	DCRT catch tank vault leak detection systems Visual survey of tank farms at least once a day Ground level radiation surveys
102AW-01-TEMP	None	Material balance calculations during waste transfers
102AW-01-TEMP01	Drains in waste transfer system structures Encasement leak detection systems	DCRT catch tank vault leak detection systems Visual survey of tank farms at least once a day Ground level radiation surveys
102AW-01-TEMP01A	Drains in waste transfer system structures Encasement leak detection systems	DCRT catch tank vault leak detection systems Visual survey of tank farms at least once a day Ground level radiation surveys
102AW-01-TEMP02	Drains in waste transfer system structures Encasement leak detection systems	DCRT catch tank vault leak detection systems Visual survey of tank farms at least once a day Ground level radiation surveys
102AW-02-LEVE	Tank pressure monitors/alarms Tank integrity assessment program	None
102AW-02-LEVE01	None	None

Table A-5. Master Defense-in-Depth Controls. (60 Sheets)

ID	DND-Preventive	DID-Negative
102ANV-02-LEVE02	Tank pressure monitors/alarms Tank integrity assessment program	None
102ANV-02-LEVE02A	None	None
102ANV-02-LEVE03	Debris in waste transfer system structures Encasement leak detection systems	DCRT catch tank vault leak detection systems Visual survey of tank farms at least once a day Ground level radiation surveys
102ANV-02-LEVE04	Debris in waste transfer system structures Encasement leak detection systems	DCRT catch tank vault leak detection systems Visual survey of tank farms at least once a day Ground level radiation surveys
102ANV-02-LEVE05	Debris in waste transfer system structures Encasement leak detection systems	DCRT catch tank vault leak detection systems Visual survey of tank farms at least once a day Ground level radiation surveys
102ANV-02-LEVE06	Tank pressure monitors/alarms Tank integrity assessment program	None
102ANV-02-PR15 102ANV-02-TEMP	Primary ventilation system including HEPA filter	Cover blocks
102ANV-02-PR16 DC XS-25-PR16 01	None	None
102ANV-02-PR1601	Filterable gas monitor	None
102ANV-02-PR1602	None	None
102ANV-02-PR1603	Tank pressure monitors/alarms	None
102ANV-02-PR1604	Tank pressure monitors/alarms	None
102ANV-02-PR1606	Tank pressure monitors/alarms	None
102ANV-02-PR1608	Tank pressure monitors/alarms	None
102ANV-02-PR1607	Tank pressure monitors/alarms	None
102ANV-02-PR1608	None	Cover blocks Primary ventilation system including HEPA filters
102ANV-02-PR1609	None	Cover blocks Primary ventilation system including HEPA filters
102ANV-02-TEMP 102ANV-04-TEMP	None	None

Table A-5. Master Defense-in-Depth Controls. (60 Sheets)

ID	CID-Preventive	DID-Negative
102AW-02-TEMP01	None	None
102AW-02-TEMP02	Primary and annulus DST/ANN tank ventilation ALDs	Cover blocks (or other tank sealing features) Emergency preparedness
102AW-03-LEVE01	Flammable gas monitor	None
102AW-03-LEVE02	Flammable gas monitor	None
102AW-03-LEVE03	Tank pressure monitors/bellows	None
102AW-03-PRES01 102AW-03-LEVE	None	None
102AW-03-PRES02 102AW-03-LEVE	None	None
102AW-03-TEMP01	Vehicle positioning spotters	None
102AW-03-TEMP02	Vehicle positioning spotters	None
102AW-04-LEVE01	Drains in waste transfer system structures Leak testing of jumpers	Manual balance calculations during waste transfers Tank level monitoring during waste transfers Leak detection systems (transfer tank detection systems and encasement leak detection systems) Ground level radiation surveys
102AW-04-LEVE02	Drains in waste transfer system structures Leak testing of jumpers	Manual balance calculations during waste transfers Tank level monitoring during waste transfers Leak detection systems (transfer tank detection systems and encasement leak detection systems) Ground level radiation surveys
102AW-04-LEVE03	Drains in waste transfer system structures	Ground level radiation surveys
102AW-04-LEVE04	Drains in waste transfer system structures	Ground level radiation surveys
102AW-04-PRES-01	None	None
102AW-04-PRES01	None	Ground level radiation surveys
102AW-04-PRES02	None	Ground level radiation surveys
102AW-04-STRU-01	None	None
102AW-04-STRU-02	None	None

Table A-5. Master Defense-in-Depth Controls. (60 Sheets)

ID	DIC-Preventive	DIC-Mitigative
102AW-04-STRU01A	Restrictions on operations during high winds	Emergency Preparedness
102AW-04-STRU01B	None	None
102AW-04-STRU02	Core deflection monitoring	Emergency Preparedness
102AW-04-STRU03	Job control • Respiration protection • Contamination control Flush transfer lines after use	None
102AW-04-STRU04	None	Emergency preparedness
102AW-04-STRU05	None	Emergency preparedness
102AW-04-TEMP	Fire Prevention practices Job control • Respiration protection • Contamination control Vegetation Control Program Flush transfer lines after use	None
102AW-08-COMP01	None	None
102AW-08-COMP02	None	None
102AW-08-COMP02A	None	None
102AW-08-COMP03	None	None
102AW-08-COMP04	None	None
102AW-08-COMP05	None	None
102AW-08-COMP06	S&T and Distal Vent primary leak ventilation systems	None
102AW-08-COMP01	Vehicle positioning spotters	Ventilation stack CAM Interlock system HEPA filter replacement typically performed at 1 m5wh (100 acre-ft)
102AW-08-COMP02	Vehicle positioning spotters	None
102AW-08-COMP03	Vehicle positioning spotters	None
102AW-08-COMP04	Sampling controls	RWMP (radiation work permit)
102AW-08-COMP05	None	None

Table A-5. Master Defense-In-Depth Controls. (60 Sheets)

ID	DID-Preventive	DID-Negative
102AW-09-TEMP	None	Cover blocks Primary ventilation system including HEPA filters
102AW-09-TEMP01	Primary and auxiliary CST/WWP tank ventilation ALCA	Cover blocks (or other tank sealing facilities) Emergency preparedness
102AW-09-TEMP02	None	None
102AW-13-FLOW 01	None	None
102AW-13-FLOW01	None	Service pit leak detection systems Service water radiation monitors
102AW-13-FLOW02	Drains in waste transfer system structures Encasement leak detection systems	Service pit leak detection systems Service water radiation monitors
102S-01 a1	Drains in waste transfer system structures Encasement leak detection systems	DCRT catch tank vault leak detection systems Visual survey of tank farms at least once a day Ground level radiation surveys
102S-01 b2	Drains in waste transfer system structures Encasement leak detection systems	DCRT catch tank vault leak detection systems Visual survey of tank farms at least once a day Ground level radiation surveys
102S-01 b3	Hydrostatic testing of direct buried or buried piping	Emergency preparedness
102S-02 b1	Fire Prevention practices Job control - Respiration protection - Contamination control Flush transfer lines after use Monitor for flammable gas before entering areas connected to transfer lines	None
102S-02 b2	Fire Prevention practices Job control - Respiration protection - Contamination control Flush transfer lines after use	None
102S-02 d2	Fire Prevention practices Job control - Respiration protection - Contamination control Vehicle positioning spotters Vegetation Control Program Flush transfer lines after use Monitor for flammable gas before entering areas connected to transfer lines	None
102S-02 d3	Vehicle positioning spotters	None
102S-03 b3	Vehicle positioning spotters	None
102S-03 b4	Vehicle positioning spotters	None
102S-04 a1b	Tank integrity assessment programs Dome deflection monitoring	None
102S-04 a1bb	Tank integrity assessment programs Dome deflection monitoring	None

Table A-8. Nuclear Defense-(μ -Depth Controls. (#0 Sheets)

ID	DD-Preventive	DD-Mitigate
102B-04 a3	None	Cover blocks Primary ventilation system including HEPA filters
102B-04 c	Flammable gas monitor	None
102B-04 df	Tank pressure monitors/alarms	None
102B-04 e1b	Flammable gas monitor	None
102B-04 e2	None	None
102B-04 e3	Flammable gas monitor	None
102B-04 e4	None	None
102B-06 a1a	Dome deflection monitoring	Emergency Preparedness
102B-06 a1aa	None	Emergency Preparedness
102B-06 a2	Tank integrity assessment program	None
102B-06 a3	Waste temperature (absolute and delta monitoring)	None
102B-06 a3a	Tank pressure monitors/alarms Tank type waste compatibility programs Tank integrity assessment programs Dome deflection monitoring	None
102B-06 a	Aerosol testing of HEPA filters	None
106C-01A	Tank pressure monitors/alarms	None
106C-01B	Tank pressure monitors/alarms	None
106C-01C	Tank pressure monitors/alarms	None
106C-01D	Tank pressure monitors/alarms	None
106C-01E	Tank pressure monitors/alarms	None
106C-01F	Annual aerosol testing of filters on the ventilation system Periodic surveillance of HEPA Delta P HEPA filter replacement typically performed at 1 mSv/h (100 mrem/h)	Low Delta P interlock across the HEPA filters on the ventilation system High Delta P (across the HEPA filters) alarm (usually, at a trained facility) on the ventilation system
106C-01G	None	None

Table A-8. Master Defense-in-Depth Controls. (All Sheets)

ID	DID-Preventive	DID-Mitigative
106C-01H	None	None
106C-01I	Flammable gas monitor	None
106C-01J	Flammable gas monitor	None
106C-01K	None	None
106C-01M	None	None
106C-01Na	Flammable gas monitor	None
106C-01N	None	None
106C-01Ra	Waste temperature (absolute and delta) monitoring Tank integrity assessment program	Emergency preparedness
106C-01S	Leak detectors, material balances, and tank level monitoring	None
106C-01Sa	Leak detectors, material balances, and tank level monitoring	None
106C-01T	Leak detectors, material balances, and tank level monitoring	None
106C-01U	None	None
106C-01V	Tank level monitoring	None
106C-01X	Dome deflection monitoring	Emergency Preparedness
106C-01Y	Dome deflection monitoring	Emergency Preparedness
106C-02A	Flammable gas monitor	None
106C-02B	Flammable gas monitor	None
106C-02C	Flammable gas monitor	None
106C-04A	Flammable gas monitor	None
106C-04Aa	Flammable gas monitor	None
106C-04B	Flammable gas monitor	None

Table A-6. Master Defense-In-Depth Controls. (66 Sheets)

ID	DID-Preventive	DID-Negative
106C-06A	None	Ground level radiation surveys
106C-06B	None	None
106C-06D	Fire Prevention practices Job control - Respiration protection - Contamination control Vehicle positioning spotters Vegetation Control Program Flush transfer lines after use Monitor for flammable gas before entering areas connected to transfer lines	None
106C-06F	Drains in waste transfer system structures	Ground level radiation surveys
106C-06G	Drains in waste transfer system structures	Ground level radiation surveys
106C-06H	Drains in waste transfer system structures	Ground level radiation surveys
106C-06J	None	None
106C-06K	Hardford Site Hoisting and Rigging Manual for cabool lifts	None
106C-06L	Fire Prevention practices Job control - Respiration protection - Contamination control Vegetation Control Program Flush transfer lines after use Monitor for flammable gas before entering areas connected to transfer lines	None
106C-06M	None	None
106C-10B	None	None
106C-10C	None	None
106C-10D	None	None
106C-10E	None	None
106C-10F	None	Ground level radiation surveys
106C-10H	HEPA filter replacement typically performed at 1 m3/min (100 mrem/yr) Periodic surveillance of HEPA differential pressure	Low Delta P interlock across the HEPA filters on the ventilation system High Delta P (across the HEPA filters) alarm (remotely, at a manned facility) on the ventilation system
106C-10J	HEPA filter replacement typically performed at 1 m3/min (100 mrem/yr) Periodic surveillance of HEPA differential pressure	Low Delta P interlock across the HEPA filters on the ventilation system High Delta P (across the HEPA filters) alarm (remotely, at a manned facility) on the ventilation system

Table A-6. Master Defense-in-Depth Controls. (68 Sheets)

ID	DIO-Preventive	DIO-Mitigative
106C-10K	None	Ground level radiation surveys
106C-10L	None	Ground level radiation surveys
106C-11A	High Delta P (across the HEPA filters) alarm (remotely, at a manned facility) on the ventilation system	Ground level radiation surveys
106C-11B	None	None
106C-11C	None	None
106C-11D	None	None
106C-11E	Aircraft testing of HEPA filters	HEPA filter low differential interlocks/alarms Periodic surveillance of HEPA differential pressure
106C-11F	None	None
106C-11G	None	Ground level radiation surveys
106C-11H	None	Ground level radiation surveys
106C-11I	None	Ground level radiation surveys
106C-11J	Periodic surveillance of HEPA Delta P HEPA filter replacement typically performed at 1 mBq/d (100 mrem/y) interlock/ alarm on heater over temperature	Low Delta P interlock across the HEPA filters on the ventilation system High Delta P (across the HEPA filters) alarm (remotely, at a manned facility) on the ventilation system
106C-11K	Periodic surveillance of HEPA Delta P HEPA filter replacement typically performed at 1 mBq/d (100 mrem/y) interlock/ alarm on heater over temperature	Low Delta P interlock across the HEPA filters on the ventilation system High Delta P (across the HEPA filters) alarm (remotely, at a manned facility) on the ventilation system
106C-11L	Aircraft testing of HEPA filters	HEPA filter low differential interlocks/alarms Periodic surveillance of HEPA differential pressure
106C-11M	Annual aircraft testing of filters on the ventilation system Periodic surveillance of HEPA Delta P HEPA filter replacement typically performed at 1 mBq/d (100 mrem/y)	Low Delta P interlock across the HEPA filters on the ventilation system
106C-11N	None	Ground level radiation surveys

Table A-5. Master Defense-in-Depth Controls. (60 Sheets)

ID	DID-Preventive	DID-Mitigative
106C-110	Annual aerosol testing of filters on the ventilation system Periodic surveillance of HEPA Delta P HEPA filter replacement typically performed at 1 m/s (100 mm/min)	Low Delta P indicator across the HEPA filters on the ventilation system
106C-12A	Leak detectors, internal balances, and tank level monitoring	None
106C-12B	Leak detectors, internal balances, and tank level monitoring	None
106C-12C	Leak detectors, internal balances, and tank level monitoring	None
106C-12D	Leak detectors, internal balances, and tank level monitoring	None
106C-12F	None	None
106C-12G	Waste temperature (slabside and delta) monitoring Tank integrity assessment program	Emergency preparedness
106C-13A	Flammable gas indicator	None
106C-13B	Leak detectors, internal balances, and tank level monitoring	None
107AN-01-LEVE01	None	Industrial hygiene requirements (e.g., PPE) Emergency preparedness
107AN-01-LEVE02	None	Industrial hygiene requirements (e.g., PPE) Emergency preparedness
107AN-01-LEVE03	None	Industrial hygiene requirements (e.g., PPE) Emergency preparedness
107AN-01-TEMP 01	None	None
107AN-01-TEMP02	None	Industrial hygiene requirements (e.g., PPE) Emergency preparedness
107AN-02-FLOW01	None	None
107AN-02-FLOW02	None	None
107AN-02-FLOW03	None	Industrial hygiene requirements (e.g., PPE) Emergency preparedness
107AN-02-PRE01	None	Industrial hygiene requirements (e.g., PPE) Emergency preparedness
107AN-02-PRE02	None	Industrial hygiene requirements (e.g., PPE) Emergency preparedness
107AN-02-TEMP01	None	Industrial hygiene requirements (e.g., PPE)

Table A-6. Master Defense-in-Depth Controls. (60 Sheets)

ID	DID-Preventive	DID-Mitigative
1079A-03-FLOW	None	Industrial hygiene requirements (e.g., PPE) Emergency preparedness
1143X-02 b	Drinks in waste transfer system structures Encasement leak detection systems	DORT catch tank vent leak detection systems Visual survey of tank farms at least once a day Ground level radiation surveys
1143X-04 a 1a	Aerosol testing of HEPA filters	Periodic surveillance of HEPA differential pressure
1143X-04 a 1b	Aerosol testing of HEPA filters	Periodic surveillance of HEPA differential pressure
1143X-04 a 2	Tank pressure monitors/alarms	None
1143X-04 a 3	Tank pressure monitors/alarms Tank integrity assessment program	None
1143X-04 a 4	Aerosol testing of HEPA filters	Periodic surveillance of HEPA differential pressure
1143X-04 b 1 a 1	Aerosol testing of HEPA filters	Periodic surveillance of HEPA differential pressure
1143X-04 b 1 a 2	Waste temperature (absolute and delta monitoring) Dome deflection monitoring Tank integrity assessment program	None
1143X-04 b 1 a 3	Waste temperature (absolute and delta) monitoring Tank integrity assessment program	Emergency preparedness
1143X-04 b 1 b 1a	Aerosol testing of HEPA filters	Periodic surveillance of HEPA differential pressure
1143X-04 b 1 b 1b	None	HEPA filter low differential interlocks/alarms Periodic surveillance of HEPA differential pressure
1143X-04 b 1 b 2a	Waste temperature (absolute and delta monitoring) Dome deflection monitoring Tank integrity assessment program	None
1143X-04 b 1 b 2b	Tank integrity assessment program	None
1143X-04 b 1 b 3a	Waste temperature (absolute and delta) monitoring Tank integrity assessment program	Emergency preparedness
1143X-04 b 1 b 3b	None	Emergency preparedness
1143X-04 b 1 c 1	Aerosol testing of HEPA filters	Periodic surveillance of HEPA differential pressure
1143X-04 b 1 c 2	Waste temperature (absolute and delta monitoring) Dome deflection monitoring Tank pressure monitors/alarms Tank integrity assessment program	None

Table A-5. Master Defense-in-Depth Controls. (60 Sheets)

ID	DID-Preventive	DID-Mitigative
1145X-04 b 1 c 3	Waste temperature (absolute and delta) monitoring Tank integrity assessment program	Emergency preparedness
1145X-04 b 1 d 1	Aerosol testing of HEPA filters	Periodic surveillance of HEPA differential pressure
1145X-04 b 1 d 2	Waste temperature (absolute and delta monitoring) Dome deflection monitoring Tank pressure monitors/alerts Tank integrity assessment program	None
1145X-04 b 1 d 3	Waste temperature (absolute and delta) monitoring Tank integrity assessment program	Emergency preparedness
1145X-04 b 3b	Flammable gas monitor	None
1145X-04 b 5	Aerosol testing of HEPA filters	Periodic surveillance of HEPA differential pressure
1145X-04 c 1	None	HEPA filter low differential interlocks/alerts Periodic surveillance of HEPA differential pressure
1145X-04 c 2 a	Aerosol testing of HEPA filters	HEPA filter low differential interlocks/alerts Periodic surveillance of HEPA differential pressure
1145X-04 c 2 b	Aerosol testing of HEPA filters	HEPA filter low differential interlocks/alerts Periodic surveillance of HEPA differential pressure
1145X-04 c 2 c	Annual aerosol testing of filters on the ventilation system Periodic surveillance of HEPA Delta P HEPA filter replacement typically performed at 1 mSwh (100 mmHg)	Low Delta P interlock across the HEPA filters on the ventilation system
1145X-04 c 2 d	Aerosol testing of HEPA filters	HEPA filter low differential interlocks/alerts Periodic surveillance of HEPA differential pressure
1145X-05 b 1	Flammable gas monitor	None
1145X-05 b 2	Active SST ventilation ALGs	Cover blocks (or other tank sealing features) Emergency preparedness
1145X-05 b 3	Tank pressure monitors/alerts	None
1145X-05 c 2b	Waste temperature (absolute and delta monitoring) Dome deflection monitoring Tank pressure monitors/alerts Tank integrity assessment program Tank farm waste compatibility program	None
1145X-05 c 2c	None	None

Table A-8. Master Defense-In-Depth Controls. (98 Sheets)

ID	DID-Preventive	DID-Mitigative
1143X-08 d	Flammable gas monitor	None
1148X-08 e 1a	Dome deflection monitoring	Emergency Preparedness
1145X-08 e 1b	Flammable gas monitor	None
1145X-08 e 2	None	Emergency preparedness
1145X-08 e 3	Tank pressure monitoring/alarms Tank farm waste compatibility program Waste temperature (absolute and delta monitoring) Tank integrity assessment program Dome deflection monitoring	None
1145X-08 b	None	None
204AR-01A	Railroad inspection and maintenance	Catch tank HEPA filtered ventilation system Leak detection instrumentation Continuous air monitors Emergency preparedness
204AR-01B	Railroad inspection and maintenance	Catch tank HEPA filtered ventilation system Leak detection instrumentation Continuous air monitors Emergency preparedness
204AR-01C	Railroad inspection and maintenance	Catch tank HEPA filtered ventilation system Leak detection instrumentation Continuous air monitors Emergency preparedness
204AR-01D	Railroad inspection and maintenance	Catch tank HEPA filtered ventilation system Leak detection instrumentation Continuous air monitors Emergency preparedness
204AR-01E	None	Catch tank HEPA filtered ventilation system Leak detection instrumentation Continuous air monitors Emergency preparedness
204AR-01F	Railroad inspection and maintenance	Catch tank Leak detection instrumentation Continuous air monitors Emergency preparedness HEPA filtered ventilation system
204AR-01G	None	Catch tank HEPA filtered ventilation system Leak detection instrumentation Continuous air monitors Emergency preparedness
204AR-01H	Railroad inspection and maintenance Railcar and tank trailer design	Catch tank Leak detection instrumentation Continuous air monitors Emergency preparedness HEPA filtered ventilation system
204AR-01I	Railroad inspection and maintenance Railcar and tank trailer design	Catch tank Leak detection instrumentation Continuous air monitors Emergency preparedness HEPA filtered ventilation system
204AR-01J	Railroad inspection and maintenance	Catch tank HEPA filtered ventilation system Leak detection instrumentation Continuous air monitors Emergency preparedness

Table A-3. Master Defense-in-Depth Controls. (60 Sheets)

ID	DID-Preventive	DID-Mitigation
204AR-01K	Refueling inspection and maintenance	Catch tank HEPA filtered ventilation system Leak detection instrumentation Continuous air monitors Emergency preparedness
204AR-02A	Refueling inspection and maintenance Refueling and tank trailer design	Catch tank Leak detection instrumentation Continuous air monitors Emergency preparedness HEPA filtered ventilation system
204AR-02B	Refueling inspection and maintenance Refueling and tank trailer design	Catch tank Leak detection instrumentation Continuous air monitors Emergency preparedness HEPA filtered ventilation system
204AR-02C	None	Catch tank HEPA filtered ventilation system Leak detection instrumentation Continuous air monitors Emergency preparedness
204AR-02D	None	Catch tank HEPA filtered ventilation system Leak detection instrumentation Continuous air monitors Emergency preparedness
204AR-02E	Tank trailer design Tank inspection and maintenance	Catch tank HEPA filtered ventilation system Leak detection instrumentation Continuous air monitors Emergency preparedness
204AR-02F	Tank trailer design Tank inspection and maintenance	Catch tank HEPA filtered ventilation system Leak detection instrumentation Continuous air monitors Emergency preparedness
204AR-03A	Drains in waste transfer system structures	DCRT/catch tank vault leak detection systems Ground level radiation surveys
204AR-03B	Drains in waste transfer system structures	DCRT/catch tank vault leak detection systems
204AR-03C	None	DCRT/catch tank vault leak detection systems
204AR-04A	Drains in waste transfer system structures	DCRT/catch tank vault leak detection systems Ground level radiation surveys
204AR-04B	Drains in waste transfer system structures	DCRT/catch tank vault leak detection systems Ground level radiation surveys
204AR-04C	None	Industrial hygiene requirements (e.g., PPE) Emergency preparedness
204AR-04D	None	Industrial hygiene requirements (e.g., PPE) Emergency preparedness
204AR-04E	None	Industrial hygiene requirements (e.g., PPE) Emergency preparedness
204AR-04F	None	DCRT/catch tank vault leak detection systems
204AR-05A	None	Industrial hygiene requirements (e.g., PPE) Emergency preparedness
204AR-05B	None	Industrial hygiene requirements (e.g., PPE) Emergency preparedness

Table A-6. Master Defense-In-Depth Controls. (88 Sheets)

ID	DfD-Preventive	DfD-Integrative
204AR-05C	None	Industrial hygiene requirements (e.g., PPE) Emergency preparedness
204AR-06A	Leak testing of joints	Drains in waste transfer system structures Ground level radiation surveys
204AR-06B	Leak testing of jumpers	Drains in waste transfer system structures Ground level radiation surveys
204AR-06C	Leak testing of jumpers	Drains in waste transfer system structures Ground level radiation surveys
204AR-07A	None	Ventilation system downstrainer, heater and HEPA filters HEPA filters low differential pressure alarm HEPA filters high differential pressure interlock CACs in unloading area and mechanical equipment room Doors closed except when reloader or transfer station
204AR-07B	Leak testing of joints	Drains in waste transfer system structures Ground level radiation surveys
204AR-07C	None	None
204AR-08A	Drains in waste transfer system structures Encasement leak detection systems	DCRT catch tank vault leak detection systems Visual survey of tank farms at least once a day Ground level radiation surveys
204AR-08B	Relined inspection and maintenance Reliner and tank liner design	Catch tank Leak detection instrumentation Continuous air monitors Emergency preparedness HEPA filtered ventilation system
204AR-08C	None	Catch tank Leak detection instrumentation Continuous air monitors Emergency preparedness HEPA filtered ventilation system
204AR-08D	Relined inspection and maintenance Reliner and tank liner design	Catch tank Leak detection instrumentation Continuous air monitors Emergency preparedness HEPA filtered ventilation system
204AR-08E	Aerosol testing of HEPA filters	HEPA filter low differential pressure interlocks/alarms Periodic surveillance of HEPA differential pressure
204AR-08F	Aerosol testing of HEPA filters	HEPA filter low differential pressure interlocks/alarms Periodic surveillance of HEPA differential pressure
204AR-08G	None	DCRT/catch tank vault leak detection systems
204AR-08H	None	DCRT/catch tank vault leak detection systems
204AR-11A	Aerosol testing of HEPA filters	HEPA filter low differential pressure interlocks/alarms Periodic surveillance of HEPA differential pressure

Table A-5. Master Defense-in-Depth Controls. (60 Sheets)

ID	DID-Preventive	DID-Detective
204AR-11B	Aerosol testing of HEPA filters	HEPA filter low differential pressure interlocks/alarms Periodic surveillance of HEPA differential pressure
204AR-11C	Aerosol testing of HEPA filters	HEPA filter low differential pressure interlocks/alarms Periodic surveillance of HEPA differential pressure
204AR-11D	Aerosol testing of HEPA filters	HEPA filter low differential pressure interlocks/alarms Periodic surveillance of HEPA differential pressure
204AR-11E	Aerosol testing of HEPA filters	HEPA filter low differential pressure interlocks/alarms Periodic surveillance of HEPA differential pressure
204AR-11F	Periodic surveillance of HEPA Delta P HEPA filter replacement typically performed at 1 psid/ft ³ (100 mm/ft ³) Interlock/ alarm on heater over temperature	Low Delta P interlock across the HEPA filter on the recirculation system High Delta P (across the HEPA filters) alarm (manually, at a manned facility) on the ventilation system
213 W-01	Aerosol testing of HEPA filters	Ground level radiation surveys
213 W-02	Aerosol testing of HEPA filters	Ground level radiation survey
213 W-03	None	Ventilator CAM interlock system
213 W-04	None	Ventilation System
213 W-05	None	Ventilation System
213 W-06	None	Ventilator CAM interlock system
213 W-07	None	Ground level radiation surveys
213 W-08	None	Ground level radiation surveys
213 W-09	Aerosol testing of HEPA filters	Ground level radiation surveys
244AR-01 a 03	Aerosol testing of HEPA filters	HEPA filter low differential pressure interlocks/alarms Periodic surveillance of HEPA differential pressure
244AR-01 a 01	Aerosol testing of HEPA filters	HEPA filter low differential pressure interlocks/alarms Periodic surveillance of HEPA differential pressure
244AR-01 b 02	Aerosol testing of HEPA filters	HEPA filter low differential pressure interlocks/alarms Periodic surveillance of HEPA differential pressure

Table A-5. Master Defense-in-Depth Controls. (50 Sheets)

ID	DID-Preventive	DID-Mitigative
244AR-01 b 03	Aerosol testing of HEPA filters	HEPA filter low differential pressure interlocks/alerts Periodic surveillance of HEPA differential pressure
244AR-01 b 04	Annual aerosol testing of filters on the ventilation system Periodic surveillance of HEPA Delta P HEPA filter replacement typically performed at 1 mdswh (100 m ³ /min)	Low Delta P interlock across the HEPA filters on the ventilation system High Delta P (across the HEPA filters) alarm (immediate, at a specified facility) on the ventilation system
244AR-01 c 01	Aerosol testing of HEPA filters	HEPA filter low differential pressure interlocks/alerts Periodic surveillance of HEPA differential pressure
244AR-01 c 02	Aerosol testing of HEPA filters	HEPA filter low differential pressure interlocks/alerts Periodic surveillance of HEPA differential pressure
244AR-01 c 03	Aerosol testing of HEPA filters	HEPA filter low differential pressure interlocks/alerts Periodic surveillance of HEPA differential pressure
244AR-01 c 07	HEPA filter high differential pressure interlocks/alerts	None
244AR-01 c 08	Aerosol testing of HEPA filters	HEPA filter low differential pressure interlocks/alerts Periodic surveillance of HEPA differential pressure
244AR-01 c 09	Flush transfer lines after use Leak detectors, material balances and tank level monitoring	None
244AR-01 c 10	Aerosol testing of HEPA filters	HEPA filter low differential pressure interlocks/alerts Periodic surveillance of HEPA differential pressure
244AR-01 c 11	Aerosol testing of HEPA filters	HEPA filter low differential pressure interlocks/alerts Periodic surveillance of HEPA differential pressure
244AR-01 c 13	Aerosol testing of HEPA filters	HEPA filter high differential pressure interlocks/alerts
244AR-02 a 03	Flush transfer lines after use Leak detectors, material balances and tank level monitoring	None
244AR-02 a 05	Drains in waste transfer system structures Secondary leak detection systems	DCRT/visual tank vault leak detection systems Visual survey of tank farms at least once a day Ground level radiation surveys
244AR-02 a 06	None	Emergency preparedness
244AR-02 a 07	Drains in waste transfer system structures Encasement leak detection systems	DCRT catch limit vault leak detection systems Visual survey of tank farms at least once a day Ground level radiation surveys

Table A-5. Master Defense-In-Depth Controls. (60 Sheets)

ID	DND-Preventive	DND-Mitigative
244AR-02 a 08	Leak testing of jumpers	Material balance calculations during waste transfers Tank level monitoring during waste transfers Leak detection systems (transfer leak detection systems and encasement leak detection systems) Drains in waste transfer system structures
244AR-02 a 09	Leak testing of jumpers	Material balance calculations during waste transfers Tank level monitoring during waste transfers Leak detection systems (transfer leak detection systems and encasement leak detection systems) Drains in waste transfer system structures Emergency prepared
244AR-02 a 10	Leak testing of jumpers	Material balance calculations during waste transfers Tank level monitoring during waste transfers Leak detection systems (transfer leak detection systems and encasement leak detection systems) Drains in waste transfer system structures
244AR-02 a 11	Leak testing of jumpers	Material balance calculations during waste transfers Tank level monitoring during waste transfers Leak detection systems (transfer leak detection systems and encasement leak detection systems) Drains in waste transfer system structures Emergency prepared
244AR-02 a 12	Tank integrity assessment program Aerosol testing of HEPA filters	DCRT/Leach tank vault leak detection systems
244AR-02 a 13	None	Emergency preparedness
244AR-02 a 14	Tank integrity assessment program	None
244AR-03 a 03	HEPA filter high differential pressure interlocks/alerts	None
244AR-03 a 04	Fluid transfer lines after use Leak detectors, material balances and tank level monitoring	None
244AR-03 a 05	None	Cover blocks Primary ventilation system including HEPA filters
244AR-03 a 06	Aerosol testing of HEPA filters	Periodic surveillance of HEPA differential pressure
244AR-03 a 07	Aerosol testing of HEPA filters	Periodic surveillance of HEPA differential pressure
244AR-03 a 08	None	Cover blocks Primary ventilation system including HEPA filters
244AR-03 a 09	None	None
244AR-03 a 10	Aerosol testing of HEPA filters	Periodic surveillance of HEPA differential pressure

Table A-5. Master Defense-in-Depth Controls, (60 Sheets)

ID	DD-Preventive	DD-Mitigative
244AR-03 # 14	Access testing of HEPA filters	Periodic surveillance of HEPA differential pressure
244AR-03 # 15	None	DCRT/airlock tank vent leak detection systems
244AR-03 # 16	None	DCRT/airlock tank vent leak detection systems
244AR-03 # 17	None	DCRT/airlock tank vent leak detection systems
244AR-03 # 18	None	None
244AR-04 # 01	None	None
244AR-06 # 01	None	None
244AR-06 # 02	Test, integrity assessment program	None
244AR-06 # 02	None	Ground level radiation surveys
244AR-07 # 01	None	None
244AR-07 # 02	None	Ground level radiation surveys
244AR-07 # 03	None	Ground level radiation surveys
244AR-07 # 04	None	None
244AR-PH01	None	None
244AR-PH02	None	None
244AR-PH03	None	None
244AR-PH04	None	None
244AR-PH05	None	None
244AR-PH06	None	None
244AR-PH07	None	None
244AR-PH08	None	None
244AR-PH09	None	None

Table A-5. Master Defense-In-Depth Controls. (80 Sheets)

ID	DID-Preventive	DID-Mitigate
244AR-PH10	None	None
244AR-PH11	None	None
244AR-PH12	None	None
244AR-PH13	None	None
244AR-PH14	None	None
244AR-PH15	None	None
244AR-PH16	None	None
244AR-PH17	None	None
244AR-PH18	None	None
244AR-PH19	None	None
2727W-01	None	None
2727W-02	Grounding of building and tanks. No water service to building. Nitrogen cover gas system. Annual inspection of building structure.	Fire detectors. Fire extinguishers and external postings.
2727W-03	Grounding of building and tanks. No water service to building. Nitrogen cover gas system. Annual inspection of building structure.	Fire detectors. Fire extinguishers and external postings.
2727W-04	Grounding of building and tanks. No water service to building. Nitrogen cover gas system. Annual inspection of building structure.	Fire detectors. Fire extinguishers and external postings.
2727W-05	Grounding of building and tanks. No water service to building. Nitrogen cover gas system. Annual inspection of building structure.	Fire detectors. Fire extinguishers and external postings.
2727W-06	Grounding of building and tanks. No water service to building. Nitrogen cover gas system. Annual inspection of building structure.	Fire detectors. Fire extinguishers and external postings.
90D-01	None	Ground level radiation surveys
90D-02	None	Ground level radiation surveys
90D-03	None	Ground level radiation surveys

Table A-5. Master Defense-In-Depth Controls. (90 Sheets)

ID	DID-Preventive	DID-Integrative
90D-04	Fire prevention practices Job control -respiration protection -contamination control Vegetation Control Program	Ground level radiation surveys
90D-06	Fire prevention practices Job control -respiration protection -contamination control Vegetation Control Program	Ground level radiation surveys
90D-08	None	Ground level radiation surveys
90D-09	Restrictions on operations during high winds	Emergency preparedness
90D-08	Restrictions on operations during high winds	Emergency preparedness
90D-08	Fire prevention practices	None
90D-10	Fire prevention practices	None
90D-11	None	Ground level radiation surveys
90D-01	None	None
90D-01-1	None	None
90D-02	Flammable gas monitor	None
90D-02-1	None	None
CCF-01	None	None
CCF-02	Aerosol testing of HEPA filters	HEPA filter low differential pressure interlocks/alarms Periodic surveillance of HEPA differential pressure
CCF-03	Aerosol testing of HEPA filters	HEPA filter low differential pressure interlocks/alarms Periodic surveillance of HEPA differential pressure
CCF-04	Aerosol testing of HEPA filters	HEPA filter low differential pressure interlocks/alarms Periodic surveillance of HEPA differential pressure
CCF-05	None	None
CCF-06	None	None
CCF-07	Design in waste transfer system structures Encasement leak detection systems	DORT catch built void leak detection systems Visual survey of tank farms at least once a day Ground level radiation surveys

Table A-5. Master Defense-In-Depth Controls. (60 Sheets)

ID	DiD-Preventive	DiD-Mitigative
CCF-06	None	None
CCF-09	None	None
CCF-10	None	None
CCF-11	None	None
CCF-12	None	None
CCF-13	None	None
CCF-14	None	None
CCF-15	None	None
CCF-16	Tank integrity assessment program	Emergency preparedness
CCF-17	Done detection monitoring Tank integrity assessment program	None
CCF-18	Tank integrity assessment program	None
CCF-19	Tank integrity assessment program	None
CCF-20	None	None
CDP-01	None	Ground level radiation surveys Emergency preparedness
CDP-02	None	None
CDP-03	None	Ground level radiation surveys Emergency preparedness
CDP-04	None	Ground level radiation surveys Emergency preparedness
CDP-05	Restrictions on operations during high winds	Ground level radiation surveys
CDP-06	Restrictions on operations during high winds	Ground level radiation surveys
CDP-07	Leak testing of fuel pipes	Ground level radiation surveys
CDP-08	Fire prevention practices Vegetation Control Program	None
CDP-09	None	None

Table A-5. Master Defense-in-Depth Controls. (90 Sheets)

ID	OID-Preventive	OID-Mitigative
COB-10	Expansion Controls	Radiation work permit (RWP)
COB-01	Upgrade COB on slurry lines from 242-A	Material balance calculations during waste transfers; Tank level monitoring during waste transfers; Leak detection systems (transfer leak detection and encasement leak detection); Crane in waste transfer system structures; Ground level radiation surveys
COB-02	Upgraded cleanout boxes on slurry lines from 242-A Evaporator	Material balance calculations during waste transfers; Tank level monitoring during waste transfers; Leak detection systems (transfer leak detection systems and encasement leak detection systems); Ground level radiation surveys
COB-03	Upgraded cleanout boxes on slurry lines from 242-A Evaporator	Material balance calculations during waste transfers; Tank level monitoring during waste transfers; Leak detection systems (transfer leak detection systems and encasement leak detection systems); Ground level radiation surveys
COB-04	Upgraded cleanout boxes on slurry lines from 242-A Evaporator; Crane in waste transfer system structures; Encasement leak detection systems	DCRT crane tank unit leak detection systems; Visual survey of tank farms at least once a day; Ground level radiation surveys
COB-05a	Upgraded cleanout boxes on slurry lines from 242-A Evaporator	Ground level radiation surveys
COB-05b	Upgraded cleanout boxes on slurry lines from 242-A Evaporator; Radiations on operations during high waste	None
COB-05c	None	Ground level radiation surveys
COB-05d	Job control; respiratory protection; contamination control; Mobile monitoring systems	Emergency Preparedness
COB-05e	None	Ground level radiation surveys
COB-05f	Upgraded cleanout boxes on slurry lines from 242-A Evaporator	Ground level radiation surveys
COB-05g	Upgraded cleanout boxes on slurry lines from 242-A Evaporator	Ground level radiation surveys
COB-05h	Upgraded cleanout boxes on slurry lines from 242-A Evaporator	Ground level radiation surveys
COB-05i	None required	Material balance calculations during waste transfers; Tank level monitoring during waste transfers; Leak detection systems (transfer leak detection systems and encasement leak detection systems); Ground level radiation surveys

Table A-5. Master Defense-In-Depth Controls. (88 Sheets)

ID	DID-Preventive	DID-Negative
CDB-08	Upgraded cleanout boxes on slurry lines from 242-A-Expositor Drains in Waste Transfer System structures. Enhancement leak detection systems	DCRT/catch tank vent leak detection systems Visual survey of tank farms at least once a day Ground level radiation surveys
CRN-01	None required	Emergency preparedness
CRN-01-1	None required	Emergency preparedness
CRN-02	None required	Emergency preparedness
CRN-02-1	None required	Emergency preparedness
CRN-03	Dome deflection monitoring	Emergency Preparedness
CRN-03-1A	Dome deflection monitoring	Emergency Preparedness
CRN-03-1B	None	None
CRN-04	Restrictions on operations during high winds	Emergency Preparedness
CRN-04-1A	Restrictions on operations during high winds	Emergency Preparedness
CRN-04-1B	None	None
CRN-05	Fire Prevention practices Job control - Respiration protection - Contamination control Vehicle positioning spallars Vegetation Control Program Flush transfer lines after use Monitor for flammable gas before entering areas connected to transfer lines	None
CRN-05-1	Fire prevention practices Job control - respiration protection - contamination control Vehicle positioning spallars Vegetation Control Program	Emergency preparedness
CRN-06	Fire Prevention practices Job control - Respiration protection - Contamination control Vehicle positioning spallars Vegetation Control Program Flush transfer lines after use Monitor for flammable gas before entering areas connected to transfer lines	None
CRN-06-1	Fire prevention practices Job control - respiration protection - contamination control Vehicle positioning spallars Vegetation Control Program	Emergency preparedness
CRN-07	Fire Prevention practices Job control - Respiration protection - Contamination control Vehicle positioning spallars Vegetation Control Program Flush transfer lines after use Monitor for flammable gas before entering areas connected to transfer lines	None

Table A-5. Master Defense-in-Depth Controls. (88 Sheets)

ID	DIC-Preventive	DIC-Negative
CRN-07-I	Fire prevention practices Job control - Respiration protection - Contamination control Vehicle positioning spillers Vegetation Control Program	Emergency preparedness
CRN-08	Fire Prevention practices Job control - Respiration protection - Contamination control Vehicle positioning spillers Vegetation Control Program Flush transfer lines after use Monitor for flammable gas before entering areas connected to transfer lines	None
CRN-09-I	Fire prevention practices Job control - Respiration protection - Contamination control Vehicle positioning spillers Vegetation Control Program	Emergency preparedness
CRN-09	None	Emergency Preparedness
CRN-09-I	None	HEPA filter for differential interlocks/alerts Periodic surveillance of HEPA differential pressure
CRN-10	Restrictions on operations during high winds	Emergency Preparedness
CRN-10-I	None	HEPA filter for differential interlocks/alerts Periodic surveillance of HEPA differential pressure
CRN-11	Dome deflection monitoring Restrictions on operations during high winds	Emergency Preparedness
CRN-11-I-A	Restrictions on operations during high winds	Emergency Preparedness
CRN-11-I-B	Hanford Site Hoisting and Rigging Manual for critical lifts	None
CRN-11-I-C	None	Visual survey of tank farms at least once a day Ground level radiation surveys
CRN-12	Restrictions on operations during high winds	Emergency Preparedness
CRN-12-I-A	Restrictions on operations during high winds	Emergency Preparedness
CRN-12-I-B	Hanford Site Hoisting and Rigging Manual for critical lifts	None
CRN-12-I-C	None	Visual survey of tank farms at least once a day Ground level radiation surveys
CRN-13-I-A	Restrictions on operations during high winds	None
CRN-13-I-B	Hanford Site Hoisting and Rigging Manual for critical lifts	None
CRN-13-I-C	Restrictions on operations during high winds	None

Table A-5. Master Defense-in-Depth Controls. (60 Sheets)

ID	DID-Preventive	DID-Mitigative
CRN-13-a	Restrictions on operations during high winds	None
CRN-13-b	Tank integrity assessment programs	None
CRN-14	None required	None
CRN-14-1	None required	None
CRN-15	None required	None
CRN-15-1	None required	None
CRN-16	None required	None
CRN-16-1	None required	None
CRN-17	None required	Emergency preparedness
CRN-17-1	None required	None
CRN-18	Hanford Site Hoisting and Rigging Manual for critical lifts	None
CRN-18-1	Hanford Site Hoisting and Rigging Manual for critical lifts	None
CRN-19	Periodic surveillance of HEPA Delta P HEPA filter replacement typically performed at 1 mSwh (100 mweh)	Low Delta P interlock across the HEPA filters on the ventilation system High Delta P (across the HEPA filters) alarm (remotely, at a manned facility) on the ventilation system
CRN-19-1	Hanford Site Hoisting and Rigging Manual for critical lifts	None
CRN-20	Periodic surveillance of HEPA Delta P HEPA filter replacement typically performed at 1 mSwh (100 mweh)	Low Delta P interlock across the HEPA filters on the ventilation system High Delta P (across the HEPA filters) alarm (remotely, at a manned facility) on the ventilation system
CRN-20-1	Hanford Site Hoisting and Rigging Manual for critical lifts	None
CRN-21	None required	Emergency preparedness
CRN-21-1A	None required	Emergency preparedness
CRN-21-1B	None	None
CRN-22	None required	Emergency preparedness

Table A-5. Master Defense-in-Depth Controls. (60 Sheets)

ID	DD-Positive	DD-Negative
CRN-22-1A	None required	Emergency preparedness
CRN-22-1B	None	None
CRN-23	Restrictions on operations during high winds	None
CRN-23-1A	Restrictions on operations during high winds	None
CRN-23-1B	Hanford Site Hoisting and Rigging Manual for critical lifts	None
CRN-24	None required	None
CRN-24-1	None required	None
CRN-25	None required	None
CRN-25-1A	None required	None
CRN-25-1B	Hanford Site Hoisting and Rigging Manual for critical lifts	None
CRN-26	None required	None
CRN-26-1A	None required	None
CRN-26-1B	Hanford Site Hoisting and Rigging Manual for critical lifts	None
CRN-27	None required	None
CRN-27-1A	None required	None
CRN-27-1B	Hanford Site Hoisting and Rigging Manual for critical lifts	None
CRN-28-1	None	Vehicle Positioning Spotters
CVR-01	Hanford Site Hoisting and Rigging Manual for critical lifts	Emergency preparedness
CVR-01-1	Hanford Site Hoisting and Rigging Manual for critical lifts	Emergency preparedness
CVR-02	Hanford Site Hoisting and Rigging Manual for critical lifts	Emergency preparedness
CVR-02-1	Hanford Site Hoisting and Rigging Manual for critical lifts	Emergency preparedness
CVR-03	Restrictions on operations during high winds	Emergency preparedness

Table A-5. Master Defense 4a-Depth Controls. (68 Sheets)

ID	DID-Preventive	DID-Negative
CVR-03-1	Resistances on operations during high winds	Emergency preparedness
CVR-04	None	Ground level radiation surveys
CVR-04-1	None	Ground level radiation surveys
CVR-05	Fire Prevention practices Job control - Respiration protection - Contamination control Vegetation Control Program Flush transfer lines after use Monitor for Removable gas before exiting areas connected to transfer lines	None
CVR-05-1	Fire prevention practices Job control - respiration protection -contamination control Vehicle posttowing spotters Vegetation Control Program	None
CVR-06	None	None
CVR-06-1	None	None
CVR-07	None	None
CVR-07-1	None	None
CVR-08	None	None
CVR-08-1	None	None
CVR-09	None	None
CVR-09-1	None	None
CVR-10	None	None
CVR-10-1	None	None
CVR-11	None	None
CVR-11-1	None	None
CVR-12-1	Job control -respiration protection -contamination control	Emergency preparedness
CVR-13-1	Job control -respiration protection -contamination control	Emergency preparedness
CVR-14-1	None	None

Table A-6. Master Defense-in-Depth Controls. (50 Sheets)

ID	DID-Phrase/line	DID-Alternative
CVR-15-1	Job control - Respiration protection - Contamination control Flush transfer lines after use	None
DCN-01	None	None
DCN-01-1	None	None
DCN-02	Job control -respiration protection -contamination control	Emergency preparedness
DCN-02-1A	Job control -respiration protection -contamination control	None
DCN-02-1B	Job control -respiration protection -contamination control	None
DCN-03	None	None
DCN-03-1	Job control -respiration protection -contamination control	None
DCN-04	Restrictions on operations during high winds	Emergency preparedness
DCN-04-1	Restrictions on operations during high winds	Emergency preparedness
DCN-05	None	None
DCN-05-1	None	None
DCN-06	None	None
DCN-06-1	None	None
DCN-07	None	None
DCN-07-1	None	None
EE-01	None	Vegetation control program
EE-02	Fire prevention practices Job control -respiration protection -contamination control Vegetation Control Program	None
EE-03	None	Aerosol testing of HEPA filters
EE-04-1	Vehicle positioning spotters	None
EE-04-2	Vehicle positioning spotters	None

Table A-5. Master Defense-in-Depth Controls. (68 Sheets)

ID	DID-Preventive	DID-Mitigative
EE-05-a	Vehicle positioning spotters	None
EE-05-b	Vehicle positioning spotters	None
EE-06	Fire prevention practices Vegetation Control Program	None
EE-07	None	None
EE-08	None	None
EE-09	None	Visual survey of tank farms at least once a day Ground level radiation surveys
EE-10	None	Visual survey of tank farms at least once a day Ground level radiation surveys
EE-11	Service water system freeze protection	Service pit leak detection systems Waste tank high level alarms
EE-12	None	None
EE-13	None	None
EE-14	None	None
EE-15	None	None
EE-16	None	Material balance calculations during waste transfers
EE-17	None	Radiation work permit (RWMP) Emission controls
GRN-01	None	None
GRN-01-d	None	None
GRN-02	None	None
GRN-02-d	None	None
GRN-03-d	None	None
I-222S-1-CMP-A	None	Material balance calculations during waste transfers
I-222S-1-CMP-B	None	None

Table A-3. Master Defense-in-Depth Controls. (60 Sheets)

ID	DID-Preventive	DID-Detective
I-222S-1-CMP-C	Leak testing of jumpers	Maxwell balance calculations during waste transfers Tank level monitoring during waste transfers Leak detection systems (transfer leak detection and encasement leak detection) Drains in waste transfer system structures Ground level radiation surveys
I-222S-1-CMP-D	None	None
I-222S-1-CMP-E	None	Ventilation stack CAM interlock system HEPA filter replacement typically performed at 1 mSv/h (100 mrem/h)
I-222S-1-LVL-A	HEPA filter replacement performed at 1 mSv/h (100 mrem/h)	Tank pressure monitors/alarms HEPA filter high differential pressure alarms Emergency preparedness
I-222S-1-RXM-A	None	None
I-222S-2-FLW-A	Leak testing of jumpers Aerial testing of HEPA filters	HEPA filter low differential pressure interlocks/alarms Periodic surveillance of HEPA differential pressure
I-222S-2-FLW-B	None	None
I-222S-2-FLW-C	None	None
I-222S-2-FLW-D	None	None
I-222S-2-LEK-A	None	None
I-222S-2-LEK-B	Leak testing of jumpers	Maxwell balance calculations during waste transfers Tank level monitoring during waste transfers Leak detection systems (transfer leak detection and encasement leak detection) Drains in waste transfer system structures Ground level radiation surveys
I-222S-2-LEK-C	None	Maxwell balance calculations during waste transfers
I-222S-2-LEK-D	None	None
I-222S-2-LEK-E	None	Maxwell balance calculations during waste transfers Tank level monitoring during waste transfers Leak detection systems (transfer leak detection and encasement leak detection) Drains in waste transfer system structures Ground level radiation surveys
I-222S-2-PRF-A	HEPA filter replacement performed at 1 mSv/h (100 mrem/h)	Tank pressure monitors/alarms HEPA filter high differential pressure alarms Emergency preparedness

Table A-5. Master Defense (μ -Depth Controls) (40 Sheets)

ID	DID-Preventive	DID-Mitigative
I-242A-1-FLW-A	Flammable gas monitor	None
I-242A-1-FLW-B	Flammable gas monitor	None
I-242A-1-FLW-C	Flammable gas monitor	None
I-242A-1-FLW-D	Flammable gas monitor	None
I-242A-1-FLW-E	Flammable gas monitor	None
I-242A-1-FLW-F	None	None
I-242A-1-LEK-A	None	None
I-242A-1-LEK-B	Leak testing of jumpers	Material balance calculations during waste transfers Tank level monitoring during waste transfers Leak detection systems (transfer leak detection and encasement leak detection) Drains in waste transfer system structures Ground level radiation surveys
I-242A-1-LEK-C	None	Material balance calculations during waste transfers
I-242A-1-LEK-D	None	None
I-242A-1-LEK-E	None	Material balance calculations during waste transfers Tank level monitoring during waste transfers Leak detection systems (transfer leak detection and encasement leak detection) Drains in waste transfer system structures Ground level radiation surveys
I-242A-2-CMP-A	None	None
I-242A-2-CMP-B	HEPA filter replacement performed at 1 mSv/h (100 mrem/h)	Tank pressure monitors/alarms HEPA filter high differential pressure alarms Emergency preparedness
I-242A-2-FLW-A	None	Cover blocks Primary ventilation system including HEPA filters
I-242A-2-FLW-B	None	Cover blocks Primary ventilation system excluding HEPA filters
I-242A-2-LEK-A	None	None
I-242A-2-LEK-B	Leak testing of jumpers	Material balance calculations during waste transfers Tank level monitoring during waste transfers Leak detection systems (transfer leak detection and encasement leak detection) Drains in waste transfer system structures Ground level radiation surveys

Table A-3. Master Database-In-Depth Controls. (60 Sheets)

ID	ID-Preventive	ID-Mitigative
I-242A-2-LEK-C	None	Material balance calculations during waste transfers
I-242A-2-LEK-D	None	None
I-242A-2-LEK-E	None	Material balance calculations during waste transfers Tank level monitoring during waste transfers Leak detection systems (transfer leak detection and underfilled tank detection) Drains in waste transfer system structures Ground level radiation surveys
I-242A-2-TMP-A	None	None
I-242A-2-VSC-A	None	Cover blocks Primary ventilation system including HEPA filters
I-242A-2-VSC-B	None	None
I-242A-3-FLW-A	None	Cover blocks Primary ventilation system including HEPA filters
I-242A-3-FLW-B	None	Cover blocks Primary ventilation system including HEPA filters
I-242A-4-FLW-A	Leak testing of jumpers	Ventilation system downline, heater, and HEPA filter HEPA filter low differential pressure alarm HEPA filter high differential pressure interlock
I-242A-4-TMP-A	None	Ventilation stack CMM interlock system HEPA filter replacement typically performed at 1 mSv/h (100 mrem/h)
I-242A-5-FLW-A	None	None
I-242A-6-CMP-A	HEPA filter replacement performed at 1 mSv/h (100 mrem/h)	Tank pressure monitoring/alarms HEPA filter high differential pressure alarms Emergency preparedness
I-242A-6-FLW-A	Leak testing of jumpers	Ventilation system downline, heater, and HEPA filter HEPA filter low differential pressure alarm HEPA filter high differential pressure interlock
I-242A-6-FLW-B	Drains in waste transfer system structures	Service pit leak detection systems Waste tank high level alarms
I-242A-8-FLW-C	None	None
I-242A-7-CMP-A	Job Control -3 reception protection	None
I-242A-7-FLW-A	None	Cover blocks Primary ventilation system including HEPA filters

Table A-5. Master Defense-in-Depth Controls. (80 Sheets)

ID	DID-Preventive	DID-Mitigative
I-242A-7-FLW-B	None	Cover blocks. Primary ventilation system including HEPA filters
I-242A-7-FLW-C	None	Cover blocks. Primary ventilation system including HEPA filters
I-242A-7-PRB-A	None	None
I-242B-1-PRB-A	Aerosol testing of HEPA filters	HEPA filter low differential pressure indicators/alarms. Periodic surveillance of HEPA differential pressure
I-242B-1-TMP-A	Yeast tracing and incubation	Diurnal in waste transfer system structures. Ground level radiation surveys
I-242B-2-FLW-A	Encasement leak detection systems. Diurnal in waste transfer system structures	Visual survey of tank farms at least once a day. DORT/catch tank vault leak detection systems. Ground level radiation surveys
I-242B-2-FLW-B	Tank level monitoring during transfers	None
I-242B-2-FLW-C	None	None
I-242B-2-FLW-D	None	None
I-242B-2-FLW-E	None	Visual survey of tank farms at least once a day. DORT/catch tank vault leak detection systems. Ground level radiation surveys
I-242B-2-LEK-A	None	None
I-242B-2-LEK-B	Leak testing of jumpers	Material balance calculations during waste transfers. Tank level monitoring during waste transfers. Leak detection systems (transfer leak detection and encasement leak detection). Diurnal in waste transfer system structures. Ground level radiation surveys
I-242B-2-LEK-C	None	Material balance calculations during waste transfers
I-242B-2-LEK-D	None	None
I-242B-2-LEK-E	None	Material balance calculations during waste transfers. Tank level monitoring during waste transfers. Leak detection systems (transfer leak detection and encasement leak detection). Diurnal in waste transfer system structures. Ground level radiation surveys
I-242B-4-FLW-A	None	None
I-242B-4-FLW-B	Tank level monitoring during transfers	None

Table A-5. Master Defense-In-Depth Controls. (60 Sheets)

ID	DIC-Preventive	DIC-Mitigative
I-242S-4-FLW-C	None	Visual survey of tank farms at least once a day DCRT/Watch tank vault leak detection systems Ground level radiation surveys
I-242S-4-FLW-D	Drains in waste transfer system structures Service water system freeze protection	Visual survey of tank farms at least once a day DCRT/Watch tank vault leak detection systems Ground level radiation surveys
I-242S-4-LEK-A	None	None
I-242S-4-LEK-B	Leak testing of joints	Drains in waste transfer system structures Ground level radiation surveys
I-242S-4-LEK-C	None	None
I-242S-4-LEK-D	None	None
I-242S-4-LEK-E	None	Material balance calculations during waste transfers Tank level monitoring during waste transfers Leak detection systems (transfer leak detection and enclosure leak detection) Drains in waste transfer system structures Ground level radiation surveys
I-242S-5-CMP-A	Aerosol testing of HEPA filters Periodic Surveillance of HEPA diff press	Emergency Preparedness Tank pressure monitors/alarms
I-242S-5-CMP-B	Aerosol testing of HEPA filters Periodic Surveillance of HEPA differential pressure	Emergency Preparedness Tank pressure monitors/alarms
I-242S-5-CMP-C	Aerosol testing of HEPA filters Periodic Surveillance of HEPA differential pressure	Emergency Preparedness Tank pressure monitors/alarms
I-242S-5-CMP-D	Aerosol testing of HEPA filters Periodic Surveillance of HEPA differential pressure	Emergency Preparedness Tank pressure monitors/alarms
I-242S-5-FLW-A	Aerosol testing of HEPA filters Periodic Surveillance of HEPA differential pressure	Emergency Preparedness Tank pressure monitors/alarms
I-242S-5-FLW-B	Aerosol testing of HEPA filters Periodic Surveillance of HEPA differential pressure	Emergency Preparedness Tank pressure monitors/alarms
I-242S-5-FLW-C	Aerosol testing of HEPA filters Periodic Surveillance of HEPA differential pressure	Emergency Preparedness Tank pressure monitors/alarms
I-242S-5-PRS-A	None	None
I-242T-2-FLW-A	None	None

Table A-5. Master Defense-in-Depth Controls. (60 Sheets)

ID	DID-Preventive	DID-Negative
I-242T-3-FLW-A	Leak testing of jumpers	Drains in waste transfer system structures Ground level radiation surveys Material balance calculations during waste transfers Tank level monitoring during waste transfers
I-242T-4-FLW-A	Tank integrity assessment program	Drains in waste transfer system structures Ground level radiation surveys Material balance calculations during waste transfers Tank level monitoring during waste transfers
I-BPLANT-1-CMP-A	None	None
I-BPLANT-1-CMP-B	Leak testing of jumpers	Material balance calculations during waste transfers Tank level monitoring during waste transfers Leak detection systems (transfer leak detection and encasement leak detection) Drains in waste transfer system structures Ground level radiation surveys
I-BPLANT-1-CMP-C	None	None
I-BPLANT-1-CMP-D	None	None
I-BPLANT-1-CMP-E	None	Vertical stack, CAM interlock system HEPA filter replacement typically performed at 1 m3/min (100 mm/min)
I-BPLANT-1-TMP-A	None	Tank pressure monitors/alarms Aerosol testing of HEPA filters
I-BPLANT-2-FLW-A	None	None
I-BPLANT-2-FLW-B	None	None
I-BPLANT-2-FLW-C	None	None
I-BPLANT-2-FLW-D	None	None
I-BPLANT-2-LEK-A	None	None
I-BPLANT-2-LEK-B	Leak testing of jumpers	Material balance calculations during waste transfers Tank level monitoring during waste transfers Leak detection systems (transfer leak detection and encasement leak detection) Drains in waste transfer system structures Ground level radiation surveys
I-BPLANT-2-LEK-C	None	Material balance calculations during waste transfers
I-BPLANT-2-LEK-D	None	None

Table A-3. Master Defense-in-Depth Controls. (60 Sheets)

ID	DID-Preventive	DID-Negative
I-BPLANT-2-LEK-E	None	Material balance calculations during waste transfers; Tank level monitoring during waste transfers; Leak detection systems (transfer leak detection and encasement leak detection); Drains in waste transfer system structures; Ground level radiation surveys
I-PFP-1-AGT-A	None	None
I-PFP-1-CMP-A	None	None
I-PFP-1-CMP-B	None	None
I-PFP-1-CMP-C	None	None
I-PFP-1-CMP-D	None	None
I-PFP-1-CMP-E	None	Ventilation stack CAM interlock system; HEPA filter replacement typically performed at 1 mSv/h (100 drem/h)
I-PFP-1-LVL-A	Leak testing of jumpers	Drains in waste transfer system structures; Ground level radiation surveys; Material balance calculations during waste transfers; Tank level monitoring during waste transfers
I-PFP-1-MTN-A	None	None
I-PFP-2-PLW-A	None	None
I-PFP-2-LEK-A	None	None
I-PFP-2-LEK-B	Leak testing of jumpers	Material balance calculations during waste transfers; Tank level monitoring during waste transfers; Leak detection systems (transfer leak detection and encasement leak detection); Drains in waste transfer system structures; Ground level radiation surveys
I-PFP-2-LEK-C	None	Material balance calculations during waste transfers
I-PFP-2-LEK-D	None	None
I-PFP-2-LEK-E	None	Material balance calculations during waste transfers; Tank level monitoring during waste transfers; Leak detection systems (transfer leak detection and encasement leak detection); Drains in waste transfer system structures; Ground level radiation surveys

Table A-5. Master Defense-in-Depth Controls. (60 Sheets)

ID	DID-Preventive	DID-Detective
I-PFP-3-TMP-A	None	Leak detection systems (transfer leak detection systems and encasement leak detection systems) Drains in waste transfer system structures Material balance calculations during waste transfers
I-PFP-3-TMP-B	HEPA filter replacement performed at 1 mSv/h (100 mrem/h)	Tank pressure monitoring/alarms HEPA filter high differential pressure alarms Emergency preparedness
I-PFP-3-CMP-A	None	None
I-PFP-3-FLW-B	None	None
I-PFP-3-FLW-C	None	Drains in waste transfer system structures Ground level radiation surveys Material balance calculations during waste transfers Tank level monitoring during waste transfers
I-PFP-3-LEK-A	None	None
I-PFP-3-LEK-B	Leak testing of joints	Material balance calculations during waste transfers Tank level monitoring during waste transfers Leak detection systems (transfer leak detection and encasement leak detection) Drains in waste transfer system structures Ground level radiation surveys
I-PFP-3-LEK-C	None	Material balance calculations during waste transfers
I-PFP-3-LEK-D	None	None
I-PFP-3-LEK-E	None	Material balance calculations during waste transfers Tank level monitoring during waste transfers Leak detection systems (transfer leak detection and encasement leak detection) Drains in waste transfer system structures Ground level radiation surveys
I-PUREX-1-AGT-A	None	None
I-PUREX-1-AGT-B	None	None
I-PUREX-1-AGT-C	None	None
I-PUREX-1-CMP-A	None	None
I-PUREX-1-CMP-B	None	None

Table A-5. Master Defense-In-Depth Controls. (90 Sheets)

ID	DID-Preventive	DID-Mitigate
I-PUREX-1-CMP-C	None	None
I-PUREX-1-CMP-D	None	None
I-PUREX-1-LVL-A	None	None
I-PUREX-1-TMP-A	None	None
I-PUREX-2-FLW-A	None	None
I-PUREX-2-LEK-A	None	None
I-PUREX-2-LEK-B	None	None
I-PUREX-2-LEK-C	None	None
I-PUREX-2-LEK-D	None	None
I-PUREX-2-LEK-E	None	None
I-PUREX-2-PRS-A	None	None
I-PUREX-2-PRS-B	None	None
I-PUREX-2-PRS-C	None	None
I-PUREX-3-AGT-A	None	None
I-PUREX-3-AGT-B	None	None
I-PUREX-3-AGT-C	None	None
I-PUREX-3-CMP-A	None	None
I-PUREX-3-CMP-B	None	None
I-PUREX-3-CMP-C	None	None
I-PUREX-3-CMP-D	None	None
I-PUREX-3-CMP-E	None	None
I-PUREX-3-LVL-A	None	None

Table A-5. Master Defenses-In-Depth Controls. (60 Streets)

ID	DID-Preventive	DID-Mitigative
I-PUREX-3-TMP-A	None	None
I-PUREX-4-FLW-B	None	None
I-PUREX-4-LEK-A	None	None
I-PUREX-4-LEK-B	None	None
I-PUREX-4-LEK-C	None	None
I-PUREX-4-LEK-D	None	None
I-PUREX-4-LEK-E	None	None
I-PUREX-4-PRS-A	None	None
I-PUREX-4-PRS-B	None	None
I-PUREX-4-PRS-C	None	None
I-PUREX-5-FLW-A	None	None
I-PUREX-5-FLW-B	None	None
I-PUREX-6-FLW-A	None	None
I-PUREX-6-FLW-B	Waste tank high level alarms. DCRT/catch tank vault leak detection system	Visual survey of tank sensor head once a day
I-PUREX-6-FLW-C	Waste tank high level alarms. DCRT/catch tank vault leak detection system	None
I-PUREX-6-FLW-D	None	None
I-TPLANT-1-CMP-A	None	None
I-TPLANT-1-CMP-B	Leak testing of jumpers	Material balance calculations during waste transfers Tank level monitoring during waste transfers Leak detection systems (transfer heat detection and containment leak detection) Drains in waste transfer system structures Ground level radiation surveys

Table A-8. Master Defense-in-Depth Controls. (48 Sheets)

ID	DID-Preventive	DID-Negative
I-TP/LANT-1-CMP-C	None	None
I-TP/LANT-1-CMP-D	None	None
I-TP/LANT-1-TMP-A	None	Tank pressure monitors/alerts. Aerosol testing of HEPA filters
I-TP/LANT-2-CMP-A	HEPA filter replacement performed at 1 m ³ /h (100 m ³ /min)	Tank pressure monitors/alerts HEPA filter high differential pressure alarms Emergency preparedness
I-TP/LANT-2-FLW-A	None	None
I-TP/LANT-2-FLW-B	None	None
I-TP/LANT-2-LEK-A	None	None
I-TP/LANT-2-LEK-B	Leak testing of jumpers	Material balance calculations during waste transfers Tank level monitoring during waste transfers Leak detection systems (transfer leak detection and encasement leak detection) Drains in waste transfer system structures Ground level radiation surveys
I-TP/LANT-2-LEK-C	None	Material balance calculations during waste transfers
I-TP/LANT-2-LEK-D	None	None
I-TP/LANT-2-LEK-E	None	Material balance calculations during waste transfers Tank level monitoring during waste transfers Leak detection systems (transfer leak detection and encasement leak detection) Drains in waste transfer system structures Ground level radiation surveys
I-UP/LANT-1-FLW-A	None	None
I-UP/LANT-1-LEK-A	None	None
I-UP/LANT-1-LEK-B	None	Visual survey of tank farms at least once a day Ground level radiation surveys
I-UP/LANT-1-LEK-C	None	None
I-UP/LANT-1-PLAN-A	Waste tank high level alarms DCRT/catch tank vent leak detection system	None
ITK-01	None	RWP (radiation work permit)

Table A-8. Master Defense-in-Depth Controls. (60 Sheets)

ID	DID-Preventive	DID-Mitigative
ITK-01-1	None	RWVP (radiation work permit)
ITK-02	None	RWVP (radiation work permit)
ITK-03-1	None	RWVP (radiation work permit)
ITK-03	None	Emergency preparedness
ITK-03-4	None	Emergency preparedness
ITK-04	Tank integrity assessment program	None
ITK-04-1	None	RWVP (radiation work permit)
ITK-05	None	Control blocks Primary ventilation systems including HEPA filters
ITK-05-1	None	None
ITK-06	None	None
ITK-06-1	None	None
ITK-07	Restrictions on operations during high winds	Emergency preparedness
ITK-07-1A	None	RWVP (radiation work permit)
ITK-07-1B	Restrictions on operations during high winds	Emergency preparedness
ITK-08	Flammable gas monitor	None
ITK-08-1	Leak detectors, material balances and tank level monitoring	None
ITK-09	Flammable gas monitor	None
ITK-09-1	Leak detectors, material balances and tank level monitoring	None
ITK-10-1	Leak detectors, material balances and tank level monitoring	None
ITK-10-a	Flammable gas monitor	None
ITK-10-b	None	None
ITK-11	Flammable gas monitor	None

Table A-5. Master Defense-In-Depth Controls. (68 Sheets)

ID	DID-Prevention	DID-Mitigation
ITK-114	Fire protection practices Lightning protection -Grounded air terminals - Grounded lark heers and permanently installed instrumentation bonded to them Depending grade Restrictions on operations during high winds Vegetation Control Program	None
ITK-FR-01	Hanford Site Hoisting and Rigging Manual for critical lifts	Ground level radiation surveys
ITK-FR-02	Hanford Site Hoisting and Rigging Manual for critical lifts	Ground level radiation surveys
ITK-FR-03	Hanford Site Hoisting and Rigging Manual for critical lifts	None
ITK-FR-04	None	Emergency Preparedness
ITK-FR-05	Hanford Site Hoisting and Rigging Manual for critical lifts	Ground level radiation surveys
ITK-FR-06	Hanford Site Hoisting and Rigging Manual for critical lifts	Ground level radiation surveys
ITK-FR-07	Hanford Site Hoisting and Rigging Manual for critical lifts	Ground level radiation surveys
ITK-FR-08	Hanford Site Hoisting and Rigging Manual for critical lifts	None
ITK-FR-09	None	RWP (radiation work permit)
ITK-FR-10	None	RWP (radiation work permit)
ITK-FR-11	None	RWP (radiation work permit)
ITK-FR-12	None	RWP (radiation work permit)
ITK-FR-13	Flammable gas monitor	None
ITK-FR-14	Hanford Site Hoisting and Rigging Manual for critical lifts	Ground level radiation surveys
ITK-FR-15	Hanford Site Hoisting and Rigging Manual for critical lifts	Ground level radiation surveys
ITK-FR-16	None	RWP (radiation work permit)
ITK-FR-17	None	RWP (radiation work permit)
ITK-FR-18	Hanford Site Hoisting and Rigging Manual for critical lifts	Ground level radiation surveys
ITK-FR-19	None	Emergency Preparedness

Table A-5. Master Defense-in-Depth Controls. (40 Sheets)

ID	CDD-Preventive	CDD-Negative
ITK-FR-20	Hanford Site Hoisting and Rigging Manual for critical lifts	Ground level radiation surveys
ITK-FR-21	Hanford Site Hoisting and Rigging Manual for critical lifts	Ground level radiation surveys
ITK-FR-22	Hanford Site Hoisting and Rigging Manual for critical lifts	None
ITK-FR-23	Hanford Site Hoisting and Rigging Manual for critical lifts	Ground level radiation surveys
ITK-FR-24	None	RWPP (radiation work permit)
ITK-FR-25	None	RWPP (radiation work permit)
ITK-FR-26	Hanford Site Hoisting and Rigging Manual for critical lifts	Ground level radiation surveys
ITK-FR-27	None	RWPP (radiation work permit)
ITK-FR-28	Hanford Site Hoisting and Rigging Manual for critical lifts	Ground level radiation surveys
NP-01	Lightning protection -Grounded or terminate -Grounded tank nozzles and permanently installed instrumentation bonded to nozzles Grounding girds	None
NP-02	Periodic surveillance of HEPA Delta P HEPA filter replacement typically performed at 1 mSWH (100 mweh) Interlocks' alarm on heater over temperature	Low Delta P interlock across the HEPA filters on the ventilation system
NP-03	Lightning protection -Grounded or terminate -Grounded tank nozzles and permanently installed instrumentation bonded to nozzles Grounding girds	None
NP-05	Hanford Site Hoisting and Rigging Manual for critical lifts	None
NP-06	Restrictions on operations during high winds	None
NP-07	Tank integrity assessment program	None
NP-08	None	Manual balance calculations during waste transfers
NP-09	Tank integrity assessment program	None
NP-10	None	Emergency Prep
NP-11	None	None

Table A-4. Master Defense-in-Depth Controls. (60 Sheets)

ID	DID-Preventive	DID-Mitigative
MP-1.2	Aerosol testing of HEPA filters	HEPA filter low differential pressure interlocks/alarms Periodic surveillance of HEPA differential pressure
MP-1.3	Tank integrity assessment program	None
MP-1.4	Aerosol testing of HEPA filters	HEPA filter low differential pressure interlocks/alarms Periodic surveillance of HEPA differential pressure
MP-1.5	None	None
OGT-EXT3-01A	Leak testing of pumps Heat tracing and insulation	Material balance calculations during waste transfers Tank level monitoring during waste transfers Leak detection systems (transfer leak detection and enclosure leak detection) Drains in waste transfer system structures Ground level radiation surveys
OGT-EXT3-01B	Heat tracing and insulation	Visual survey of tank farms at least once a day Ground level radiation surveys
OGT-FLOW1-01	None	None
OGT-FLOW1-02	Heat tracing and insulation	Visual survey of tank farms at least once a day Ground level radiation surveys
OGT-FLOW1-03A	Leak testing of pumps Heat tracing and insulation	Material balance calculations during waste transfers Tank level monitoring during waste transfers Leak detection systems (transfer leak detection and enclosure leak detection) Drains in waste transfer system structures Ground level radiation surveys
OGT-FLOW1-03B	Heat tracing and insulation	Visual survey of tank farms at least once a day Ground level radiation surveys
OGT-FLOW1-04	Heat tracing and insulation	Visual survey of tank farms at least once a day Ground level radiation surveys
OGT-FLOW1-05	None	Tank Level Monitoring
OGT-FLOW1-06	Drains in waste transfer system structures Enclosure leak detection systems	DCRT/catch tank visual leak detection systems Visual survey of tank farms at least once a day Ground level radiation surveys
OGT-FLOW2-01A	Drains in waste transfer structures Enclosure leak detection	Visual survey of tank farms at least once a day DCRT/catch tank visual leak detection systems Ground level radiation surveys
OGT-FLOW2-01B	Drains in waste transfer system structures Enclosure leak detection systems Heat tracing and insulation	DCRT/catch tank visual leak detection systems Visual survey of tank farms at least once a day Ground level radiation surveys

Table A-5. Master Defense-in-Depth Controls. (68 Sheets)

ID	DID-Preventive	DID-Negative
OGT-FLOW2-02	Leak testing of pumps; Heat tracing and insulation	Material balance calculations during waste transfers; Tank level monitoring during waste transfers; Leak detection systems (transfer leak detection and encasement leak detection); Drains in waste transfer system structures; Ground level radiation surveys
OGT-FLOW2-03A	Drains in waste transfer structures; Encasement leak detection systems	Visual survey of tank farms at least once a day; DCRT/catch tank vault leak detection systems; Ground level radiation surveys
OGT-FLOW2-03B	Drains in waste transfer system structures; Encasement leak detection systems; Heat tracing and insulation	DCRT/catch tank vault leak detection systems; Visual survey of tank farms at least once a day; Ground level radiation surveys
OGT-HYEQ3-01	Drains in waste transfer structures; Encasement leak detection systems	Visual survey of tank farms at least once a day; DCRT/catch tank vault leak detection systems; Ground level radiation surveys
OGT-NP3-01	Heat tracing and insulation	Material balance calculations during waste transfers; Tank level monitoring during waste transfers; Leak detection systems (transfer leak detection and encasement leak detection); Drains in waste transfer system structures; Ground level radiation surveys
OGT-NP3-02	Heat tracing and insulation	Material balance calculations during waste transfers; Tank level monitoring during waste transfers; Leak detection systems (transfer leak detection and encasement leak detection); Drains in waste transfer system structures; Ground level radiation surveys
OGT-OPS1-01	Hydrolysis load monitoring for waste transfers	Emergency preparedness
OGT-PRES1-01	Drains in waste transfer system structures; Encasement leak detection systems; Heat tracing and insulation	DCRT/catch tank vault leak detection systems; Visual survey of tank farms at least once a day; Ground level radiation surveys
OGT-READ1-01	Drains in waste transfer system structures; Encasement leak detection systems; Heat tracing and insulation	DCRT/catch tank vault leak detection systems; Visual survey of tank farms at least once a day; Ground level radiation surveys
OGT-SPEC1-01	None	None
OGT-TEMP1-01	None	None
OGT-TEMP1-02	Heat tracing and insulation	Material balance calculations during waste transfers; Tank level monitoring during waste transfers; Leak detection systems (transfer leak detection and encasement leak detection); Drains in waste transfer system structures; Ground level radiation surveys
OGT-TEMP1-03	Drains in waste transfer system structures; Encasement leak detection systems; Heat tracing and insulation	DCRT/catch tank vault leak detection systems; Visual survey of tank farms at least once a day; Ground level radiation surveys

Table A-3. Master Defense-in-Depth Controls. (68 Sheets)

ID	DID-Preventive	DID-Negative
RAD-01	None	None
RAD-01-1	None	None
RAD-02	None	None
RAD-02-1	None	None
RAD-03	None	None
RAD-03-1	None	None
RSR-01	None	Emergency preparedness
RSR-01-1	None	Emergency preparedness
RSR-02	None	None
RSR-02-1	None	None
RSR-03	None	None
RSR-03-1	None	None
RSR-04	None	Emergency preparedness
RSR-04-1	None	Emergency preparedness
RSR-05	None	Emergency preparedness
RSR-05-1A	None	Emergency preparedness
RSR-05-1B	None	Emergency preparedness
RSR-06-1	Leak detectors, material balance and tank level monitoring	None
RSR-07-1	MEPA (flwr replacement typically performed at 1 mbar) (100 mmHg) Vehicle positioning apertures S&T and D&T/ANP primary tank ventilation systems	None
RSR-08-1	None	None
SFF-01	None	Emergency preparedness

Table A-6. Master Defence-in-Depth Controls. (60 Sheets)

ID	DID-Preventive	DID-Mitigative
SFF-01-1	None	None
TFS-1	Drains in waste intake/air system structures Encasement leak detection systems	DCR/Toxicity tank vault leak detection systems Visual survey of tank farms at least once a day Ground level radiation surveys
VEH-01	Fire Prevention practices Job control - Respiration protection - Contamination control Vehicle positioning spillers Vegetation Control Program	None
VEH-01-1	Fire Prevention practices Job control - Respiration protection - Contamination control Vehicle positioning spillers Vegetation Control Program	None
VEH-02	None	None
VEH-02-1	None	None
VEH-03	None	None
VEH-03-1	None	None
VEH-04	Critics contained in SARPs	Critics contained in SARPs
VEH-04-1	Critics contained in SARPs	Critics contained in SARPs
VEH-06	None	None
VEH-06-1	None	None
VEH-08	None	None
VEH-08-1	None	None
VEH-07	Vehicle positioning spillers	None
VEH-07-1	Vehicle positioning spillers	None
VEH-08-1	Vehicle positioning spillers Dows Loads	None
VSM-01	None	Ground level radiation surveys
VSM-02	None	Emergency preparedness
VSM-03	Tank integrity assessment program	Emergency preparedness

Table A-5. Master Defense-in-Depth Controls. (68 Sheets)

ID	DID-Positive	DID-Negative
VSI-04	Tank integrity assessment program	Emergency preparedness
VSI-05	None	None
VSI-06	None	None
W058-FLOW01	Drains in waste transfer system structures Encasement leak detection systems	DORT/Watch tank vault leak detection systems Visual survey of tank farms at least once a day Ground level radiation surveys
W058-FLOW03	Drains in waste transfer system structures Encasement leak detection systems	DORT/Watch tank vault leak detection systems Visual survey of tank farms at least once a day Ground level radiation surveys
W058-FLOW05a	Drains in waste transfer system structures Encasement leak detection systems	DORT/Watch tank vault leak detection systems Visual survey of tank farms at least once a day Ground level radiation surveys
W058-FLOW05b	Drains in waste transfer system structures Encasement leak detection systems	DORT/Watch tank vault leak detection systems Visual survey of tank farms at least once a day Ground level radiation surveys
W058-FLOW06a	Drains in waste transfer system structures Encasement leak detection systems	DORT/Watch tank vault leak detection systems Visual survey of tank farms at least once a day Ground level radiation surveys
W058-FLOW07	Drains in waste transfer system structures Encasement leak detection systems	DORT/Watch tank vault leak detection systems Visual survey of tank farms at least once a day Ground level radiation surveys
W058-FLOW08	Drains in waste transfer system structures Encasement leak detection systems	DORT/Watch tank vault leak detection systems Visual survey of tank farms at least once a day Ground level radiation surveys
W058-FLOW11a	Drains in waste transfer system structures Encasement leak detection systems	DORT/Watch tank vault leak detection systems Visual survey of tank farms at least once a day Ground level radiation surveys
W058-FLOW11b	Drains in waste transfer system structures Encasement leak detection systems	DORT/Watch tank vault leak detection systems Visual survey of tank farms at least once a day Ground level radiation surveys
W058-FLOW11c	Drains in waste transfer system structures Encasement leak detection systems	DORT/Watch tank vault leak detection systems Visual survey of tank farms at least once a day Ground level radiation surveys
W058-FLOW13	Drains in waste transfer system structures Encasement leak detection systems	DORT/Watch tank vault leak detection systems Visual survey of tank farms at least once a day Ground level radiation surveys
W058-FLOW15	Leak testing of Jumper	Material balance calculations during waste transfers Tank level monitoring during waste transfers Leak detection systems (transfer leak detection and encasement leak detection) Drains in waste transfer system structures Ground level radiation surveys

Table A-5. Master Defense-in-Depth Controls. (60 Sheets)

ID	DID-Preventive	DID-Negative
W055-FLOW15	Leak testing of jumpers	Material balance calculations during waste transfers Tank level monitoring during waste transfers Leak detection systems (transfer leak detection and encasement leak detection) Diagnostics in waste transfer system structures Ground level radiation surveys
W055-FLOW17a	Leak testing of jumpers	Material balance calculations during waste transfers Tank level monitoring during waste transfers Leak detection systems (transfer leak detection and encasement leak detection) Diagnostics in waste transfer system structures Ground level radiation surveys
W055-FLOW17b	Leak testing of jumpers	Material balance calculations during waste transfers Tank level monitoring during waste transfers Leak detection systems (transfer leak detection and encasement leak detection) Diagnostics in waste transfer system structures Ground level radiation surveys
W055-FLOW17c	Leak testing of jumpers	Material balance calculations during waste transfers Tank level monitoring during waste transfers Leak detection systems (transfer leak detection and encasement leak detection) Diagnostics in waste transfer system structures Ground level radiation surveys
W055-FLOW18	Leak testing of jumpers	Material balance calculations during waste transfers Tank level monitoring during waste transfers Leak detection systems (transfer leak detection and encasement leak detection) Diagnostics in waste transfer system structures Ground level radiation surveys
W055-FLOW19	Leak testing of jumpers	Material balance calculations during waste transfers Tank level monitoring during waste transfers Leak detection systems (transfer leak detection and encasement leak detection) Diagnostics in waste transfer system structures Ground level radiation surveys
W055-FLOW20a	Leak testing of jumpers	Material balance calculations during waste transfers Tank level monitoring during waste transfers Leak detection systems (transfer leak detection and encasement leak detection) Diagnostics in waste transfer system structures Ground level radiation surveys
W055-FLOW20b	Leak testing of jumpers	Material balance calculations during waste transfers Tank level monitoring during waste transfers Leak detection systems (transfer leak detection and encasement leak detection) Diagnostics in waste transfer system structures Ground level radiation surveys

Table A-5. Master Defense-in-Depth Controls. (68 Sheets)

ID	DID-Preventive	DID-Negative
W058-FLOW20c	Leak testing of jumpers	Material balance calculations during waste transfers Tank level monitoring during waste transfers Leak detection systems (transfer leak detection and encasement leak detection) Drains in waste transfer system structures Ground level radiation surveys
W058-INTEG01a	None	Encasement leak detectors Test users provided on long transfer lines
W058-INTEG01b	None	Encasement leak detectors Test users provided on long transfer lines
W058-INTEG01c	Drains in waste transfer system structures Encasement leak detection systems	DCRT/catch tank vault leak detection systems Visual survey of tank farms at least once a day Ground level radiation surveys
W058-INTEG01d	Drains in waste transfer system structures Encasement leak detection systems	DCRT/catch tank vault leak detection systems Visual survey of tank farms at least once a day Ground level radiation surveys
W058-INTEG03a	None	Encasement leak detectors Test users provided on long transfer lines
W058-INTEG03b	Drains in waste transfer system structures Encasement leak detection systems	DCRT/catch tank vault leak detection systems Visual survey of tank farms at least once a day Ground level radiation surveys
W058-INTEG05a	None	DCRT/catch tank vault leak detection systems Visual survey of tank farms at least once a day Ground level radiation surveys
W058-INTEG05b	Drains in waste transfer system structures Encasement leak detection systems	DCRT/catch tank vault leak detection systems Visual survey of tank farms at least once a day Ground level radiation surveys
W058-INTEG07a	None	Encasement leak detectors Test users provided on long transfer lines
W058-INTEG07b	Drains in waste transfer system structures Encasement leak detection systems	DCRT/catch tank vault leak detection systems Visual survey of tank farms at least once a day Ground level radiation surveys
W058-INTEG09a	None	Encasement leak detectors Test users provided on long transfer lines
W058-INTEG09b	Drains in waste transfer system structures Encasement leak detection systems	DCRT/catch tank vault leak detection systems Visual survey of tank farms at least once a day Ground level radiation surveys
W058-INTEG11a	None	Encasement leak detectors Test users provided on long transfer lines
W058-INTEG11b	Drains in waste transfer system structures Encasement leak detection systems	DCRT/catch tank vault leak detection systems Visual survey of tank farms at least once a day Ground level radiation surveys
W058-INTEG13a	None	Encasement leak detectors Test users provided on long transfer lines

Table A-6. Master Defense-in-Depth Controls. (60 Sheets)

ID	DID-Preventive	DID-Integrative
W066-INTEG13b	None	Encasement leak detectors Test teams provided on long transfer lines
W066-INTEG13c	Drains in waste transfer system structures Encasement leak detection systems	DCRT/catch tank vault leak detection systems Visual survey of tank farms at least once a day Ground level radiation surveys
W066-INTEG13d	Drains in waste transfer system structures Encasement leak detection systems	DCRT/catch tank vault leak detection systems Visual survey of tank farms at least once a day Ground level radiation surveys
W066-INTEG14a	None	Encasement leak detectors Test teams provided on long transfer lines
W066-INTEG14b	Drains in waste transfer system structures Encasement leak detection systems	DCRT/catch tank vault leak detection systems Visual survey of tank farms at least once a day Ground level radiation surveys
W066-INTEG15a	Drains in waste transfer system structures Encasement leak detection systems	DCRT/catch tank vault leak detection systems Visual survey of tank farms at least once a day Ground level radiation surveys
W066-INTEG15b	Drains in waste transfer system structures Encasement leak detection systems	DCRT/catch tank vault leak detection systems Visual survey of tank farms at least once a day Ground level radiation surveys
W066-INTEG15c	None	Encasement leak detectors Test teams provided on long transfer lines
W066-INTEG15d	Drains in waste transfer system structures Encasement leak detection systems	DCRT/catch tank vault leak detection systems Visual survey of tank farms at least once a day Ground level radiation surveys
W066-INTEG20a	None	Encasement leak detectors Test teams provided on long transfer lines
W066-INTEG20b	Drains in waste transfer system structures Encasement leak detection systems	DCRT/catch tank vault leak detection systems Visual survey of tank farms at least once a day Ground level radiation surveys
W066-INTEG22	None	Encasement leak detectors Test teams provided on long transfer lines
W066-INTEG24	Drains in waste transfer system structures Encasement leak detection systems	DCRT/catch tank vault leak detection systems Visual survey of tank farms at least once a day Ground level radiation surveys
W066-INTEG26	Drains in waste transfer system structures Encasement leak detection systems	DCRT/catch tank vault leak detection systems Visual survey of tank farms at least once a day Ground level radiation surveys
W066-INTEG28	Drains in waste transfer system structures Encasement leak detection systems	DCRT/catch tank vault leak detection systems Visual survey of tank farms at least once a day Ground level radiation surveys
W066-INTEG30	Drains in waste transfer system structures Encasement leak detection systems	DCRT/catch tank vault leak detection systems Visual survey of tank farms at least once a day Ground level radiation surveys

Table A-5. Master Defense-to-Depth Controls. (88 Sheets)

ID	DID-Positive	DID-Negative
W056-INTEG32	None	Material balance calculations during waste transfers Tank level monitoring during waste transfers Leak detection systems (transfer leak detection and encasement leak detection) Drains in waste transfer system structures Ground level radiation surveys
W056-INTEG34	None	Material balance calculations during waste transfers Tank level monitoring during waste transfers Leak detection systems (transfer leak detection and encasement leak detection) Drains in waste transfer system structures Ground level radiation surveys
W056-INTEG35	None	Material balance calculations during waste transfers Tank level monitoring during waste transfers Leak detection systems (transfer leak detection and encasement leak detection) Drains in waste transfer system structures Ground level radiation surveys
W056-INTEG36	None	Material balance calculations during waste transfers Tank level monitoring during waste transfers Leak detection systems (transfer leak detection and encasement leak detection) Drains in waste transfer system structures Ground level radiation surveys
W056-INTEG37	None	Material balance calculations during waste transfers Tank level monitoring during waste transfers Leak detection systems (transfer leak detection and encasement leak detection) Drains in waste transfer system structures Ground level radiation surveys
W056-PRES01	Drains in waste transfer system structures Encasement leak detection systems	Visual survey of tank farms at least once a day Ground level radiation surveys
W056-PRES03	Drains in waste transfer system structures Encasement leak detection systems	DCRT/Watch tank vent leak detection systems Visual survey of tank farms at least once a day Ground level radiation surveys
X8-01-FLOW01	Flush transfer lines after use Leak detectors, material balances and tank level monitoring	None
X9-01-FLOW02	Flammable gas monitor	None
X8-01-FLOW03	Flush transfer lines after use	None
X8-01-FLOW04	Tank level monitoring	None
X8-01-FLOW05	Drains in waste transfer system structures Encasement leak detection systems	DCRT/Watch tank vent leak detection systems Visual survey of tank farms at least once a day Ground level radiation surveys

Table A-5. Master Defense-in-Depth Controls. (60 Sheets)

ID	DID-Preventive	DID-Mitigative
XS-01-FLOW06	Drains in waste transfer system structures Encasement leak detection systems	DCRT/Watch tank vault leak detection systems Visual survey of tank farms at least once a day Ground level radiation surveys
XS-01-FLOW07	Hydrostatic testing of direct buried or buried piping	Emergency preparedness
XS-01-PRES01	None	Encasement leak detectors Test water provided on long transfer lines
XS-01-PRES02	Pressure test annually on active lines that have not completed a transfer within one year Leak testing of pumps	Tank level monitoring during waste transfers Leak detection systems (transfer tank detection systems and encasement leak detection systems) Drains in waste transfer system structures Ground level radiation surveys
XS-01-TEMP01	Leak testing of pumps	Tank level monitoring during waste transfer Drains in waste transfer system structures
XS-01-TEMP02	Leak testing of pumps	Drains in waste transfer system structures Ground level radiation surveys
XS-02-FLOW01	None	Tank pressure monitors/alarms HEPA filter high differential pressure alarms
XS-02-FLOW02	HEPA filter replacement performed at 1 mSv/h (100 mrem/h)	Tank pressure monitors/alarms HEPA filter high differential pressure alarms Emergency preparedness
XS-02-FLOW03	None	None
XS-02-FLOW04	Hydrostatic testing of direct buried or buried piping	Emergency preparedness
XS-02-FLOW05	None	Encasement leak detectors Test water provided on long transfer lines
XS-02-FLOW06	None	None
XS-03-LEVE	Tank integrity assessment program	DCRT vault leak detectors
XS-03-LEVE01 XS-21-LEVE (244-G DCRT)	Flush transfer lines after use Leak detectors, manual balances and tank level monitoring	None
XS-03-LEVE02 XS-21-LEVE (244-S DCRT)	None	None
XS-03-PRES01	Aerosol testing of HEPA filters	HEPA filter low differential pressure interlocks/alarms Periodic surveillance of HEPA differential pressures

Table A-5. Master Defense-In-Depth Controls. (60 Sheets)

ID	DID-Preventive	DID-Mitigative
XS-03-PRES01 XS-21-PRES (244-S-DCRT)	Flush transfer lines after use. Leak detectors, material balances and tank level monitoring	None
XS-03-PRES01A	Aerosol testing of HEPA filters	HEPA filter low differential pressure interlocks/alarms. Periodic surveillance of HEPA differential pressure
XS-03-PRES02	Aerosol testing of HEPA filters	HEPA filter low differential pressure interlocks/alarms. Periodic surveillance of HEPA differential pressure
XS-03-PRES02 XS-21-PRES (244-S-DCRT)	None	None
XS-03-PRES03	Aerosol testing of HEPA filters	HEPA filter low differential pressure interlocks/alarms. Periodic surveillance of HEPA differential pressure
XS-03-PRES04	Aerosol testing of HEPA filters	HEPA filter low differential pressure interlocks/alarms. Periodic surveillance of HEPA differential pressure
XS-03-PRES05	Aerosol testing of HEPA filters	None
XS-03-TEMP01	None	None
XS-03-TEMP01 XS-21-TEMP (244-S-DCRT)	Leak testing of pumps	Material balance calculations during waste transfers. Tank level monitoring during waste transfers. Leak detection systems (transfer leak detection systems and associated leak detection systems). Drains in waste transfer system structures. Ground level relief
XS-03-TEMP02	None	Tank pressure monitors/alarms. HEPA filter high differential pressure alarms
XS-03-TEMP02 XS-21-TEMP (244-S-DCRT)	None	None
XS-03-TEMP03 XS-21-TEMP (244-S-DCRT)	Flush transfer lines after use. Leak detectors, material balances and tank level monitoring	None
XS-03-TEMP04	None	None

Table A-5. Master Defense-in-Depth Controls. (50 Sheets)

ID	DID-Preventive	DID-Mitigate
XS-03-TEMP04 XS-21-TEMP (244-3-DCRT)	Service water system freeze protection	Service pit leak detection system Waste tank high level alarm
XS-03-TEMP05	Aerosol testing of HEPA filters	HEPA filter low differential pressure interlocks/alarms Periodic surveillance of HEPA differential pressure
XS-03-TEMP06	Aerosol testing of HEPA filters	HEPA filter low differential pressure interlocks/alarms Periodic surveillance of HEPA differential pressure
XS-03-TEMP07	Aerosol testing of HEPA filters	HEPA filter low differential pressure interlocks/alarms Periodic surveillance of HEPA differential pressure
XS-03-TEMP08	Aerosol testing of HEPA filters	HEPA filter low differential pressure interlocks/alarms Periodic surveillance of HEPA differential pressure
XS-03-TEMP09	Drains in waste transfer system structures	DCRT/Arch tank waste leak detection systems
XS-05-FLOW01	Annual aerosol testing of filters on the ventilation system Periodic surveillance of HEPA Delta P HEPA filter replacement typically performed at 1 mBtwh (100 mrem/h)	Low Delta P interlock across the HEPA filters on the ventilation system High Delta P (across the HEPA filters) alarm (remotely, at a manned facility) on the ventilation system
XS-05-FLOW02	Drains in waste transfer system structures	DCRT/Arch tank waste leak detection systems
XS-05-TEMP01	Periodic surveillance of HEPA Delta P HEPA filter replacement typically performed at 1 mBtwh (100 mrem/h) interlock alarm on heater over temperature	Low Delta P interlock across the HEPA filters on the ventilation system High Delta P (across the HEPA filters) alarm (remotely, at a manned facility) on the ventilation system
XS-05-TEMP02	Periodic surveillance of HEPA Delta P HEPA filter replacement typically performed at 1 mBtwh (100 mrem/h) interlock alarm on heater over temperature	Low Delta P interlock across the HEPA filters on the ventilation system High Delta P (across the HEPA filters) alarm (remotely, at a manned facility) on the ventilation system
XS-06-FLOW01	None	None
XS-06-FLOW02	Leak testing of jumpers	Leak detection systems (transfer leak detection and encasement leak detection) Material balance calculations during waste transfers Tank level monitoring during transfer Ground level radiation surveys
XS-06-FLOW03	Leak testing of jumpers	Material balance calculations during waste transfers Tank level monitoring during waste transfers Leak detection systems (transfer leak detection and encasement leak detection) Drains in waste transfer system structures Ground level radiation surveys

Table A-8. Master Defense In-Depth Controls. (88 Sheets)

ID	DID-Preventive	DID-Mitigative
XS-06-FLOW04	Leak testing of Jumps	Material balance calculations during waste transfers Tank level monitoring during waste transfers Leak detection systems (transfer tank detection and encasement leak detection) Drains in waste transfer system structures Ground level radiation surveys
XS-06-FLOW05	None	Encasement leak detectors Test users provided on long transfer lines
XS-06-FLOW06	Drains in waste transfer structures	DCRT/Leach tank vault leak detection systems
XS-07-FLOW01	None	Encasement leak detectors Test users provided on long transfer lines
XS-07-FLOW02	None	Encasement leak detectors Test users provided on long transfer lines
XS-07-FLOW03	None	Encasement leak detectors Test users provided on long transfer lines
XS-07-FLOW04	None	Encasement leak detectors Test users provided on long transfer lines
XS-07-FLOW05	None	Encasement leak detectors Test users provided on long transfer lines
XS-07-FLOW06	None	Encasement leak detectors Test users provided on long transfer lines
XS-11-LEVE01	Drains in waste transfer system structures Encasement leak detection systems	DCRT/Leach tank vault leak detection systems Visual survey of tank farms at least once a day Ground level radiation surveys
XS-11-LEVE02	Drains in waste transfer system structures Encasement leak detection systems	DCRT/Leach tank vault leak detection systems Visual survey of tank farms at least once a day Ground level radiation surveys
XS-11-LEVE03	Drains in waste transfer system structures Encasement leak detection systems	DCRT/Leach tank vault leak detection systems Visual survey of tank farms at least once a day Ground level radiation surveys
XS-12-FLOW01	None	None
XS-12-FLOW02	Fire Prevention practices Job control - Respiration protection - Contamination control Flush transfer lines after use	None
XS-12-FLOW03	Fire Prevention practices Job control - Respiration protection - Contamination control Flush transfer lines after use	None
XS-12-FLOW04	None	None
XS-12-FLOW05	Drains in waste transfer system structures Encasement leak detection systems	DCRT/Leach tank vault leak detection systems Visual survey of tank farms at least once a day Ground level radiation surveys

Table A-5. Master Defense-in-Depth Controls. (60 Sheets)

ID	DID-Positive	DID-Negative
XS-12-FLOW08	Hydrostatic testing of direct buried or buried piping	Emergency preparedness
XS-13-LEVE	Hydrostatic testing of direct buried or buried piping	Emergency preparedness
XS-13-PRES01	None	None
XS-13-PRES02	Flash transfer lines after use Leak detectors, manual balances and tank level monitoring	None
XS-13-PRES03	None	None
XS-13-PRES04	None	None
XS-20-FLOW01	None	None
XS-20-FLOW02	None	None
XS-20-FLOW03	None	None
XS-20-FLOW04	None	None
XS-20-FLOW05	None	None
XS-20-FLOW06	None	None
XS-20-FLOW07	None	None
XS-20-FLOW08	Drains in waste transfer system structures Encasement leak detection systems	DCR/Tech tank vent leak detection systems Visual survey of tank farms at least once a day Ground level radiation surveys
XS-20-FLOW09	Drains in waste transfer system structures Encasement leak detection systems	DCR/Tech tank vent leak detection systems Visual survey of tank farms at least once a day Ground level radiation surveys
XS-26-PRES XS-26-TEMP	None	None
XS-26-PRES XS-26-TEMP 102-AW-TEMP (FOR TK-102-AW)	None	None
XS-26-PRES01	None	None

Table A-5. Master Defense-in-Depth Controls. (60 Sheets)

ID	DIC-Positive	DIC-Negative
XS-25-PRES01A 102AH-02-PRES	Aerosol testing of HEPA filters Periodic surveillance of HEPA differential pressure HEPA filter replacement typically performed at 1 mS/yr (100 mrem/yr)	HEPA filter low differential pressure interlocks/alerts HEPA filter high differential pressure alarms
XS-25-PRES02	Portable gas monitor	None
XS-25-PRES02A 102AH-02-PRES	Aerosol testing of HEPA filters Periodic surveillance of HEPA differential pressure HEPA filter replacement typically performed at 1 mS/yr (100 mrem/yr)	HEPA filter low differential pressure interlocks/alerts HEPA filter high differential pressure alarms
XS-25-PRES03	Aerosol testing of HEPA filters Periodic surveillance of HEPA differential pressure HEPA filter replacement typically performed at 1 mS/yr (100 mrem/yr)	Primary ventilation system including HEPA filters Coverblocks
XS-25-PRES03 102AH-02-PRES	Aerosol testing of HEPA filters Periodic surveillance of HEPA differential pressure HEPA filter replacement typically performed at 1 mS/yr (100 mrem/yr)	HEPA filter low differential pressure interlocks/alerts HEPA filter high differential pressure alarms
XS-25-TEMP 102AH-05-TEMP	None	None
XS-25-TEMP01	Primary and annulus DST/ANV leak ventilation ALCo	Cover blocks for other leak cooling features Emergency preparedness
XS-25-TEMP02	None	None
XS-35-FLOW01	Hydrostatic testing of direct buried or buried piping	Emergency preparedness
XS-35-FLOW02	Drains in waste transfer system structures Encasement leak detection systems	DCRT/atch tank vault leak detection systems Visual survey of tank farms at least once a day Ground level radiation surveys
XS-37-FLOW01	Drains in waste transfer system structures Encasement leak detection systems	DCRT/atch tank vault leak detection systems Visual survey of tank farms at least once a day Ground level radiation surveys
XS-37-FLOW02	Hydrostatic testing of direct buried or buried piping	Emergency preparedness
XS-41A-FLOW01	Drains in waste transfer system structures Encasement leak detection systems	DCRT/atch tank vault leak detection systems Visual survey of tank farms at least once a day Ground level radiation surveys
XS-41A-FLOW02	Drains in waste transfer system structures Encasement leak detection systems	DCRT/atch tank vault leak detection systems Visual survey of tank farms at least once a day Ground level radiation surveys
XS-41B-LEVEL01	Flash transfer base overflow Leak detectors, manual balance and tank level monitoring	None
XS-41B-LEVEL02	Aerosol testing of HEPA filters	HEPA filter low differential pressure interlocks/alerts Periodic surveillance of HEPA differential pressure

Table A-6. Master Defense-in-Depth Controls. (50 Sheets)

ID	DND-Preventive	DND-Mitigative
XS-41B-LEVE03	Drains in waste transfer system structures Encasement leak detection systems	DCRT/catch tank vault leak detection systems Visual survey of tank farms at least once a day Ground level radiation surveys
XS-41B-LEVE04	Aerosol testing of HEPA filters	HEPA filter low differential pressure interlocks/alarms Periodic surveillance of HEPA differential pressure
X3-41C-LEVE01	Flush transfer lines after use Leak detectors, material balances and tank level monitoring	None
X3-41C-LEVE02	None	DCRT/catch tank vault leak detection systems
XS-41C-LEVE03	Aerosol testing of HEPA filters	HEPA filter low differential pressure interlocks/alarms Periodic surveillance of HEPA differential pressure
X3-45-FLOW	Hydrostatic testing of direct buried or buried piping	Emergency preparedness
XS-52-FLOW01	None	Encasement leak detectors Test news provided on long transfer lines
XS-52-FLOW02	Drains in waste transfer system structures Encasement leak detection systems	DCRT/catch tank vault leak detection systems Visual survey of tank farms at least once a day Ground level radiation surveys

Table A-6. Control Memo. (100 Sheets)

ID	P SSC MEMO	M SSC MEMO	Control MEMO
102AW-01-FLOW1 102AW-02-PRES			No controls required based on low accident frequency
102AW-01-FLOW1 102AW-04-PRES		<p>The above grade portions of the following structure are designated SC with regard to physical integrity</p> <ul style="list-style-type: none"> - Process Pits - Diversion Bases - Vault Pits - COBs 	Controls based on accident analyses (Spray Leak in Structure or from Overground Waste Transfer Lines)
102AW-01-FLOW1		<p>The above grade portions of the following structure are designated SC with regard to physical integrity</p> <ul style="list-style-type: none"> - Process Pits - Diversion Bases - Vault Pits - COBs 	Controls based on accident analyses (Spray Leak in Structure or from Overground Waste Transfer Lines)
102AW-01-FLOW2			Controls based on accident analyses (Spray Leak from Underground Waste Transfer Lines)
102AW-01-FLOW3		<p>The above grade portions of the following structure are designated SC with regard to the function of reducing releases from splash and splatter within them</p> <ul style="list-style-type: none"> - Process Pits - Diversion Bases - Vault Pits - COBs 	Controls based on accident analyses (Subsurface Leak Resulting in Pool)
102AW-01-FLOW4			No controls required based on low accident frequency

Table A-6. Control Memo. (100 Sheets)

ID	P SSC MEMO	M SSC MEMO	Control MEMO
102AW-01-FLOW6		<p>The above grade portions of the following structs are designated SS with regard to the function of reducing releases from splash and spillover within them</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	Controls based on accident analyses (Subsurface Leak Resulting in Pool, and Natural Phenomena - Seismic)
102AW-01-FLOW6		<p>The above grade portions of the following structs are designated SS with regard to the function of reducing releases from splash and spillover within them</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	Controls based on accident analyses (Subsurface Leak Resulting in Pool)
102AW-01-FLOW67		<p>The above grade portions of the following structs are designated SS with regard to the function of reducing releases from splash and spillover within them</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	Controls based on accident analyses (Subsurface Leak Resulting in Pool)
102AW-01-FLOW10	<p>The above grade portions of following structs are considered SC with regard to physical integrity</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	<p>The above grade portions of the following structs are designated SS with regard to the function of reducing releases from splash and spillover within them</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	Controls based on accident analyses (Surface Leak Resulting in Pool)

Table A-6. Control Memo. (100 Sheets)

ID	P SSC MEMO	M SSC MEMO	Control Memo
102AW-01- FLOW11	<p>The above grade portions of following struts are considered SC with regard to physical integrity</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	<p>The above grade portions of the following struts are designated SS with regard to the function of reducing releases from splash and spatter within them</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	<p>Controls based on accident analyses (Surface Leak Resulting in Pool)</p>
102AW-01-TEMP		<p>The above grade portions of the following struts are designated SS with regard to the function of reducing releases from splash and spatter within them</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	<p>Controls based on accident analyses (Spray Leak in Structure or from Overground Waste Transfer Lines)</p>
102AW-01- TEMP01	<p>The above grade portions of following struts are considered SC with regard to physical integrity</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	<p>The above grade portions of the following struts are designated SS with regard to the function of reducing releases from splash and spatter within them</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	<p>Controls based on accident analyses (Surface Leak Resulting in Pool)</p>
102AW-01- TEMP01A	<p>The above grade portions of following struts are considered SC with regard to physical integrity</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	<p>The above grade portions of the following struts are designated SS with regard to the function of reducing releases from splash and spatter within them</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	<p>Controls based on accident analyses (Surface Leak Resulting in Pool)</p>

Table A-6. Control Memo. (100 Sheets)

ID	P SSC MEMO	M SSC MEMO	Control MEMO
102AW-01- TEMP02	The above grade portions of following struts are considered SC with regard to physical integrity <ul style="list-style-type: none"> - Process Pits - Diversion Bowls - Vault Pits - COBs 	The above grade portions of the following struts are designated SS with regard to the function of reducing releases from splash and splatter within them <ul style="list-style-type: none"> - Process Pits - Diversion Bowls - Vault Pits - COBs 	Controls based on accident analysis (Surface Leak Resulting in Pool)
102AW-02-LEVE			These controls address this hazardous condition by reducing leak and minimizing release
102AW-02- LEVE01			No controls required based on accident analysis (Mixing of Incompatible Wastes - Toxic Vapor Generation) and Workload FI
102AW-02- LEVE02			These are applicable controls from the Flammable Gas Discharge - DST accident analysis
102AW-02- LEVE02A			These controls address this hazardous condition by reducing re-entrainment and minimizing exposure
102AW-02- LEVE03	The above grade portions of following struts are considered SC with regard to physical integrity <ul style="list-style-type: none"> - Process Pits - Diversion Bowls - Vault Pits - COBs 	The above grade portions of the following struts are designated SS with regard to the function of reducing releases from splash and splatter within them <ul style="list-style-type: none"> - Process Pits - Diversion Bowls - Vault Pits - COBs 	Controls based on accident analysis (Surface Leak Resulting in Pool)
102AW-02- LEVE04	The above grade portions of following struts are considered SC with regard to physical integrity <ul style="list-style-type: none"> - Process Pits - Diversion Bowls - Vault Pits - COBs 	The above grade portions of the following struts are designated SS with regard to the function of reducing releases from splash and splatter within them <ul style="list-style-type: none"> - Process Pits - Diversion Bowls - Vault Pits - COBs 	Controls based on accident analysis (Surface Leak Resulting in Pool)

Table A-6. Control Memo. (109 Sheets)

ID	P SSC MEMO	M SSC MEMO	Control Memo
102AW-02-LEVE05	The above-grade portions of following structs are considered SC with regard to physical integrity <ul style="list-style-type: none"> - Process Pits - Overhead Bores - Vault Pits - COBs 	The above-grade portions of the following structs are designated SS with regard to the function of preventing releases from splash and spatter within them <ul style="list-style-type: none"> - Process Pits - Overhead Bores - Vault Pits - COBs 	Controls based on accident analysis (Surface Leak Resulting in Pool)
102AW-02-LEVE06			These are applicable controls from the Flammable Gas Deflagration - D&T accident analysis
102AW-02-PRES 102AW-02-TEMP			No controls required based on accident analysis (Evaporator Dump)
102AW-02-PRES 01 X6-26-PRES 01			
102AW-02-PRES01			Controls based on Flammable Gas JCO LA-UR-60-3996 and accident analysis (Natural Phenomena - Lightning), with additional controls on primary tank leak Detect. Sys
102AW-02-PRES02			No controls required based on accident analysis (Leaking of Incompatible Waste - Toxic Vapor Generation)
102AW-02-PRES03			Controls based on accident analysis (Tank Failure Due to Vacuum or Degradation)
102AW-02-PRES04			Controls based on accident analysis (Tank Failure Due to Vacuum or Degradation)
102AW-02-PRES08			Controls based on accident analysis (Tank Failure Due to Vacuum or Degradation)
102AW-02-PRES06			Controls based on accident analysis (Tank Failure Due to Vacuum or Degradation)

Table A-6. Control Memo. (100 Sherida)

ID	P SSC MEMO	M SSC MEMO	Control MEMO
102AW-02-PRES07			Controls based on accident analysis (Tank Failure Due to Vacuum or Degradation)
102AW-02-PRES08			No controls required based on accident analysis (Evaporator Dump)
102AW-02-PRES09			No controls required based on accident analysis (Evaporator Dump)
102AW-02-TEMP 102AW-08-TEMP			The Triax control for this hazardous condition is solely pH control because of the larger volume in waste storage tanks compared to the analyzed accident
102AW-02-TEMP01			Controls based on accident analysis (Tank Bump) for OST & AWF tanks
102AW-02-TEMP02			Controls based on accident analysis (Tank Bump)
102AW-03-LEVEL01			Controls based on preliminary FSAR accident analysis
102AW-03-LEVEL02			Controls based on preliminary FSAR accident analysis, and the accident analysis (Spray Leak in Structure or from Overground Waste Tanks Lines)
102AW-03-LEVEL03			Controls based on accident analysis (Tank Failure Due to Vacuum or Degradation)
102AW-03-PRES01 102AW-03-LEVE			
102AW-03-PRES02 102AW-03-LEVE			

Table A-6. Control Memo. (100 Sheets)

ID	P SSC MEMO	M SSC MEMO	Control MEMO
102AW-03-TEMP01	Physical barriers shall be installed around structures which have the potential to direct flammable liquids into waste tanks (i.e., above-tank fencing, metal interlocking rail systems, concrete or concrete filled piping posts, or concrete barriers). Vehicle access within the tank farms shall be limited to vehicles whose fuel systems are protected from damage caused by potential collisions with tank structures.		Controls based on accident analyses (In-Tank Fuel Fire/Deflagration)
102AW-03-TEMP02	Physical barriers shall be installed around structures which have the potential to direct flammable liquids into waste tanks (i.e., above-tank fencing, metal interlocking rail systems, concrete or concrete filled piping posts, or concrete barriers). Vehicle access within the tank farms shall be limited to vehicles whose fuel systems are protected from damage caused by potential collisions with tank structures.		Controls based on accident analyses (In-Tank Fuel Fire/Deflagration)
102AW-04-LEVEL01	The above grade portions of the following structures are considered SC with regard to physical integrity: <ul style="list-style-type: none"> - Process Pits - Diversion Bows - Vault Pits - COBs 	The above grade portions of the following structures are designated SS with regard to the function of reducing releases from splash and spillover within them: <ul style="list-style-type: none"> - Process Pits - Diversion Bows - Vault Pits - COBs 	These controls address this hazardous condition by indicating leak and minimizing releases.
102AW-04-LEVEL02		The above grade portions of the following structures are designated SS with regard to the function of reducing releases from splash and spillover within them: <ul style="list-style-type: none"> - Process Pits - Diversion Bows - Vault Pits - COBs 	These controls address this hazardous condition by indicating leak and minimizing exposures.

Table A-6. Control Memo. (100 Sheets)

ID	P SSC MEMO	M SSC MEMO	Control MEMO
102AW-04- LEVE00			No applicable SSCs or TSFs - Facility worker exposure controlled by Radiation Protection Program
102AW-04- LEVE04			No applicable SSCs or TSFs - Facility worker exposure controlled by Radiation Protection Program
102AW-04- PRES01			
102AW-04- PRES01			These controls address the hazardous condition by monitoring ventilation operation and cover block status
102AW-04- PRES02			These controls address the hazardous condition by monitoring release
102AW-04- STRU01			
102AW-04- STRU02			
102AW-04- STRU01A			Controls based on accident analysis (Tank Failure Due to Excessive Loads)
102AW-04- STRU01B			
102AW-04- STRU02			Controls based on accident analysis (Tank Failure Due to Excessive Loads)
102AW-04- STRU03			Controls based on accident analysis (Tank Failure Due to Excessive Loads, Vacuum, or Degradation) to reduce frequency of load drops
102AW-04- STRU04			Controls based on accident analysis (Tank Failure Due to Excessive Loads) and additional controls to prevent dropping covers during transfers

Table A-8. Control Memo. (100 Sheets)

ID	P SSC MEMO	M SSC MEMO	Control MEMO
102AW-04-STRUG			Control is based on accident analyses (Subsurface Leak Remaining Subsurface, and Natural Phenomena - Seismic)
102AW-04-TEMP			Control is based on accident analyses (Fire in Contaminated Area)
102AW-08-COMP01			
102AW-08-COMP02			The criticality controls address the hazardous condition by controlling waste composition of transfers into Tank Farms, using the double contingency principle
102AW-08-COMP02A			The criticality controls address the hazardous condition by controlling waste composition of transfers into Tank Farms, using the double contingency principle
102AW-08-COMP03			The criticality controls address the hazardous condition by controlling waste composition of transfers into Tank Farms, using the double contingency principle
102AW-08-COMP04			The criticality controls address this hazardous condition by controlling waste composition of transfers into Tank Farms, using the double contingency principle
102AW-08-COMP05			The criticality controls address this hazardous condition by controlling waste composition of transfers into Tank Farms, using the double contingency principle
102AW-08-COMP06			No applicable SSCs or TSRs - Facility water exposure controlled by Health & Safety Plan

Table A.6. Control Memo. (100 Sheets)

ID	P SSC MEMO	W SSC MEMO	Control MEMO
102AW-09-COMP01	Physical barriers shall be installed around structures which have the potential to direct flammable liquids into vessel tanks (i.e., chain-link fencing, metal interlocking rail systems, concrete or concrete filled piping posts, or concrete barriers). Vehicle access within the tank farms shall be limited to vehicles whose fuel systems are protected from damage caused by potential collisions with tank structures.		Controls based on accident analysis (Organic Solvent Fire)
102AW-09-COMP02	Physical barriers shall be installed around structures which have the potential to direct flammable liquids into vessel tanks (i.e., chain-link fencing, metal interlocking rail systems, concrete or concrete filled piping posts, or concrete barriers). Vehicle access within the tank farms shall be limited to vehicles whose fuel systems are protected from damage caused by potential collisions with tank structures.		Controls based on accident analysis (In-Tank Fuel Fire/Deflagration)
102AW-09-COMP03			This control addresses the hazardous condition by preventing fuel spill
102AW-09-COMP04			No applicable SSCs or TSFs - Facility worker exposure controlled by Health & Safety Plan
102AW-09-COMP05			This control addresses the hazardous condition by preventing fire transfers
102AW-09-TEMP			No controls required based on accident analysis (Evaporator Dump)
102AW-09-TEMP01			Controls based on accident analysis (Tank Bump)
102AW-09-TEMP02			
102AW-13-FLOW 01			

Table A-6. Control Memo. (100 Sheets)

ID	P SSC MEMO	M SSC MEMO	Control MEMO
102AW-13- FLOW01		The above grade portions of the following struts are designated SC with regard to physical integrity <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	Controls based on accident analysis (Spray Leak in Structures or from Overground Vessel Trains/or Lines) with additional controls to address backflow
102AW-13- FLOW02	The above grade portions of following struts are considered SC with regard to physical integrity <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	The above grade portions of the following struts are designated SC with regard to the function of reducing releases from splash and splatter within them <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	Controls based on accident analysis (Surface Leak Resulting in Pool)
102S-01 a1	The above grade portions of following struts are considered SC with regard to physical integrity <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	The above grade portions of the following struts are designated SC with regard to the function of reducing releases from splash and splatter within them <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	Controls based on accident analysis (Surface Leak Resulting in Pool)
102S-01 a2	The above grade portions of following struts are considered SC with regard to physical integrity <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	The above grade portions of the following struts are designated SC with regard to the function of reducing releases from splash and splatter within them <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	Controls based on accident analysis (Surface Leak Resulting in Pool)
102S-01 b3			Controls based on accident analysis (Subsurface Leak Resulting in Subinfiltration)

Table A-4. Control Memo. (168 Sheets)

ID	P BSC MEMO	M BSC MEMO	Control MEMO
1025-02 b1			Controls based on Flammable Gas JCO and accident analyses (Surface Leak Resulting in Pool and Fire in Contaminated Area)
1025-02 b2			Controls based on Flammable Gas JCO and accident analyses (Fire in Contaminated Area)
1025-02 b2	Physical barriers shall be installed around structures which have the potential to direct flammable liquids into waste tanks (e.g., chain-link fencing, metal interlocking rail systems, concrete or concrete filled piping posts, or concrete barriers). Vehicle access within the tank farms shall be limited to vehicles whose fuel systems are protected from damage caused by potential collisions with tank structures.		Controls based on accident analyses (Fire in Contaminated Area)
1025-02 b3	Physical barriers shall be installed around structures which have the potential to direct flammable liquids into waste tanks (e.g., chain-link fencing, metal interlocking rail systems, concrete or concrete filled piping posts, or concrete barriers). Vehicle access within the tank farms shall be limited to vehicles whose fuel systems are protected from damage caused by potential collisions with tank structures.		These controls address the hazardous condition by preventing fuel spill and minimizing exposure
1025-03 b3	Physical barriers shall be installed around structures which have the potential to direct flammable liquids into waste tanks (e.g., chain-link fencing, metal interlocking rail systems, concrete or concrete filled piping posts, or concrete barriers). Vehicle access within the tank farms shall be limited to vehicles whose fuel systems are protected from damage caused by potential collisions with tank structures.		Controls based on accident analyses (In-Tank Fuel Pool/Detonation)

Table A-8. Control Memo. (100 Sheets)

ID	P E S C MEMO	M S S C MEMO	Control MEMO
102S-03 b4	Physical barriers shall be installed around structures which have the potential to draw flammable liquids into waste tanks (i.e., chain-link fencing, metal interlocking rail systems, concrete or concrete filled piping posts, or concrete barriers). Vehicle access within the tank farms shall be limited to vehicles whose fuel systems are protected from damage caused by potential collisions with tank structures.		Controls based on accident analysis (In-Tank Fuel Fire/Degradation)
102S-04 a1b			These are applicable controls from the Subsurface Leak Resulting in Pool accident analysis. Service water leak is the only significant source of water intrusion.
102S-04 a1bb			These are applicable controls from the Subsurface Leak Resulting in Pool accident analysis. Service water leak is the only significant source of water intrusion.
102S-04 a3			No controls required based on accident analysis (Evaporation Damp)
102S-04 c			Controls based on Flammable Gas, H ₂ O, and accident analyses (Natural Phenomena - Lightning, and MEPA Filter Failure - Exposure to High Temperature or Pressure).
102S-04 d1			Controls based on accident analysis (Tank Failure Due to Vacuum or Degradation)
102S-04 e1b			Controls based on Flammable Gas, H ₂ O, and accident analyses (Natural Phenomena - Lightning, and MEPA Filter Failure - Exposure to High Temperature or Pressure).
102S-04 e2			
102S-04 e3			Controls based on accident analysis surface transfer leaks (pool)

Table A-8. Control Memo. (188 Sheets)

ID	P SBC MEMO	M SBC MEMO	Control Memo
102S-04-a0			The criticality controls address this hazardous condition by controlling waste composition of isotopes into Tank Farms, using the double contingency principle
102S-05-a1a			Controls based on accident analysis (Tank Failure Due to Excessive Loads)
102S-05-a1aa			Controls based on accident analysis (Tank Failure Due to Excessive Loads)
102S-05-a2			No controls required based on low frequency
102S-05-a3			Controls based on accident analysis (Tank Failure Due to Vacuum or Degradation)
102S-05-a3a			Controls based on accident analysis (Tank Failure Due to Vacuum or Degradation)
102S-08-a			These controls address this hazardous condition by limiting source buildup
106C-01A			Controls based on accident analysis (Tank Failure Due to Vacuum or Degradation)
106C-01B			Controls based on accident analysis (Tank Failure Due to Vacuum or Degradation)
106C-01C			Controls based on accident analysis (Tank Failure Due to Vacuum or Degradation)
106C-01D			Controls based on accident analysis (Tank Failure Due to Vacuum or Degradation)
106C-01E			Controls based on accident analysis (Tank Failure Due to Vacuum or Degradation)
106C-01F			Controls based on accident analysis (HEPA Filter Failure - Exposure to High Temperature or Pressure) and low accident frequency

Table A-6. Control Memo. (108 Sheets)

ID	P SSC MEMO	M SSC MEMO	Control MEMO
106C-01G			The transfer control for this hazardous condition is solely pH control because of the larger volumes in waste storage tanks compared to the analyzed accident
106C-01H			Controls based on accident analysis (Tank Bump) for SSTs
106C-01I			Controls based on Flammable Gas JCO, and accident analysis (Natural Phenomena - Lightning)
106C-01J			Controls based on Flammable Gas JCO, and accident analysis (Natural Phenomena - Lightning)
106C-01K			These controls address the hazardous condition by maintaining tank vacuum, monitoring tank temp and CAM interlock mitigating releases
106C-01M			The transfer control for this hazardous condition is solely pH control because of the larger volumes in waste storage tanks compared to the analyzed accident
106C-01N			Controls based on Flammable Gas JCO. Auto-ignition temperature of H ₂ at LFL is 400 C
106C-01O			The controls address this hazardous condition by controlling waste composition of liquids into Tank Farms, using the double contingency principle
106C-01P			These are applicable controls from the Subsurface Leak Following Subsurface accident analysis
106C-01S			These controls address this hazardous condition by maintaining tank vacuum, monitoring tank temp and CAM interlock mitigating releases

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therefore it required breaking into smaller sections.

Document number: SD-WM-TI-764

Section 2 of 2

Title: Hazard Analysis Database
Report

Date: 8/12/97 Revision: 1

Originator: Nemi, Bg
Co: WEST

Recipient: _____

Co: _____

References: ECU-629254

Table A-6. Control Memo. (100 Sheets)

ID	P BSC MEMO	M BSC MEMO	Control MEMO
106C-01Sa			These are applicable controls from the Tank Bump accident analysis. Temperature monitoring prevents one possible tank failure cause and is a possible indicator of tank leak (tank heat-up). Facility worker exposure controlled by Radiation Protection Program.
106C-01T			These controls address the hazardous condition by maintaining tank vacuum.
106C-01U			
106C-01V			
106C-01X			Controls based on accident analysis (Tank Failure Due to Excessive Loads).
106C-01Y			Controls based on accident analyses (Tank Failure Due to Excessive Loads, and Surface Leak Resulting in Pool).
106C-02A			Controls based on Flammable Gas JCO, and accident analysis (Organic Salt-Nitrate Reaction). Auto-ignition temperature of H ₂ at LFL is 400 C.
106C-02B			Controls based on Flammable Gas JCO, and accident analysis (Natural Phenomena - Lightning).
106C-02C			Controls based on Flammable Gas JCO, and accident analysis (Natural Phenomena - Lightning).
106C-04A			Controls based on Flammable Gas JCO, and accident analysis (Natural Phenomena - Lightning).
106C-04a			Controls based on Flammable Gas JCO, and accident analysis (Natural Phenomena - Lightning).
106C-04b			Controls based on Flammable Gas JCO, and accident analysis (Natural Phenomena - Lightning).
106C-06A			These controls address this hazardous condition by minimizing release.

Table A-6. Control Memo. (100 Sheets)

ID	P SSC MEMO	M SSC MEMO	Control MEMO
106C-06B			
106C-06D	Physical barriers shall be installed around structures which have the potential to direct flammable liquids into waste tanks (e.g., oil/water tank, fencing, metal interlocking rail systems, concrete or concrete filled piping paths, or concrete barriers). Vehicle access within the tank farms shall be limited to vehicles whose fuel systems are protected from damage caused by potential collisions with tank structures.		Controls based on accident analysis (Fire in Contaminated Area)
109C-06F			No applicable SSCs or TSRs - Facility worker exposure controlled by Radiation Protection Program
105C-06G	The above grade portions of following structs are considered BC with regard to physical integrity <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - CDBs 		These controls address the hazardous condition by notifying personnel of leak
106C-06H			No applicable SSCs or TSRs - Facility worker exposure controlled by Radiation Protection Program
106C-06J			
106C-06K			The control addresses the hazardous condition by preventing equipment drop
106C-06L			Controls based on Flammable Gas JCO and accident analysis (Fire in Contaminated Area)
106C-06M			
106C-10B			
106C-10C			

Table A-8. Control Memo. (180 Sheets)

ID	P SSC MEMO	M SSC MEMO	Control MEMO
108C-100			
108C-10E			
108C-10F			These controls address the hazardous condition by maintaining tank vacuum
108C-10H			
108C-10J			Controls based on accident analysis (H2O2A Filter Failure - Exposure to High Temperature or Pressure)
108C-10K			These controls address the hazardous condition by maintaining tank vacuum
108C-10L			These controls address the hazardous condition by maintaining tank vacuum
108C-11A			These controls address the hazardous condition by maintaining tank vacuum
108C-11B			
108C-11C			
108C-11D			
108C-11E			No controls required based on accident analysis (Unfiltered Release)
108C-11F			
108C-11G			These controls address the hazardous condition by minimizing unfiltered releases
108C-11H			These controls address the hazardous condition by minimizing filter source term accumulation, filter degradation and mitigating filter breakthrough
108C-11I			These controls address the hazardous condition by minimizing filter source term accumulation, filter degradation and mitigating filter breakthrough

Table A-6. Control Memo. (100 Sheets)

ID	P SSC MEMO	M SSC MEMO	Control MEMO
106C-11J			Controls based on accident analysis (HEPA Filter Failure - Exposure to High Temperature or Pressure)
106C-11K			Controls based on accident analysis (HEPA Filter Failure - Exposure to High Temperature or Pressure)
106C-11L			Controls based on accident analysis (HEPA Filter Failure - Exposure to High Temperature or Pressure)
106C-11M			Controls based on accident analysis (HEPA Filter Failure - Exposure to High Temperature or Pressure)
106C-11N			These controls address the hazardous condition by minimizing filter source term accumulation, filter degradation and mitigating filter breakthrough
106C-11O			Controls based on accident analysis (HEPA Filter Failure - Exposure to High Temperature or Pressure)
106C-12A			These controls address the hazardous condition by maintaining tank vacuum, inspection of HEPA filter, and mitigating filter breakthrough
106C-12B			These controls address the hazardous condition by maintaining tank vacuum, inspection of HEPA filter, and mitigating filter breakthrough
106C-12C			These controls address the hazardous condition by maintaining tank vacuum, inspection of HEPA filter, and mitigating filter breakthrough
106C-12D			These controls address the hazardous condition by maintaining tank vacuum, inspection of HEPA filter, and mitigating filter breakthrough

Table A-6, Control Memo, (100 Sheets)

ID	P SSC MEMO	M SSC MEMO	Control MEMO
106C-12F			The transfer control for this hazardous condition is from the representative accident for mixing of incompatible material - Tank pressurization and is solely pH control because of the larger volumes in waste storage tanks compared to the analyzed accident
106C-12G			There are applicable controls from the Subsurface Leak Remaining Subsurface Incident analysis
106C-13A			Controls based on Flammable Gas JCO, and accident analysis (Natural Phenomena - Lightning)
106C-13B			
107AN-01-LEVEL01			No specific TSR controls were identified because the hazard is solely toxicological. A non-TSR control is established requiring 4 mil thickness plastic sleeving around delivery piping, limitation on the caustic delivery system to be less than or equal to 125 psi, and use of schedule 10 steel pipe as a minimum thickness for caustic delivery if used
107AN-01-LEVEL02			No controls required based on low accident frequency
107AN-01-LEVEL03			No specific TSR controls were identified because the hazard is solely toxicological. A non-TSR control is established for 4 mil thickness plastic sleeving around delivery piping, limitation of the caustic delivery system to be less than or equal to 125 psi, and use of schedule 10 steel pipe as a minimum thickness for caustic delivery if used
107AN-01-TEMP 01			
107AN-01-TEMP02			No controls required based on low accident frequency

Table A-5. Control Memo. (100 Sheets)

ID	P SSC MEMO	M SSC MEMO	Control MEMO
107AM-02- FLOW01			The transfer control for the hazardous condition is from the representative accident for mixing of incompatible material - Tank pressurization and is solely pH control because of the larger volumes in waste storage tanks compared to the analyzed accident
107AM-02- FLOW02			The transfer control for the hazardous condition is from the representative accident for mixing of incompatible material - Tank pressurization and is solely pH control because of the larger volumes in waste storage tanks compared to the analyzed accident
107AM-02- FLOW03			No specific TGR controls were identified because the hazard is solely toxicological. A non-TSR control is established for 4 mil thickness plastic sleeving around delivery piping, limitation of the caustic delivery system to be less than or equal to 125 psi, and use of schedule 10 steel pipe as a minimum thickness for caustic delivery if used
107AM-02-PRES			No specific TSR controls were identified because the hazard is solely toxicological. A non-TSR control is established requiring 4 mil thickness plastic sleeving around delivery piping, limitation on the caustic delivery system to be less than or equal to 125 psi, and use of schedule 10 steel pipe as a minimum thickness for caustic delivery if used
107AM-02-PRES02			No specific TSR controls were identified because the hazard is solely toxicological. A non-TSR control is established requiring 4 mil thickness plastic sleeving around delivery piping, limitation on the caustic delivery system to be less than or equal to 125 psi, and use of schedule 10 steel pipe as a minimum thickness for caustic delivery if used

Table A-8. Control Memo. (100 Sheets)

ID	P SSC MEMO	M SSC MEMO	Control MEMO
107AN-02-TEMP01			
107AN-03-FLOW			No applicable SSCs or TSAs - Facility vendor exposure controlled by Health & Safety Plan
114SX-02 b	The above grade portions of following structure are considered SS with regard to physical integrity <ul style="list-style-type: none"> - Process Pits - Downcom Boxes - Vault Pits - CDBs 	The above grade portions of the following structure are designated SS with regard to the function of reducing releases from splash and splinter within them <ul style="list-style-type: none"> - Process Pits - Downcom Boxes - Vault Pits - CDBs 	Controls based on accident analyses (Surface Leak Resulting in Pools)
114SX-04 a 1a			These controls address the hazardous condition by maintaining tank vacuum
114SX-04 a 1b			These controls address the hazardous condition by maintaining tank vacuum
114SX-04 a 2			Controls based on accident analyses (Tank Failure Due to Vacuum or Degradation)
114SX-04 a 3			Controls based on accident analyses (Tank Failure Due to Vacuum or Degradation)
114SX-04 a 4			These controls address the hazardous condition by maintaining tank vacuum
114SX-04 b 1 a 1			These controls address the hazardous condition by inspection of HEPA filters
114SX-04 b 1 a 2			Controls based on accident analyses (Tank Failure Due to Vacuum or Degradation)
114SX-04 b 1 a 3			These are applicable controls from the Flammable Gas Delegations - DGT accident analyses
114SX-04 b 1 b 1a			These controls address the hazardous condition by maintaining tank vacuum

Table A-6. Control Memo. (100 Sheets)

ID	P 6SC MEMO	M 6SC MEMO	Control MEMO
1145X-04 b 1 b 1b			No controls required based on accident analysis (Unfired Release)
1145X-04 b 1 b 2a			Controls based on accident analysis (Tank Failure Due to Vacuum or Degradation)
1145X-04 b 1 b 2b			Controls based on accident analysis (Natural Phenomena - Seismic) Frequency of earthquake capable of being during is 1E-2
1145X-04 b 1 b 3a			These are applicable controls from the Flammable Gas Delegations - DST accident analysis
1145X-04 b 1 b 3b			These are applicable controls from the Natural Phenomena - Seismic accident analysis
1145X-04 b 1 c 1			These controls address the hazardous condition by maintaining tank vacuum
1145X-04 b 1 c 2			Controls based on accident analysis (Tank Failure Due to Vacuum or Degradation)
1145X-04 b 1 c 3			These are applicable controls from the Flammable Gas Delegations - DST accident analysis
1145X-04 b 1 d 1			These controls address the hazardous condition by maintaining tank vacuum
1145X-04 b 1 d 2			Controls based on accident analysis (Tank Failure Due to Vacuum or Degradation)
1145X-04 b 1 d 3			These are applicable controls from the Flammable Gas Delegations - DST accident analysis
1145X-04 b 3b			Controls based on Flammable Gas, ACO, and accident analysis (Natural Phenomena - Lightning)
1145X-04 b 8			These controls address the hazardous condition by maintaining tank vacuum
1145X-04 d 1			Controls based on accident analysis (HEPA Filter Failure - Exposure to High Temperature or Pressure)

Table A-6. Control Memo. (100 Sheets)

ID	P SSC MEMO	M SSC MEMO	Control MEMO
1145X-04 c 2 a			Controls based on accident analyses (Unfiltered Release)
1145X-04 c 2 b			Controls based on accident analyses (Unfiltered Release)
1145X-04 c 2 c			Controls based on accident analyses (Unfiltered Release)
1145X-04 c 2 d			Controls based on accident analyses (Unfiltered Release)
1145X-05 b 1			Controls based on Flammable Gas JCO, and accident analyses (Natural Phenomena - Lightning)
1145X-05 b 2			No controls required based on low accident frequency
1145X-05 b 3			Controls based on accident analyses (Tank Failure Due to Vacuum or Degradation)
1145X-05 c 2b			Controls based on accident analyses (Tank Failure Due to Vacuum or Degradation)
1145X-05 c 2c			The on-site controls address the toxicous condition by controlling waste composition of transfers into Tank Farms, using the double contingency principle
1145X-05 d			Controls based on Flammable Gas JCO, and accident analyses (Natural Phenomena - Lightning)
1145X-06 a 1a			Controls based on accident analyses (Tank Failure Due to Excessive Loads)
1145X-06 a 1b			Controls based on Flammable Gas JCO, and accident analyses (Natural Phenomena - Lightning)
1145X-06 a 2			There are no applicable controls from the Subsurface Leak Assessing Subsurface accident analyses

Table A-6. Control Memo. (188 Sheets)

ID	P SSC MEMO	M SSC MEMO	Control MEMO
1148X-08 a 3			Controls based on accident analysis (Tank Failure Due to Vacuum or Degradation)
1148X-08 b			
204AR-01A			This control addresses this hazardous condition by limiting exposure
204AR-01B			This control addresses this hazardous condition by limiting exposure
204AR-01C			This control addresses this hazardous condition by limiting exposure
204AR-01D			This control addresses this hazardous condition by limiting exposure
204AR-01E			
204AR-01F			
204AR-01G			
204AR-01H			Controls based on accident analysis (Leak from Railed/Tank Trailer)
204AR-01I			Controls based on accident analysis (Leak from Railed/Tank Trailer)
204AR-01J			These controls address this hazardous condition by indicating leakage
204AR-01K			These controls address this hazardous condition by indicating leakage
204AR-02A			Controls based on accident analysis (Leak from Railed/Tank Trailer)
204AR-02B			Controls based on accident analysis (Leak from Railed/Tank Trailer)
204AR-02C			

Table A-6. Control Memo. (100 Sheets)

ID	P SSC MEMO	M SSC MEMO	Control MEMO
204AR-02D			
204AR-02E			These controls address this hazardous condition by notifying personnel of leak.
204AR-02F			These controls address this hazardous condition by indicating leakage.
204AR-03A			These controls address this hazardous condition by minimizing leak size.
204AR-03B			These controls address this hazardous condition by indicating leakage.
204AR-03C			
204AR-04A			These controls address this hazardous condition by minimizing leak size.
204AR-04B			These controls address this hazardous condition by indicating leakage.
204AR-04C			No applicable SSCs or TSRs - Facility worker exposure controlled by Health & Safety Plan.
204AR-04D			No applicable SSCs or TSRs - Facility worker exposure controlled by Health & Safety Plan.
204AR-04E			No applicable SSCs or TSRs - Facility worker exposure controlled by Health & Safety Plan.
204AR-04F			
204AR-05A			
204AR-05B			These controls address this hazardous condition by indicating leakage.
204AR-05C			
204AR-05A			These controls address this hazardous condition by minimizing leak.

Table A-6. Control Memo. (168 Sheets)

ID	P SSC MEMO	M SSC MEMO	Control MEMO
204AR-068			These controls address the hazardous condition by restricting release
204AR-069			These controls address the hazardous condition by reducing leakage
204AR-07A			Controls based on accident analysis (Spray Leak in Structure or from Overground Vehicle Transfer Lines) with additional controls to address 204AR spray leaks
204AR-07B			These controls address the hazardous condition by minimizing leak size
204AR-07C			
204AR-08A			Controls based on accident analysis (Leak from Railcar/Tank Trailer)
204AR-08B			Controls based on accident analysis (Leak from Railcar/Tank Trailer)
204AR-08C			Controls based on accident analysis (Leak from Railcar/Tank Trailer)
204AR-08D			Controls based on accident analysis (Leak from Railcar/Tank Trailer)
204AR-08E			
204AR-08F			No applicable SSCs or TSRs - Facility worker exposure controlled by Radiation Protection Program
204AR-08G			
204AR-08H			
204AR-11A			No applicable SSCs or TSRs - Facility worker exposure controlled by Radiation Protection Program

Table A-6. Control Memo. (160 Sheets)

ID	P SSC MEMO	M SSC MEMO	Control MEMO
204AR-11B			No applicable SSCs or TSRs - Facility worker exposure controlled by Radiation Protection Program
204AR-11C			No applicable SSCs or TSRs - Facility worker exposure controlled by Radiation Protection Program
204AR-11D			No applicable SSCs or TSRs - Facility worker exposure controlled by Radiation Protection Program
204AR-11E			These controls address the hazardous condition by limiting filter blowout sound level
204AR-11F			Controls based on accident analyses (HEPA Filter Failure - Exposure to High Temperature or Pressure) for 204-AR
213 W-01			No applicable SSCs or TSRs - Facility worker exposure controlled by Radiation Protection Program
213 W-02			No applicable SSCs or TSRs - Facility worker exposure controlled by Radiation Protection Program
213 W-03			
213 W-04			
213 W-05			
213 W-06			
213 W-07			
213 W-08			
213 W-09			This control addresses this hazardous condition by minimizing vehicle accidents
244AR-01 a DG			No controls based on low frequency

Table A-6. Control Memo. (100 Sheets)

ID	P SSC MEMO	M SSC MEMO	Control MEMO
244AR-01 b 01			No controls based on low frequency
244AR-01 b 02			No controls based on low frequency
244AR-01 b 03			No controls based on low frequency
244AR-01 b 04			Controls based on accident analysis (HEPA Filter Failure - Exposure to High Temperature or Pressure) and no active condition at 244-AR
244AR-01 c 01			These controls address the hazardous condition by limiting filter blowout source term
244AR-01 c 02			No applicable SSCs or TSRs - Facility worker exposure controlled by Radiation Protection Program
244AR-01 c 03			No applicable SSCs or TSRs - Facility worker exposure controlled by Radiation Protection Program
244AR-01 c 07			
244AR-01 c 08			These controls address the hazardous condition by insulating absence of ventilation flow
244AR-01 c 09			Controls based on Flammable Gas JCO
244AR-01 c 10			These controls address this hazardous condition by inspection of HEPA filters
244AR-01 c 11			No controls required based on low frequency
244AR-01 c 13			
244AR-02 a 03			Controls based on Flammable Gas JCO
244AR-02 a 05			
244AR-02 a 06			There are no applicable controls from the Subsurface Leak Remaining Subsurface accident analysis

Table A-4. Control Memo. (188 Sheets)

ID	P SSC MEMO	M SSC MEMO	Control MEMO
244AR-02 s 07			No controls required based on low accident frequency
244AR-02 s 08			These controls address this hazardous condition by notifying personnel of leak
244AR-02 s 09			There are applicable controls from the Subsurface Leak Remaining Subsurface accident analysis. These controls also address this hazardous condition for worker risk by notifying personnel of leak
244AR-02 s 10			These controls address this hazardous condition by notifying personnel of leak
244AR-02 s 11			There are applicable controls from the Subsurface Leak Remaining Subsurface accident analysis. These controls also address this hazardous condition for worker risk by notifying personnel of leak
244AR-02 s 12			No applicable SSCs or TSRs - Facility nuclear exposure controlled by Radiation Protection Program
244AR-02 s 13			There are no applicable controls from the Unfired Release accident analysis
244AR-02 s 14			Controls based on accident analysis (Natural Phenomena - Seismic)
244AR-03 s 03			
244AR-03 s 04			Controls based on Flammable Gas JCO
244AR-03 s 05			No applicable SSCs or TSRs - Hazardous condition not credible for steam jacking because steam has been isolated from 244-AR 000000
244AR-03 s 06			No controls based on low frequency
244AR-03 s 07			

Table A-6. Control Memo. (100 Sheets)

ID	P SSC MEMO	M SSC MEMO	Control MEMO
244AR-03 a 08			No applicable SSCs or TBRs - Hazardous condition not credible for steam gelling because steam has been isolated from 244-AR.
244AR-03 a 09			The critically connect address the hazardous condition by controlling waste composition of transfers into Tank Farm, using the double contingency principle
244AR-03 a 13			No controls based on low frequency
244AR-03 a 14			No controls based on low frequency
244AR-03 a 15			
244AR-03 a 16			
244AR-03 a 17			
244AR-03 a 18			
244AR-04 a 01			
244AR-05 a 01			
244AR-05 a 02			Controls based on accident analysis (Natural Phenomena - Seismic)
244AR-05 a 02			
244AR-07 a 01			No controls based on low frequency
244AR-07 a 02			No controls based on low frequency
244AR-07 a 03			No controls based on low frequency
244AR-07 a 04			
244AR-PH01			
244AR-PH02			
244AR-PED03			

Table A-6. Control Memo. (100 Sheets)

ID	P SSC MEMO	M SSC MEMO	Control MEMO
244AR-PH04			
244AR-PH05			
244AR-PH06			
244AR-PH07			
244AR-PH08			
244AR-PH09			
244AR-PH10			
244AR-PH11			
244AR-PH12			
244AR-PH13			
244AR-PH14			
244AR-PH15			
244AR-PH16			
244AR-PH17			
244AR-PH18			
244AR-PH19			
2727W-01			
2727W-02			Controls based on accident analysis (Sodium Fire)
2727W-03			No controls required based on low accident frequency
2727W-04			No controls required based on low accident frequency

Table A-6. Control Matrix. (100 Sheets)

ID	P SSC MEMO	M SSC MEMO	Control MEMO
2727N-05			No controls required based on low accident frequency
2727N-06			Controls based on accident analysis (Sodium Fire)
900-01			This control addresses the hazardous condition by minimizing personnel exposure
900-02			This control addresses the hazardous condition by minimizing personnel exposure
900-03			This control addresses the hazardous condition by minimizing personnel exposure
900-04			This control addresses the hazardous condition by minimizing personnel exposure
900-05			
900-06			This control addresses the hazardous condition by increasing personnel exposure
900-07			This control addresses the hazardous condition by increasing personnel exposure
900-08			This control addresses the hazardous condition by minimizing personnel exposure
900-09			
900-10			
900-11			This is controlled by the SARP
BND-01			
BND-01-4			
BND-02			Controls based on Flammable Gas JCO
BND-02-4			
CCF-01			No controls required based on low frequency

Table A-8. Control Memo. (100 Sheets)

ID	P SSC MEMO	M SSC MEMO	Control Memo
CCF-02			These controls address this hazardous condition by inspection of HEPA filters
CCF-03			These controls address this hazardous condition by monitoring filter source term accumulation, filter degradation and mitigating filter breakthrough
CCF-04			These controls address this hazardous condition by minimizing filter source term accumulation, filter degradation and mitigating filter breakthrough
CCF-05			
CCF-06			
CCF-07		<p>The above grade portions of the following ducts are designated SS with regard to the function of reducing releases from splash and splatter within them</p> <ul style="list-style-type: none"> • Process Pits • Diversion Boxes • Vault Pits • COBs 	Controls based on accident analyses (Sartape Leak Raveling in Pod) and TWRS conduct of operations
CCF-08			
CCF-09			
CCF-10			
CCF-11			
CCF-12			
CCF-13			
CCF-14			
CCF-15			

Table A-6. Control Memo. (188 Sheets)

ID	P SSC MEMO	M SSC MEMO	Control MEMO
CCF-16			These are applicable controls from the Flammable Gas Disturbance - CST accident analysis. Temperature monitoring prevents one possible tank failure cause and is a possible indicator of tank leak (tank heat-up). PH control on transfer to tank farm maintain tank waste pH.
CCF-17			Controls based on accident analysis (Tank Failure Due to Vacuum or Degradation)
CCF-18			Controls based on accident analysis (Tank Failure Due to Vacuum or Degradation)
CCF-19			Controls based on accident analysis (Tank Failure Due to Vacuum or Degradation)
CCF-20			The transfer control for this hazardous condition is solely pH control because of the larger volumes in waste storage tanks compared to the analyzed accident.
CDP-01			No applicable SSCs or TSRs - Facility worker exposure controlled by Radiation Protection Program
CDP-02			
CDP-03			No applicable SSCs or TSRs - Facility worker exposure controlled by Radiation Protection Program
CDP-04			There are no applicable controls from the accident analysis
CDP-05			
CDP-06			No applicable SSCs or TSRs - Facility worker exposure controlled by Radiation Protection Program

Table A-6, Control Memo. (100 Sheets)

ID	P 350 MEMO	M 350 MEMO	Control MEMO
CDP-07			There are no applicable controls from the Unplanned Excavation/Drilling in Ponds/Creeks/Ditches accident analysis
CDP-08			The control addresses the hazardous condition by removing exposed
CDP-09			
CDP-10			No controls required based on accident analysis (Unplanned Excavation/Drilling in Ponds/Creeks/Ditches)
COB-01		<p>The above grade portions of the following structures are designated SC with regard to physical integrity</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	Controls based on accident analysis (Spray Leak in Structure or from Overground Waste Transfer Lines)
COB-02		<p>The above grade portions of the following structures are designated SC with regard to physical integrity</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	<p>These are applicable controls from the Spray Leak in Structure or from Overground Waste Transfer Lines accident analysis. These controls also address the hazardous condition for worker risk by preventing immersion of leak.</p>
COB-03		<p>The above grade portions of the following structures are designated SC with regard to physical integrity</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	<p>These are applicable controls from the Spray Leak in Structure or from Overground Waste Transfer Lines accident analysis. These controls address the hazardous condition for worker risk by preventing fire-hazards and immersion exposure</p>

Table A-4. Control Memo. (100 Streets)

ID	P SSC MEMO	M EBC MEMO	Control MEMO
COB-04	<p>The above grade portions of following structure are considered SC with regard to physical integrity</p> <ul style="list-style-type: none"> - Process Pits - Diversion Basins - Vault Pits - COBs 	<p>The above grade portions of the following structure are designated SS with regard to the function of reducing releases from splash and spatter within them</p> <ul style="list-style-type: none"> - Process Pits - Diversion Basins - Vault Pits - COBs 	<p>Controls based on accident analysis (Surface Leak Resulting in Pool)</p>
COB-05a			<p>No applicable SSCs or TSRs - Facility worker exposure controlled by Radiation Protection Program</p>
COB-05b			<p>These controls address this hazardous condition by minimizing release</p>
COB-05c			<p>These controls address this hazardous condition by minimizing release</p>
COB-05d			<p>This control addresses this hazardous condition by minimizing vehicle accidents</p>
COB-05e			<p>This control addresses this hazardous condition by minimizing exposure</p>
COB-06f			<p>These controls address this hazardous condition by minimizing exposure</p>
COB-06a			<p>No applicable SSCs or TSRs - Hazardous condition not credible because COBs are not airtight (No HEPA filters)</p>
COB-06b	<p>The above grade portions of following structure are considered SC with regard to physical integrity</p> <ul style="list-style-type: none"> - Process Pits - Diversion Basins - Vault Pits - COBs 	<p>The above grade portions of the following structure are designated SS with regard to the function of reducing releases from splash and spatter within them</p> <ul style="list-style-type: none"> - Process Pits - Diversion Basins - Vault Pits - COBs 	<p>These controls address this hazardous condition by prevention/minimizing of leak. (No HEPA filters in COB configuration)</p>

Table A-4. Control Memo. (100 Sheets)

ID	P SSC MEMO	M SSC MEMO	Control MEMO
COB-07			
COB-08	<p>The above grade portions of the following structures are considered SSC with regard to physical integrity</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	<p>The above grade portions of the following structures are designated SS with regard to the function of reducing releases from splash and spillover within them</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	Controls based on accident analysis (Surface Leak Resulting in Pool)
CRN-01			This control addresses the hazardous condition by controlling ILS
CRN-01-4			This control addresses the hazardous condition by controlling ILS
CRN-02			This control addresses the hazardous condition by controlling ILS
CRN-02-4			
CRN-03			Controls based on accident analysis (Tank Failure Due to Excessive Loads)
CRN-03-1A			Controls based on accident analysis (Tank Failure Due to Excessive Loads)
CRN-03-1B			Controls based on accident analysis (Tank Failure Due to Excessive Loads)
CRN-04			Controls based on accident analysis (Tank Failure Due to Excessive Loads)
CRN-04-1A			Controls based on accident analysis (Tank Failure Due to Excessive Loads)
CRN-04-1B			Controls based on accident analysis (Tank Failure Due to Excessive Loads)

Table A-6. Control Memo. (100 Sheets)

ID	P SSC MEMO	M SSC MEMO	Control MEMO
CRN-05	Physical barriers shall be installed around structures which have the potential to direct flammable liquids into waste tanks (e.g., chain-link fencing, metal interlocking rail systems, concrete or concrete filled piping posts, or concrete barriers). Vehicle access within the tank farms shall be limited to vehicles whose fuel systems are protected from damage caused by potential collisions with tank structures.		Controls based on accident analyses (Fire in Contaminated Area)
CRN-06-I			These controls address this hazardous condition by preventing fuel spill and minimizing exposure.
CRN-06	Physical barriers shall be installed around structures which have the potential to direct flammable liquids into waste tanks (e.g., chain-link fencing, metal interlocking rail systems, concrete or concrete filled piping posts, or concrete barriers). Vehicle access within the tank farms shall be limited to vehicles whose fuel systems are protected from damage caused by potential collisions with tank structures.		Controls based on Flammable Gas JCO and accident analyses (Fire in Contaminated Area, and Tank Failure Due to Excessive Loads, Vacuum, or Degradation)
CRN-06-I			These controls address this hazardous condition by preventing fuel spill and minimizing exposure.
CRN-07	Physical barriers shall be installed around structures which have the potential to direct flammable liquids into waste tanks (e.g., chain-link fencing, metal interlocking rail systems, concrete or concrete filled piping posts, or concrete barriers). Vehicle access within the tank farms shall be limited to vehicles whose fuel systems are protected from damage caused by potential collisions with tank structures.		Controls based on Flammable Gas JCO and accident analyses (Fire in Contaminated Area, and Tank Failure Due to Excessive Loads, Vacuum, or Degradation)
CRN-07-I			
CRN-08			Controls based on accident analyses (Natural Phenomena - Lightning)
CRN-08-I			

Table A-8. Control Memos. (108 Sheets)

ID	P SSC MEMO	M SSC MEMO	Control Memo
CRN-08			Controls based on accident analyses (Tank Failure Due to Excessive Loads)
CRN-09-I			Controls based on accident analyses (Unfiltered Release, and Tank Failure Due to Excessive Loads)
CRN-10			Controls based on accident analyses (Tank Failure Due to Excessive Loads)
CRN-10-I			Controls based on accident analyses (Unfiltered Release, and Tank Failure Due to Excessive Loads)
CRN-11			Controls based on accident analyses (Tank Failure Due to Excessive Loads)
CRN-11-A			Controls based on accident analyses (Tank Failure Due to Excessive Loads)
CRN-11-B			No controls required based on accident analyses (Above Ground Structure Failure)
CRN-11-C			Controls based on accident analyses (Surface Leak Resulting in Pool, and Tank Failure Due to Excessive Loads)
CRN-12			Controls based on accident analyses (Tank Failure Due to Excessive Loads)
CRN-12-A			Controls based on accident analyses (Tank Failure Due to Excessive Loads)
CRN-12-B			No controls required based on accident analyses (Above Ground Structure Failure)
CRN-12-C			Controls based on accident analyses (Surface Leak Resulting in Pool, and Tank Failure Due to Excessive Loads)
CRN-13-A			Controls based on accident analyses (Metal Penetrations - High Wind, and Natural Phenomena - Seismic)

Table A-4. Control Memo. (108 Sheets)

ID	P SSC MEMO	M SSC MEMO	Control MEMO
CRN-13-B			No controls required based on accident analyses (Above Ground Structure Failure)
CRN-13-C			Controls based on accident analyses (Natural Phenomena - High Wind, and Natural Phenomena - Seismic)
CRN-13-a			Controls based on accident analyses (Natural Phenomena - High Wind)
CRN-13-b			Controls based on accident analyses (Natural Phenomena - Seismic)
CRN-14			
CRN-14-1			
CRN-15			
CRN-15-1			
CRN-16			
CRN-16-1			
CRN-17			The context addresses the hazardous condition by controlling site
CRN-17-1			
CRN-18			No controls required based on accident analyses (Above Ground Structure Failure)
CRN-18-1			No controls required based on accident analyses (Above Ground Structure Failure)
CRN-19			Controls based on accident analyses (HEPA Filter Failure - Exposure to High Temperature or Pressure, and Tank Failure Due to Excessive Loads)
CRN-19-1			No controls required based on accident analyses (Above Ground Structure Failure)

Table A-6. Control Memo. (100 Sheets)

ID	P SSC MEMO	M SSC MEMO	Control MEMO
CRN-20			Controls based on accident analyses (HEPA Filter Failure - Exposure to High Temperature or Pressure, Natural Phenomena - Seismic, and Natural Phenomena - High Winds)
CRN-20-1			No controls required based on accident analyses (Above Ground Structure Failure)
CRN-21			These are applicable controls from the Tank Failure Due to Excessive Loads accident analyses
CRN-21-1A			These are applicable controls from the Tank Failure Due to Excessive Loads accident analyses
CRN-21-1B			Controls based on accident analyses (Tank Failure Due to Excessive Loads)
CRN-22			These are applicable controls from the Tank Failure Due to Excessive Loads accident analyses
CRN-22-1A			These are applicable controls from the Tank Failure Due to Excessive Loads accident analyses
CRN-22-1B			Controls based on accident analyses (Tank Failure Due to Excessive Loads)
CRN-23			Controls based on accident analyses (Natural Phenomena - High Wind, and Natural Phenomena - Seismic)
CRN-23-1A			Controls based on accident analyses (Natural Phenomena - High Wind, and Natural Phenomena - Seismic)
CRN-23-1B			No controls required based on accident analyses (Above Ground Structure Failure)
CRN-24			
CRN-24-1			
CRN-25			

Table A-4. Control Memo. (104 Sheets)

ID	P SSC MEMO	M SSC MEMO	Control MEMO
CRN-25-3A			
CRN-25-3B			No controls required based on accident analysis (Above Ground Structure Failure)
CRN-26			
CRN-26-4A			
CRN-26-3B			No controls required based on accident analysis (Above Ground Structure Failure)
CRN-27			
CRN-27-4A			
CRN-27-3B			No controls required based on accident analysis (Above Ground Structure Failure)
CRN-28-1			
CVR-01			No applicable SSCs or TSRs - Facility worker exposure controlled by Radiation Protection Program
CVR-01-1			No applicable SSCs or TSRs - Facility worker exposure controlled by Radiation Protection Program
CVR-02			No applicable SSCs or TSRs - Facility worker exposure controlled by Radiation Protection Program
CVR-02-1			No applicable SSCs or TSRs - Facility worker exposure controlled by Radiation Protection Program
CVR-03			No applicable SSCs or TSRs - Facility worker exposure controlled by Radiation Protection Program

Table A-6. Control Memo. (180 Sheets)

ID	P SSC MEMO	M SSC MEMO	Control MEMO
CVR-03-I			No applicable SSCs or TSFs - Facility worker exposure controlled by Radiation Protection Program
CVR-04			
CVR-04-I			
CVR-05	Physical barriers shall be installed around structures which have the potential to direct flammable liquids into waste tanks (e.g., chain-link fencing, metal interlocking rail systems, concrete or concrete filled piping posts, or concrete barriers). Vehicle access within the tank farms shall be limited to vehicles whose fuel systems are protected from damage caused by potential collisions with tank structures.		Controls based on Flammable Gas JGO and accident analyses (Fase In Contaminated Area)
CVR-05-I			
CVR-06			
CVR-06-I			
CVR-07			
CVR-07-I			
CVR-08			
CVR-08-I			
CVR-09			
CVR-09-I			
CVR-10			
CVR-10-I			
CVR-11			
CVR-11-I			

Table A-6. Control Memo, (100 Sheets)

ID	P SSC MEMO	M SSC MEMO	Control Memo
CVR-12-I			No applicable SSCs or TSRs - Facility worker exposure controlled by Radiation Protection Program
CVR-13-I			No applicable SSCs or TSRs - Facility worker exposure controlled by Radiation Protection Program
CVR-14-I			No applicable SSCs or TSRs - Facility worker exposure controlled by Health and Safety Plan
CVR-18-I			Controls based on accident analysis (Tank Failure Due to Excessive Loads, Vacuum, or Degradation) to reduce frequency of feed drops
DCN-01			
DCN-01-I			
DCN-02			No applicable SSCs or TSRs - Facility worker exposure controlled by Radiation Protection Program
DCN-02-IA			
DCN-02-IB			
DCN-03			No controls based on low frequency
DCN-03-I			
DCN-04			
DCN-04-I			There are no applicable controls from the Natural Phenomena - High Wind accident analysis
DCN-05			
DCN-05-I			
DCN-06			
DCN-06-I			

Table A-4. Control Memo. (100 Sheets)

ID	P SSC MEMO	M SSC MEMO	Control MEMO
DCN-07			
DCN-07-1			
EE-01			No controls required based on low accident frequency
EE-02			The control addresses the hazardous condition by minimizing exposure
EE-03			
EE-04-a	Physical barriers shall be installed around structures which have the potential to direct flammable liquids into vehicle tanks (i.e., chain-link fencing, metal interlocking rail systems, concrete or concrete filled piping posts, or concrete barriers). Vehicle access within the tank farms shall be limited to vehicles whose fuel systems are protected from damage caused by potential collisions with tank structures.		Controls based on accident analysis (In-Tank Fuel Fire/Deflagration)
EE-04-b	Physical barriers shall be installed around structures which have the potential to direct flammable liquids into vehicle tanks (i.e., chain-link fencing, metal interlocking rail systems, concrete or concrete filled piping posts, or concrete barriers). Vehicle access within the tank farms shall be limited to vehicles whose fuel systems are protected from damage caused by potential collisions with tank structures.		Controls based on accident analysis (In-Tank Fuel Fire/Deflagration)
EE-05-a	Physical barriers shall be installed around structures which have the potential to direct flammable liquids into vehicle tanks (i.e., chain-link fencing, metal interlocking rail systems, concrete or concrete filled piping posts, or concrete barriers). Vehicle access within the tank farms shall be limited to vehicles whose fuel systems are protected from damage caused by potential collisions with tank structures.		Controls based on accident analysis (In-Tank Fuel Fire/Deflagration)

Table A-8. Control Memo. (100 Sheets)

ID	P SSC MEMO	M SSC MEMO	Control MEMO
EE-05-b	Physical barriers shall be installed around structures which have the potential to direct flammable liquids into waste tanks (i.e., chain-link fencing, metal interlocking rail systems, concrete or concrete filled piping posts, or concrete barriers). Vehicle access within the tank farms shall be limited to vehicles whose fuel systems are protected from damage caused by potential collisions with tank structures.		Controls based on accident analysis (In-Tank Fuel Fire/Deflagration)
EE-06			
EE-07			
EE-08			
EE-09			This control addresses the risk of fire caused by detecting water line leakage.
EE-10			No controls required based on low accident frequency.
EE-11			Controls based on accident analysis (Surface Leak Resulting in Fire)
EE-12			
EE-13			
EE-14			
EE-15			
EE-16			Controls based on accident analysis (Spray Leak from Underground Waste Transfer Lines)
EE-17			No controls required based on accident analysis (Unplanned Escalation/Drilling or Puncturing)
GRN-01			
GRN-01-a			

Table A-6. Control Memo. (104 Sheets)

3D	P SSC MEMO	M SSC MEMO	Control MEMO
GRN-02			
GRN-02-I			
GRN-03-L			
I-2225-1-CMP-A			This control addresses this hazardous condition by controlling transfers.
I-2225-1-CMP-B			
I-2225-1-CMP-C		The above grade portions of the following structures are designated SC with regard to physical integrity: <ul style="list-style-type: none"> - Pierced Pipe - Ormation Boxes - Vault Pipe - COB's 	Controls based on accident analysis (Spray Leak in Structures or from Overground Waste Transfer Lines)
I-2225-1-CMP-D			
I-2225-1-CMP-E	Physical barriers shall be installed around structures which have the potential to direct flammable liquids into waste tanks (i.e., check-tank hosing, metal interlocking rail systems, concrete or concrete lined piping joints, or concrete barriers). Vehicle access within the tank farms shall be limited to vehicles whose fuel systems are protected from damage caused by potential collisions with tank structures.		Controls based on accident analysis (Organic Solvent Fire).
I-2225-1-LVL-A			Controls based on accident analysis (Steam Intrusion from Interlocking Pipes)
I-2225-1-RON-A			Controls based on accident analysis (Mixing of Incompatible Wastes - Tank Pressurization)
I-2225-2-FLW-A			This control addresses this hazardous condition by preventing mis-routing. Hazardous condition not credible because steam supply is 200VW disconnected.

Table A-6. Control Memo. (100 Sheets)

ID	P SSC MEMO	M SSC MEMO	Control MEMO
I-222S-2-FLW-B			
I-222S-2-FLW-C			Controls based on accident analysis (Mixing of Incompatible Wastes - Tank Pressurization)
I-222S-2-FLW-D			
I-222S-2-LEK-A			
I-222S-2-LEK-B		The above grade portions of the following structure are designated SC with regard to physical integrity <ul style="list-style-type: none"> - Process Pits - Distention Bowls - Vault Pits - COGs 	Controls based on accident analysis (Spray Leak in Structure or from Overground Waste Transfer Lines)
I-222S-2-LEK-C			Controls based on accident analysis (Spray Leak from Underground Waste Transfer Lines)
I-222S-2-LEK-D			
I-222S-2-LEK-E			Controls based on accident analysis (Spray Leak in Structure or from Overground Waste Transfer Lines, and Nuisance Phenomena - Squeeze)
I-222S-2-PRS-A			Controls based on accident analysis (Steam Infiltration from Interfacing Syss)
I-242A-1-FLW-A			Controls based on Flammable Gas JCO, with additional controls on primary tank leak Detect Syss
I-242A-1-FLW-B			Controls based on Flammable Gas JCO, with additional controls on primary tank leak Detect Syss
I-242A-1-FLW-C			Controls based on Flammable Gas JCO, with additional controls on primary tank leak Detect Syss
I-242A-1-FLW-D			Controls based on Flammable Gas JCO, with additional controls on primary tank leak Detect Syss
I-242A-1-FLW-E			Controls based on Flammable Gas JCO, with additional controls on primary tank leak Detect Syss

Table A-6. Control Memo. (100 Sheets)

ID	P SSC MEMO	M SSC MEMO	Control MEMO
I-242A-1-FLW-H			
I-242A-1-LEK-A			
I-242A-1-LEK-B		<p>The above grade portions of the following structure are designated SC with regard to physical integrity</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	Controls based on accident analysis (Spray Leak from Underground Waste Transfer Lines)
I-242A-1-LEK-C			Controls based on accident analysis (Spray Leak from Underground Waste Transfer Lines)
I-242A-1-LEK-D			
I-242A-1-LEK-E			Controls based on accident analysis (Spray Leak in Structure or from Overground Waste Transfer Lines, and Natural Phenomena - Seismic)
I-242A-2-CMP-A			Controls address this hazardous condition by indicating leak and preventing release
I-242A-2-CMP-B			Controls based on accident analysis (Steam Injection from Refueling Syms)
I-242A-2-FLW-A			No controls required based on accident analysis (Evaporator Dump)
I-242A-2-FLW-B			No controls required based on accident analysis (Evaporator Dump)
I-242A-2-LEK-A			
I-242A-2-LEK-B		<p>The above grade portions of the following structure are designated SC with regard to physical integrity</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	Controls based on accident analysis (Spray Leak from Underground Waste Transfer Lines)

Table A-8. Control Memo. (100 Sheets)

ID	P SSC MEMO	M SSC MEMO	Control MEMO
I-242A-2-LEK-C			Controls based on accident analyses (Spring Leak from Underground Waste Transfer Lines)
I-242A-2-LEK-D			
I-242A-2-LEK-E			Controls based on accident analyses (Spring Leak in Structure or from Overground Waste Transfer Lines, and Natural Phenomena - Seismic)
I-242A-2-TMP-A			
I-242A-2-VSC-A			No controls required based on accident analyses (Evaporator Dump)
I-242A-2-VSC-B			
I-242A-3-FLW-A			No controls required based on accident analyses (Evaporator Dump)
I-242A-3-FLW-B			No controls required based on accident analyses (Evaporator Dump)
I-242A-4-FLW-A			These controls address the hazardous condition by isolating leak and minimizing release
I-242A-4-TMP-A			No controls required based on low frequency
I-242A-5-FLW-A			
I-242A-5-CMP-A			Controls based on accident analysis (Steam Infiltration from Interfacing Syms)
I-242A-5-FLW-A			These controls address this hazardous condition by isolating leak and minimizing release
I-242A-5-FLW-B			No controls at TWR6, required controls implemented at 242-A Evaporator
I-242A-5-FLW-C			No applicable SSCs or TSRs - Facility worker exposure controlled by Radiation Protection Program. This hazardous condition is outside the TWR6 PSAR scope and therefore controls were not allocated and future not evaluated

Table A-6. Control Memo. (188 Sheets)

ID	P SRC MEMO	M SRC MEMO	Control MEMO
I-242A-7-CMP-A			
I-242A-7-FLW-A			No controls required based on accident analysis (Evaporator Dump)
I-242A-7-FLW-B			No controls required based on accident analysis (Evaporator Dump)
I-242A-7-FLW-C			The hazardous condition is covered in the 242A Evaporator SAR and is outside the TWHRS boundary
I-242A-7-PRS-A			
I-242S-1-PRS-A			No applicable SRCs or TSRs - Facility worker exposure controlled by Radiation Protection Program
I-242S-1-TMP-A			No applicable SRCs or TSRs - Facility worker exposure controlled by Radiation Protection Program
I-242S-2-FLW-A	<p>The above grade portions of following structs are considered SC with regard to physical integrity</p> <ul style="list-style-type: none"> - Process Pits - Diversion Basins - Vault Pits - COBs 	<p>The above grade portions of the following structs are designated SS with regard to the function of reducing releases from splash and spillage within them</p> <ul style="list-style-type: none"> - Process Pits - Diversion Basins - Vault Pits - COBs 	Controls based on accident analysis (Surface Leak Resulting in Pool)
I-242S-2-FLW-B			
I-242S-2-FLW-C			
I-242S-2-FLW-D			
I-242S-2-FLW-E			Controls based on accident analysis (Surface Leak Resulting in Pool)
I-242S-2-LEK-A			

Table A-4. Control Memo. (100 Sheets)

ID	PBSC MEMO	MBSC MEMO	Control MEMO
I-242S-2-LEK-B		The above grade portions of the following struts are designated SC with regard to physical integrity <ul style="list-style-type: none"> - Process Pile - Diversion Boxes - Vault Pile - COBs 	Controls based on accident analyses (Spray Leak from Underground Waste Transfer Lines)
I-242S-2-LEK-C			Controls based on accident analyses (Spray Leak from Underground Waste Transfer Lines)
I-242S-2-LEK-D			
I-242S-2-LEK-E			Controls based on accident analyses (Spray Leak as Structure or from Overground Waste Transfer Lines, and Natural Phenomena - Seismic)
I-242S-4-FLW-A			
I-242S-4-FLW-B			
I-242S-4-FLW-C			Controls based on accident analyses (Surface Leak Resulting in Pool)
I-242S-4-FLW-D	The above grade portions of following struts are considered SC with regard to physical integrity <ul style="list-style-type: none"> - Process Pile - Diversion Boxes - Vault Pile - COBs 	The above grade portions of the following struts are designated SS with regard to the function of reducing releases from splash and splatter with them <ul style="list-style-type: none"> - Process Pile - Diversion Boxes - Vault Pile - COBs 	Controls based on accident analyses (Surface Leak Resulting in Pool)
I-242S-4-LEK-A			
I-242S-4-LEK-B			This is not a TUVRS related event
I-242S-4-LEK-C			
I-242S-4-LEK-D			

Table A-8. Control Memo. (100 Sheets)

ID	P SSC MEMO	M SSC MEMO	Control MEMO
I-242S-4-UEK-E			Controls based on accident analyses (Spiller Leak in Structure or from Overground Waste Transfer Lines, and Natural Phenomena - Seismic)
I-242S-5-CMP-A			
I-242S-5-CMP-B			
I-242S-5-CMP-C			
I-242S-5-CMP-D			
I-242S-5-FLW-A			
I-242S-5-FLW-B			
I-242S-5-FLW-C			
I-242S-6-FRS-A			
I-242T-2-FLW-A			
I-242T-3-FLW-A	<p>The above grade portions of following structs are considered SC with regard to physical integrity</p> <ul style="list-style-type: none"> Process Pits Diversion Boxes Vault Pits COBs 	<p>The above grade portions of the following structs are designated SS with regard to the function of reducing releases from splash and splatter within them</p> <ul style="list-style-type: none"> Process Pits Diversion Boxes Vault Pits COBs 	This control addresses this hazardous condition by minimizing exposure
I-242T-4-FLW-A	<p>The above grade portions of following structs are considered SC with regard to physical integrity</p> <ul style="list-style-type: none"> Process Pits Diversion Boxes Vault Pits COBs 	<p>The above grade portions of the following structs are designated SS with regard to the function of reducing releases from splash and splatter within them</p> <ul style="list-style-type: none"> Process Pits Diversion Boxes Vault Pits COBs 	This control addresses this hazardous condition by minimizing exposure

Table A-6. Control Memo. (100 Sheets)

ID	P SSC MEMO	M SSC MEMO	Control MEMO
I-BPLANT-1-CMP-A			
I-BPLANT-1-CMP-B		<p>The above grade portions of the following structure are designated SC with regard to physical integrity</p> <ul style="list-style-type: none"> • Process Pits • Cleanout Boxes • Vent Pits • COBs 	Controls based on accident analyses (Spray Leak in Structure or from Overground Waste Transfer Lines, and Mixing of Incompatible Material - Tank Pressurization)
I-BPLANT-1-CMP-C			
I-BPLANT-1-CMP-D			
I-BPLANT-1-CMP-E	Physical barriers shall be installed around structures which have the potential to direct flammable liquids into waste tanks (i.e., chem-tank fencing, metal interlocking rail systems, concrete or concrete filled piping posts, or concrete barriers). Vehicle access within the tank farms shall be limited to vehicles whose fuel systems are protected from damage caused by potential collisions with tank structures.		Controls based on accident analyses (Organic Solvent Fire)
I-BPLANT-1-TMP-A			
I-BPLANT-2-FLW-A			
I-BPLANT-2-FLW-B			
I-BPLANT-2-FLW-C			
I-BPLANT-2-FLW-D			Controls based on accident analysis (Mixing of Incompatible Waste - Tank Pressurization)

Table A-6. Control Memo. (108 Sheets)

ID	P SSC MEMO	M SSC MEMO	Control MEMO
I-BPLANT-2-LEK-A			
I-BPLANT-2-LEK-B		<p>The above grade portions of the following structure are designated SQ with regard to physical integrity</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	Controls based on accident analysis (Spray Leak from Underground Waste Transfer Lines)
I-BPLANT-2-LEK-C			Controls based on accident analysis (Spray Leak from Underground Waste Transfer Lines)
I-BPLANT-2-LEK-D			
I-BPLANT-2-LEK-E			Controls based on accident analyses (Spray Leak in Structure or from Overground Waste Transfer Lines, and Natural Phenomena - Seismic)
I-PFP-1-AQT-A			Controls based on accident analyses (Master Circulation)
I-PFP-1-CMP-A			
I-PFP-1-CMP-B			The safety controls address this hazardous condition by controlling waste composition of transfers into Tank Farms, using the double contingency principle
I-PFP-1-CMP-C			
I-PFP-1-CMP-D			The safety controls address this hazardous condition by controlling waste composition of transfers into Tank Farms, using the double contingency principle

Table A-6. Control Memo. (106 Sheets)

ID	P SSC MEMO	M SSC MEMO	Control MEMO
I-PFP-1-CMP-E	Physical barriers shall be installed around structures which have the potential to direct flammable liquids into waste tanks (e.g., chain-link fencing, metal interlocking rail systems, concrete or concrete filled piping posts, or concrete barriers). Vehicle access within the tank farms shall be limited to vehicles whose fuel systems are protected from damage caused by potential collisions with tank structures.		Controls based on accident analysis (Organic Solvent Fire)
I-PFP-1-LVL-A			These controls address the hazardous condition by inducing leakage and minimizing exposure.
I-PFP-1-MTN-A			
I-PFP-2-PLW-A			
I-PFP-2-LEK-A			
I-PFP-2-LEK-B		The above grade portions of the following structs are designated SC with regard to physical integrity: <ul style="list-style-type: none"> Process Pits Overman Booms Vault Pits COBs 	Controls based on accident analysis (Spray Leak from Underground Waste Transfer Lines)
I-PFP-2-LEK-C			Controls based on accident analysis (Spray Leak from Underground Waste Transfer Lines)
I-PFP-2-LEK-D			
I-PFP-2-LEK-E			Controls based on accident analysis (Spray Leak In Structure or from Overground Waste Transfer Lines, and Natural Phenomena - Seismic)
I-PFP-2-TMP-A			
I-PFP-2-TMP-B			Controls based on accident analysis (Steam Intrusion from Interfering Dye)
I-PFP-3-CMP-A			

Table A-4. Control Memo. (166 Sheets)

ID	P SSC MEMO	M SSC MEMO	Control Memo
1-PFP-3-FLW-B			
1-PFP-3-FLW-C	<p>The above grade portions of following struts are designated SC with regard to physical integrity</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	<p>The above grade portions of the following struts are designated SS with regard to the function of reducing releases from splash and spillage within them</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	<p>These controls address the hazardous condition by indicating leak and minimizing exposure</p>
1-PFP-3-LEK-A			
1-PFP-3-LEK-B		<p>The above grade portions of the following struts are designated SC with regard to physical integrity</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	<p>Controls based on accident analyses (Spray Leak from Underground Waste Transfer Lines)</p>
1-PFP-3-LEK-C			<p>Controls based on accident analyses (Spray Leak from Underground Waste Transfer Lines)</p>
1-PFP-3-LEK-D			
1-PFP-3-LEK-E			<p>Controls based on accident analyses (Spray Leak to Structure or from Overground Waste Transfer Lines, and Natural Phenomena - Seismic)</p>
1-PUREX-1-AGT-A			
1-PUREX-1-AGT-B		<p>The above grade portions of the following struts are designated SC with regard to physical integrity</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	<p>Controls based on accident analyses (Spray Leak to Structure or from Overground Waste Transfer Lines, and Mixing of Incompatible Material - Tank Pressurization)</p>
1-PUREX-1-AGT-C			

Table A-4. Control Memos. (100 Sheets)

ID	PSSC MEMO	MSSC MEMO	Control MEMO
1-PUREX-1-CMP-A			
1-PUREX-1-CMP-B		<p>The above grade portions of the following structures are designated SC with regard to physical integrity</p> <ul style="list-style-type: none"> - Process Pits - Diversion Basins - Vault Pits - COBs 	Controls based on accident analysis (Spray Leak in Structure or from Underground Waste Transfer Lines, and Mixing of Incompatible Material - Tank Preservation)
1-PUREX-1-CMP-C			
1-PUREX-1-CMP-D			
1-PUREX-1-LVL-A			Controls based on accident analysis (Steam Influxion from Interacting Syces)
1-PUREX-1-TMP-A			These controls address this hazardous condition by maintaining tank vacuum
1-PUREX-2-FLWA			
1-PUREX-2-LEX-A			
1-PUREX-2-LEX-B		<p>The above grade portions of the following structures are designated SC with regard to physical integrity</p> <ul style="list-style-type: none"> - Process Pits - Diversion Basins - Vault Pits - COBs 	Controls based on accident analysis (Spray Leak from Underground Waste Transfer Lines)
1-PUREX-2-LEX-C			Controls based on accident analysis (Spray Leak from Underground Waste Transfer Lines)
1-PUREX-2-LEX-D			
1-PUREX-2-LEX-E			Controls based on accident analysis (Spray Leak in Structure or from Underground Waste Transfer Lines, and Natural Phenomena - Seismic)
1-PUREX-2-PRS-A			Controls based on accident analysis (Steam Influxion from Interacting Syces)

Table A-4. Control Memo. (100 Sheets)

ID	P SSC MEMO	M SSC MEMO	Control MEMO
1-PUREX-2-PRS-B			These controls address this hazardous condition by maintaining tank vacuum
1-PUREX-2-PRS-C			
1-PUREX-3-AGT-A			
1-PUREX-3-AGT-B		<p>The above grade portions of the following structs are designated SC with regard to physical integrity</p> <ul style="list-style-type: none"> Process Pits Diversion Boxes Vault Pits COBs 	Controls based on accident analyses (Spray Leak in Structure or from Underground Waste Transfer Lines, and Flooding of Incompatible Material - Tank Presumption)
1-PUREX-3-AQT-C			
1-PUREX-3-CMP-A			
1-PUREX-3-CMP-B		<p>The above grade portions of the following structs are designated SC with regard to physical integrity</p> <ul style="list-style-type: none"> Process Pits Diversion Boxes Vault Pits COBs 	Controls based on accident analysis (Spray Leak from Underground Waste Transfer Lines)
1-PUREX-3-CMP-C			
1-PUREX-3-CMP-D			
1-PUREX-3-CMP-E			The criticality controls address this hazardous condition by controlling waste composition of transfers (to Tank Farms, using the double contingency principle)
1-PUREX-3-LVL-A			Controls based on accident analysis (Stream Intrusion from Interwag Syse)
1-PUREX-3-TMP-A			These controls address this hazardous condition by maintaining tank vacuum

Table A-4. Control Memo. (104 Sheets)

ID	P SSC MEMO	N SSC MEMO	Control MEMO
1-PUREX-4-FLW-B	<p>The above grade portions of following structs are considered SC with regard to physical integrity</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	<p>The above grade portions of the following structs are designated SS with regard to the function of reducing releases from splash and splatter within them</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	Controls based on accident analyses (Surface Leak Resulting in Pool)
1-PUREX-4-LEK-A			
1-PUREX-4-LEK-B		<p>The above grade portions of the following structs are designated SC with regard to physical integrity</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	Controls based on accident analyses (Spray Leak from Underground Waste Transfer Lines)
1-PUREX-4-LEK-C			Controls based on accident analyses (Spray Leak from Underground Waste Transfer Lines)
1-PUREX-4-LEK-D			
1-PUREX-4-LEK-E			Controls based on accident analyses (Spray Leak in Structure or from Overground Waste Transfer Lines, and Natural Phenomena - Seismic)
1-PUREX-4-PRS-A			Controls based on accident analyses (Steam Infiltration from Interfacing Sytem)
1-PUREX-4-PRS-B			These controls address the hazardous condition by maintaining tank vacuum
1-PUREX-4-PRS-C			
1-PUREX-5-FLW-A			These controls address the hazardous condition by maintaining tank vacuum
1-PUREX-6-FLW-B			

Table A-4. Control Memo. (106 Sheets)

ID	P SSC MEMO	M SSC MEMO	Control MEMO
MPUREX-6-FLW-A			
MPUREX-6-FLW-B			
MPUREX-6-FLW-C			
MPUREX-6-FLW-D			
ITPLANT-1-CMP-A			
ITPLANT-1-CMP-B		<p>The above grade portions of the following streets are designated SC with regard to physical integrity:</p> <ul style="list-style-type: none"> • Process Pits • Diversion Boxes • Valve Pits • CDBs 	Controls based on accident analysis (Spray Leak from Underground Waste Transfer Lines)
ITPLANT-1-CMP-C			
ITPLANT-1-CMP-D			
ITPLANT-1-TMP-A			
ITPLANT-2-CMP-A			Controls based on accident analysis (Steam Intrusion from Interfering Sykes)
ITPLANT-2-FLW-A			
ITPLANT-2-FLW-B			
ITPLANT-2-LEKA			

Table A-6. Control Memo. (106 Sheets)

ID	P SSC MEMO	M SSC MEMO	Control MEMO
WPLANT-2-LEK-B		The above grade portions of the following structure are designated SSC with regard to physical integrity <ul style="list-style-type: none"> - Pipeline Pits - Overpass Boxes - Vault Pits - COEs 	Controls based on accident analysis (Spray Leak from Underground Waste Transfer Lines)
WPLANT-2-LEK-C			Controls based on accident analysis (Spray Leak from Underground Waste Transfer Lines)
WPLANT-2-LEK-D			
WPLANT-2-LEK-E			Controls based on accident analysis (Spray Leak in Structure or from Overground Waste Transfer Lines and Natural Phenomena - Seismic)
WPLANT-1-FLW-A			
WPLANT-1-LEK-A			
WPLANT-1-LEK-B			Controls based on accident analysis (Spray Leak from Underground Waste Transfer Lines) Excavation of a buried line leads to a surface leak
WPLANT-1-LEK-C			
WPLANT-1-RAN-A			
ITK-01			
ITK-01-1			No applicable SSCs or TSIs - Facility worker exposure controlled by Radiation Protection Program
ITK-02			
ITK-02-1			

Table A-6. Control Memo. (106 Sheets)

ID	P SSC MEMO	M SSC MEMO	Control MEMO
ITK-03			No applicable SSCs or TSHs - Facility worker exposure controlled by Radiation Protection Program
ITK-03-I			No applicable SSCs or TSHs - Facility worker exposure controlled by Radiation Protection Program
ITK-04			This control addresses the hazardous condition by minimizing personnel exposure
ITK-04-I			
ITK-05			No controls required based on accident analyses (Evaporator Dump)
ITK-05-I			No controls required based on accident analyses (Mixing of Incompatible Vessels - Toxic Vapor Generation, and Evaporator Dump)
ITK-06			The entirety controls address the hazardous condition by controlling waste composition of transfers into Tank Farms, using the double contingency principle
ITK-06-I			The entirety controls address the hazardous condition by controlling waste composition of transfers into Tank Farms, using the double contingency principle
ITK-07			These are applicable controls from the Tank Failure Due to Excessive Loads accident analysis. This control also addresses the hazardous condition for worker risk by preventing equipment drip
ITK-07-IA			
ITK-07-IB			These are applicable controls from the Tank Failure Due to Excessive Loads accident analysis
ITK-08			Controls based on Flammable Gas JCO Air-Ign Temperature of H ₂ at LFL is 493 C

Table A-6. Control Memo. (180 Sheets)

ID	P SSC MEMO	M SSC MEMO	Control MEMO
ITK-08-1			Controls based on Flammable Gas JCO. Auto-ign. temperature of H ₂ at UFL is 400 °C.
ITK-09			Controls based on Flammable Gas JCO.
ITK-09-1			Controls based on Flammable Gas JCO.
ITK-10-1			Controls based on Flammable Gas JCO.
ITK-10-a			Controls based on Flammable Gas JCO.
ITK-10-b	<p>SY-101 Monitoring consists of</p> <ul style="list-style-type: none"> Hydrogen monitoring Level monitoring system Pressure monitoring system Ventilation flow monitor Aerosol detection systems Temperature monitoring systems 		Controls based on Flammable Gas JCO and LA-UR-92-3198, with additional controls on primary tank leak Detect Sys.
ITK-11	<p>SY-101 Monitoring consists of</p> <ul style="list-style-type: none"> Hydrogen monitoring Level monitoring system Pressure monitoring system Ventilation flow monitor Aerosol detection systems Temperature monitoring systems 		Controls based on Flammable Gas JCO, LA-UR-92-3198, and accident analyses (Natural Phenomena - Lightning, and Natural Phenomena - Seismic), with additional controls on primary tank leak Detect Sys.
ITK-11-1			Controls based on accident analyses (Natural Phenomena - Lightning, and Natural Phenomena - Seismic).
ITK-FR-01			No applicable SSCs or TSRs - Facility worker exposure controlled by Radiation Protection Program.
ITK-FR-02			No applicable SSCs or TSRs - Facility worker exposure controlled by Radiation Protection Program.

Table A-6. Control Memo. (100 Sheets)

ID	P SSC MEMO	M SSC MEMO	Control MEMO
ITK-FR-03			No controls required based on accident analysis (Above Ground Structure Failure)
ITK-FR-04			Controls based on accident analysis (Tank Failure Due to Excessive Loads)
ITK-FR-05			No applicable SSCs or TSRs - Facility worker exposure controlled by Radiation Protection Program
ITK-FR-06			No applicable SSCs or TSRs - Facility worker exposure controlled by Radiation Protection Program
ITK-FR-07			No applicable SSCs or TSRs - Facility worker exposure controlled by Radiation Protection Program
ITK-FR-08			No controls required based on accident analysis (Above Ground Structure Failure)
ITK-FR-09			
ITK-FR-10			
ITK-FR-11			
ITK-FR-12			
ITK-FR-13			Controls based on Flammable Gas JCO
ITK-FR-14			No applicable SSCs or TSRs - Facility worker exposure controlled by Radiation Protection Program
ITK-FR-15			No applicable SSCs or TSRs - Facility worker exposure controlled by Radiation Protection Program
ITK-FR-16			
ITK-FR-17			

Table A-6. Control Memo. (106 Sheets)

ID	P SSC MEMO	M SSC MEMO	Control MEMO
ITK-FR-18			No applicable SSCs or TSAs - Facility worker exposure controlled by Radiation Protection Program
ITK-FR-19			No controls required based on low accident frequency
ITK-FR-20			No applicable SSCs or TSAs - Facility worker exposure controlled by Radiation Protection Program
ITK-FR-21			No applicable SSCs or TSAs - Facility worker exposure controlled by Radiation Protection Program
ITK-FR-22			No controls required based on accident analysis (Above Ground Structure Failure)
ITK-FR-23			No applicable SSCs or TSAs - Facility worker exposure controlled by Radiation Protection Program
ITK-FR-24			
ITK-FR-25			
ITK-FR-26			No applicable SSCs or TSAs - Facility worker exposure controlled by Radiation Protection Program
ITK-FR-27			
ITK-FR-29			No applicable SSCs or TSAs - Facility worker exposure controlled by Radiation Protection Program
NP-01			This control addresses the hazardous condition by stopping intrusive activities and minimizing potential exposure to worker if ventilation is lost
NP-02			Controls based on accident analysis (HSPA, Filter Failure - Exposure to High Temperature or Pressure)

Table A-6, Control Memo. (106 Sheets)

ID	P SSC MEMO	M SSC MEMO	Control MEMO
NP-03			Controls based on accident analyses (Natural Phenomena - Lightning)
NP-05			No controls required based on accident analyses (Above Ground Structure Failure)
NP-06			No applicable SSCs or TSRs - Facility worker exposure controlled by Radiation Protection Program
NP-07			No controls required based on low frequency (Natural Phenomena - Seismic)
NP-08			Controls based on accident analyses (Natural Phenomena - Seismic)
NP-09			These are applicable controls from the Natural Phenomena - Seismic accident analyses
NP-10			
NP-11			No controls required based on low accident frequency
NP-12			No applicable SSCs or TSRs - Facility worker exposure controlled by Radiation Protection Program
NP-13			No controls required based on accident analyses (Tank Failure Due to Excess Load)
NP-14			No applicable SSCs or TSRs - Facility worker exposure controlled by Radiation Protection Program
NP-15			Controls based on Flammable Gas JCO - Natural Phenomena induced events are considered low frequency
OGT-EXT3-01A			Controls based on accident analyses (Spray Leak in Structure or from Overground Utility Tanks, Lines, and In-Tank Fuel Film/Degradation) with additional controls to address overground transfers

Table A-6. Control Memo. (138 Sheets)

ID	P SSC MEMO	M SSC MEMO	Control MEMO
OGT-EXT3-01B			Controls based on accident analysis (In-Tank Fuel Feed/Disaggregation, and Surface Leak Resulting in Pool) with additional controls to address overground transfers
OGT-FLOW1-01			No applicable SSCs or TBRs - Facility worker exposure controlled by Radiation Protection Program
OGT-FLOW1-02			Controls based on accident analysis (Surface Leak Resulting in Pool) with additional controls to address overground transfers
OGT-FLOW1-03A			Controls based on accident analysis (Spray Leak in Structure or from Overground Waste Transfer Lines) with additional controls to address backflow
OGT-FLOW1-03B			Controls based on accident analysis (Surface Leak Resulting in Pool) with additional controls to address backflow
OGT-FLOW1-04			Controls based on accident analysis (Surface Leak Resulting in Pool) with additional controls to address backflow
OGT-FLOW1-05			
OGT-FLOW1-06	<p>The above grade portions of following structure are considered SSC with regard to physical integrity</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - CDBs 	<p>The above grade portions of the following structure are designated BS with regard to the function of reducing releases from splash and splatter within them</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - CDBs 	Controls based on accident analysis (Surface Leak Resulting in Pool)
OGT-FLOW2-01A			These are applicable controls from the Subsurface Leak Resulting in Pool accident analysis

Table A-4. Control Memo. (100 Sheets)

ID	P SSC MEMO	M SSC MEMO	Control MEMO
OGT-FLOW2-01B			Controls based on accident analysis (Surface Leak Resulting in Pool) with additional controls to address overground transfers
OGT-FLOW2-02			Controls based on accident analysis (Spray Leak in Structure or from Overground Waste Transfer Line) with additional controls to address overground transfers
OGT-FLOW2-03A			These are applicable controls from the Subsurface Leak Resulting in Pool accident analysis
OGT-FLOW2-03B			Controls based on accident analysis (Surface Leak Resulting in Pool) with additional controls to address overground transfers
OGT-INTEQ3-01			
OGT-HP3-01			Controls based on accident analysis (Mutual Phenomena - Seismic) and seismic qualification of OGT Encasement and Connections
OGT-HP3-02			Controls based on qualification of OGT Encasement and Connections for high winds
OGT-OPS1-01			This control addresses this hazardous condition by preventing equipment drop
OGT-PRES1-01			Controls based on accident analysis (Surface Leak Resulting in Pool) with additional controls to address overground transfers
OGT-REACH-01			Controls based on accident analysis (Surface Leak Resulting in Pool) with additional controls to address overground transfers
OGT-SPEC1-01			No applicable SSCs of YSRs - Facility worker exposure controlled by Radiation Protection Program
OGT-TEMP1-01			

Table A-6. Control Memo. (109 Sheets)

ID	P SSC MEMO	M SSC MEMO	Control MEMO
OGT-TEMP1-02			Controls based on accident analyses (Spray Leak in Structure or from Overground Vessel Transfer Lines, and In-Tank Fuel Fills/Deluge/Leak) with additional controls to address overground transfers
OGT-TEMP1-03			Controls based on accident analyses (Surface Leak Resulting in Pool) with additional controls to address overground transfers
RAD-01			
RAD-01-1			
RAD-02			
RAD-02-1			
RAD-03			
RAD-03-1			
RSR-01			No applicable SSCs or TSRs - Facility worker exposure controlled by Radiation Protection Program
RSR-01-1			No applicable SSCs or TSRs - Facility worker exposure controlled by Radiation Protection Program
RSR-02			
RSR-02-1			
RSR-03			
RSR-03-1			
RSR-04			
RSR-04-1			
RSR-05			These are applicable controls from the Tank Failure Due to Excessive Loads accident analysis

Table A-6. Control Memo. (100 Sheets)

ID	P SSC MEMO	M SSC MEMO	Control MEMO
RSR-05-1A			
RSR-05-1B			These are applicable controls from the Tank Failure Due to Excessive Loads accident analysis
RSR-06-1			Controls based on Flammable Gas JCO
RSR-07-1			Controls based on accident analysis (Organic Solvent Fire/Organic Self-Heating Reaction)
RSR-08-1			
SFF-01			No applicable SSCs or TSAs - Facility worker exposure controlled by Radiation Protection Program
SFF-01-1			
TFS-1	<p>The above grade portions of following structures are considered SC with regard to physical integrity</p> <ul style="list-style-type: none"> - Process Pits - Diversion Basins - Vault Pits - COBs 	<p>The above grade portions of the following structures are designated SS with regard to the function of reducing releases from splash and splatter within them</p> <ul style="list-style-type: none"> - Process Pits - Diversion Basins - Vault Pits - COBs 	Controls based on accident analysis (Surface Leak Resulting in Pool)
VEH-01			None (All control activity deferred to packaging safety analyses)
VEH-01-1			None (All control activity deferred to packaging safety analyses)
VEH-02			None (All control activity deferred to packaging safety analyses)
VEH-02-1			None (All control activity deferred to packaging safety analyses)
VEH-03			None (All control activity deferred to packaging safety analyses)

Table A-6. Control Memo. (100 Sheets)

ID	P SSC MEMO	M SSC MEMO	Control MEMO
VEH-03-1			None (All control activity deferred to packaging safety analysis)
VEH-04			
VEN-04-1			
VEN-05			
VEN-05-1			
VEN-06			
VEH-02-1			
VEH-07			
VEH-07-1	Physical barriers shall be installed around structures which have the potential to direct flammable liquids into waste tanks (e.g., chain-link fencing, metal interlocking rail systems, concrete or concrete filled piping posts, or concrete barriers). Vehicle access within the tank farms shall be limited to vehicles whose fuel systems are protected from damage caused by potential collisions with tank structures.		Controls based on oxidant analysis (in-Tank Fuel Fire Mitigation)
VEH-08-1			
VSU-01			No applicable SSCs or TBRs - Facility worker exposure controlled by Radiation Protection Program
VSU-02			No applicable SSCs or TBRs - Facility worker exposure controlled by Radiation Protection Program
VSU-03			No applicable SSCs or TBRs - Facility worker exposure controlled by Radiation Protection Program

Table A-6. Control Memo. (100 Sheets)

ID	P SSC MEMO	M SSC MEMO	Control MEMO
VSIU-04			Not applicable SSCs or TSRs - Facility worker exposure controlled by Radiation Protection Program
VSIU-05			
VSIU-05			
WSSS-FLOWN01	<p>The above grade portions of following struts are considered SC with regard to physical integrity</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	<p>The above grade portions of the following struts are designated SS with regard to the function of reducing releases from splash and spatter within them</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	Controls based on accident analyses (Surface Leak Resulting in Pool)
WSSS-FLOWN03	<p>The above grade portions of following struts are considered SC with regard to physical integrity</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	<p>The above grade portions of the following struts are designated SS with regard to the function of reducing releases from splash and spatter within them</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	Controls based on accident analyses (Surface Leak Resulting in Pool)
WSSS-FLOWN04	<p>The above grade portions of following struts are considered SC with regard to physical integrity</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	<p>The above grade portions of the following struts are designated SS with regard to the function of reducing releases from splash and spatter within them</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	Controls based on accident analyses (Surface Leak Resulting in Pool)

Table A-5. Control Memo. (100 Sheets)

ID	P SSC MEMO	M SSC MEMO	Control MEMO
W058-FLOWW05b	<p>The above grade portions of following struts are considered SC with regard to physical integrity</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	<p>The above grade portions of the following struts are designated SS with regard to the function of reducing releases from splash and spillover within them</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	Controls based on accident analysis (Surface Leak Resulting in Pool)
W059-FLOWW05c	<p>The above grade portions of following struts are considered SC with regard to physical integrity</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	<p>The above grade portions of the following struts are designated SS with regard to the function of reducing releases from splash and spillover within them</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	Controls based on accident analysis (Surface Leak Resulting in Pool)
W058-FLOWW07	<p>The above grade portions of following struts are considered SC with regard to physical integrity</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	<p>The above grade portions of the following struts are designated SS with regard to the function of reducing releases from splash and spillover within them</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	Controls based on accident analysis (Surface Leak Resulting in Pool)
W058-FLOWW08	<p>The above grade portions of following struts are considered SC with regard to physical integrity</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	<p>The above grade portions of the following struts are designated SS with regard to the function of reducing releases from splash and spillover within them</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	Controls based on accident analysis (Surface Leak Resulting in Pool)

Table A-4. Control Memo. (100 Sheets)

ID	P SSC MEMO	M SSC MEMO	Control MEMO
W05S-FLOW11a	<p>The above grade portions of following struts are considered SC with regard to physical integrity</p> <ul style="list-style-type: none"> - Process Pit - Diversion Boxes - Vault Pits - COBs 	<p>The above grade portions of the following struts are designated SS with regard to the function of reducing releases from splash and spatter within them</p> <ul style="list-style-type: none"> - Process Pit - Diversion Boxes - Vault Pits - COBs 	Controls based on accident analyses (Surface Leak Resulting in Pool)
W05S-FLOW11b	<p>The above grade portions of following struts are considered SC with regard to physical integrity</p> <ul style="list-style-type: none"> - Process Pit - Diversion Boxes - Vault Pits - COBs 	<p>The above grade portions of the following struts are designated SS with regard to the function of reducing releases from splash and spatter within them</p> <ul style="list-style-type: none"> - Process Pit - Diversion Boxes - Vault Pits - COBs 	Controls based on accident analyses (Surface Leak Resulting in Pool)
W05S-FLOW11c	<p>The above grade portions of following struts are considered SC with regard to physical integrity</p> <ul style="list-style-type: none"> - Process Pit - Diversion Boxes - Vault Pits - COBs 	<p>The above grade portions of the following struts are designated SS with regard to the function of reducing releases from splash and spatter within them</p> <ul style="list-style-type: none"> - Process Pit - Diversion Boxes - Vault Pits - COBs 	Controls based on accident analyses (Surface Leak Resulting in Pool)
W05S-FLOW11s	<p>The above grade portions of following struts are considered SC with regard to physical integrity</p> <ul style="list-style-type: none"> - Process Pit - Diversion Boxes - Vault Pits - COBs 	<p>The above grade portions of the following struts are designated SS with regard to the function of reducing releases from splash and spatter within them</p> <ul style="list-style-type: none"> - Process Pit - Diversion Boxes - Vault Pits - COBs 	Controls based on accident analyses (Surface Leak Resulting in Pool)

Table A-6. Control Memo. (100 Sheets)

ID	P SSC MEMO	M SSC MEMO	Control MEMO
W058-FLOW16		<p>The above grade portions of the following struts are designated SC with regard to physical integrity</p> <ul style="list-style-type: none"> - Process Pits - Diversion Bowls - Vault Pits - COBs 	Controls based on accident analysis (Spray Leak in Structure or from Overground Waste Transfer Lines)
W058-FLOW16		<p>The above grade portions of the following struts are designated SC with regard to physical integrity</p> <ul style="list-style-type: none"> - Process Pits - Diversion Bowls - Vault Pits - COBs 	Controls based on accident analysis (Spray Leak in Structure or from Overground Waste Transfer Lines)
W058-FLOW17a		<p>The above grade portions of the following struts are designated SC with regard to physical integrity</p> <ul style="list-style-type: none"> - Process Pits - Diversion Bowls - Vault Pits - COBs 	Controls based on accident analysis (Spray Leak in Structure or from Overground Waste Transfer Lines)
W058-FLOW17b		<p>The above grade portions of the following struts are designated SC with regard to physical integrity</p> <ul style="list-style-type: none"> - Process Pits - Diversion Bowls - Vault Pits - COBs 	Controls based on accident analysis (Spray Leak in Structure or from Overground Waste Transfer Lines)
W058-FLOW17c		<p>The above grade portions of the following struts are designated SC with regard to physical integrity</p> <ul style="list-style-type: none"> - Process Pits - Diversion Bowls - Vault Pits - COBs 	Controls based on accident analysis (Spray Leak in Structure or from Overground Waste Transfer Lines)

Table A-6. Control Memo- (100 Sheets)

ID	P SSC MEMO	M SSC MEMO	Control MEMO
W058-FLOW18		<p>The above grade portions of the following struts are designated SC with regard to physical integrity</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	Controls based on accident analysis (Spray Leak in Structure or from Overground Waste Transfer Lines)
W058-FLOW19		<p>The above grade portions of the following struts are designated SC with regard to physical integrity</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	Controls based on accident analysis (Spray Leak in Structure or from Overground Waste Transfer Lines)
W058-FLOW20		<p>The above grade portions of the following struts are designated SC with regard to physical integrity</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	Controls based on accident analysis (Spray Leak in Structure or from Overground Waste Transfer Lines)
W058-FLOW20b		<p>The above grade portions of the following struts are designated SC with regard to physical integrity</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	Controls based on accident analysis (Spray Leak in Structure or from Overground Waste Transfer Lines)
W058-FLOW20c		<p>The above grade portions of the following struts are designated SC with regard to physical integrity</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	Controls based on accident analysis (Spray Leak in Structure or from Overground Waste Transfer Lines)

Table A-6. Control Memo. (104 Sheets)

ID	P SSC MEMO	M SSC MEMO	Control MEMO
W055-INTEG01a		<p>The above grade portions of the following struts are designated SS with regard to the function of reducing releases from splash and splatter within them</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	<p>Controls based on accident analysis (Subsurface Leak Resulting in Pool)</p>
W055-INTEG01b		<p>The above grade portions of the following struts are designated SS with regard to the function of reducing releases from splash and splatter within them</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	<p>Controls based on accident analysis (Subsurface Leak Resulting in Pool)</p>
W055-INTEG01c	<p>The above grade portions of following struts are considered SS with regard to physical integrity</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	<p>The above grade portions of the following struts are designated SS with regard to the function of reducing releases from splash and splatter within them</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	<p>Controls based on accident analysis (Surface Leak Resulting in Pool)</p>
W055-INTEG01d	<p>The above grade portions of following struts are considered SS with regard to physical integrity</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	<p>The above grade portions of the following struts are designated SS with regard to the function of reducing releases from splash and splatter within them</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	<p>Controls based on accident analysis (Surface Leak Resulting in Pool)</p>

Table A-5. Control Memo. (100 Sheets)

ID	P SSC MEMO	A1 SSC MEMO	Control MEMO
W056-INTEG03a		<p>The above grade portions of the following structures are designated SS with regard to the function of reducing releases from splash and spatter within them</p> <ul style="list-style-type: none"> - Process Pits - Diversion Basins - Vault Pits - CCBs 	Controls based on accident analyses (Subsurface Leak Resulting in Pool and Natural Phenomena - Seismic)
W056-INTEG03b	<p>The above grade portions of following structures are considered SS with regard to physical integrity</p> <ul style="list-style-type: none"> - Process Pits - Diversion Basins - Vault Pits - CCBs 	<p>The above grade portions of the following structures are designated SS with regard to the function of reducing releases from splash and spatter within them</p> <ul style="list-style-type: none"> - Process Pits - Diversion Basins - Vault Pits - CCBs 	Controls based on accident analyses (Surface Leak Resulting in Pool, and Natural Phenomena - Seismic)
W056-INTEG06a			Controls based on accident analyses (Spray Leak from Underground Waste Transfer Lines) Excavation of a buried line leads to a surface leak
W056-INTEG06b			Controls based on accident analyses (Spray Leak from Underground Waste Transfer Lines) Excavation of a buried line leads to a surface leak
W056-INTEG07a		<p>The above grade portions of the following structures are designated SS with regard to the function of reducing releases from splash and spatter within them</p> <ul style="list-style-type: none"> - Process Pits - Diversion Basins - Vault Pits - CCBs 	Controls based on accident analyses (Subsurface Leak Resulting in Pool)

Table A-8. Control Memo. (100 Sheets)

ID	P SSC MEMO	M SSC MEMO	Control MEMO
W058-INTEG07D	<p>The above grade portions of following struts are considered SS with regard to physical integrity</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	<p>The above grade portions of the following struts are designated SS with regard to the function of reducing releases from a splash and spatter within them</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	Controls based on accident analyses (Surface Leak Resulting in Pool)
W058-INTEG08B		<p>The above grade portions of the following struts are designated SS with regard to the function of reducing releases from splash and spatter within them</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	Controls based on accident analyses (Subsurface Leak Resulting in Pool)
W058-INTEG09B	<p>The above grade portions of following struts are considered SS with regard to physical integrity</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	<p>The above grade portions of the following struts are designated SS with regard to the function of reducing releases from splash and spatter within them</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	Controls based on accident analyses (Surface Leak Resulting in Pool)
W058-INTEG11a		<p>The above grade portions of the following struts are designated SS with regard to the function of reducing releases from splash and spatter within them</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	Controls based on accident analyses (Subsurface Leak Resulting in Pool and Natural Phenomena - Seismic)

Table A-6. Control Memo. (104 Sheets)

ID	P SSC MEMO	M SSC MEMO	Control MEMO
W056-INTEG11b	<p>The above grade portions of following struts are considered SSC with regard to physical integrity</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	<p>The above grade portions of the following struts are designated SS with regard to the function of reducing releases from splash and spatter within them</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	Controls based on accident analyses (Surface Leak Resulting in Pool, and Natural Phenomena - Seismic)
W056-INTEG13a		<p>The above grade portions of the following struts are designated SS with regard to the function of reducing releases from splash and spatter within them</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	Controls based on accident analyses (Subsurface Leak Resulting in Pool)
W056-INTEG13b		<p>The above grade portions of the following struts are designated SS with regard to the function of reducing releases from splash and spatter within them</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	Controls based on accident analyses (Subsurface Leak Resulting in Pool)
W056-INTEG13c	<p>The above grade portions of following struts are considered SSC with regard to physical integrity</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	<p>The above grade portions of the following struts are designated SS with regard to the function of reducing releases from splash and spatter within them</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	Controls based on accident analyses (Surface Leak Resulting in Pool)

Table A-6. Control Memo. (100 Sheets)

ID	P SSC MEMO	M SSC MEMO	Control MEMO
W055-INTEG13d	<p>The above-grade portions of following struts are considered SC with regard to physical integrity</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	<p>The above grade portions of the following struts are designated SG with regard to the function of reducing releases from splash and spatter within them</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	<p>Controls based on accident analysis (Surface Leak Resulting in Pool)</p>
W055-INTEG14a		<p>The above grade portions of the following struts are designated SG with regard to the function of reducing releases from splash and spatter within them</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	<p>Controls based on accident analysis (Subsurface Leak Resulting in Pool, and Natural Phenomena - Seismic)</p>
W055-INTEG14b	<p>The above grade portions of following struts are considered SC with regard to physical integrity</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	<p>The above grade portions of the following struts are designated SG with regard to the function of reducing releases from splash and spatter within them</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	<p>Controls based on accident analysis (Surface Leak Resulting in Pool, and Natural Phenomena - Seismic)</p>
W056-INTEG16a			<p>Controls based on accident analysis (Spray Leak from Underground Waste Transfer Lines) Excavation of a buried line leads to a surface leak</p>
W056-INTEG16b			<p>Controls based on accident analysis (Spray Leak from Underground Waste Transfer Lines) Excavation of a buried line leads to a surface leak</p>

Table A-6. Control Memo. (100 Sheets)

ID	P SSC MEMO	IA SSC MEMO	Control MEMO
W055-INTEG18a		<p>The above grade portions of the following struts are designated SS with regard to the function of reducing releases from splash and spillover within them</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	Controls based on accident analyses (Subsurface Leak Resulting in Pool)
W055-INTEG18b	<p>The above grade portions of following struts are considered SC with regard to physical integrity</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	<p>The above grade portions of the following struts are designated SB with regard to the function of reducing releases from splash and spillover within them</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	Controls based on accident analyses (Surface Leak Resulting in Pool)
W055-INTEG20a		<p>The above grade portions of the following struts are designated SB with regard to the function of reducing releases from splash and spillover within them</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	Controls based on accident analyses (Subsurface Leak Resulting in Pool)
W055-INTEG20b	<p>The above grade portions of following struts are considered SC with regard to physical integrity</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	<p>The above grade portions of the following struts are designated SS with regard to the function of reducing releases from splash and spillover within them</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	Controls based on accident analyses (Surface Leak Resulting in Pool)

Table A-6. Control Memo. (166 Sheets)

ID	P SSC MEMO	M SSC MEMO	Control MEMO
W058-INTEG22		<p>The above grade portions of the following struts are designated SS with regard to the function of reducing releases from splash and splatter within them:</p> <ul style="list-style-type: none"> - Process Pits - Diversion Basins - Vault Pits - COBs 	Controls based on accident analyses (Subsurface Leak Resulting In Pool, and Natural Phenomena - Seismic)
W058-INTEG24			Controls based on accident analyses (Surface Leak Resulting In Pool, and Natural Phenomena - Seismic)
W058-INTEG26	<p>The above grade portions of following struts are considered SC with regard to physical integrity:</p> <ul style="list-style-type: none"> - Process Pits - Diversion Basins - Vault Pits - COBs 	<p>The above grade portions of the following struts are designated SS with regard to the function of reducing releases from splash and splatter within them:</p> <ul style="list-style-type: none"> - Process Pits - Diversion Basins - Vault Pits - COBs 	Controls based on accident analyses (Surface Leak Resulting In Pool, and Natural Phenomena - Seismic)
W058-INTEG28			Controls based on accident analyses (Surface Leak Resulting In Pool, and Natural Phenomena - Seismic)
W058-INTEG30	<p>The above grade portions of following struts are considered SC with regard to physical integrity:</p> <ul style="list-style-type: none"> - Process Pits - Diversion Basins - Vault Pits - COBs 	<p>The above grade portions of the following struts are designated SS with regard to the function of reducing releases from splash and splatter within them:</p> <ul style="list-style-type: none"> - Process Pits - Diversion Basins - Vault Pits - COBs 	Controls based on accident analyses (Surface Leak Resulting In Pool, and Natural Phenomena - Seismic)

Table A-6. Control Memo. (100 Sheets)

ID	P BSC MEMO	M SGC MEMO	Control MEMO
W058-INTEG32		The above grade portions of the following struts are designated SG with regard to physical integrity <ul style="list-style-type: none"> - Process Pits - Division Boxes - Vault Pits - COBs 	Controls based on accident analyses (Spray Leak in Structure or from Overground Waste Transfer Lines)
W058-INTEG34			No controls required based on low accident frequency
W058-INTEG35			Controls based on accident analyses (Spray Leak in Structure or from Overground Waste Transfer Lines, and Natural Phenomena - Seismic)
W058-INTEG36			No controls required based on low accident frequency
W058-INTEG37			Controls based on accident analyses (Spray Leak in Structure or from Overground Waste Transfer Lines, and Natural Phenomena - Seismic)
W058-PREB01	The above grade portions of following struts are considered SG with regard to physical integrity <ul style="list-style-type: none"> - Process Pits - Division Boxes - Vault Pits - COBs 	The above grade portions of the following struts are designated SS with regard to the function of reducing releases from splash and splatter within them <ul style="list-style-type: none"> - Process Pits - Division Boxes - Vault Pits - COBs 	Controls based on accident analyses (Surface Leak Resulting in Pool)
W058-PREB03	The above grade portions of following struts are considered SG with regard to physical integrity <ul style="list-style-type: none"> - Process Pits - Division Boxes - Vault Pits - COBs 	The above grade portions of the following struts are designated SS with regard to the function of reducing releases from splash and splatter within them <ul style="list-style-type: none"> - Process Pits - Division Boxes - Vault Pits - COBs 	Controls based on accident analyses (Surface Leak Resulting in Pool)

Table A-5. Control Memo. (100 Sheets)

ID	P SSC MEMO	M SSC MEMO	Control MEMO
XS-01-FLOW01			Controls based on Flammable Gas JCO for DORTs
XS-01-FLOW02			Controls based on Flammable Gas JCO
XS-01-FLOW03			Controls based on Flammable Gas JCO
XS-01-FLOW04			
XS-01-FLOW05	<p>The above grade portions of following structure are considered SC with regard to physical integrity</p> <ul style="list-style-type: none"> - Process Pits - Overman Boxes - Vault Pits - COBs 	<p>The above grade portions of the following structure are designated SS with regard to the function of reducing releases from splash and spatter within them</p> <ul style="list-style-type: none"> - Process Pits - Overman Boxes - Vault Pits - COBs 	Controls based on accident analysis (Surface Leak Resulting in Pool)
XS-01-FLOW06	<p>The above grade portions of following structure are considered SC with regard to physical integrity</p> <ul style="list-style-type: none"> - Process Pits - Overman Boxes - Vault Pits - COBs 	<p>The above grade portions of the following structure are designated SS with regard to the function of reducing releases from splash and spatter within them</p> <ul style="list-style-type: none"> - Process Pits - Overman Boxes - Vault Pits - COBs 	Controls based on accident analysis (Surface Leak Resulting in Pool)
XS-01-FLOW07			Controls based on accident analysis (Subsurface Leak Remaining Subsurface) for single welded pipes
XS-01-PRESS01		<p>The above grade portions of the following structure are designated SS with regard to the function of reducing releases from splash and spatter within them</p> <ul style="list-style-type: none"> - Process Pits - Overman Boxes - Vault Pits - COBs 	Controls based on accident analysis (Subsurface Leak Resulting in Pool)

Table A-6. Control Memo. (166 Sheets)

ID	P & SC MEMO	M & SC MEMO	Control MEMO
XS-01-PRE002		<p>The above grade portions of the following struts are designated SS with regard to the function of reducing releases from splash and spatter within them:</p> <ul style="list-style-type: none"> - Process Pits - Overrun Bays - Vault Pits - COBs 	<p>These controls address this hazardous condition for worker risk by indicating leak and managing releases. The applicable controls for environmental releases are identified from the Subsurface Leak Resulting in Pool accident analysis.</p>
XS-01-TEMP01		<p>The above grade portions of the following struts are designated SC with regard to physical integrity:</p> <ul style="list-style-type: none"> - Process Pits - Overrun Bays - Vault Pits - COBs 	<p>Controls based on accident analysis (Spray Leak in Structure or from Overground Waste Transfer Lines).</p>
XS-01-TEMP02		<p>The above grade portions of the following struts are designated SS with regard to the function of reducing releases from splash and spatter within them:</p> <ul style="list-style-type: none"> - Process Pits - Overrun Bays - Vault Pits - COBs 	<p>This control addresses this hazardous condition by indicating leakage and minimizing exposure. Liquid floating to steam is not credible.</p>
XS-02-FLOW001			
XS-02-FLOW002			<p>Controls based on accident analysis (Steam Intrusion from Interfacing Sytes).</p>
XS-02-FLOW003			<p>Controls based on accident analysis (Mixing of Incompatible Wastes - Tank Penetration).</p>
XS-02-FLOW004			<p>Controls based on accident analysis (Subsurface Leak Remaining Subsurface).</p>

Table A-8. Control Memo. (100 Sheets)

ID	P SSC MEMO	M SSC MEMO	Control MEMO
X8-02-FLOW05		The above grade portions of the following struts are designated SS with regard to the function of reducing releases from a splash and spatter within them <ul style="list-style-type: none"> - Process Pits - Diversion Basins - Vault Pits - COBs 	Controls based on accident analysis (Subsurface Leak Resulting in Pool)
X8-02-FLOW06			This control addresses the hazardous condition by preventing mis-routing
X8-03-LEVE	The above grade portions of following struts are considered SS with regard to physical integrity <ul style="list-style-type: none"> - Process Pits - Diversion Basins - Vault Pits - COBs 	The above grade portions of the following struts are designated SS with regard to the function of reducing releases from splash and spatter within them <ul style="list-style-type: none"> - Process Pits - Diversion Basins - Vault Pits - COBs 	These controls address the hazardous condition for worker nail from a Subsurface Leak Resulting in Pool by reducing leak and minimizing releases. These are also applicable controls from the Subsurface Leak Resulting in Pool accident analysis for environmental concerns. (DORTs normally only occur in waste during transfers)
X8-03-LEVE01 X8-21-LEVE (244-S DORT)			Controls based on Flammable Gas JCO
X8-03-LEVE02 X8-21-LEVE (244-S DORT)			The criticality controls address the hazardous condition by controlling waste composition of transfers into Tank Farms, using the double contingency principle
X8-03-PRES01			No applicable SSCs or TGRs - Facility worker exposure controlled by Health & Safety Plan
X8-03-PRES01 X8-21-PRES (244-S DORT)			Controls based on Flammable Gas JCO
X8-03-PRES01A			These controls address the hazardous condition by inspection of HEPA filters and cover block status

Table A-6. Control Memo. (100 Sheets)

ID	F SSC MEMO	M SSC MEMO	Control MEMO
X5-03-PRES02			These controls address the hazardous condition by inspection of HEPA filters and cover block status
X5-03-PRES02 X5-21-PRES (244- 8-DCRT)			Controls based on accident analysis (Mixing of Incompatible Waste - Tank Pressurization)
X9-03-PRES03			These controls address the hazardous condition by inspection of HEPA filters and cover block status
X6-03-PRES04			These controls address the hazardous condition by inspection of HEPA filters and cover block status
X5-03-PRES05			No controls required based on accident analysis (Mixing of Incompatible Waste - Toxic Vapor Generation)
X5-03-TEMP01			Controls based on accident analysis (Mixing of Incompatible Material - Tank Pressurization)
X5-03-TEMP01 X5-21-TEMP (244- 5-DCRT)			These are applicable controls from the Subsurface Leak Remaining Subsurface accident analysis (DCRTs normally only contain waste during transfer operations)
X8-03-TEMP02			No controls required based on accident analysis (Mixing of Incompatible Waste - Toxic Vapor Generation)
X3-03-TEMP02 X5-21-TEMP (244- 5-DCRT)			The essential controls address this hazardous condition by controlling waste composition of transfers into Tank Farms, using the double contingency principle
X8-03-TEMP03 X5-21-TEMP (244- 8-DCRT)			Controls based on Flammable Gas JCO
X6-03-TEMP04			

Table A-4. Control Memo. (188 Sheets)

ID	P SSC MEMO	M SSC MEMO	Control MEMO
XS-03-TEMP04 XS-21-TEMP (244- S-DCRT)			Controls based on accident analysis (Surface Leak Resulting in Pool)
XS-03-TEMP05			These controls address the hazardous condition by inspection of HEPA filters and cover block status
XS-03-TEMP06			These controls address the hazardous condition by inspection of HEPA filters and cover block status
XS-03-TEMP07			These controls address the hazardous condition by inspection of HEPA filters and cover block status
XS-03-TEMP08			These controls address the hazardous condition by inspection of HEPA filters and cover block status
XS-03-TEMP09			These are applicable controls from the Subsurface Leak Remaining Subsurface accident analysis (DCRTs normally only contain waste during transfer operations)
XS-05-FLOW01			Controls based on accident analysis (HEPA Filter Failure - Exposure to High Temperature or Pressure)
XS-05-FLOW02			These are applicable controls from the Subsurface Leak Remaining Subsurface accident analysis (DCRTs normally only contain waste during transfer operations)
XS-05-TEMP01			Control for DCRTs based on accident analysis (HEPA Filter Failure - Exposure to High Temperature or Pressure)
XS-05-TEMP02			Controls based on Plutonium Gas JCO and accident analysis (HEPA Filter Failure - Exposure to High Temperature or Pressure)
XS-05-FLCUM01			The embryonic controls address this hazardous condition by controlling waste composition of transfers into Tank Farm, using the double contingency principle

Table A-4. Control Memo. (100 Sheets)

ID	P BSC MEMO	M & SC MEMO	Control MEMO
X3-05-FLOWK02		<p>The above grade portions of the following struts are designated SC with regard to physical integrity</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	Controls based on accident analysis (Spray Leak in Structure or from Overground Waste Transfer Lines)
X3-05-FLOWK03		<p>The above grade portions of the following struts are designated SC with regard to physical integrity</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	Controls based on accident analysis (Spray Leak in Structure or from Overground Waste Transfer Lines)
X3-05-FLOWK04		<p>The above grade portions of the following struts are designated SC with regard to physical integrity</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	Controls based on accident analysis (Spray Leak in Structure or from Overground Waste Transfer Lines)
X3-05-FLOWK05		<p>The above grade portions of the following struts are designated SS with regard to the function of reducing releases from splash and spatter within them</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	Controls based on accident analysis (Subsurface Leak Resulting in Pool)

Table A-4. Control Memo. (100 Sheets)

ID	P SSC MEMO	M SSC MEMO	Control MEMO
XS-06-FLOW06	<p>The above grade portions of following struts are designated SS with regard to physical integrity</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	<p>The above grade portions of the following struts are designated SS with regard to the function of reducing releases from splash and spatter within them</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	<p>These controls address this hazardous condition by indicating leak and minimizing exposure</p>
XS-07-FLOW01			<p>Controls based on accident analyses (Spray Leak from Underground Waste Transfer Lines)</p>
XS-07-FLOW02		<p>The above grade portions of the following struts are designated SS with regard to the function of reducing releases from splash and spatter within them</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	<p>Controls based on accident analyses (Subsurface Leak Resulting in Pool)</p>
XS-07-FLOW03			<p>No controls required based on low accident frequency</p>
XS-07-FLOW04		<p>The above grade portions of the following struts are designated SS with regard to the function of reducing releases from splash and spatter within them</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	<p>Controls based on accident analyses (Subsurface Leak Resulting in Pool, Natural Phenomena - Seismic)</p>

Table A-6. Control Memo. (100 Sheets)

ID	P SSC MEMO	M SSC MEMO	Control MEMO
XS-07-FLOW05		<p>The above grade portions of the following struts are designated SS with regard to the function of reducing releases from splash and spatter within them</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	Controls based on accident analysis (Subsurface Leak Resulting in Pool)
XS-07-FLOW06		<p>The above grade portions of the following struts are designated SS with regard to the function of reducing releases from splash and spatter within them</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	Controls based on accident analysis (Subsurface Leak Resulting in Pool)
XS-11-LEVEL01	<p>The above grade portions of following struts are considered SC with regard to physical integrity</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	<p>The above grade portions of the following struts are designated SS with regard to the function of reducing releases from splash and spatter within them</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	Controls based on accident analysis (Surface Leak Resulting in Pool)
XS-11-LEVEL02	<p>The above grade portions of following struts are considered SC with regard to physical integrity</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	<p>The above grade portions of the following struts are designated SS with regard to the function of reducing releases from splash and spatter within them</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	Controls based on accident analysis (Surface Leak Resulting in Pool)

Table A-6. Control Memo. (169 Sheets)

ID	P SSC MEMO	M SSC MEMO	Control MEMO
X3-11-LIEVE03	<p>The above grade portions of following struts are considered SC with regard to physical integrity</p> <ul style="list-style-type: none"> - Process Pits - Diversion Bases - Vault Pits - COBs 	<p>The above grade portions of the following struts are designated SS with regard to the function of reducing releases from splash and splatter within Barn</p> <ul style="list-style-type: none"> - Process Pits - Diversion Bases - Vault Pits - COBs 	Controls based on accident analyses (Surface Leak Resulting in Pool)
X3-12-FLOW01			No applicable SSCs or TSRs - Facility worker exposures controlled by Health & Safety Plan
X3-12-FLOW02			Control based on Flammable Gas JCO
X3-12-FLOW03			Control based on Flammable Gas JCO
X3-12-FLOW04			No controls due to low frequency
X3-12-FLOW05	<p>The above grade portions of following struts are considered SC with regard to physical integrity</p> <ul style="list-style-type: none"> - Process Pits - Diversion Bases - Vault Pits - COBs 	<p>The above grade portions of the following struts are designated SS with regard to the function of reducing releases from splash and splatter within them</p> <ul style="list-style-type: none"> - Process Pits - Diversion Bases - Vault Pits - COBs 	Controls based on accident analyses (Surface Leak Resulting in Pool)
X3-12-FLOW06		<p>The above grade portions of the following struts are designated SS with regard to the function of reducing releases from splash and splatter within them</p> <ul style="list-style-type: none"> - Process Pits - Diversion Bases - Vault Pits - COBs 	There are applicable controls from the Subsurface Leak Resulting in Pool accident analysis. These controls also address this hazardous condition for worker risk by indicating leak and managing releases
X3-13-LIEVE			There are applicable controls from the Subsurface Leak Remaining Subsurface accident analysis

Table A-6. Control Memo. (106 Sheets)

ID	PSSO MEMO	MSBC MEMO	Control MEMO
XS-13-PRES01			No controls required based on accident analysis (Mixing of Incompatible Material - Tank Pressurization)
XS-13-PRES02			Controls based on Flammable Gas JCO
XS-13-PRES03			No controls required based on accident analysis (Mixing of Incompatible Waste - Toxic Vapor Generation)
XS-13-PRES04			The criticality controls address this hazardous condition by controlling waste composition of transfers into Tank Farms, using the double contingency principle
XS-20-FLOW01			Controls based on accident analysis (Mixing of Incompatible Material - Tank Pressurization)
XS-20-FLOW02			There are applicable controls from the Subsurface Leak Resulting in Pool accident analysis
XS-20-FLOW03			No controls required based on accident analysis (Mixing of Incompatible Waste - Tank Pressurization)
XS-20-FLOW04			No controls required based on accident analysis (Mixing of Incompatible Waste - Toxic Vapor Generation)
XS-20-FLOW05			The criticality controls address this hazardous condition by controlling waste composition of transfers into Tank Farms, using the double contingency principle
XS-20-FLOW06			There are applicable controls from the Subsurface Leak Resulting in Pool accident analysis
XS-20-FLOW07			There are applicable controls from the Subsurface Leak Resulting in Pool accident analysis

Table A-6. Control Memo. (100 Sheets)

ID	P SSC MEMO	M SSC MEMO	Control MEMO
XS-20-FLOW08	The above grade portions of following struts are considered SC with regard to physical integrity <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	The above grade portions of the following struts are designated BS with regard to the function of reducing releases from splash and splatter within them <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	Controls based on accident analysis (Surface Leak Resulting in Pool)
XS-20-FLOW09	The above grade portions of following struts are considered SC with regard to physical integrity <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	The above grade portions of the following struts are designated BS with regard to the function of reducing releases from splash and splatter within them <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	Controls based on accident analysis (Surface Leak Resulting in Pool)
XS-25-PRE3 XS-25-TEMP			No controls required based on accident analysis (Mixing of Incompatible Wastes - Toxic Vapor Generation)
XS-25-PRE3 XS-25-TEMP 102-AW-TEMP (FOR TK-102-AW)			The integrity controls address the hazardous condition by controlling waste composition of transfers into Tank Farms, using the double contingency principle
XS-25-PRE301			No controls required based on accident analysis (Mixing of Incompatible Material - Toxic Presentation)
XS-25-PRE301A 102AW-02-PRE3			These controls address the hazardous condition by monitoring ventilation operation and cover block status
XS-25-ARE302			Controls based on Flammable Gas JCO, and accident analysis (Natural Phenomena - Lightning), with additional controls on primary tank leak Detect Bypass

Table A-6. Control Memo. (100 Sheets)

ID	P SSC MEMO	M SSC MEMO	Control MEMO
XS-25-PRES02A 102AW-02-PRES			These controls address this hazardous condition by monitoring ventilation operation and cover block status
XS-25-PRES03			These controls address this hazardous condition by monitoring ventilation operation and cover block status
XS-25-PRES03 102AW-02-PRES			These controls address this hazardous condition by monitoring ventilation operation and cover block status
XS-26-TEMP 102AW-04-TEMP			
XS-26-TEMP01			Controls based on accident analysis (Tank Bump)
XS-26-TEMP02			
XS-35-FLOW01			Assuming no 242-S Evap D&D MAR from 242-S pump would only be slightly contaminated water
XS-35-FLOW02			Controls based on accident analysis (Surface Leak Resulting in Pool)
XS-37-FLOW01	The above-grade portions of the following structure are considered SSC with regard to physical integrity: <ul style="list-style-type: none"> - Process Pits - Division Gates - Vault Pits - COBs 	The above-grade portions of the following structure are designated SS with regard to the function of reducing releases from spills and splashes within them: <ul style="list-style-type: none"> - Process Pits - Division Gates - Vault Pits - COBs 	Controls based on accident analysis (Surface Leak Resulting in Pool)
XS-37-FLOW02			Controls based on accident analysis (Subsurface Leak Resulting in Subsurface)

Table A-6. Control Memo. (108 Sheets)

ID	F S&C MEMO	M S&C MEMO	Control MEMO
XS-41A-FL04021	<p>The above grade portions of following struts are considered SC with regard to physical integrity</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	<p>The above grade portions of the following struts are designated SS with regard to the function of reducing releases from splash and splatter within them</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	Controls based on accident analyses (Surface Leak Resulting in Pool)
XS-41A-FL04022	<p>The above grade portions of following struts are considered SC with regard to physical integrity</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	<p>The above grade portions of the following struts are designated SS with regard to the function of reducing releases from splash and splatter within them</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	Controls based on accident analyses (Surface Leak Resulting in Pool)
XS-41B-LEVE01			Controls based on Flammable Gas JCO
XS-41B-LEVE02			These controls address the hazardous condition by notifying personnel of leak
XS-41B-LEVE03	<p>The above grade portions of following struts are considered SC with regard to physical integrity</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	<p>The above grade portions of the following struts are designated SS with regard to the function of reducing releases from splash and splatter within them</p> <ul style="list-style-type: none"> - Process Pits - Diversion Boxes - Vault Pits - COBs 	Controls based on accident analyses (Surface Leak Resulting in Pool)
XS-41B-LEVE04			These controls address this hazardous condition by notifying personnel of leak
XS-41C-LEVE01			Controls based on Flammable Gas JCO
XS-41C-LEVE02			

Table A-6. Control Memo. (10# Sheets)

ID	P SSC MEMO	M SSC MEMO	Control MEMO
XS-41C-LEVEL3	<p>The above grade portions of following struts are considered SC with regard to physical integrity</p> <ul style="list-style-type: none"> - Process Pits - Diversion Booms - Vault Pits - COBs 	<p>The above grade portions of the following struts are designated SS with regard to the function of reducing releases from splash and spillage within them</p> <ul style="list-style-type: none"> - Process Pits - Diversion Booms - Vault Pits - COBs 	<p>These controls address the hazardous condition by inducing leak and managing releases</p>
XS-43-FLOW1			<p>Controls based on accident analysis (Subsurface Leak Remaining Subsurface)</p>
XS-52-FLOW01		<p>The above grade portions of the following struts are designated SS with regard to the function of reducing releases from splash and spillage within them</p> <ul style="list-style-type: none"> - Process Pits - Diversion Booms - Vault Pits - COBs 	<p>Controls based on accident analysis (Subsurface Leak Resulting in Pool)</p>
XS-52-FLOW02	<p>The above grade portions of following struts are considered SC with regard to physical integrity</p> <ul style="list-style-type: none"> - Process Pits - Diversion Booms - Vault Pits - COBs 	<p>The above grade portions of the following struts are designated SS with regard to the function of reducing releases from splash and spillage within them</p> <ul style="list-style-type: none"> - Process Pits - Diversion Booms - Vault Pits - COBs 	<p>Controls based on accident analysis (Surface Leak Resulting in Pool)</p>

Table A-7. Process History. (116 Sheets)

ID	MEMO NO	Re- learned Safety	Re- learned Freq	Re-learned MEMO	Org Freq	Org Freq NO	Org Safety	Remarks
102AW-01- FLOW 102AW-02- PRES	A chemical or incompatible waste is added to the tank, which results in high temperatures and a collapse of the tank dome. This was assigned to the frequency category of F2 since these activities are extremely rarely conducted and it would take an extremely large amount of chemicals or material being introduced to the waste tank in order for this to occur. This accident was assigned to the consequences category S3 since the accident results in the release of material to the offsite public. If the mitigative/preventive features are removed then chemicals could be added to the waste tanks without controls. It would still require large amounts of chemicals or accidental leaks (incapable to be added to the waste tank in order for this accident to occur). With no controls or mitigative features the expected frequency of this accident would still be in the F2 frequency category.				F2	F2	S3	
102AW-01- FLOW 102AW-04- PRES	This spray tank event occurs which does not occur in box or pit, was assigned to P2 and S2. This event occurs due to the failure of the procedural requirement to prevent piping. A piping leak due to thermal stress caused by transferring hot solution to a cold pipe could mechanically impact the environmental pipe. This could dislodge the connection of liquid that would normally be collected by the environmental piping. The soil over the pipe could eventually erode away, but the combination of the soil and the environmental (how-to-d-brown) piping make the chance of a freely dislodge spray unlikely, hence the S2 consequence. Accordingly, if the mitigative/preventive features were assumed to be failed the expected accident frequency (leading to an S2) would be increased. Assuming the chance of a procedural error is 1/10th, and no leak detection or monitoring (which then frequency without safeguards would be P2).	S3		INV-52455 - Revised due to application of new risk acceptance guidelines Description of Hazardous condition changed per review with analyst	F2	F3	S2	
102AW-01- FLOW01	This spray tank event, which does occur in pit or box, was assigned on P1 and S2. This event is initiated by a leak in the primary piping due to corrosion caused by transferring hot liquid. This hot liquid would later have to find an opening in the environmental piping which is not normally leak tested and could contain a pressurized leak. Erosion of a leak would normally be detected with observation or pit leak detection. The soil over the pipe might be eventually eroded away from the leak. The secondary leak would have to occur in the same location or the environmental become pressurized for a spray leak to occur. This in combination that soil over the pipe (how-to-d-brown) make the chance of a freely dislodge spray unlikely, hence the S2 consequence. Accordingly, if the mitigative/prevention features were assumed to be failed the expected accident frequency (leading to an S2) would be increased somewhat, but still P2. If no leak detection or monitoring which then presentation of the environment is more likely.	S3		INV-52456 - Revised due to application of new risk acceptance guidelines Description of Hazardous condition changed per review with analyst	F1	F2	S2	

Table A-7. Process History. (116 Sheets)

ID	MEMO NC	Re-binned Safety	Re-binned Freq	Re-binned MEMO	Orig Freq	Orig Freq NC	Orig Safety	Remarks
102AW-01-FLOW02	1E Accidental Excavation of Pipe Lack of Administrative Controls for Excavation				F3	F3	S2	
102AW-01-FLOW03	Several reactivated liquid release to the ground are assigned a F3 frequency and a S1 consequence. In these cases the activation logic is either stable or is under no pressure (as for subsea pumping). Controls include leak detection for certain piping and relay (delay) deactivation logic. These event are already considered very likely, so, if all preventative/mitigative features did not exist the frequency would remain F3.				F3	F3	S2	
102AW-01-FLOW04	1E Heavy Loads Lack of Equipment Leak Detectors, No Controls for Heavy Traffic Loads				F3	F3	S2	
102AW-01-FLOW05	1E Seismic Event				F2	F2	S2	
102AW-01-FLOW06	1C Pipe Leak and Subsequent Undermining Equipment Leak Detectors Ineffective, Lack of Surveillance of Surface Areas				F3	F3	S2	
102AW-01-FLOW07	same 102AW-01-FLOW05				F3	F3	S2	
102AW-01-FLOW10	1E Human Error - Opening of Pump Lack of Administrative and Procedural Controls, Disturbed instrumentation, Alarm				F1	F2	S2	
102AW-01-FLOW11	2E Human Error Lack of Administrative and Procedural Controls, Personnel Training, Disturbed instrumentation				F2	F3	S2	
102AW-01-TEMP	One spray leak event caused by human error occurs in the transfer piping and was assigned a F1 frequency and S3 consequence. This caused by exceeding temperature limits in the transferred media. The piping is double walled, making a spray leak very unlikely. This accident unlikely or very severe because the hot temperatures are unlikely to affect the outer piping. Accordingly, if preventative/mitigative features are assumed to be failed or missing then the expected accident frequency would remain at F1.				F1	F1	S3	

Table A-7. Process History. (116 Sheets)

ID	MEMO NO	Re-learned Safety	Re-learned Freq	Re-learned MEMO	Orig Freq	Orig Freq NO	Orig Safety	Remarks
102AW-01-TEMP01	IE or cause is leak in transfer pipe due to high temperature and corrosion. Personnel controls exclude leak detection and manual isolation procedures. Without controls the frequency of this scenario could be P2.				F1	F2	S2	
102AW-01-TEMP01A	IE or cause is leak in transfer pipe due to thermal stress. Personnel controls exclude preheating pipes. Without controls the frequency of this scenario could be P2.				F1	F2	S2	
102AW-01-TEMP02	IE or cause is leak in transfer pipe due to high temperature. Personnel controls exclude leak detection and manual isolation procedures. Without controls the frequency of this scenario could be P2.				F1	F2	S2	
102AW-02-LEVE	IE or cause is a leak into the annulus. Personnel controls exclude tank level indication and direct leak detection. This scenario is already assigned a frequency of P3, so, no other controls at all on P3 frequency.				F3	F3	S1	
102AW-02-LEVE01	IE or cause is slurry growth. Personnel controls exclude tank level indication. The frequency of slurry growth dominates the frequency of this scenario regardless of controls. Even without these controls the frequency would still be P1.	S2		MVS-5/2498 - Change due to puff release of ammonia	F1	F1	S1	
102AW-02-LEVE02	IE or cause is leak of primary and secondary tank. Personnel controls exclude level and leak indication. The frequency of this scenario is dominated by the initiator frequency, so, even without controls the frequency remains P1.				F1	F1	S1	
102AW-02-LEVE03A	IE Human Error - Misdiagnosis Lack of Administrative and Procedural Controls, Detection/Instrumentation, HRA Factors				F1	F3	S1	
102AW-02-LEVE03	IE Human Error Lack of Administrative and Procedural Controls, Personnel Training, Detection/Instrumentation				F2	F3	S2	
102AW-02-LEVE04	IE Human Error Lack of Administrative and Procedural Controls, Personnel Training, Detection/Instrumentation				F2	F3	S2	
102AW-02-LEVE05	IE Human Error - Misdiagnosis Lack of Administrative/Procedural Controls, Detection/Instrumentation	S2		MVS-5/2495 - Revised due to application of new risk acceptance guidelines	F2	F3	S1	

Table A-7. Process History. (116 Sheets)

ID	MEMO NO.	Re- tained Safety	Re- tained Freq	Re-tained MEMO	Orig Freq	Orig Freq NO	Orig Safety	Remarks
102AW-02- LEVED6	IE or cause is a leak into the annulus. Permitted controls include high level indication and annulus leak detection. This scenario is already assigned a frequency of F3, so, without controls it is also an F3 frequency.		F1	MVS-52498 - Revised frequency during consistency check	F3	F3	S1	
102AW-02- PREB 102AW-02- TEMP	IE or cause is dump of hot liquids from evaporator causing steamization and activation of generator. Revised permitted controls apply. Even with controls, this scenario was assigned a F3 frequency. Therefore, without these controls the frequency would still be F3.				F3	F3	S2	
102AW-02- PRES 01 XS-26- PRES 01					F3		S1	
102AW-02- PRES01	The first explosion in the vapor space of a double shell tank due to a flammable gas mixture and ignition source is assigned to the F3 and S2 frequency and consequence reference respectively. The integrity of the double shell tank increases critical. A draft review is required for this accident to occur. If the independent protective controls are removed, the accident would have the same consequence as before with controls. Without the independent and administrative controls the frequency of this accident would increase to the next frequency category of F2.	S3		MVS-52495 - Revised due to application of new risk acceptance guidelines. This was originally an S2 because it was assumed that no dome collapse occurred, with M2 explosion or seismic (not likely) present. With dome collapse, the consequence changes to S3.	F1	F2	S2	
102AW-02- PRES02	IE Human Error - Misreading Lack of Administrative and Procedural Controls, Detection/Intermittent				F3	F3	S2	
102AW-02- PRES03	IE Shortage of Ventilation Inlet into Land Lack of Tank pressure control function, improperly engineered fan system				F1	F1	S3	
102AW-02- PRES04	IE Shortage of Ventilation Tank Inlet Lack of Tank Pressure Surveillance				F1	F2	S3	

Table A-7. Process History. (115 Sheets)

ID	MEMO NC	Re- binned Safety	Re- binned Freq	Re-binned MEMO	Org Freq	Org Freq NC	Org Safety	Remarks
102AW-02- PRES06	I E Blockage of Ventilation Tank Inlet Lack of Tank Pressure Surveillance				F1	F1	S3	
102AW-02- PRES06	I E Blockage of Ventilation Tank Inlet Lack of Tank pressure surveillance, improperly engineered for system				F1	F1	S3	
102AW-02- PRES07	I E Blockage of Ventilation Tank Inlet Lack of Tank Pressure Surveillance, improper software system used				F1	F2	S3	
102AW-02- PRES08	I E or cause is dump of hot liquids from evaporator causing pressurization and control generation. Several personnel controls apply. Given with controls this scenario was assigned a F3 frequency. Therefore, without these controls the frequency would still be F3	S2		MVS-52498 - Revised due to application of new risk acceptance guidelines	F3	F3	S1	
102AW-02- PRES09	One non-fatal explosion pressurized releases that lead to an S1 consequence is a F3 frequency. This event is caused by loss of ventilation fans when the air lift circulation are operating. This scenario must be allowed to exist for a period of time for an S1 consequence to be caused. If personnel mitigative features are assumed to be failed or missing then the expected accident frequency would increase. Both the air lift circulation and the ventilation fans are pressure-relief features. However, for this hazardous condition to exist the air lift circulation must be running and when they are the undesired event is likely to occur. Accordingly, the expected accident frequency would be F3.	S2		MVS-52498 - Revised due to application of new risk acceptance guidelines	F3	F3	S1	
102AW-02- TEMP 102AW-02- TEMP	I E Over Agitation of Tank Mixers Lack of Administrative and Procedural Controls, Detection/Instrumentation	S2	F2	MVS-52498 - Revised due to application of new risk acceptance guidelines	F3	F3	S1	
102AW-02- TEMP01	I E or cause is tank boiling. Personnel controls led use tank and ventilation inhibitors by shut off the ventilation system itself. The cause of the boiling is non-specific but would usually increase if temperature and pressure monitoring were removed. Therefore, without controls the frequency of this scenario would increase to F2				F1	F2	S2	
102AW-02- TEMP02	see 102-02-TEMP01				F1	F2	S2	

Table A-7. Process History. (116 Sheets)

ID	MEMO NC	Re- banned Safety	Re- banned Freq	Re-banned MEMO	Orig Freq	Orig Freq NC	Orig Safety	Remarks
102AW-03- LEVE01	<p>The first rupture in the annulus region of a double shell tank due to a flammable gas mixture is assigned to the F1 and S2 frequency and consequence categories respectively. The flammable gas mixture would come from vapor heating and the annulus region of the tank. A spark source in the annulus region of the tank is required for this accident to occur.</p> <p>If the mitigation/preventive controls are removed, the accident would have the same consequences as before with controls. Without the engineered and administrative controls the frequency of this accident would increase. The frequency category for this accident without controls is P2.</p>				F1	F2	S2	
102AW-03- LEVE02	<p>The first rupture in the annulus region of a double shell tank due to a non-flammable gas mixture is assigned to the F1 and S2 frequency and consequence categories respectively. The flammable gas mixture would come from the fractured waste and a spark source is required for this accident to occur.</p> <p>If the mitigation/preventive controls are removed, the accident would have the same consequences as before with controls. Without the engineered and administrative controls the frequency of this accident would increase. Therefore, the frequency category for this accident without controls is P2.</p>				F1	F2	S2	
102AW-03- LEVE03	1. Human Error - Misreading of Tank Waste to Annulus Leak of Administrative Controls, Procedures in Tank Farm, Lack of Leak Detection in Annulus				F1	F2	S3	
102AW-03- PRE021 102AW-03- LEVE	1. E or cause is a leak into the annulus. Partial controls include tank level indicators and annulus leak detection. This scenario is already assigned a frequency of F3, so, without controls it is also an F3 frequency.		F2	NVS-5/24/95 - Revised frequency during consistency check (Double Failure)	F3	F3	S1	
102AW-03- PRE022 102AW-03- LEVE	1. E or cause is a leak into the annulus. Partial controls include tank level indicators and annulus leak detection. This scenario is already assigned a frequency of F3, so, without controls it is also an F3 frequency.		F2	NVS-5/24/95 - Revised frequency during consistency check (Double Failure)	F3	F3	S1	

Table A-7. Process History. (116 Sheets)

ID	MEMO NO	Re- binned Safety	Re- binned Freq	Re-binned MEMO	Org Freq	Org Freq NC	Org Safety	Remarks
102AW-03-TEMP01	The explosion in the annular region of a double shell tank due to the spilling of flammable liquid into that region of a tank is assigned to the P1 and S3 frequency and consequence categories respectively. The flammable liquid could come from a ruptured fuel tank of a vehicle in the tank farms flowing down an open stair into the annular region. A spark source is required for this accident to occur. If the mitigative/preventative controls are removed, the accident would have the same consequence as before with controls. Without the engineered and administrative controls the frequency of this accident would increase. Therefore, the frequency category for this accident without controls is P2.				F1	F2	S3	
102AW-03-TEMP02	The explosion in the annular region of a double shell tank due to the spilling of fuel into that region of a tank is assigned to the F1 and S1 frequency and consequence categories respectively. The fuel would come from a ruptured fuel tank of a vehicle in the tank farms flowing down an open stair. A spark source is required for this accident to occur. If the mitigative/preventative controls are removed, the accident would have the same consequence as before with controls. Without the engineered and administrative controls the frequency of this accident would increase. Therefore, the frequency category for this accident without controls is P2.				F1	F2	S2	
102AW-04-LEVE01	IE or cause is a pipe leak. Pertinent controls include tank level indication and annular leak detection. This scenario is already assigned a frequency of P3 so without controls it is also an P3 frequency pipe.				F3	F3	S1	
102AW-04-LEVE02	IE Human Error - Missing Leak of Administrative and Procedural Controls, Detection of water/steam, Cover @ 1015				F3	F3	S1	
102AW-04-LEVE03	IE or cause is erroneous use of raw water leading to contamination spread. Pertinent controls include pH leak detection and cover blocks. Even with controls this scenario is assigned a P3 frequency, so, without controls it remains an P3 frequency.				F3	F3	S1	
102AW-04-LEVE04	IE or cause is pH dosing when down to slogged leading to contamination spread. Pertinent controls include pH leak detection and cover blocks. Even with controls this scenario is assigned a P3 frequency, so, without controls it remains an P3 frequency.				F3	F3	S1	
102AW-04-PRES 01					F3		S1	

Table A-7. Process History. (116 Sheets)

ID	MEMO NC	Re- banned Safety	Re- banned Freq	Re-banned MEMO	Orig Freq	Orig Pete DEC	Orig Safety	Remarks
102AW-04- PRES01	I 8 or cause is verification failure that causes processization of pump pit Periment controls include verification system failure alarms and procedures Without failure controls including the verification system itself the frequency would be F3				F3	F3	S1	
102AW-04- PRES02	I 8 Cover Block Potential Lack of Administrative and Procedural Controls				F3	F3	S1	
102AW-04- STRU 01					F3		S1	
102AW-04- STRU 02	I 8 or cause is structural degradation leading to spread of contamination Periment controls include inspection Without controls the frequency of this scenario is F3 frequency				F1	F2	S1	
102AW-04- STRU01A	I 8 Human Error Lack of Training in Crane Operations, Testing of Equipment				F1	F3	S3	
102AW-04- STRU01B	I 8 Scenario Event				F1	F1	S1	
102AW-04- STRU02	I 8 Human Error Lack of Administrative Controls				F1	F3	S3	
102AW-04- STRU03	I 8 or cause is dropped equipment leading to spread of contamination Periment controls include work plans and procedures for crane and hoist work Without controls the frequency of this scenario is an F3 frequency	S2		NR/S - 8/24/95 - Revised due to application of new risk acceptance guidelines	F1	F2	S1	
102AW-04- STRU04	I 8 or cause is leak in transfer pipe due to equipment drop Periment controls include controls over cranes and hoists Without controls the frequency of this scenario could be F3				F1	F2	S2	
102AW-04- STRU05	I 8 Scenario Event				F1	F1	S2	

Table A-7. Process History. (118 Sheets)

ID	MEMO NC	Re- banned Safety	Re- banned Freq	Re-titled MEMO	Orig Freq	Orig Freq NC	Orig Safety	Remarks
102AW-06- TEMP	This line is the control pump put due to electrical fire is assigned to the F1 and S1 frequency and consequence categories, respectively. Consequence is the put is released to the outside worker. If the integrative protective controls are removed, the accident would have a higher consequence line with controls requiring open blocks to be in place during operations. There would exposure to the outside worker resulting in a consequence category of at least class of 32. Without the engineered control the frequency of this accident would stay at the frequency category of F1.	S2		MVB-5/2498 - Revised due to application of new risk acceptance guidelines	F1	F1	S1	
102AW-08- COMP01	IE or worse is chemical reaction causing explosion. Several pertinent controls apply. Even with controls the scenario was assigned a F3 frequency. Therefore, without these controls the frequency would still be F3.		F2	MVB-5/2498 - Revised frequency during consistency check	F3	F3	S1	
102AW-08- COMP02	See NCO Memo for 102S-04-04				F0	F1	S2	
102AW-08- COMP02A	See NCO Memo for 102S-04-04				F0	F1	S2	
102AW-08- COMP03	IE - Unattended Physical Phenomena The frequency of a combustibility in the single or double shell waste tanks was determined to be an F0 with a consequence of S2. All subsequent samples taken from the waste tanks to show a wide margin of combustibility (WMC-08-004-WMA-SARF-002). The main fissile material concentrations are a factor of one thousand below the reportable limit of one gram per cubic centimeter. The rates of fissionable and insoluble neutron absorbers in the waste to the fissile materials present show a high margin of combustibility. The frequency of a combustibility in a large single or double shell waste tank would be higher without administrative controls versus with administrative controls. Without administrative controls a large amount of fissile material could be added to a single or double shell waste tank. One to the physical demerence of these waste tanks gravity would tend to spread any new material over a large area of the waste tank. It would take an extremely large amount of fissile material added for a combustibility event to occur. The likelihood category in which these accidents would fall without controls would increase from F0 to F1.				F0	F1	S2	
102AW-08- COMP04	See NCO Memo for 102AW-08-COMP03				F0	F1	S2	

Table A-7. Process History. (116 Sheets)

ID	MEMO NC	Re- vised Safety	Re- vised Freq	Revised MEMO	Org Freq	Org Freq NC	Org Safety	Remarks
102AW-06-COMP06	<p>FE Undesired Physical Phenomena</p> <p>The frequency of a criticality at the single or double shaft tanks was determined to be an F0 with a consequence of S2. All historical samples taken from the waste tanks show a wide margin of subcriticality (WHIC-00-WHA-SARR-003). The mean loss in material concentrations are a factor of one thousand below the acceptable limit of one gram per cubic centimeter. The ratio of volatile and insoluble reaction products in the waste to the waste materials present shows a high margin of subcriticality. The maximum weight percent of water of solid samples in the historical database was in the 30 range while the ratio of all sampling was 60.</p> <p>When the weight percent of water is in the 30 range, the waste is dry and hard. The water is bound up in the contactants contained in the waste. The optimum moderation occurs when the weight percent of water in the waste is in the 6 range. No waste sample came even close to this level of dryness.</p> <p>o The removal of encapsulated water molecules from the waste in the single or double shaft tanks will result in a slight concentrating effect of solid material in the waste. This process although will not result in the selective removal of transuranic neutron absorbent materials from the waste. Some other physical process would be required to concentrate the highly neutron absorptivity from the reaction absorber material. Other processes would have to occur in order for the trapped water molecules to be released from the waste. The frequency of this accident without controls would not move from its present frequency category of F0.</p>				F0	F0	S2	
102AW-06-COMP08	<p>IE or cause is chemical reactions causing vapor or mist release. Several pertinent controls apply. Since with controls this was assigned a F2 frequency. Therefore, without these controls the frequency would still be F2.</p>				F3	F3	S1	
102AW-06-COMP01	<p>A fire in the 90C AW Tank organic layer is assigned to the F1 and S3 frequency and consequence categories respectively. Combustion product vapors are released from the tank as the result of a dome collapse from the fire. An ignition source is required.</p> <p>If the mitigation/preventive controls are removed the accident would have the same consequence as before with controls. Without the mitigation controls the frequency of this accident would increase. The frequency category for this accident without controls is F2.</p>				F1	F2	S3	

Table A-7. Process History. (115 Sheets)

ID	MEMO NC	Re- banned Safety	Re- banned Freq	Re-banned MEMO	Org Freq	Org Freq NC	Org Safety	Remarks
102AW-09- COMP02	The fire at a waste tank due to the spilling of fuel into the tank is assigned to the F1 and S3 frequency and consequence categories, respectively. The fuel comes from a replaced fuel tank of a vehicle in the tank farm showing down an open near of the safety tank. A spark source is required for this accident to occur. If the firefighter/protection controls are removed, the accident would have the same consequence as before with controls. Without the administrative controls the frequency of this accident would be finite. Therefore, the frequency category for this accident without controls is assigned to the F3 frequency category.				F1	F2	S3	
102AW-09- COMP03	IE or cause is a fuel spill into tank. Several pertinent controls apply. Even with controls this scenario was assigned a P3 frequency. Therefore, without these controls the frequency would still be P3.				F3	F3	S1	
102AW-09- COMP04	IE or cause is a gas sampling (GPH) line releases trapped vapors. Pertinent controls include work controls for smoking. This scenario was assigned a F2 frequency. Therefore, without these controls the frequency would still be F3.				F3	F3	S1	
102AW-09- COMP05	IE: Human Error - Misoperation Lack of Administrative and Procedural Controls; Personnel Training				F3	F3	S1	
102AW-09- TEMP	IE or cause is transfer of hot liquids that causes pressurization and aerosol generation. Several pertinent controls apply. Even with controls this scenario was assigned a P3 frequency. Therefore, without these controls the frequency would still be F3.	S2		MVS-62406 - Revised due to application of new risk acceptance guidelines	F3	F3	S1	
102AW-09- TEMP01	See X5-26-TEMP01				F1	F2	S2	
102AW-09- TEMP02	IE or cause is a leak down the primary tank to the annulus caused by thermal stress. Pertinent controls include tank and vessel leak indicators. The frequency of leaking event dominates the frequency of this scenario regardless of controls. Even without controls the frequency of this scenario remains P1.				F2	F1	S1	
102AW-13- FLDW01					F2		S1	

Table A-7. Process History. (115 Sheets)

ID	MEMO NC	Re- binned Safety	Re- binned Freq	Re-binned MEMO	Orig Freq	Orig Prod NC	Orig Safety	Remarks
102AW-13- FLOW01	One spray leak event that involved human error was assigned a frequency of F0 and a consequence of S3. The frequency is very low because a facilities event caused by valve failure or misalignment must occur during a leak test; it is likely directed at a time that the cover blocks are erroneously missing. PI leak detection up of questionable value since the volume from a spray leak is small and high level in the pit may not be reached very soon, if at all. Pipes enter and double enclosed in valve/pump pits so leaks would release directly into the pit atmosphere. Accordingly, if the mitigation/preventive features were assumed to be failed the expected accident frequency resulting to an S3s would be not stated. Assuming the spray is a finely divided spray and the chance of a cover block error is 1/100, the frequency without safeguards would be F2.				F0	F1	S3	
102AW-13- FLOW02	IE accident is vehicle error that causes backflow. Participant controls include procedures backflow prevention. Without controls particularly backflow prevention the frequency of this scenario could be F3.	S2		MVS-5/24/06 - Revised due to application of new risk acceptance guidelines 5/30/06 - GAC - Revised frequency during consistency check.	F2	F3	S4	
102B-01 a1	F6 Human Error - Micrology Lack of Administrative and Procedural Controls. Capped Lines and dates				F1	F2	S2	
102B-01 b2	IE or could be leak in pump or a plugged drain that overflows pit. Participant controls include leak detection and process failure procedures. Safety pumping flows are ultimately event. Without controls the frequency of this scenario could be F2.				F0	F2	S2	
102B-01 b3	IE or could be a leak caused from corrosion. Participant controls include hydrostatic testing. Without controls the frequency increases to F2.	S2		MVS-5/24/06 - Revised due to application of new risk acceptance guidelines 5/30/06 - Due to location of reception	F3	F3	S0	

Table A-7. Process History. (114 Sheets)

ID	MEMO NC	Re- defined Safety	Re- defined Freq	Re-defined MEMO	Orig Freq	Orig Freq NC	Orig Safety	Remarks
102S-02 b1	<p>The fire/explosion in a pump pit due to the ignition of a flammable gas atmosphere is assigned to the F1 and S1 frequency and consequence categories respectively. There is a major leak into the pit which results in the generation of hydrogen gas. The hydrogen gas is ignited via a spark source and the contaminated pool on the pit walls is burned releasing the radioactive contamination.</p> <p>If the mitigation/preventative controls are removed, the accident would have the same consequence as before with controls. Without the engineered control the frequency of the accident would increase to the next frequency category of F2.</p>	E2		MYS-5/2408 - Revised due to application of new risk acceptance guidelines	F1	F2	S1	
102S-02 b2	<p>The fire/explosion in a pump pit due to the ignition of a flammable gas atmosphere is assigned to the F1 and S1 frequency and consequence categories respectively. A flammable gas from a vessel leak migrates into a pump pit. The gas is ignited via a spark source and the contaminated pool on the pit walls is burned releasing the radioactive contamination.</p> <p>If the mitigation/preventative controls are removed, the accident would have the same consequence as before with controls. Without the engineered control the frequency of the accident would increase to the next frequency category of F2.</p>	E2		MYS-5/2408 - Revised due to application of new risk acceptance guidelines	F1	F2	S1	
102S-02 d2	<p>The release of radioactive and toxic materials from a pit due to burning fuel flowing into the pit is assigned to the F3 and S3 frequency and consequence categories respectively. The burning fuel would come about as a result of the rupturing of a gasoline tank on a vehicle which has run over a pit cover with a subsequent spark source.</p> <p>If the mitigation/preventative controls are removed, the accident would have the same consequence as before with controls. Without the administrative controls the frequency of the accident would increase. The frequency category for the accident without controls would remain F3 the highest frequency category.</p>	S2		MYS-5/2408 - Revised due to application of new risk acceptance guidelines 500% - GAC - Revised frequency during consistency check.	F3	F3	S3	
102S-02 d3	<p>The release of radioactive and toxic materials from a pit due to burning fuel on top of a pit is assigned to the F3 and S1 frequency and consequence categories respectively. The burning fuel would come about as a result of the rupturing of a gasoline tank on a vehicle which has run over a pit cover with a subsequent spark source.</p> <p>If the mitigation/preventative controls are removed, the accident would have the same consequence as before with controls. Without the administrative controls the frequency of the accident would increase. The frequency category for the accident without controls would remain F3 the highest frequency category.</p>				F3	F3	S1	

Table A-7. Process History. (115 Sheets)

ID	MEMO NO	Re-binned Safety	Re-binned Frag	Re-binned MEMO	Orig Frag	Orig Frag NC	Orig Safety	Remarks
1025-03-23	See No Controls Memo for 960401-03-TEMP02				P1	F2	S2	
1025-03-24	The release of radioactive and toxic materials from a sample tank due to a fire in the tank is assigned to the F1 and S3 frequency and consequence categories respectively. The fire would be the result of fuel that would come from a ruptured fuel tank of a vehicle that hit a tank car in the tank farm causing down the ruptured tank. If the mitigative/preventative controls are removed, the accident would have the same consequence as before with controls. Without the administrative controls the frequency of this accident would increase. The frequency category for this accident without controls is F3.				F1	F3	S3	
1025-04-21a	1.1 or cause a tank leak. Controls include return stabilization and liquid addition controls. With or without these controls the frequency is F3.				F3	F3	S0	
1025-04-21b	1.2 or failure at tank leak. Controls include return stabilization and liquid addition controls. With or without these controls the frequency is F3.				F3	F3	S0	
1025-04-23	1.1 or cause a chemical reaction causing vapor or aerosol release in tanks. Several potential sources apply. Even with controls that automatic vents assigned a F3 frequency. Therefore, without these controls the frequency would still be F3.	S2		NY3-SQ498- Revised during consistency check	F3	F3	S1	
1025-04-24	The fire/explosion in the vapor space of a single shell tank due to a flammable gas mixture and ignitable source is assigned to the F0 and S3 frequency and consequence categories respectively. A spark source is required for this accident to occur. If the mitigative/preventative controls are removed, the accident would have the same consequence as before with controls. Without the engineering and administrative controls the frequency of this accident would increase to the next frequency category. Therefore, the frequency category for this accident without controls is F1.				F0	F1	S3	
1025-04-25	1.1. Acceptor/separator initiated Lack of Administrative Controls				F0	F1	S3	

Table A-7. Process History. (115 Sheets)

ID	MEMO NC	Re- brieted Safety	Re- brieted Frag	Re-brieted MEMO	Org Freq	Org Freq NC	Org Safety	Remarks
9029-04 a1b	Ignition of flammable gas in the vapor space of a tank: S 102 is assigned to the P0 and S3 frequency and consequence categories respectively. An ignition source is required for this accident to occur. If the mitigative/preventative controls are removed, the accident would have the same consequences as before with controls. Without the engineered and administrative controls the frequency of this accident would remain in the same frequency category of P2.				P2	P2	S2	
1029-04 a2	A chemical or incompatible waste is added to the tank which results in high temperatures and generation of toxic or flammable gases. This was assigned to the frequency category of P2 since these activities are administratively controlled and it would take an extremely large amount of chemicals or material being introduced to the waste tank in order for this to occur. The accident was assigned to the consequence category S1 since this accident results in the release of material to the effluent system. If the mitigative/preventative features are removed then chemicals could be added to the waste tanks without controls. It would still require large amounts of chemicals or incompatibly waste transfer to be added to the waste tank in order for the accident to occur. With no controls or mitigative features the expected frequency of this accident would still be in the P2 frequency category.				P2	P2	S1	
1029-04 a3	A chemical or incompatible waste is added to the tank which results in high temperatures and a collapse of the tank dome. This was assigned to the frequency category of P0 since these activities are administratively controlled and it would take an extremely large amount of chemicals or material being introduced to the waste tank in order for this to occur. The accident was assigned to the consequence category S3 since this accident results in the release of material to the effluent system. If the mitigative/preventative features are removed then chemicals could be added to the waste tanks without controls. It would still require large amounts of chemicals or incompatible waste transfer to be added to the waste tank in order for the accident to occur. With no controls or mitigative features the expected frequency of this accident would be in the P1 category.				P0	P1	S3	

Table A-7. Process History. (116 Sheets)

ID	MEMO NC	Re- binned Safety	Re- binned Freq	Re-binned MEMO	Orig Freq	Orig Freq NC	Orig Safety	Remarks
102S-04 e1	1E Human Error - Waste Manoufing The frequency of a critically in line angle or double shell waste tank was determined to be as F0 with a consequence of S1. All historical samples taken from the waste tanks show a wide range of subcriticality (WMO-SD-TM-6470-000). The systemically measured parameters are a factor of one thousand below the reportable level of one gram per cubic centimeter. The ratio of subcritical and overcritical neutron absorption is the same in the waste stream as the present, show a high margin of subcriticality. The frequency of a critically in line angle or double shell waste tank would be higher without administrative controls, such as waste administrative controls. Without administrative controls a large amount of fissile material could be added to a single or double shell waste tank. Due to the physical dimensions of these waste tanks gravity would tend to spread any new material over a large area of the waste tank. It would take an unusually large amount of fissile waste material for a criticality event to occur. The likelihood category is such that these accidents would not without controls would increase from F0 to F1.	S2		M/V6 - 5/24/95 - Reviewed during consistency check	F0	F1	S1	
102S-05 a1a	1E Human Error Lack of Training of Tank Farm Personnel, Operational Procedures				F2	F3	S3	
102S-05 a1aa	1E Human Error Lack of Administrative Controls, Tank Farm Personnel Training				F2	F3	S3	
102S-05 a2	1E System Error				F1	F1	S3	
102S-05 a3	1E Time				F2	F2	S3	
102S-05 a3a	1E Time				F2	F2	S3	
102S-06 a	1E Ventilation System Failure (Closed Valve, Filter, Fan, Seal Loop) Ventilation System Alarms, Seal Loop Checks				F0	F3	S1	
100C-01A	1E Blockage of Ventilation Tank Inlet Lack of Tank Pressure Surveillance, Isop or plugging of Ventilation Inlet				F1	F2	S3	
100C-01B	1E Blockage of Ventilation Inlet into Tank Lack of Tank pressure surveillance and inlet valve observation				F1	F2	S3	

Table A-7. Process History. (116 Sheets)

ID	MEMO NO	Re- trained Safety	Re- trained Freq	Re-trained MEMO	Orig Freq	Orig Freq MC	Orig Safety	Remarks
106C-01C	IE Human Error, Improperly Positioned (Operator) valve Lack of Tank pressure surveillance				F1	F2	S3	
106C-01D	IE Blockage of Ventilation Tank Inlet Lack of Tank Pressure Service Notice, Improper exhaust system setup				F1	F2	S3	
106C-01E	IE Blockage of Ventilation Tank Inlet Lack of Tank Pressure Surveillance				F1	F2	S3	
106C-01F	see 10-28-70Cure1				F1	F2	S2	
106C-01G	see 10-02-FLWD03	S2		MVS-5/2498 - Revised due to application of new risk acceptance guidelines	F2	F2	S1	
106C-01H	IE or cause it not looking. Portman controls and also tank and ventilation shutdown as well as the ventilation system itself. The frequency of existing event dominates the frequency of this scenario regardless of controls. Even without controls the frequency of this scenario remains F2	S2		MVS-5/2498 - Revised due to application of new risk acceptance guidelines	F2	F2	S1	
106C-01I	A fire in the C-100 Tank is assigned to the F1 and S3 frequency and consequence categories respectively. An ignition source is required for the fire to occur. As a result the tank is overpressurized and the tank dome collapses. If the mitigation/preventative controls are recovered, the accident would have the same consequence as before with controls. Without the administrative procedural controls of the frequency of this accident would increase. The frequency category for this accident without controls remains in the F2 category.				F1	F2	S3	
106C-01J	See the Controls Memo for 106C-01H				F1	F2	S3	
106C-01K	IE or cause it overpressure due to high tank temperature. Portman controls include controls for water addition. The scenario even with controls is already assigned as F3 frequency, so, without these controls including the ventilation system level the frequency would be F3.				F3	F3	S1	

Table A-7. Process History. (115 Sheets)

ID	MEMO NC	Re- trained Safety	Re- trained Env	Re-trained MEMO	Org Freq	Org Freq NC	Org Safety	Remarks
105C-01N	One hazardous condition involving inadvertent addition of opposing material that involves human error and leads to potential release was assigned a frequency of P1 and a consequence of S1. This involves the continuous chemical reaction due to inadvertent addition to tank. If proper preoperator/interoperator features are designed to be added or existing off-normal operators might include some transfer of differing chemical and, so, the expected accident frequency would increase to P2.	S2		MYS-5/24/98 - Revised due to application of new risk acceptance guidelines	P1	P2	S1	
105C-01Na	A flammable gas explosion in the C-105 Tank vapor space is assigned to the P1 and S2 frequency and consequence categories respectively. The flammable gas is generated in the tank due to chemical reactions said contacts on the vapor space of the tank. A spark source is required for the accident to occur. If the integrative/protection controls are removed, the accident would have the same consequences as before with controls. Without the administrative procedural controls of the frequency of this accident would increase. The frequency category for this accident without controls is P2.	S3		MYS-5/24/98 - Revised due to application of new risk acceptance guidelines	P1	P2	S2	
105C-01N	See H.C. Memo for 1145X-09-c2c				P0	P1	S2	
105C-01Pa	1E. Water Addition to Waste Tank Lack of Administrative Controls, Size of Tank, Volume of Waste				P2	P2	S0	
105C-01S	1E. or cause is evaporation due to low tank level and high temperature. Personnel controls include controls for water addition. This accident involves with controls is already assigned an F3 frequency, so, without these controls including the ventilation systems tank the frequency would be F3.				P3	P3	S1	
105C-01Sa	1E. or cause is tank leak. Controls include temperature and level addition. This scenario is already assigned a P3 frequency. Accordingly, without controls it would have a P3 frequency.				P3	P3	S1	
105C-01T	1E. Human Error - Failure to Add Water Lack of Administrative and Procedural Controls, Detection/Measurement				P3	P3	S1	
105C-01U					P0		S0	
105C-01W	1E. or cause is abnormal change that causes level increase. Personnel controls include lowering tank level. The abnormal change would have to be of enough magnitude to produce the level change needed to release material from the tank. Even, without controls the frequency of this scenario is still an F1 frequency.				P1	P1	S1	

Table A-7. Process History. (116 Sheets)

ID	MEMO NC	Re- banned Safety	Re- banned Freq	Re-banned MEMO	Orig Freq	Orig Freq NC	Orig Safety	Remarks
106C-01X	1E Human Error Lack of Administrative Controls				F1	F3	S3	
106C-01Y	1E Pipe break failure Checks of Tank would have had to be changed in order for the top of the tank to be stopped				F1	F2	S3	
106C-02A	See No Controls Memo for 106C-01X				F1	F2	S3	
106C-02B	See No Controls Memo for 106C-01Y				F1	F2	S3	
106C-02C	See No Controls Memo for 106C-01Y				F1	F2	S3	
106C-04A	See No Controls Memo for 106C-04a	S3		NVS -5/24/98 - Revised due to application of new risk acceptance guidelines	F1	F2	S2	
106C-04aa	An exothermic reaction in the C-106 Tank could occur if subjected to the F1 and S1 frequency and consequence categories respectively. The flammable gas is generated in the sludge layer of the tank and collects in the vapor space of the tank. If the mitigation/preventive controls are removed, the accident would have the same consequences as before with controls. Without the administrative controls the frequency of this accident would increase. The frequency category for this accident without controls is F2.	S2		NVS -8/24/98 - Revised due to application of new risk acceptance guidelines	F1	F2	S1	
106C-04B	See No Controls Memo for 106C-01Y				F1	F2	S3	
106C-06A	1E Human Error Lack of Administrative and Procedural Controls				F3	F3	S1	
106C-06B					F3		S0	

Table A-7. Process History. (116 Sheets)

ID	MEMO NO	Re- turned Safety	Re- turned Freq	Re-returned MEMO	Orig Freq	Orig Freq NO	Orig Safety	Remarks
108C-06D	The release of radioactive and toxic materials from a jet due to burning fuel flowing into the jet is assigned to the F1 and S1 frequency and consequence categories respectively. The burning fuel would come about as a result of the rupturing of a gasoline tank on a vehicle which has run over a jet power with a subsequent spark source. If the mitigation/preventative controls are removed, the accident would have the same consequences as before with controls. Without the preventative controls the frequency of the accident would increase. The frequency category for this accident without controls would be F2.	S2		NVS-52498 - Revised due to application of new risk acceptance guidelines	F1	F2	S1	
108C-06E	IE or cause is a plugged jet drain while adding water leading to spread of contamination. Preventive controls include the procedure for water addition. Without controls the frequency of this scenario is an F3 frequency.				F2	F3	S1	
108C-06G	IE or cause is a plugged jet drain with rain or snow melt infiltration leading to spread of contamination. Preventive controls include timing of water blocks. Without controls the frequency of this scenario is an F2 frequency.				F2	F3	S1	
108C-06H	IE or cause is plugged jet drain during jet cleaning with cover blocks off. Preventive controls include procedures that govern water addition. Without the controls the frequency of this scenario is F3.				F1	F3	S1	
108C-06J					F1		S0	
108C-06K	IE Human Error Loss of Crane Operator Procedures				F2	F3	S1	
108C-06L	The release of radioactive and toxic materials from a jet due to engine failure in the pump jet is assigned to the F1 and S1 frequency and consequence categories respectively. The engine or jet would come about due to combustible gases collecting in the pump jet and a spark or ignition source occurring. If the mitigation/preventative controls are removed, the accident would have the same consequences as before with controls. Without the preventative controls the frequency of this accident would increase. The frequency category for this accident without controls would be F2.	S2		NVS-52498 - Revised due to application of new risk acceptance guidelines	F1	F2	S1	
108C-06M					F2		S0	
108C-10B					F3		S0	

Table A-7. Process History. (116 Sheets)

ID	MEMO NC	Re- binned Safety	Re- binned Prog	Re-binned MEMO	Orig Freq	Orig Freq NC	Orig Safety	Remarks
108C-10C					F3		S0	
108C-10D					F3		S0	
108C-10E					F3		S0	
108C-10F	IE or cause is ventilation failure that allows open path for radioactive particulates. Personnel controls include air filter, visual inspection. GMI alarms and yearly vent balance checks. Without these controls the frequency could increase to F3				F2	F3	S1	
108C-10H					F3		S0	
108C-10J	A flaw in the ventilation system of the single shaft tank 108C as a result of a flammable gas mixture and oxygen source is assigned to the F1 and S2 frequency and consequence categories respectively. The oxygen source is provided from an electrical feed in the wall (leak or monitoring system). The only hazard is the only affected personnel. If the mitigation/preventive controls are removed, the accident would have the same consequence as before with the controls. Without the engineered controls the consequence of the accident would increase and propagate to a S2 consequence category (this accident was effect other workers). The frequency of this accident would increase without the administrative procedures and engineering controls and result in a frequency category F2 accident.				F1	F2	S2	
108C-10K	IE or cause is ventilation failure that allows open path for radioactive particulates. Personnel controls include air filter, visual inspection. GMI alarms and yearly vent balance checks. Without these controls the frequency could increase to F3.				F2	F3	S1	
108C-10L	IE or cause is ventilation failure that allows open path for radioactive particulates. Personnel controls include air filter, visual inspection. GMI alarms and yearly vent balance checks. Without these controls the frequency could increase to F3.				F2	F3	S1	
108C-11A	IE or cause is ventilation failure that allows open path for radioactive particulates. Personnel controls include ventilation system failure alarms and procedures. Without these controls including the ventilation system itself the frequency remains F3.				F3	F3	S1	
108C-11B					F3		S0	

Table A-7. Process History. (116 Sheets)

ID	MEMO NC	Re- laxed Safety	Re- laxed Freq	Re-laxed MEMO	Org Freq	Org Freq NC	Org Safety	Remarks
109C-11C					F3		S0	
109C-11D					F3		S0	
109C-11E	IE or device in ventilation system that allows open path for radioactive particulates. Prevented controls include ventilation system failure alarm and procedures. Without these controls, including the ventilation system itself the frequency would be F3.				F1	F3	S2	
109C-11F					F3		S0	
109C-11G	IE or device in ventilation system that allows open path for radioactive particulates. Prevented controls include CAM alarm and procedure about water addition. Without these controls the frequency would increase to F2.				F2	F3	S1	
109C-11H	IE or device in seal pot water freezing due to loss of heat trace leading backing up condensate in filter. Prevented controls include heat tracing system controls, the emergency program a F3 frequency, no vented controls it increases on F3 frequency.				F3	F3	S1	
109C-11I	IE or device in ventilation system that allows open path for radioactive particulates. Prevented controls include ventilation system failure alarm and procedures. Without these controls including the ventilation system itself the frequency remains F3.				F3	F3	S1	
109C-11J	IE or device in ventilation system that allows open path for radioactive particulates. Prevented controls include ventilation system failure alarm and procedures. Without these controls including the ventilation system itself the frequency remains F3.				F3	F3	S1	
109C-11K	A fire in the ventilation/exhaust system of the C-946 tank is assigned to the F1 and S1 frequency and consequence categories respectively. The crane works is the only affected process with administrative and engineering controls. If the mitigation/procedural controls are removed, the accident would have a higher consequence level as before with the controls. Without the engineered controls the consequence of this accident would increase and progress to a S2 consequence category class accident and affect other workers. The frequency of this accident would increase without the administrative procedures and engineering controls and result in a frequency category F2 accident.	S2		MVS-52498- Revised due to application of new risk acceptance guided net.	F1	F2	S1	

Table A-7. Process History. (116 Sheets)

ID	MEMO NC	Re- defined Safety	Re- defined Freq	Re-defined MEMO	Org Freq	Org Freq NC	Org Safety	Remarks
108C-11L	IE or process is verification failure that allows open path for radioactive particulates. Personnel controls include verification system failure alarms and procedures. Without these controls including the verification system itself the frequency remains FS.				F3	F3	S1	
108C-11M	IE or control is verification failure that allows open path for radioactive particulates. Personnel controls include verification system failure alarms and procedures. Without these controls including the verification system itself the frequency remains FS.				F3	F3	S1	
108C-11N	IE or control is verification failure that allows open path for radioactive particulates. Personnel controls include verification system failure alarms and procedures. Without these controls including the verification system itself the frequency remains FS.				F3	F3	S1	
108C-11O	When failure of controls is the initiator then the frequency without controls is related to the reliability of those controls. (F2)	S2		MVS-5/2468 - Revised due to application of new risk acceptance guidelines	F2	F2	S1	
108C-12A	IE or process is a gel discharge while water addition fails leading to excessive evaporation. Personnel controls include heat tracing. Even with controls this scenario is assigned a FS frequency, so without controls it remains a FS frequency.				F3	F3	S1	
108C-12B	IE or control is breakdown of water addition back feeding to low level or high level tank. Personnel controls include reduced tank level and water addition procedure. Without controls the frequency of this scenario is FS frequency.				F2	F3	S1	
108C-12C	IE or control is equipment due to water addition. Personnel controls include controls for water addition. Without these controls including the verification system itself the frequency would be FS.				F2	F3	S1	
108C-12D	IE or control is equipment due to high temperature. Personnel controls include controls for water addition. This scenario even with controls is already assigned an FS frequency, so without these controls including the verification system itself the frequency would be FS.				F3	F3	S1	
108C-12F	IE Human Error Lack of Administrative and Procedural Controls, Personnel Training	S2	F2	MVS-5/2468 - Revised due to application of new risk acceptance guidelines	F2	F3	S1	

Table A-7. Process History. (116 Sheets)

ID	MEMO NO	Re- tained Safety	Re- tained Freq	Re-derived MEMO	Orig Freq	Orig Freq NC	Orig Safety	Remarks
106C-12G	1E Water Addition to Waste Tank Lack of Administrative and Procedural Controls, Detection/representation, Size of Tank, Volume of Waste	S0		MVS-4/2465 - Revised during consistency check	F3	F3	S1	
106C-13A	See the Controls Memo for 106C-01a				F1	F2	S3	
106C-13B					F0		S0	
107AN-01- LEVE01	1E Human Error - Valve Left Open Lack of Administrative and Procedural Controls	S2		MVS-4/2465 - Revised during consistency check	F3	F3	S1	
107AN-01- LEVE02	1E of course is a leak tank leak. Partial control valve level indication and a flow indicator inspection. This scenario is dominated by the initiator frequency. S0, without control the frequency of the scenario is still F2	S2		MVS-4/2465 - Revised during consistency check	F2	F2	S1	
107AN-01- LEVE03	1E of course is failure to secure truck leading to a truck tank leak. Partial control valve level indication and a flow indicator inspection. This scenario is dominated by the initiator frequency. S0, without control the frequency of this scenario is still F2		F3	MVS-4/2465 - Revised frequency during consistency check	F2	F2	S1	
107AN-01- TEMP-01					F2		S1	
107AN-01- TEMP-02	One pressurized release vessel due to external fire reaction leads to a F3 frequency and S2 consequence. This occurs in the gas tank of a chemical truck being used for certain addition at the 907-AH tank. The chance of such a fire is probably not increased by waste acceptance criteria or transportation controls. Accordingly, if environmental/acceptance issues are assessed to be failed or missing then the expected standard frequency would remain at F3				F1	F1	S2	
107AN-02- FLOW-01	1E Human Error - Misreading Lack of Transport Acceptance Procedure, Detection/representation				F2	F3	S2	
107AN-02- FLOW-02	1E Human Error - Misreading Lack of Transport Acceptance Procedure, Detection/representation				F2	F3	S2	

Table A-7. Process History. (116 Sheets)

ID	MEMO NO	Re- vised Safety	Re- vised Freq	Re-vised MEMO	Orig Freq	Orig Freq MC	Orig Safety	Remarks
107A04-02- FLOW03	One pressurized liquid release vessel of caustic is assigned a F2 frequency and a S1 consequence. This is due to leak in the transfer line. Control includes flow indication. This event is dominated by the low break frequency, so, even if all preventative/mitigative features did not exist the frequency would not increase beyond F2.				F2	F2	S1	
107A04-02- PRES	This caustic spray leak event was assigned an F3 and S2. Leak detection is of limited value for this spray leak. Surveillance is of value, but would not prevent the spray leak, only reduce its duration (i.e., an S2 consequence is still possible). Accordingly, if it is assumed that preventative/mitigative features that the frequency would not decrease further than on F3.				F3	F3	S2	
107A04-02- PRES02	IE or cause is leak due to a disconnected hose. Controls specific to this scenario are not identified. This scenario is already mitigated at frequency of F3, so, without controls it is at or below F3 frequency.	S2		MVS-S2498 - Revised during consistency check	F3	F3	S1	
107A04-02- TEMP01	IE or cause is low temperature leading to plugging that causes leaking. Pertinent controls include to interpose vibrations and alarms. This scenario is dominated by the failure frequency. So, without control the frequency of this scenario is still F2.				F2	F2	S1	
107A04-03- FLOW	One pressurized liquid release to ground of caustic is assigned a F3 frequency and a S1 consequence. This is due to low flow caused by low temperatures that causes plugging. Controls include flow indication. This event is already considered very likely, so, if all preventative/mitigative features did not exist the frequency would remain F3.				F3	F3	S1	
1145X-02 b	IE Human Error - Misoperation Lack of Administrative and Procedural Controls, Pump Disconnected, Pump Not Driven in Tank	S2		MVS-S2068 - Revised due to application of how risk acceptance guidelines	P0	P1	S1	
1145X- 04 a 1a	IE or cause is ventilation failure. Even with controls the frequency is F3, so, without controls the frequency is still F3.	S1		MVS-S2498 - Revised during consistency check	F3	F3	S0	
1145X- 04 a 1b	IE or cause is ventilation failure. Even with controls the frequency of this scenario is F3, so, without controls the frequency is still F3.	S1		MVS-S2498 - Revised during consistency check	F3	F3	S0	

Table A-7. Process History. (116 Sheets)

ID	MEANO MC	Re- trained Safety	Re- trained Freq	Re-trained MEMO	Orig Freq	Orig Freq MC	Orig Safety	Remarks
1145X- 04 a 2	IE Human Error - Closure of Butterfly Valve, Isolation of Tank Shutdown of Ventilation System, Heat Backup, Tank Empty, Dyeing Failure				F0	F1	S3	
1145X- 04 a 3	IE Failure of Ventilation System Thermocouple Trace Information not available. Long period of time required				F0	F1	S3	
1145X- 04 a 4	IE or cause is ventilation failure that allows open path for radioactive particulates. Personnel controls include filter and fan alarms, visual inspection and hourly vent balance checks. Without these controls the frequency could increase to F3				F1	F3	S1	
1145X- 04 b 1 a 1	IE Human Error - Misalignment of Valve Lack of Adequacy and Procedural Controls. Operational Checks				F1	F3	S1	
1145X- 04 b 1 a 2	IE Human Error - Closure of Butterfly Valve, Isolation of Tank Loss of Temperature Indication, Monthly measurements. Long period of time required				F0	F1	S3	
1145X- 04 b 1 a 3	IE Human Error - Closure of Butterfly Valve, Isolation of Tank Loss of Temperature Indication, Monthly measurements. Long period of time required				F1	F2	S3	
1145X- 04 b 1 b 1a	IE or cause is ventilation failure that allows open path for radioactive particulates. Personnel controls include filter and fan alarms, visual inspection and hourly vent balance checks. Without these controls the frequency could increase to F3				F1	F3	S1	
1145X- 04 b 1 b 1b	IE Scenario Event	S2		MUS-452d06 - Revised due to application of new risk acceptance guidelines	F1	F1	S1	
1145X- 04 b 1 b 2a	IE Ventilation Ductwork Failure Long period of time required before dome failure				F0	F1	S3	
1145X- 04 b 1 b 2b	IE Scenario Event				F1	F1	S3	
1145X- 04 b 1 b 3a	IE Ventilation System Failure, Ducting Failure, Long Term Ventilation System Alarms, Loss of Tank Mass Temperature Indication, Long period of time required				F1	F2	S3	

Table A-7. Process History. (116 Sheets)

ID	MEMO NO	Re- tained Safety	Re- tained Freq	Re- tained MEMO	Orig Freq	Orig Freq NO	Orig Safety	Remarks
1145X- 04 b 1 b 3b	JC Sensor Event Failure of Ventilation System, Messup of Tank Waste Long period of time				F1	F1	S0	
1145X- 04 b 1 c 1	IE Ventilation System Failure (Fan, Filter, sensor) Long Term Ventilation System Alarm Loss of Tank Waste Temperature Indication				F1	F3	\$1	
1145X- 04 b 1 c 2	IE Failure of Fan System (System Shutdown) Loss of Alarm to notify Tank Farm Personnel				F0	F2	\$3	
1145X- 04 b 1 c 3	IE Ventilation System Failure Long Term Ventilation System Alarm, Loss of Tank Waste Temperature Indication Long period of time required				F1	F2	\$0	
1145X- 04 b 1 d 1	IE or cause is ventilation failure that allows open path for radioactive particulates. Personnel controls include filter and fan alarms, visual inspection and yearly vent balance checks. Without these controls the frequency could increase to F3				F1	F3	\$1	
1145X- 04 b 1 d 2	IE Ventilation Failure - Filter Plugging Discrete Plugging Alarms Waste Temperature, Head Loss Loss				F0	F1	\$3	
1145X- 04 b 1 d 3	IE Ventilation System Failure Filter Plugging Long Term Ventilation System Alarm Loss of Tank Waste Temperature Indication Long period of time required				F1	F2	\$0	
1145X- 04 b 3b	A Sustainable participation in the EX-114 Tank due to the ignition of a flammable gas atmosphere is assigned to the P3 and S2 frequency and consequence categories respectively. A spark source is required for the accident to occur. The HEPA filter fails blocking radioactive materials. If the mitigation/preventative controls are removed, the accident would have the same consequences as before with controls. Without the mitigation/preventative controls the frequency of the accident would increase. The frequency category for the accident without controls is F1	S3		MVS-522465 - Revised during consistency check	F0	F1	S2	
1145X- 04 b 5	IE or cause is ventilation failure that allows open path for radioactive particulates. Personnel controls include filter and fan alarms, visual inspection and yearly vent balance checks. Without these controls the frequency could increase to F3				F1	F3	\$1	

Table A-7. Process History. (116 Sheets)

ID	MEMO NO	Re- binned Safety	Re- binned Freq	Re-binned MEMO	Orig Freq	Orig Freq NO	Orig Safety	Remarks
1145X-04 c 1	Non-designation pressurized releases that lead to S2 consequences are F1 frequency. Substantial failures that result in an open path through the HEPA filter (with the fans running) are the cause of four of these releases. The breach must be of sufficient magnitude and occur over a long enough period of time to result in an S2 consequence effect, meaning that monitoring devices such as the differential pressure alarm and DPM alarm must fail or be ignored. Because the cause of the postulated accident is a process/mitigation feature fault, it is and with other features are assumed to be tested. Thus the redundancy credit is fully in effect. When failure of the controls is the factor, then the frequency without controls is related to the reliability of those controls (F2).				F1	F2	S2	
1145X-04 c 2 a	see 1145X-04 c 1				F1	F3	S2	
1145X-04 c 2 b	see 1145X-04 c 1				F1	F3	S2	
1145X-04 c 2 c	see 1145X-04 c 1				F1	F3	S2	
1145X-04 c 2 d	The HE or cause is improper selection (human error) of HEPA filter. Controls include delta pressure alarms and HEPA filter testing. With controls the frequency is F1 and consequence S2. Without controls the frequency would increase to F2.				F1	F2	S2	
1145X-05 b 1	See No Controls Memo for 1990-011				F1	F2	G3	
1145X-05 b 2	One pressurized release event due to a thermal/hydraulic reaction leads to a F0 frequency and S2 consequence. This event occurs at the a high heat SST if large amount cold water is inadvertently applied to a hot tank so that boiling occurs. There is no credible source of sufficient amounts of cold water to cause this event. Accordingly, if process/mitigation features are assumed to be tested or missing then the expected accident frequency would remain at F0.				F0	F0	S2	
1145X-05 b 3	I III Cold Water Added to Tank Lack of Administrative Controls for Tank Operation				F0	F2	S3	

Table A-7. Process History. (116 Sheets)

ID	MEMO NO	Re- defined Safety	Re- defined Frsg	Re-defined MEMO	Orig Freq	Orig Frsg NO	Orig Safety	Remarks
1145X-06 c 20	A chemical is added to the tank which results in high temperatures and results in the collapsing of the tank dome. This was assigned to the frequency category of F0 since this is administratively prohibited and it would take an extremely large amount of chemicals being added to the waste tank in order for this to occur. This accident was assigned to the consequence category S3 since this accident results in the release of material to the offsite public. If the emergency vent control system fails then chemicals could be added to the waste tank without control. It would still require large amounts of chemicals to be added to the waste tank in order for this accident to occur. With no control of this activity, perhaps the subjective frequency of this accident would be in the F1 category.				F0	F1	S3	
1145X-06 c 20	1E. Deplete Waste Material Containment Activity The frequency of a critically or a single or double shell waste tank was determined to be an F0 with a consequence of S1. All historical samples taken from the waste tanks show a wide margin of safety (MNC-SO-WMA-SAR-840). The worst waste material composition are a factor of one thousand below the reportable level of one gram per cubic centimeter. The risk of volatile and combustible emission discharges in the waste to the Waste Material Storage show a high margin of safety. The frequency of a critically or a single or double shell waste tank would be higher without administrative controls which with administrative controls. Without administrative controls a large amount of waste material could be added to a single or double shell waste tank. Due to the physical dimensions of these waste tanks gravity would tend to spread any new material onto a large area of the waste tank. It would take an extremely large amount of waste material for a critically event to occur. The frequency category in which these accidents would fall without controls would increase from F0 to F1. The physical mechanism has been identified which would result in the subjective concentration of waste material from the rest of the waste.	S2		MVS-52495 - Revised during consistency check	F0	F1	S1	
1145X-05 d	A gas born in the vapor space of a waste tank due to a thermally gas mixture and sudden increase assigned to the F2 and S1 frequency and consequence categories respectively. A spark source is required for this accident to occur. If the emergency vent control system fails, the accident would have the same consequences as before with the controls. Without the administrative controls the frequency of this accident would increase to the next frequency category of F3.	S2		MVS-52495 - Revised during consistency check	F2	F3	S1	

Table A-7. Process History. (116 Sheets)

ID	MEMO NO	Re- tained Safety	Re- tained Freq	Re-tained MEMO	Org Freq	Org Freq NC	Org Safety	Remarks
1145X-05 a 1a	IE Human Error Lack of Adaptation Controls, Task From Prototype Training				F2	F3	S3	
1145X-05 a 1b	See the Controls Memo for 1025-04 c				F0	F1	S3	
1145X-05 a 2	IE or cause is built into Controls include failure stabilization and liquid adjust controls. Without these controls the frequency is F3.				F2	F3	S0	
1145X-05 a 3	IE Time				F2	F2	S3	
1145X-06 b					F2		S1	
204AR-01A	A number of non-hazardous produced releases that lead to an S1 consequence are F2 frequency. Three of these events are related to the 204 Unloading Facility. These events are caused by high ambient temperatures or chemical ruptures in which the rupture deflates. If preventive/negative features are assumed to be failed or missing then the expected accident frequency would increase. The rupture deflates are a preventive/negative feature, and so are inappropriate and waste acceptance criteria that might prevent such an event. Accordingly the expected accident frequency would be F2.				F2	F3	S1	
204AR-01B	see 204AR-01A				F2	F3	S1	
204AR-01C	see 204AR-01A				F2	F3	S1	
204AR-01D	IE or cause is high ambient temperature. Preventive controls include the 204-AR ventilation system. The building would must be adequate enough to cause rupture of rupture itself. Accordingly, even without these controls the frequency for this scenario would be F3.				F2	F3	S1	
204AR-01E	A chemical reaction is a red one is assigned to the F1 and S1 frequency and consequence categories respectively. The chemical reaction or the pressure in the tank and not which results in the rupture of the vessel. The cause factor is exposed to toxic chemicals. If the preventive/negative controls are assumed, the accident would have the same consequence as before with controls. Without the preventive controls the frequency of this accident would increase. The frequency category for this accident without controls is F2.				F1	F2	S1	

Table A-7. Process History. (116 Sheets)

ID	MEMO NC	Re- turned Safety	Re- turned Freq	Re-allowed MEMO	Orig Freq	Orig Freq NC	Orig Safety	Remarks
204AR-01F	Two prioritized release events due to external fire reaction leads to a P1 frequency and S1 consequence. One event occurs at the 204 Unloading facility if a direct fire occurs in a locomotive adjacent to a tank. The chance of such a fire is probably not increased by vehicle acceptance criteria or transportation controls. Accordingly, if prioritized mitigation features are assumed to be failed or missing then the expected accident frequency would remain at P1.				F1	F1	S1	
204AR-01G	LE or failure in a complete condition test set that results in switching constants to catch tank-to-tanker that leads to overflow. Permit controls include those related to level indication, alarm relief and transfer procedures. Without screens the frequency of this scenario could be F2.				F1	F2	S1	
204AR-01H	Several prioritized liquid releases caused by a leak occurring in the 204-AR Unloading facility were identified. One was associated with the collapse or detachment of a rail car and has a P2 frequency and a S1 consequence. Permit controls might include driver protocol and qualification. These probably have a some positive effect on the frequency of such an event. However, if all permit/mitigation features were assumed not to exist, then the frequency of this event should not increase beyond F2.	S2		MVS-502406 - Revised due to application of new risk acceptance guidelines	F1	F2	S1	
204AR-01I	Several non-prioritized liquid releases in the 204-AR Unloading facility were identified. One is associated with collapse of a rail car leading a tank of radioactive liquid waste inside or outside the facility and is assigned a P1 frequency and S1 consequence. Permit controls include no release on rail cars and integrity tests. If all permit/mitigation features are assumed not to exist, the frequency of the accident should increase to F2.	S2		MVS-502406 - Revised due to application of new risk acceptance guidelines	F1	F2	S1	
204AR-01J	IE Human Error - Competence Lack of Administrative and Procedural Controls, Direction/Implementation				F1	F3	S1	
204AR-01K	IE Human Error - Competence Lack of Administrative and Procedural Controls, Direction/Implementation				F1	F3	S1	

Table A-7. Process History. (116 Sheets)

ID	MEMO NO.	Re- banned Safety	Re- banned Freq	Re-aimed MEMO	Orig Freq	Orig Freq MC	Orig Safety	Remarks
204AR-Q2A	Several pressurized liquid releases caused by a leak occurring in the 204-AR Unloading facility were identified. One was associated with the collision of a tank trailer into the hooding and has F2 frequency and a S1 consequence. Participant controls might include driver procedures and qualifications. These probably have a some positive effect on the frequency of such an event. If all preventive/negative features were assumed not to exist, then the frequency of this event should not increase beyond F2.	S2		MV6-52495 - Revised due to application of new risk acceptance guidelines	F2	F2	S1	
204AR-Q2B	Several non-pressurized liquid releases in the 204-AR Unloading facility were identified. One is associated with someone before a tank trailer leaving a leak of radioactive liquid waste inside or outside the hooding and is assigned a F1 frequency and S1 consequence. Participant controls include surveillance on trailer location and integrity tests. If all preventive/negative features are assumed not to exist, the frequency of the accident should increase to F2.	S2		MV6-52496 - Revised due to application of new risk acceptance guidelines	F1	F2	S1	
204AR-Q2C	Several non-pressurized liquid releases in the 204-AR Unloading facility were identified. One of these events is related to the 204 Unloading Facility. This event is caused by a chemical reaction in which the engine-disk fail. If preventive/negative features are assumed to be failed or missing then the expected accident frequency would increase. The engine-disk are a preventive/negative feature, and to its loss application and waste acceptance criteria that might prevent such an event. Accordingly, the expected accident frequency would be F2.				F1	F2	S1	
204AR-Q2D	Two pressurized release events due to normal fire reaction leads to a F1 frequency and S1 consequence. One event occurs at the 204 Unloading facility if diesel fire occurs in the back adjacent to a tank. The chance of such a fire is probably not increased by waste acceptance criteria or transportation controls. Accordingly, if preventive/negative features are assumed to be failed or missing then the expected accident frequency would remain at F1.		F2	MV6-52498 - Revised frequency during consistency check	F1	F1	S1	
204AR-Q2E	Several non-pressurized liquid releases in the 204-AR Unloading facility were identified. One is associated with failure of the trailer jack which is used to lift the trailer and lower it to receive liquid waste release inside the facility. Participant controls include procedures for hoisting and stabilizing trailer. If all preventive/negative features are assumed not to exist (procedures about trailer hoisting), the frequency of the accident could increase to F3.				F2	F3	S1	

Table A-7. Process History. (116 Sheets)

ID	MEMO NO	Re- trained Safety	Re- trained Freq	Re-trained MEMO	Orig Freq	Orig Freq MO	Orig Safety	Remarks
204AR-02F	1E Human Error - Control Room Lack of Administrative and Procedural Controls, Detention/Instrumentation				F1	F3	S1	
204AR-03A	1E or cause is leak of tank due to drain valve being opened or failed Partners controls include level indication, ventilation and procedures controls the frequency of this scenario is F3 Without				F2	F3	S1	
204AR-03B	1E Human Error - Control Room Lack of Administrative and Procedural Controls, Detention/Instrumentation, High-Level Shutdown System				F2	F3	S1	
204AR-03C	1E or cause is leak of tank that overfills catch tank. Partners controls include level indication and inspections. Without control the frequency of this scenario is F3				F1	F2	S1	
204AR-04A	1E or cause is leak of tank due to drain valve being opened or failed Partners controls include level indication, ventilation and procedures control the frequency of this scenario is F3 Without				F2	F3	S1	
204AR-04B	1E Human Error - Oversight Lack of Administrative and Procedural Controls, Training Detention/Instrumentation				F2	F3	S1	
204AR-04C	1E Human Error Lack of Administrative and Procedural Controls, Personnel Training				F2	F3	S1	
204AR-04D	1E Human Error Lack of Administrative and Procedural Controls				F2	F3	S1	
204AR-04E	1E Human Error - Adding Steam when not supposed to Lack of Administrative and Procedural Controls, Personnel Training				F2	F3	S1	
204AR-04F	1E or cause is leak of tank that overfills catch tank. Partners controls include level indication and inspections. Without control the frequency of this scenario is F3				F1	F2	S1	
204AR-05A	1E or cause is leak of chemical addition piping transfer piping. Partners controls include level indication and procedures. Without controls the frequency of this scenario remains a F2 frequency				F2	F2	S1	

Table A-J. Process History. (116 Sheets)

ID	MEMO NO	Re- leased Safety	Re- tained Freq	Re-learned MEMO	Org Freq	Org Freq MC	Org Safety	Remarks
204AR-05B	The IE is running the chemical addition pump against a dead head. Potential controls include the chemical addition procedure and pump interlock function. With controls the frequency is F2 and consequences S1. Even though running any kind of pump against a dead head is abnormal, without controls the frequency might increase to F3.				F2	F3	S1	
204AR-06C	The IE is engaged stages of closing reverse flow. Controls include procedures that describe the valve lineup and check valves on the pump discharge piping. Without controls the frequency would increase to F2 for a S1 consequence.				F1	F2	S1	
204AR-08A	IE or cause is loss of one prepackaged raw water system. Several potential controls apply. Even with controls this scenario was assigned a F3 frequency. Therefore, without these controls the frequency would still be F3.				F3	F3	S1	
204AR-09B	IE or cause is loss due effects of water hammer. Potential controls include ventilation and limits on chemical storage. This scenario is already assigned a frequency of F3 so without controls it is also an F3 frequency.				F3	F3	S1	
204AR-09C	IE. Human Error - Misalignment of Valves Lack of Administrative and Procedural Controls, Detection of abnormalities				F1	F3	S1	
204AR-07A	Two pressurized liquid releases in the 204-AR Unloading facility due to human error were identified. One is associated with misalignment and misinterpreted transfer back to the Tank 102-4F. Procedural controls and uplocks would have to fail. For this accident to happen a very specific sequence of details would have to occur. However, if all process/integrative features particularly those governing transfer were assumed not to exist, the frequency could increase to an F2.				F1	F2	S2	
204AR-09E	Two pressurized liquid releases in the 204-AR Unloading facility due to human error were identified. One is associated with over pressure of raw water during a post transfer flush. There are no controls related to this event, however, it has already been assigned to the highest frequency category. Therefore, if all process/integrative features were assumed not to exist, the frequency remains F3.				F3	F3	S1	

Table A-7. Process History. (116 Sheets)

ID	MEMO no	Re- binned Safety	Re- binned Freq	Re-binned MEMO	Org Freq	Org Freq NC	Org Safety	Remarks
204AR-07C	One spray leak occurs occur in the Unloading facility and is assigned an F2 and S1. This event is initiated by a leak which is caused by dead-heading the transfer pump. A leak in a portion of single enclosed line within the facility is possible. The existence of the facility and associated controls limit consequences to an S1. It is assumed on the event that certain control work and the release is limited. Accordingly, if emergency/preventive control were assumed to be lost then the consequence severity would increase but not the frequency. Therefore, the frequency is at S1F2.				F2	F2	S1	
204AR-08A	Several pre-disposed liquid releases caused by a leak occurring in the 204-AR Unloading facility were identified. One was associated with a leak of the transfer piping in the sump area and was assigned a F2 frequency and a S2 consequence. The transfer pump is interlocked to shutdown upon detecting a leak into the sump. Various procedures control transfer of waste. If all preventive/mitigative measures were assumed not to exist, then the frequency of this event should increase. However, the frequency of pipe break in this specific location should not be more than an F2. Therefore, the frequency of this event without controls will increase but not beyond F2.				F2	F2	S2	
204AR-08B	Several non-pre-disposed liquid releases in the 204-AR Unloading facility were identified. One is associated with large leak of liquid waste (non-specific, maybe from facility transfer) that results in a high level in the sump. This event was assigned a F2 frequency and a S2 consequence. This pump is designed to drain to a catch tank but could plug. Personnel controls include pump at leak detection and alarm. This accident requires a large leak to occur and the for the catch tank to be unavailable. The frequency of such an occurrence should not be higher than an F2 frequency. Therefore, if all preventive/mitigative measures are assumed not to exist, the frequency of the accident should increase but not beyond a F2 frequency.				F2	F2	S2	

Table A-7. Process History. (116 Sheets)

ID	MEMO NO	Re-learned Safety	Re-learned Freq	Re-learned MEMO	Orig Freq	Orig Freq NO	Orig Safety	Remarks
204AR-08C	Several non-gaseous sized liquid releases in the 204-AR Unloading facility were identified. One is associated with gross over filling of the catch tank caused by control pumping through a leaky pipe and is assigned a P2 frequency and S2 consequence. Controls include catch tank weight indication and alarm and dump oil leak detection. The accident frequency that a leak occur over a long period of time in a specific portion of piping. The frequency of this sensing event should not increase beyond P2. Therefore, if all preventative/mitigation features are assumed and account the frequency of the accident might increase but not beyond an P2.				P2	P2	S2	
204AR-08D	Several non-presumed liquid releases in the 204-AR Unloading facility were identified. One is associated with failure of a rail car or trailer tender loading to over fill of the catch tank and is assigned a P3 frequency and S1 consequence. Controls include catch tank weight indication and alarm and dump oil leak detection. The frequency of this accident is already assigned to the highest frequency category. Therefore, if all preventative/mitigation features are assumed not to occur, the frequency of the accident remains P3.	S2	P2	MVS-5/2498 - Revised due to application of new risk acceptance guidelines Revised frequency during consistency check.	P3	P3	S1	
204AR-09E	FE or worse is severe over pressure in catch tank when catch tank ventilation is blocked. Potential include procedures, 204-AR ventilation and catch tank maintenance and shutdown. Event without these controls the underlying event is very specific and, so, the frequency would remain P2.				P2	P2	S1	
204AR-09F	FE or worse is ventilation failure that allows open path for red-oxide particulates. Potential include include operating specifications for 204-AR Unloading facility and procedures about water addition. Without these controls including the ventilation system itself the frequency could increase to P3.				P2	P3	S1	
204AR-09G	Several non-presumed liquid releases in the 204-AR Unloading facility were identified. One is associated with degradation of the overflow steel dump oil liner and is assigned a P2 frequency and S1 consequence. Potential controls include weekly surveillance. The existing cause is degradation of the overflow steel liner. The frequency of this event should not be higher than an P2 frequency. Therefore, if all preventative/mitigation features are assumed not to exist (dump), the frequency of the accident could increase but not beyond an P2.	S0		MVS-5/2498 - Revised during consistency check.	P2	P2	S1	

Table A-7. Process History. (116 Sheets)

ID	MEMO NO	Re- vised Safety	Re- vised Freq	Re-vised MEMO	Org Freq	Org Freq NO	Org Safety	Remarks
204AR-09H	IE or cause is rupture of a vent valve line that leads to flooding of the tanks and subsequent tank damage. Particulate controls include those related to sump level. The metal becomes detached and damaged for a release to occur. Accordingly, even without controls the frequency of this scenario would remain S2.				F2	F2	S1	
204AR-11A	IE or cause is ventilation failure that allows open path for radioactive particulates. Particulate controls include ventilation system failure alarms and procedures. Without these controls including the ventilation system itself the frequency remains F3.				F3	F3	S1	
204AR-11B	IE or cause is ventilation failure that allows open path for radioactive particulates. Particulate controls include ventilation system failure alarms and procedures. Without these controls including the ventilation system itself the frequency remains F3.				F3	F3	S1	
204AR-11C	IE or cause is ventilation failure that allows open path for radioactive particulates. Particulate controls include operating procedures for 204 AR Unloading Facility and ventilation system failure alarms. Without these controls including the ventilation system itself the frequency could increase to F3.				F2	F3	S1	
204AR-11D	IE Human Error - Ventilation Damper Closed Lack of Administrative and Procedural Controls, Detected and/or Unmitigated, Alarms				F2	F3	S1	
204AR-11E	IE or cause is ventilation failure that allows open path for radioactive particulates. Particulate controls include ventilation system failure alarms and procedures. Without these controls including the ventilation system itself the frequency could increase to F3.				F2	F3	S1	
204AR-11F	A fire in the ventilation system of the 204 AR building as a result of a flammable gas electrolysis system failure is assigned to the F3 and S1 frequency and consequence categories respectively. The spark source is produced from an electrical fault in the ventilation or monitoring system. The cause is cited by the only affected paragraph. If the mitigative/preventive controls are removed, the accident would have the same consequences as before with the controls. Without the engineered controls the consequence of the accident would increase and propagate to a S2 consequence category since resultant heat effects could worsen. The frequency of this accident would increase without the administrative, procedural and engineering controls and result in a frequency category F2 accident.	S2		MVS-52496 - Revised due to application of new risk acceptance guidelines	F1	F2	S1	

Table A-7. Process History. (118 Sheets)

ID	MEMO NC	Re-based Safety	Re- banned Freq	Re-banned MEMO	Orig Freq	Orig Freq NC	Orig Safety	Remarks
213 W-01	IE Human Error Lack of Administrative and Procedural Controls: Radiation Training				F3	F3	S1	
213 W-02	IE Human Error - Oversight Lack of Administrative and Procedural Controls				F2	F3	S1	
213 W-03	A fire in the ventilation system of the 213 West building as a result of a flammable gas mixture and spark source is assigned to the F2 and S1 frequency and consequence categories respectively. The spark source is produced from an electrical fault in the vent area of monitoring system. The smoke source is the only affected personnel. If the mitigation/preventative controls are removed, the accident would have the same consequence as before with the controls. Without the engineered controls the consequences of this accident would increase but would only affect the onsite workers. The consequence category for this accident without controls is S1. The frequency of this accident would increase without the administrative procedures and engineering controls but remains in the same frequency category F2.				F2	F2	S1	
213 W-04	A fire in the 213 West building workroom due to human error such as smoking, dropping hot tools, etc. is assigned to the F2 and S1 frequency and consequence categories respectively. The smoke source is the only affected personnel. If the mitigation/preventative controls are removed, the accident would have the same consequence as before with the controls. Without the engineered controls the consequences of this accident would increase but would only affect the onsite workers. The consequence category for this accident without controls is S1. The frequency of this accident would increase without the administrative procedures and engineering controls but remains in the same frequency category F2.				F2	F2	S1	
213 W-05	See Mo Controls Memo for 213 W-04				F2	F2	S1	
213 W-06	IE Lightning Strike				F2	F2	S1	
213 W-07	IE Seismic Event				F1	F1	S1	
213 W-08	IE High Wind/Tornado				F1	F2	S1	

Table A-7. Process History. (116 Sheets)

ID	MEMO NO	Re- binned Safety	Re- binned Frag	Re-binned MEMO	Orig Freq	Orig Freq DEC	Orig Safety	Remarks
213 W-09	One release event occurs at the 201-W facility caused by a collision of some reinforced vehicle with the facility. The facility is assigned a frequency of F2 and a consequence of S1. The release is assumed to collapse the building structure. The chance of such a collision is probably lessened somewhat controls over owners, but not greatly. Accordingly, if preventive/mitigation features are assumed to be failed or missing then the expected accident frequency would increase to F3.				F2	F3	S1	
244AR-01 a 03	IE or cause is ventilation failure that allows open path for radioactive particulates during a time that gelling operations are taking place. Pertinent controls include ventilation system failure alarms and procedures. Without these controls the frequency would be F3.				F2	F3	S1	
244AR-01 b 01	IE or cause is ventilation failure while gelling is occurring. Pertinent controls include filter and fan alarms, visual inspection and yearly vent balance checks. Without these controls the frequency would increase to F3.				F1	F3	S1	
244AR-01 b 02	IE or cause is ventilation failure while gelling is occurring. Pertinent controls include filter and fan alarms, visual inspection and yearly vent balance checks. Without these controls the frequency would increase to F3.				F1	F3	S1	
244AR-01 b 03	IE or cause is ventilation failure while gelling is occurring. Pertinent controls include filter and fan alarms, visual inspection and yearly vent balance checks. Without these controls the frequency could increase to F3.				F1	F3	S1	
244AR-01 b 04	Event is a low-pressure pressurized release that lead to an S1 consequence at F1 frequencies. Three of these events are related to the 244 AR Vent and is one case the release happens outside the facility due to a HEPA filter failure. This release would be allowed to occur for a period of time in spite of static pressure indicators across the filter and sampling at the ventilation stack. If preventive/mitigation features are assumed to be failed or missing then the expected accident frequency would increase. If it is assumed that the HEPA filter removed then it is almost certain a release would occur. Accordingly, the expected accident frequency would be F3.				F1	F3	S1	
244AR-01 c 01	IE or cause is ventilation failure. Even with controls the frequency of the scenario is F3, so, without controls the frequency is still F3.	S1		MVS-SC499- Runtest during consistency check	F3	F3	S0	

Table A-7. Process History. (118 Sheets)

ID	MEMO NO	Re- banned Safety	Re- banned Freq	Returned MEMO	Orig Freq	Orig Freq NO	Orig Safety	Remarks
244AR- 01 c 02	1 E or cause is ventilation failure. Even with controls the frequency of this scenario is F3, so, without controls the frequency is still F3.	\$1		MVS-524498 - Revised during consistency check	F3	F3	\$0	
244AR- 01 c 03	1 E or cause is ventilation failure. Even with controls the frequency of this scenario is F3, so, without controls the frequency is still F3.	\$1		MVS-524498 - Revised during consistency check	F3	F3	\$0	
244AR- 01 c 07	1 E or cause is piping is applied leak, leading to possible collapse. Redundant controls include procedures and pressure indication. Without controls the frequency could be F2.	\$1		MVS-524498 - Revised during consistency check	F1	F2	\$0	
244AR- 01 c 08	1 E or cause is gas detection at the leak concerns combined with plugged ventilation system. Redundant controls include leak and ventilation pressure indication. Without these controls including the ventilation system itself the frequency would be F3.	\$1		MVS-524498 - Revised during consistency check	F2	F3	\$0	
244AR- 01 c 08	See No Controls Memo for 108C-Ms				F1	F2	\$2	
244AR- 01 c 10	1 E or cause is air purge while ventilation system is plugged. Controls include high pressure alarm and administrative controls on personnel access. The accident is already a F3 frequency, so, without controls is remains a F3 frequency.	\$1		MVS-524498 - Revised during consistency check	F3	F3	\$0	
244AR- 01 c 11	One non-fire/explosion pressurized release related to the 244 Vaul leads to an SD consequence and F3 frequency. The frequency of this event is already F3, so, if preventative/mitigative features are assumed to be failed or missing then the expected accident frequency would still be F3.	\$1		MVS-524498 - Revised during consistency check	F3	F3	\$0	
244AR- 02 c 13	One non-fire/explosion pressurized release related to the 244 Vaul leads to an SD consequence and F1 frequency. The cause is ventilation system (MVR) plugging. Controls include all across the HEPA filter. If preventative/mitigative features are assumed not to exist then the expected accident frequency would increase to F2.	\$1		MVS-524498 - Revised during consistency check	F1	F2	\$0	
244AR- 02 c 03	See No Controls Memo for 114B-M4 b 3b				F0	F1	\$2	

Table A-7. Process History. (116 Sheets)

ID	MEMO NO	Re- tained Safety	Re- tained Freq	Re-tained MEMO	Orig Freq	Orig Freq NO	Orig Safety	Remarks
244AR- 02 # 05	1E is intrusion of rain or snow water. If there was no monitoring or controls related to the surge then the frequency of an event leading to an SO consequence is F3				F1	F3	S0	
244AR- 02 # 06	1E is intrusion of rain or snow water. The frequency of the event with control is already F3.				F3	F3	S0	
244AR- 02 # 07	1E is intrusion of rain or snow water that leads to flooding of the tanks and subsequent tank damage. Potential controls include those related to surge level. The scenario would require an arbitrary amount of water intrusion and for the tie down mechanism to fail. Accordingly, even without controls the frequency of this scenario would be F3				F1	F1	S2	
244AR- 02 # 08	1E or cause is leak of a jumper that leads to overflow. Potential controls include those related to pump level. Without controls the frequency of this scenario leading to a SO consequence could be F3	S1		MVS -52496 - Revised during consistency check	F3	F3	S0	
244AR- 02 # 09	1E or cause is leak of a jumper that leads to overflow. Potential controls include those related to pump level. Without controls the frequency of this scenario leading to a SO consequence could be F3	S1		MVS -52496 - Revised during consistency check	F3	F3	S0	
244AR- 02 # 10	1E or cause is leak of a jumper that leads to overflow. Potential controls include those related to pump level. Without controls the frequency of this scenario leading to a SO consequence could be F3	S1		MVS -52496 - Revised during consistency check	F3	F3	S0	
244AR- 02 # 11	1E or cause is leak of a jumper that leads to overflow. Potential controls include those related to pump level. Without controls the frequency of this scenario leading to a SO consequence could be F3	S1		MVS -52496 - Revised during consistency check	F2	F3	S0	
244AR- 02 # 12	1E or cause is tank leak. Controls include those related to surge level. Even with controls this scenario is assigned a frequency of F3, so, without controls the frequency is F3	S1		MVS -52496 - Revised during consistency check	F3	F3	S0	
244AR- 02 # 13	1E or cause is tank leak. Controls include those related to surge level. Without controls the frequency of this scenario is F3				F3	F3	S0	
244AR- 02 # 14	1E is debris threat				F1	F1	S3	

Table A-7. Process History. (116 Sheets)

ID	MEMO NO	Re- trained Safety	Re- trained Freq	Re-trained MEMO	Org Freq	Org Freq MC	Org Safety	Remarks
244AR-03 a 03	IE or cause is piping is sealed leak which collapses and leads to consequences agreed. Portinent controls include pressure and temp level indication. The frequency of this scenario is dominated by the vary specific indicator, as an upset controls it increases to just an P1 frequency.				F0	F1	S1	
244AR-03 a 04	The description in the 244-AR Vial is due to the action of a flammable gas atmosphere is assigned to the P1 and S2 frequency and consequences categories respectively. A upset source is required for this accident to occur. The task requires releasing selective controls. If the mitigation/preventive controls are removed, the accident would have the same consequences as before with controls. Without the engineering control the frequency of this accident would increase. The frequency category for this accident without controls is P2.				F1	F2	S2	
244AR-03 a 05	IE or cause is steam piping is sealed leak. Portinent controls include pressure indication. Without controls the frequency is P2.				F1	F2	S2	
244AR-03 a 06	Several non limiting cause prioritized history that lead to an S1 consequences up P1 frequencies. Three of these events are related to the 244 AR Vial and in two cases the release occurs in the facility. The events are caused by failure in the filling or alarm pressure regulation. Integral/non-representative failures include pressure alarm and controller pressure recorder. It is not unlikely that a S1 consequences would result when several errors were considered. Accordingly, if pressure regulation failures are approved to be listed or removed from the expected accident frequency would increase to P2.				F1	F3	S1	
244AR-03 a 07	When failure of controls is the initiator, then the frequency without controls is added to frequency of those controls.				F1	F2	S1	
244AR-03 a 08	One prioritized release event due to a thermal/chemical reaction leads to a P1 frequency and S2 consequences. This event occurs at the 244 Vial if steam is continuously supplied to a tank. Steam supply is currently blocked to the facility. Accordingly, if prevention/mitigation failures are assumed to be listed or excluded then the expected accident frequency would increase to P2.				F1	F3	S2	
244AR-03 a 09	See H.C. Memo for 2165X-05 a 2a				N0	F1	S2	

Table A-7. Process History. (116 Sheets)

ID	MEMO NC	Re- vised Safety	Re- vised Freq	Re-vised MEMO	Orig Freq	Orig Freq NC	Orig Safety	Remarks
244AR-03 a 13	1E or failure is a jelling actuator that leads to overflow. Pastward controls exclude those related to level monitoring. Without controls the frequency of this scenario leading to a B0 consequence could be P3	S1		MVS-5/2498 - Revised during consistency check	F2	F3	S0	
244AR-03 a 14	1E or failure is a transfer that leads to overflow. Pastward controls exclude those related to level actuator on transfer procedures. Without controls the frequency of this scenario leading to a B0 consequence could be P3	S1		MVS-5/2498 - Revised during consistency check	F2	F3	S0	
244AR-03 a 15	1E or cause is a leak from pt AR-151. Controls include leak level and sump level indicators. Without controls the frequency increases to P3				F2	F3	S0	
244AR-03 a 16	1E or cause is a leak caused from corrosion. Controls include sump level indicator and alarm. Without controls the frequency increases to F3				F2	F3	S0	
244AR-03 a 17	1E or cause is tank level opened by vacuum or flooding. Controls include those related to sump level. This leak has a specific cause so without controls the frequency is still P2				F2	F2	S0	
244AR-03 a 18	1E Belmatic Event	S1		MVS-5/2498 - Revised during consistency check	F2	F2	S0	
244AR-04 a 01	1E or cause is Belmatic event that causes crane to lift into cover blocks. The frequency of this scenario is dominated by the frequency of the reactor, so, even without controls the frequency does not increase beyond P2	S1		MVS-5/2498 - Revised during consistency check	F2	F2	S0	
244AR-05 a 01					F3		S1	
244AR-05 a 02	1E Belmatic Event				F2	F2	S2	
244AR-06 a 02					F2		S1	
244AR-07 a 01	1E or cause is failure of the steam pressure control during jelling activities. Pastward controls exclude steam pressure indication and ventilation. Without controls, including the ventilation system itself the frequency of this scenario is still P2				F1	F2	S1	

Table A-7. Process History. (116 Sheets)

ID	MEMO NC	Re- vised Safety	Re- vised Freq	Re-vised MEMO	Org Freq	Org Freq NC	Org Safety	Remarks
244AR- 07 a 02	IE of power is failure of steam supply leading to condensation stopped back through steam system. Personnel controls include pressure indication and procedures. Even with controls the scenario is assigned a F3 frequency, so, without controls it remains an F3 frequency.				F3	F3	S1	
244AR- 07 a 03	IE of turbine steam supply and condensate at failure. Even with controls, this scenario is assigned a F3 frequency, so, without controls it remains an F3 frequency.				F3	F3	S1	
244AR- 07 a 04		S1	F3	MVS-52466 - Revised during conspiracy check	F3		S0	
244AR- PH01					F3		S1	
244AR- PH02					F2		S1	
244AR- PH03					F3		S1	
244AR- PH04					F3		S1	
244AR- PH05					F3		S1	
244AR- PH06					F3		S1	
244AR- PH07					F3		S1	
244AR- PH08					F3		S1	
244AR- PH09					F3		S1	

Table A-7. Process History. (116 Sheets)

ID	MEMO NO	Re- vised Safety	Re- vised Freq	Re-vised MEMO	Orig Freq	Orig Freq MC	Orig Safety	Remarks
244AR-PH10					F3		S1	
244AR-PH11					F3		S1	
244AR-PH12					F3		S1	
244AR-PH13					F3		S1	
244AR-PH14					F3		S1	
244AR-PH15					F3		S1	
244AR-PH16					F3		S1	
244AR-PH17					F3		S1	
244AR-PH18					F3		S1	
244AR-PH19					F3		S1	
2727W-01	One phase shunt relay was wired due to short circuit of reaction leads to a F1 frequency and S1 consequence. One event occurs at the 2727W-01 Sodium Storage Facility if a water column rupture occurs. Water must enter to tank from some external source (pool head) into the tank as open. The facility is inspected weekly and the tank pressure monitored. Opening of the tank is also controlled. Accordingly, if pressure/temperature features are assumed to be failed or missing then the expected accident frequency would increase to F2.				F1	F2	S1	

Table A-7. Process History. (116 Sheets)

ID	MEMO #:	Re-binned Safety	Re-binned Freq	Re-binned MEMO	Orig Freq	Orig Freq NC	Orig Safety	Remarks
2727W-02	<p>The sodium fire due to tank rupture as a result of a vehicle crashing into the 2727 West building is assigned to the F1 and S1 frequency and consequence categories respectively. This event is initiated by a vehicle crashing into and rupturing the sodium tank. A sodium fire occurs when the sodium is exposed to the air.</p> <p>If the nitrogen/preventative controls are removed the accident would have the same consequences as before with the controls. A rupture of the sodium holding tank causes the nitrogen blanket and a sodium fire would occur with certainty. The frequency category for this accident without controls would be F1 since the likelihood of a vehicle crashing into the 2727 West building is extremely unlikely.</p>	S2		MVS-52408 - Revised due to generation of sodium hydroxide	F1	F1	S1	
2727W-03	IE Lightning Strike Leak of Building and Tank Overflowing	S2		MVS-52408 - Revised due to generation of sodium hydroxide	F1	F2	S1	
2727W-04	<p>The sodium fire due to tank rupture as a result of a overhead power line falling onto the 2727 West building is assigned to the F1 and S1 frequency and consequence categories respectively. This accident is initiated by the power line falling onto the building which causes the heating on the line. A sodium fire occurs when the sodium tank in the building is heated as a result of the fire.</p> <p>If the nitrogen/preventative controls are removed the accident would have the same consequences as before with the controls. A rupture of the sodium holding tank causes the nitrogen blanket and a sodium fire would occur with certainty. The frequency category for this accident without controls would still be F1 since the likelihood of the 2727 West building catching fire is extremely unlikely since it is grounded.</p>	S2		MVS-52408 - Revised due to generation of sodium hydroxide	F1	F1	S1	
2727W-05	<p>The sodium fire due to tank rupture is assigned to the F1 and S1 frequency and consequence categories respectively. This event is initiated via overpressurization of a sodium tank by the nitrogen blanket. A sodium fire occurs as a result.</p> <p>If the nitrogen/preventative controls are removed the accident would have the same consequences as before with controls. Without nitrogen blanket control via gradual regulation a sodium fire would occur with certainty. Therefore, the frequency category for this accident without controls is F3.</p>	S2		MVS-52408 - Revised due to generation of sodium hydroxide	F1	F3	S1	

Table A-7. Process History. (116 Sheets)

ID	MEMO NO	Re- vised Safety	Re- vised Freq	Re-vised MEMO	Orig Freq	Orig Freq NO	Orig Safety	Remarks
2727W-06	1E High Wind/Tornado (Run/Stop) Isolated in Storm	S2		MIXS-52406 - Revised due to generation of sodium hydroxide	F1	F2	S1	
900-01	1E or cause is leak of container. Several controls exist. This accident is already assigned a frequency of F3, so, without controls it is also an F3 frequency				F3	F3	S1	
900-02	Two release event occurs at the 90 Day Storage Pad and is caused by a collision of some motorized vehicle. They are assigned a frequency of F3 and a consequence of S1 The chance of such a collision is probably not lessened by waste acceptance criteria or transportation controls. Accordingly, if preventative design features are assessed to be failed or missing from the expected accident frequency would remain at F3				F3	F3	S1	
900-03	1E High Wind, Seismic Event Lack of Operational Procedures with High Winds				F2	F3	S1	
900-04	The release of radioactive and toxic materials from the 90 day storage pad may be a fire or explosion is assigned to the F2 and S1 frequency and consequence categories respectively. The cause of the fire or explosion is due to incompatible wastes stored in a drum, spontaneous combustion, or a human error in the handling of the waste With the removal of controls from the handling of waste on the 90 day storage pad, the frequency of a fire or explosion on the pad would increase. Without proper training of personnel in the handling of waste drums and containers incompatible waste would be added into the same containers resulting fire or explosion. The accident was assigned to the F3 frequency category				F2	F3	S1	
900-05	1E Seismic Event, Airplane Crash, lightning, Range Fire				F1	F1	S1	
900-06	1E or cause is leak of container. Several controls exist. This accident is already assigned a frequency of F3, so, without controls it is also an F3 frequency				F3	F3	S1	
900-07	see 900-02				F3	F3	S1	

Table A-7. Process History. (116 Sheets)

ID	MEMO NO	Re-based Safety	Re-labeled Freq	Re-labeled MEMO	Org Freq	Org Freq NO	Org Safety	Remarks
90D-08	I E High Wind, Seismic Event Lack of Operational Procedures with High Winds				F2	F3	S1	
90D-09	See No Corrosive Interplay 90D-04				F2	F2	S1	
90D-10	I E Seismic Event, Airframe Crash, Lightning, Range Fire				F1	F1	S1	
90D-11	I E or Corrosive Event of confinement of transported vehicle. Event with controls this scenario is designed as PS frequency, no, without controls it remains as PS frequency				F3	F3	S1	
89D-01					F3		S1	
89D-01-1					F3		S1	Boeing occurs before repairs or pits are spotted (improper bonding, or failure to bond, can contribute to accidents during other activities, site related PHUs. Only MSFs that are underground tanks that contain radioactive materials have bonding procedure

Table A-7. Process History. (116 Sheets)

ID	Initial MC	Re- desig Safety	Re- desig Freq	Re-issued MIMO	Org Freq	Org Freq MC	Org Safety	Remarks
BMD-02	Doing the process of electrically bonding a piece of equipment to a metal tank, OORT, inside tank, etc. is the results. This accident is assigned to the F1 and S1 frequency and consequence category respectively. The result is an injury of an outside worker. If the mitigative/preventive controls are removed, the accident would have the same consequence than with controls. Without the engineering and administrative controls the frequency of the accident would increase to a frequency category of F2.	S2		MVS-52455 - Revised due to application of new risk acceptance guidelines	F1	F2	S1	
BND-024	Combustible concentrations could build up in sealed off tank.				F1		S1	*Only MISFs that are underground tanks that contain hydrocarbon material have bonding procedures associated with them
CCF-01	When failure of controls is the initiator, the frequency without controls is related to those controls adding electrical power reliability.				F2	F1	S2	
CCF-02	IE or open is a loss of utility power that leads to ventilation failure that allows spray paint for radioactive particulates. Personnel controls include ventilation system failure alarms and procedures. Without these controls including the ventilation system itself the frequency would be F3.				F3	F3	S1	
CCF-03		S1	F3	MVS-52496 - Revised during consistency check	F3		S3	
CCF-04		S1	F3	MVS-52496 - Revised during consistency check	F3		S3	
CCF-05					F3		S3	
CCF-06					F3		S3	

Table A-7. Process History. (116 Sheets)

ID	MEMO NO	Re- based Safety	Re- defined Freq	Re-based MEMO	Org Freq	Org Freq NO	Org Safety	Remarks
CCF-07	IE or cause is failure, due to disabled or exchange staff, in separable transfer resulting in overfill. Pertinent controls include level detectors, pump interlocks, and emergency requirements. Without controls this scenario would be a F3 frequency				F1	F3	S2	
CCF-08					F2		S0	
CCF-09					F3		S0	
CCF-10					F3		S0	
CCF-11					F3		S0	
CCF-12					F3		S0	
CCF-13					F3		S0	
CCF-14					F3		S1	
CCF-15					F3		S1	
CCF-16	IE or cause is leak of combustor. Several controls exist. This scenario is already supported a frequency of F3, so, without controls it is also an F3 frequency				F3	F3	S1	
CCF-17	IE Time				F2	F2	S3	
CCF-18	IE Flow in Tank Sealout of Ventilation Ports as a result of flip, Cool down from fire				F1	F1	S3	
CCF-19	IE Flow in Tank Sealout of Ventilation Ports as a result of fire, Cool down from fire				F1	F1	S3	

Table A-7. Process History. (114 Sheets)

ID	MEMO NC	Re- banned Safety	Re- banned Freq	Re-banned MEMO	Org Freq	Org Freq NC	Org Safety	Remarks
CCF-20	Several non-aviation personnel released others that lead to an S1 consequence are F1 frequencies. Two of these events are related to the waste storage tanks and caused by high chlorides or thermal reactions in the tank. Such an event is supposed to operate any ventilation system and produce a release. Threats to personnel and waste acceptance criteria would be considered the priority/mitigation situation in this case. If such controls are taken away, the expected accident frequency would increase but not higher than the F2 frequency if it already assigned. Inadvertent transfer of incompatible material is not a likely event in any case.	S2		MSVS-5/2495 - Released during consistency check GAC - 5/21/95 - Released frequency during consistency check	F2	F2	S1	
CDP-01	IE or cause is electrical intrusion leading to communication stopped. Personnel controls isolation of cable, ditches and ponds and vessel checks. Even with controls the scenario is assigned a F3 frequency, so, without controls it remains an F3 frequency.				F3	F3	S1	
CDP-02	IE or cause is electrical intrusion leading to communication stopped. Personnel controls isolation of cable. Even with controls the scenario is assigned a F3 frequency, so, without controls it remains an F3 frequency.				F3	F3	S0	
CDP-03	IE Flooding (Heavy Rain, Snow Fall, Pipe Water Break)				F3	F3	S1	
CDP-04	IE Flooding (Heavy Rain, Snow Fall, Pipe Water Break)				F3	F3	S0	
CDP-05	IE High Wind/Tornado				F2	F2	S1	
CDP-06	IE High Wind/Tornado	S1	F3	MSVS-5/2496 - Released during consistency check	F2	F2	S0	
CDP-07	IE Natural Phenomena Lack of Operational Procedures during rare events				F3	F3	S0	

Table A-7. Process History. (116 Sheets)

ID	MEMO NC	Re- tained Safety	Re- tained Freq	Re-tained MEMO	Orig Freq	Orig Freq NC	Orig Safety	Remarks
COP-08	The release of radioactive materials from the burning of contaminated waste is assigned to the P3 and S1 frequency and consequences categories respectively. The external fire to the waste tank would come about as a result of a large fire. If the mitigative/preventive controls are removed, the accident would have a higher consequence level, since there would be a greater amount of waste available for a burn. Due to the low level of contamination the consequence category would only increase to a S2. Without the mitigative/preventive controls the frequency of the accident would increase. The frequency category for the accident without controls is F2.				F3	F3	S1	
COP-09					F3		S1	
COP-10	IE: Estimation of Dosing in 205 Areas Lack of Adequacy Control				F2	F3	S2	
COB-01	Spray leaks from relief pump pits which result in an S2 consequence have F2 frequencies associated with them. In this case it is not necessary that the leak must produce property criteria. However the cover block must be effectively existing. Accordingly, if the mitigative/preventive features were assumed to be failed the expected accident frequency (leading to an S2) could be increased. Assuming the chance of a cover block error as 1/100, the frequency without safeguards would be F2.	S3		MVS-5/24/05 - Revised during consistency check	F2	F3	S2	
COB-02	Two spray leaks from relief pump pits which result in an S1 consequence have F3 frequencies associated with them. In this case the cover block is assumed to be in place. Assuming the cover block is missing would lead to another level of accident (with higher than a S1 consequence), so the accident is unchanged.				F3	F3	S1	
COB-03	One spray leak from a clean-out leg which results in an S1 consequence has an F2 frequency associated with it. Because this event is limited to a S2 consequence the spray leak must not be producing a lot of aerosols. This cover in this case is not as much of a complete safety as a vented relief is more likely, hence the F2 frequency. If all provisions and safety state features are assumed to be failed or missing then the frequency of an accident would increase to an F3.				F2	F3	S1	

Table A-7. Process History. (116 Sheets)

ID	MEMO NC	Re- binned Safety	Re- binned Freq	Re-binned MEMO	Orig Freq	Orig Freq NC	Orig Safety	Remarks
COB-04	IE or cause is leak that leads to overflow. Permit controls include those related to leak detection. Without controls the frequency of this scenario leading to a FO consequence could be F3.	S2		4/VS-5/24/96 - Revised due to application of new/mk acceptance guidelines	F1	F3	S1	
COB-05a	IE. Ingression of COB Lack of Administrative and Procedural Controls				F3	F3	S1	
COB-05a	IE. or cause is high wind with cover off leading to contamination spread. Permit controls include cover procedures and lid pin mechanism. Even with controls this scenario is assigned a F3 frequency, so, without controls it remains an F3 frequency.				F3	F3	S1	
COB-05b	IE. Run/Spill Mist Lack of Administrative Procedures				F3	F3	S1	
COB-05d	IE. or cause is vehicle accident involving COB leading to spread of contamination. Permit controls include COB lid. Even with controls this scenario is assigned a F3 frequency, so, without controls it remains an F3 frequency.				F3	F3	S1	
COB-05e	IE. Seismic Event				F3	F3	S1	
COB-05f	IE. Human Error - Oversight Lack of Administrative and Procedural Controls				F3	F3	S1	
COB-05a	IE. or cause is ventilation failure that allows open path for radioactive particulates. Permit controls include ventilation system failure alarm and procedures. Without these controls including the ventilation system the frequency remains F3.				F3	F3	S1	
COB-06b	IE. or cause is ventilation failure that allows open path for radioactive particulates during a time that a leak occurs into a COB. Permit controls include ventilation system failure alarm and procedures. Without these controls including the ventilation system the frequency would be F3.				F2	F3	S1	
COB-07	IE. or cause is boiloff through the 1 inch drain line due to anti-contamination. Permit controls include those related to leak detection and venting procedures. Without controls the frequency of this scenario could be F2.				F1	F2	S1	

Table A-7. Process History. (118 Sheets)

ID	MEMO NO	Re- turned Safety	Re- turned Freq	Re-turned MEMO	Org Freq	Org Freq NO	Org Safety	Remarks
COB-05	IE of design is in transfer post leads to operator. Physique controls protect traps related to lost detection. Without controls the frequency of this scenario leading to a S1 consequence could be F3	S2		MA/S -5/24/95 - Revised due to application of new risk acceptance guidelines	F1	F3	S1	
CRN-01	IE Human Error - Oversight Lack of Administrative and Procedural Controls				F3	F3	S1	
CRN-01-1	Area over MESP is accessible and human error without controls is anticipated				F2		S1	Cranes are parked as close as practical to lifting point because crane lifting capacity and operator visibility decrease with the crane placed away from lifting point
CRN-02	IE not aware of loss of confinement due to crane falling into ventilation system that allows an open path for radioactive particulates. Preventive controls include ventilation system failure alarms and procedures. Without these controls including the ventilation system itself the frequency would be F3				F2	F3	S1	
CRN-02-1	Area over MESP is accessible				F2		S1	Cranes are parked as close as practical to lifting point because crane lifting capacity and operator visibility decrease with the crane placed away from lifting point
CRN-03	IE Human Error Lack of Administrative Controls, Task Force Personnel Training				F2	F3	S3	

Table A-7. Process History. (116 Sheets)

ID	MEMO NO	Re- lated Safety	Re- lated Risk	Re-derived MEMO	Org Freq	Org Freq NO	Org Safety	Remarks
CRN-03-1A	Area over MSF is accessible and structural condition of tank is uncertain Human error without controls is anticipated	S2		5/24/98 - MVS - Revised due to application of new risk acceptance guidelines	F2		S1	
CRN-03-1B	Area over MSF is accessible and structural condition of tank is uncertain Human error without controls is anticipated				F2		S2	
CRN-04	1E Human Error lack of Crew Operational Procedures and Proper Personnel Training				F2	F3	S3	
CRN-04-1A	Area over MSF is accessible and structural condition of tank is uncertain	S2		5/24/98 - MVS - Revised due to application of new risk acceptance guidelines	F1		S1	
CRN-04-1B	Area over MSF is accessible and structural condition of tank is uncertain				F1		S2	
CRN-05	The release of radioactive fuel tank materials from a waste tank or pipe due to a fuel tank fire on a crane or vehicle is assigned to the F2 and S2 frequency and consequence categories respectively. The cause of this fire in the crane fuel tank is a human error. With the removal of controls from the operation of a crane in the tank farm, the frequency of a severe accident resulting in a fire would increase. Without proper knowledge of the operation of a crane in the tank farm the probability of an accident such as this would definitely increase. This accident was assigned to the F3 frequency category without controls.				F2	F3	S2	
CRN-05-1	Area over MSF is accessible and structural condition of tank is uncertain Human error without controls is anticipated				F2		S1	Also see Vehicle Operations

Table A-7. Process History. (116 Sheets)

ID	MEMO NO.	Re- trained Safety	Re- trained Freq.	Re-trained MEMO	Org Freq.	Org Freq. MC	Org Safety	Remarks
CRN-05	The release of radioactive and toxic materials from a waste tankage or over due to a test tank fire on a crane or vehicle is assigned to the F2 and S2 frequency and consequences categories respectively. The cause of the fire in the crane fuel tank is a human error in the positioning of the crane or vehicle which results in the rupturing of the fuel tank. With the removal of controls from the operation of a crane or vehicle in the test tank, the frequency of an accident resulting in a fire would increase. Without proper training of personnel in the operation of a crane or vehicle in the tank, the probability of an accident such as the would definitely increase. This accident was assigned to the F3 frequency category without controls.				F1	F3	S2	
CRN-05-I	Without controls such as noted is possible.				F1		S1	Also see Vehicle Operations
CRN-07	See MC Controls Memo for CRN-05				F1	F3	S2	
CRN-07-I	Also see MSP as very accessible				F1		S1	Also see Vehicle Operations
CRN-08	The release of radioactive and toxic materials from a waste tankage or over due to a test tank fire on a crane or vehicle is assigned to the F2 and S2 frequency and consequences categories respectively. The cause of the fire in the crane fuel tank is a lightning strike on the crane or vehicle which results in the rupturing of the fuel tank. With the removal of controls from the operation of a crane or vehicle in the tank during inclement weather, the frequency of a lightning strike accident resulting in a fire would increase. Without proper training of personnel in the operation of a crane or vehicle in the tank, the probability of an accident such as the would definitely increase. This accident was assigned to the F3 frequency category without controls.				F2	F3	S2	
CRN-08-I	Diminished by low static frequency				F0		S1	Also see Vehicle Operations
CRN-09	IE Human Error Lack of Crane Operational Procedures and Proper Personnel Training				F2	F3	S2	

Table A-7. Process History. (116 Sheets)

ID	MEMO NC	Re- turned Safety	Re- turned Freq	Re-issued MEMO	Orig Freq	Orig Freq NC	Orig Safety	Remarks
CRN-09-I	Area over MBF is acceptable and human error without controls is anticipated	S2		S2498 - MVS - Revised due to application of new risk acceptance guidelines	F2		S1	Also see Vehicle Operation
CRN-10	1 E Human Error Lack of Training, Crane Equipment Inspection				F1	F3	S2	
CRN-10-I	Area over MBF is acceptable	S2		S2498 - MVS - Revised due to application of new risk acceptance guidelines	F1		S1	Also see Vehicle Operation
CRN-11	1 E Human Error Lack of Crane Operational Procedures and Proper Personnel Training				F2	F3	S3	
CRN-11-IA	Area over MBF is acceptable and human error without controls is anticipated	S2		S2498 - MVS - Revised due to application of new risk acceptance guidelines	F2		S1	Bounding consequence is a dome collapse
CRN-11-IB	Area over MBF is acceptable and human error without controls is anticipated	S2		S2498 - MVS - Revised due to application of new risk acceptance guidelines	F2		S1	Bounding consequence is a dome collapse
CRN-11-IC	Area over MBF is acceptable and structural condition of tank is uncertain Human error without controls is anticipated				F2		S2	Bounding consequence is a dome collapse
CRN-12	1 E Drive Component Mechanical Failure Lack of Inspection of Equipment and Operational Procedures				F1	F3	S3	
CRN-12-IA	Area over MBF is acceptable and structural condition of tank is uncertain	S2		S2498 - MVS - Revised due to application of new risk acceptance guidelines	F1		S1	Bounding consequence is a dome collapse

Table A-7. Process History. (116 Sheets)

ID	MEMO NO	Re- banned Safety	Re- banned Freq	Re-banned MEMO	Org Freq	Org Freq NO	Org Safety	Remarks
CRN-12-1B	Area over NBSF is accessible and structural condition of tank is uncertain	S2		5/24/96 - MVS - Revised due to application of new risk acceptance guidelines	F1		S1	Bounding consequence is a dome collapse
CRN-12-4C	Area over NBSF is accessible and structural condition of tank is uncertain				F1		S2	Bounding consequence is a dome collapse
CRN-13-1A	Area over NBSF is accessible and structural condition of tank is uncertain. High winds are likely	S2		5/24/96 - MVS - Revised due to application of new risk acceptance guidelines	F0		S1	Bounding consequence is a dome collapse
CRN-13-1B	Area over NBSF is accessible and structural condition of tank is uncertain. High winds are likely	S2		5/24/96 - MVS - Revised due to application of new risk acceptance guidelines	F0		S1	Bounding consequence is a dome collapse
CRN-13-1C	Area over NBSF is accessible and structural condition of tank is uncertain. High winds are likely				F0		S2	Bounding consequence is a dome collapse
CRN-13-1d	IE: High Winds				F1	F3	S3	
CRN-13-1e	IE: Seismic Event				F1	F1	S3	
CRN-14					F3		S1	
CRN-14-1					F2		S1	
CRN-15					F2		S1	
CRN-15-1					F1		S1	
CRN-16					F2		S1	
CRN-16-1					F0		S1	

Table A-7. Process History. (116 Sheets)

ID	MEMO	Re- banned Safety	Re- banned Freq	Re-banned MEMO	Orig Freq	Orig Freq NC	Orig Safety	Remarks
CRN-17	The IE is improper lead assembly, rigging crane positioning resulting in the crosslinking against power lines. Controls include procedures for lowering and rigging. This event is already considered to be at the highest frequency category, so, without controls the frequency would remain F3				F3	F3	\$1	
CRN-17-1					F2		\$1	
CRN-18	IE Human Error Lack of Crane Operational Procedures	\$2		MVS -5/24/96 - Revised due to application of new risk acceptance guidelines	F2	F3	\$1	
CRN-18-1	Area over MESP is accessible and structural condition of facility is uncertain. Multiple error without controls is anticipated	\$2		5/24/96 - MVS - Revised due to application of new risk acceptance guidelines	F2		\$1	
CRN-19	IE Equipment Failure Lack of Training - Crane Equipment Inspection	\$2		MVS -5/24/96 - Revised due to application of new risk acceptance guidelines	F1	F3	\$1	
CRN-19-1	Area over MESP is accessible and structural condition of facility is uncertain	\$2		5/24/96 - MVS - Revised due to application of new risk acceptance guidelines	F1		\$1	
CRN-20	IE High Wind, Backhoe Control Lack of Operational Procedures with High Winds	\$2		MVS -5/24/96 - Revised due to application of new risk acceptance guidelines	F1	F3	\$1	
CRN-20-1	Area over MESP is accessible and structural condition of facility is uncertain	\$2		5/24/96 - MVS - Revised due to application of new risk acceptance guidelines	F0		\$1	
CRN-21	IE Human Error Lack of Administrative and Procedural Controls, Crane Operators Training	\$2		MVS -5/24/96 - Revised due to application of new risk acceptance guidelines	F2	F3	\$1	

Table A-7, Process History. (116 Sheets)

ID	MEMO NC	Re- binned Safety	Re- binned Freq	Re-binned MEMO	Orig Freq	Orig Freq NC	Orig Safety	Remarks
CRN-21-4A	Area over MBSF is acceptable and structural condition of facility is acceptable Human error without controls is anticipated	S2		5/24/98 - MVS - Revised due to application of new risk acceptance guidelines	F2		S1	Differing facility depths can result in operator confusion as to how deep to position crane load
CRN-21-4B	Area over MBSF is acceptable and structural condition of facility is acceptable Human error without controls is anticipated	S2		5/24/98 - MVS - Revised due to application of new risk acceptance guidelines	F2		S1	Differing facility depths can result in operator confusion as to how deep to position crane load
CRN-22	FE or device is, mechanical failure that lead to dropping crane onto tank before. Personnel devices are primary related to the crane. This is a very specific last of failure. Accordingly, even without controls the frequency remains F2	S2		MVS - 5/24/98 - Revised due to application of new risk acceptance guidelines. (Large load conflicts over)	F2	F2	S1	
CRN-22-1A	Area over MBSF is acceptable and structural condition of facility is acceptable Human error without controls is anticipated	S2		5/24/98 - MVS - Revised due to application of new risk acceptance guidelines	F1		S1	Differing facility depths can result in operator confusion as to how deep to position crane load
CRN-22-4B	Area over MBSF is acceptable and structural condition of facility is acceptable	S2		5/24/98 - MVS - Revised due to application of new risk acceptance guidelines	F1		S1	Differing facility depths can result in operator confusion as to how deep to position crane load

Table A-7. Process History. (116 Sheets)

ID	MEMO NC	Re- timed Safety	Re- timed Freq	Re-timed MEMO	Orig Freq	Orig Freq NC	Orig Safety	Remarks
CRN-23	1 E High Wind Secure Event Lack of Operational Procedures with High Winds	S2		MVS-52498 - Revised due to application of new risk acceptance guidelines	F1	F3	S1	
CRN-23-1A	Area over MBF is acceptable and structural condition of facility is acceptable High winds are operation	S2		5/24/98 - MVS - Revised due to application of new risk acceptance guidelines	F0		S1	Defining facility depths can result in operator confusion as to how deep to prohibit crane loads
CRN-23-1B	Area over MBF is acceptable and structural condition of facility is acceptable High winds are operation	S2		5/24/98 - MVS - Revised due to application of new risk acceptance guidelines	F0		S1	Defining facility depths can result in operator confusion as to how deep to prohibit crane loads
CRN-24					F2		S1	
CRN-24-1					F1		S1	Personnel nearly enter pits, hydrocarbon edars alert personnel
CRN-25					F2		S1	
CRN-25-1A					F2		S1	
CRN-25-1B	Area over MBF is acceptable and structural condition of facility is acceptable	S2		5/24/98 - MVS - Revised due to application of new risk acceptance guidelines	F2		S1	
CRN-26					F3		S1	

Table A-7. Process History. (110 Sheets)

ID	MEMO NO	Re- opened Safety	Re- opened Proc	Re-opened M&EO	Org Freq	Org Freq MC	Org Safety	Remarks
CRN-26-1A					F1		S1	
CRN-25-8B	Area over MSP is accessible and structural condition of tank is acceptable	S2		5/24/90 - MVS - Revised due to application of new risk acceptance guidelines	F1		S1	
CRN-27					F1		S1	
CRN-27-4A					F0		S1	
CRN-27-4B	Area over MSP is accessible and structural condition of tank is acceptable	S2		5/24/90 - MVS - Revised due to application of new risk acceptance guidelines	F0		S1	
CRN-28-4	Jagged to be fully open with controls in place				F3		S0	
CVR-01	1E Human Error - Monitoring Lack of Administrative and Procedural Controls				F3	F3	S1	
CVR-01-1	Without controls spread of contamination likely				F2		S1	Also see crane operations and radiation monitoring
CVR-02	1E or cause is leak of container. Several controls exist. This scenario is already assigned a frequency of F3, so, without controls it is also an F3 frequency				F3	F3	S1	
CVR-02-1	Without controls spread of contamination likely				F2		S1	Also see crane operations
CVR-03	1E or cause is wind when lifting cover block leading to contamination spread Personnel controls include procedures, NPT support and protective clothing Without controls the frequency of this scenario is F3				F2	F3	S1	
CVR-03-1	Without controls spread of contamination likely				F2		S1	Also see crane operations
CVR-04	1E Electric Shock				F1	F1	S1	

Table A-2. Process History. (118 Sheets)

ID	MEMO NC	Re- binned Safety	Re- binned Freq	Re-binned MEMO	Org Freq	Org Freq NC	Org Safety	Remarks
CVR-04-1	Structural integrity of cover blocks and cover block seals uncertain because in damaged areas				F0		S1	Also see crane operations
CVR-05	The release of radioactive and toxic materials from a pit due to explosion/ fire in the pump pit is assigned to risk P1 and S1 frequency and consequence categories respectively. The explosion or fire would come about due to combustible gases reflecting in the pump pit and a spark or ignition source occurring. If the mitigation/preventive controls are removed, the accident would have the same consequence as before with controls. Without the administrative controls the frequency of this accident would increase. Since this is a human error based accident the frequency category risk would be P3	S2		NVS -5/2486 - Revised due to application of new risk acceptance guidelines	P1	F3	S1	
CVR-05-4	Without controls spread of contamination likely				F0		S1	Event requires combustible materials in pit and ignition source
CVR-06					F3		S1	
CVR-06-4					F2		S1	Fence is erected for fall protection before coverblocks removed
CVR-07					F3		S1	
CVR-07-4					F2		S1	Fence is erected for fall protection before coverblocks removed
CVR-08					F3		S1	

Table A-7. Process History. (115 Sheets)

ID	MEMO NC	Re- binned Safety	Re- binned Freq	Re-binned MEMO	Org Freq	Org Freq NC	Org Safety	Remarks
CVR-03-1					F2		S1	Fence is erected for fall protection before coverblocks removed
CVR-09					F1		S1	
CVR-09-1					F0		S1	Fence is erected for fall protection before coverblocks removed
CVR-10					F1		S1	
CVR-10-1					F2		S1	Personnel rarely enter pits, oxygen deficient atmosphere not anticipated
CVR-11					F1		S1	
CVR-11-1					F1		S1	Personnel rarely enter pits
CVR-12-1	Without controls spread of contamination is likely				F2		S1	
CVR-13-1	Judged to be safely done with controls in place				F3		S1	
CVR-14-1	Judged to be safely done with controls in place				F3		S1	
CVR-15-1	Without controls spread of contamination is likely	S2		5/24/98 - MVS - Revised due to application of new risk acceptance guidelines	F2		S1	
DGN-01					F3		S1	
DGN-01-1					F2		S1	

Table A-7. Process History. (116 Sheets)

ID	MEMO NC	Re- tained Safety	Re- tained Freq	Re-timed MEMO	Orig Freq	Orig Freq NC	Orig Safety	Remarks
DCN-02	The IE is mechanism of a clearing spray. Controls include ground-holding and procedures. An S1 consequence is most expected by the procedure governing the clearing spray. Without controls the frequency would increase to an F3.				F2	F3	S1	
DCN-02-1A	Without controls spread of contamination is not unlikely				F1		S1	
DCN-02-1B	Without controls spread of contamination is not unlikely				F1		S1	
DCN-03	IE - Access Entry Decommission Process in Tank Farms				F1	F1	S1	
DCN-03-1	Without controls spread of contamination is not unlikely				F0		S1	
DCN-04	IE - High Wind/Tide etc				F2	F2	S1	
DCN-04-1	Without controls spread of contamination is not unlikely				F0		S1	
DCN-05					F3		S0	
DCN-05-1					F2		S1	
DCN-06					F2		S1	
DCN-06-1		S1		S2486 - MVE - Revised during consistency check	F2		S0	
DCN-07					F2		S0	
DCN-07-1					F2		S1	
EE-01	IE - Aircraft Crash Overflight Airspace/Control - Impact Effect on Frequency of Crash into Tank Farms				F1	F1	S3	

Table A-7. Process History. (116 Sheets)

ID	MEMO NO	Re- turned/ Safety	Re- signed/ Freq	Re-based MEMO	Orig Freq	Orig Freq NO	Orig Safety	Remarks
EE-02	The release of radioactive and toxic materials from a waste tank due to the shearing off of tank doors is assigned to the F3 and S3 frequency and consequence categories respectively. The external fire to the waste tank would come about as a result of a rupture line. If the mitigation/preventative controls are removed, the accident would have the same consequence as before with controls. Without the administrative controls the frequency of the accident would increase slightly but would remain in the same frequency category F3. Rupture lines have occurred at Hanford over the last 20 years at least twice but have not got close to the topic due to administrative controls with respect to records and checks within the tank farms.				F3	F3	S3	
EE-03	(E. Flooding due to Dam Collapse Tank Ventilation System, Tank Monitoring Unit)				F2	F2	S1	
EE-04-a	The release of radioactive and toxic materials from a waste tank due to the shearing off of tank doors is assigned to the F1 and S3 frequency and consequence categories respectively. The external fire to the waste tank would come about as a result of an accident involving with the delivery of gasoline, petroleum, or diesel along with a spark source. If the mitigation/preventative controls are removed, the accident would have the same consequence as before with controls. Without the administrative controls the frequency of the accident would increase. The frequency category for this accident without controls is F2.				F1	F2	S3	
EE-04-b	See No Controls Memo for EE-04-a				F1	F2	S3	
EE-05-a	The release of radioactive and toxic materials from a waste tank due to the shearing off of tank doors is assigned to the F2 and S3 frequency and consequence categories respectively. The external fire to the waste tank would come about as a result of the refilling of a gasoline tank on the Hanford vehicle with a spark source. If the mitigation/preventative controls are removed, the accident would have the same consequence as before with controls. Without the administrative controls the frequency of the accident would increase. The frequency category for this accident without controls is F3.				F2	F3	S3	
EE-05-b	See No Controls Memo for EE-05-a				F2	F3	S3	

Table A-7. Process History. (116 Sheets)

ID	MEMO NC	Re- vised Safety	Re- vised Freq	Re-revised MEMO	Org Freq	Org Freq NC	Org Safety	Remarks
EE-05	The release of flammable material from a rail tank car initiates the accident which results in the release of hydrocarbons and toxic material from a mobile tank. This generic accident scenario is assigned to the P1 and S1 frequency and consequence categories, respectively. If the rail tank car pressure release venting was removed, the accident would have the same consequences as before with the controls. Without the administrative controls the frequency of this accident would increase slightly and move into the frequency category P2.				P1	P2	S1	
EE-07					P0		S0	
EE-08					P0		S0	
EE-09		S1	P3	MVS-512498 - Revised during consistency check	P3		S0	
EE-10	1E Water Line Breaks Water Overage, Porosity Void Fraction of Surrounding Soil				P1	P1	S1	
EE-11	1E or cause is waterline break that overfills tank. Pertinent controls include monitoring alarms. Without control the frequency of this scenario is P2.	S2		MVS-523495 - Revised due to application of new risk acceptance guidelines	P1	P2	S1	
EE-12		S1		MVS-523495 - Revised during consistency check	P3		S0	
EE-13					P3		S0	
EE-14					P3		S1	
EE-15		S1		MVS-523495 - Revised during consistency check	P3		S0	

Table A-7. Process History. (116 Sheets)

ID	MEMO NC	Re- banned Safety	Re- banned Freq	Re-banned MEMO	Orig Freq	Orig Freq NC	Orig Safety	Remarks
EE-16	18. Accidental Ejection of Pipe Lack of Administrative Controls for Ejection, Limited Time of Transfer There is one exception event that leads to a spray leak and is assigned a S3 consequence and a F3 frequency. Ejection avoids loading to spray leaks are S3 consequences are F3 frequency. Administrative and procedural controls protect against inadvertent operational errors. With no preventative measures in place the frequency of such an event would become much more likely and is assigned a F3 frequency.				F3	F3	S3	
EE-17	19. Accidental Ejection of Abandoned Equipment Lack of Administrative Controls for Ejection	S2		MVS-52408 - Revised due to application of new risk acceptance guidelines	F3	F3	S1	
GRN-01					F3		S1	
GRN-01-1					F2		S1	Also see crane operations, vehicle operations
GRN-02					F3		S1	
GRN-024					F2		S1	Also see crane operations, vehicle operations
GRN-03-1					F2		S1	
1-2225-1-CMP-A	Based strictly on the human error of failing to add NaOH to the waste. Does not take into account the three locks that must be removed to open the transfer valve nor does it take into account the blast that was installed as of 5/3/96							
1-2225-1-CMP-B	Based strictly on the human error of failing to add NaOH to the waste. Does not take into account the three locks that must be removed to open the transfer valve nor does it take into account the blast that was installed as of 5/3/96							

Table A-7. Process History. (118 Sheets)

ID	MEMO NO	Re- blinded Safety	Re- blinded Freq	Re-blinded MEMO	Org Freq	Org Freq NG	Org Safety	Remarks
I-2223-1- CMP-C	Based strictly on the human error of failing to add MeOH to the waste. Does not take into account the three locks that must be removed to open the transfer valve nor does it take into account the blind that was installed as of 5/2/96							
I-2223-1- CMP-D	Based strictly on the human error of failing to add process inhibitor to the waste. Does not take into account the three locks that must be removed to open the transfer valve nor does it take into account the blind that was installed as of 5/2/96							
I-2223-1- CMP-E	Based strictly on the human error of an aspect of 222-B lab operations. Does not take into account the three locks that must be removed to open the transfer valve nor does it take into account the blind that was installed as of 5/2/96							
I-2223-1- LVL-A	Based strictly on the human error of failing to shut off the stream jet. Does not take into account the three locks that must be removed to open the transfer valve nor does it take into account the blind that was installed as of 5/2/96							
I-2223-1- RXN-A	Based strictly on the human error of spending waste that is incompatible. Does not take into account the three locks that must be removed to open the transfer valve nor does it take into account the blind that was installed as of 5/2/96							
I-2223-2- FLW-A	Based strictly on the human error of inadvertently closing the wrong valve. Does not take into account the three locks that must be removed to open the transfer valve nor does it take into account the blind that was installed as of 5/2/96							
I-2223-2- FLW-B	Based strictly on the human error of failing to determine that sufficient volume is available in 244-B. Does not take into account the three locks that must be removed to open the transfer valve nor does it take into account the blind that was installed as of 5/2/96							
I-2223-2- FLW-C	Based strictly on the human error of an improper valve line up. Does not take into account the three locks that must be removed to open the transfer valve nor does it take into account the blind that was installed as of 5/2/96							
I-2223-2- FLW-D	Based strictly on the human error of an improper valve line up. Does not take into account the three locks that must be removed to open the transfer valve nor does it take into account the blind that was installed as of 5/2/96							
I-2223-2- LEICA	Does not take into account the three locks that must be removed to open the transfer valve nor does it take into account the blind that was installed as of 5/2/96							

Table A-7. Process History. (116 Sheets)

ID	MESSAGE	Re- binned Safety	Re- binned Fire	Re-binned MESA	Org Freq	Org Freq MC	Org Safety	Remarks
I-2229-2- LEK-B	Does not take into account the three locks that must be removed to open the transfer valve nor does it take into account the blind that was installed as of 5/2/95							
I-2229-2- LEK-C	Based on dipping in the venting tank and applying sufficient force to pull the line. Does not take into account the three locks that must be removed to open the transfer valve nor does it take into account the blind that was installed as of 5/2/95							
I-2229-2- LEK-D	Based strictly on a seismic event. Does not take into account the three locks that must be removed to open the transfer valve nor does it take into account the blind that was installed as of 5/2/95							
I-2229-2- LEK-E	Based strictly on a seismic event. Does not take into account the three locks that must be removed to open the transfer valve nor does it take into account the blind that was installed as of 5/2/95							
I-2229-2- PR3-A	Based strictly on the mechanical failure of the steam release. Assumes limited if any maintenance is performed on the reducer and that the trigger pressure will "pop out" and should get hanging to get steam being sent. Does not take into account the 15							
I-242A-1- FLW-A	Based on rising DCH-GDE and HHV-QAT going closed and sufficient hydrogen accumulation for an explosion							
I-242A-1- FLW-B	Based on feed pump plugging and sufficient hydrogen accumulation for an explosion							
I-242A-1- FLW-C	Based on feed line plugging and sufficient hydrogen accumulation for an explosion							
I-242A-1- FLW-D	Based on feed pump plugging and sufficient hydrogen accumulation for an explosion							
I-242A-1- FLW-E	Based on the feed tank going empty and sufficient hydrogen accumulation for an explosion							
I-242A-1- FLW-F								
I-242A-1- LEK-A								

Table A-7. Process History. (116 Sheets)

ID	MEMO NO	Re- turned Safety	Re- turned Prod	Re-blended MEMO	Orig Freq	Orig Freq NC	Disp. Safety	Remarks
I-242A-1- LEK-B								
I-242A-1- LEK-C	Based on digging in the wrong strip and applying sufficient force to fail the line							
I-242A-1- LEK-D	Based on a seismic event							
I-242A-1- LEK-E	Based on a seismic event							
I-242A-2- CMP-A								
I-242A-2- CMP-B	Based on a human error of opening the wrong valve or failing to close a valve							
I-242A-2- FLW-A	Based on the human error of running the slurry pump at maximum speed							
I-242A-2- FLW-B	Based on the human error of running the slurry pump at appropriate speed							
I-242A-2- LEK-A								
I-242A-2- LEK-B								
I-242A-2- LEK-C	Digging in the wrong strip and applying sufficient force to fail the line							
I-242A-2- LEK-D	Based on a seismic event							
I-242A-2- LEK-E	Based on a seismic event							
I-242A-2- TMP-A								

Table A-7. Process History. (116 Events)

ID	MEMO NO	Re- trained Safety	Re- trained Freq	Re-trained MEMO	Org Freq	Org Freq NO	Org Safety	Remarks
1-242A-2- VSC-A	Based on a combination of human error and mechanical failure that results in over concentration of the slurry							
1-242A-2- VSC-B								
1-242A-3- FLW-A	Based on any condition which results in an uncontrolled jet dump							
1-242A-3- FLW-B	Based on any condition which results in an uncontrolled jet dump							
1-242A-4- FLW-A	Based on the failure to turn on one of the evaporator condensers							
1-242A-4- TMP-A	Frequency identified in HNF-SD-WM-T-794-923							
1-242A-5- FLW-A	Based on the human error of an evaporator valve free up and an excessively high level in the feed tank TFC-404-102							
1-242A-5- CMP-A	Based on the human error of not closing an isolation valve							
1-242A-5- FLW-B	Based on rupture of a new water line in the evaporator condenser or pump room							
1-242A-5- FLW-C	Based on rupture of a new water line in the evaporator condenser or pump room							
1-242A-6- CMP-A	Requires that the two compressors that normally supply air to ADV tank farms fail and that a portable compressor is not available and the evaporator compressor bearing fails and a tank pressure buildup event occurs							
1-242A-7- FLW-A	Requires that the two compressors that normally supply air to ADV tank farms fail and that a portable compressor is not available and the compressor fails							

Table A-7. Process History. (116 Sheets)

ID	MEMO NC	Re-learned Safety	Re-learned Freq	Re-learned MEMO	Orig Freq	Orig Freq NC	Orig Safety	Remarks
I-242A-7-FLW-B	Requires that the two compressors that normally supply air to AIV tank farms fail and that a portable compressor is not available and the human error of closing the wrong valve							
I-242A-7-FLW-C	Requires that the two compressors that normally supply air to AIV tank farms fail and that a portable compressor is not available and the false plug							
I-242A-7-PRS-A	Based on a maintenance error of incorrectly setting the compressed air loading switch and then generating a condition where the switch operation is desired							
I-242S-1-PRS-A	Based on exhaust fan failure							
I-242S-1-TMP-A	Based on low ambient temperature and the human error to take appropriate to prevent freezing							
I-242S-2-FLW-A	Based on low ambient temperature and the human error to take precautions to prevent freezing and then transferring radioactive water to tank farms							
I-242S-2-FLW-B	Based on the human error of improper valve loss up and the frequency of use of the line							
I-242S-2-FLW-C	Based on getting more water in the 242-S pump room and then pumping it to 244-B with out determining that sufficient volume is available							
I-242S-2-FLW-D	Based on the human errors of improper valve loss up at two separate locations							
I-242S-2-FLW-E	Based on the human errors of improper valve loss up at two separate locations							
I-242S-2-LEK-A								
I-242S-2-LEK-B								
I-242S-2-LEK-C	Based on digging in the wrong area and applying sufficient force to feel the line							

Table A-7. Process History. (116 Sheets)

ID	MEMO NC	Re- trained Safety	Re- trained Freq	Re-trained MEMO	Ong Freq	Ong Freq NC	Ong Safety	Remarks
I-2425-2- LEK-D	Based on a delayed event							
I-2425-2- LEK-E	Based on a delayed event							
I-2425-4- FLW-A	Based on the human error of improper valve line up							
I-2425-4- FLW-B	Based on the human error of improper valve line up at two separate locations							
I-2425-4- FLW-C	Based on the human error of improper valve line up at two separate locations							
I-2425-4- FLW-D	Based on low arrival, materials and the human errors to take precautions to prevent flooding and then transferring excessive water to tank 6/106							
I-2425-4- LEK-A								
I-2425-4- LEK-B								
I-2425-4- LEK-C	Based on digging in the wrong area and applying sufficient force to hit the bed							
I-2425-4- LEK-D	Based on a specific event							
I-2425-4- LEK-E	Based on a delayed event							
I-2425-5- CMP-A	Based on the compressor head loading and a tank pressurization event							
I-2425-5- CMP-B	Based on the compressor head loading and a tank pressurization event							
I-2425-5- CMP-D	Based on delayed plugging filter and a tank pressurization event							

Table A-7. Process History. (116 Sheets)

ID	MEMO NO	Re- turned Safety	Re- turned Freq	Re-returned MEMO	Orig Freq	Orig Freq NC	Orig Safety	Remarks
I-242S-5- CMP-D	Based on desiccant plugging filter, subsequent filter failure and a tank pressurization event							
I-242S-5- FLW-A	Based on compressor failure and a tank pressurization event							
I-242S-5- FLW-B	Based on the human error of closing the wrong valve and a tank pressurization event							
I-242S-5- FLW-C	Based on the filter plugging and a tank pressurization event							
I-242S-5- PRG-A	Based on a maintenance error of incorrectly setting the emergency unloading switch and then generating a condition where the Switch operation is delayed							
I-242T-2- FLW-A	Frequency based on human error of opening valve or valve mechanical failure. The presence of any vessel inventory is unknown therefore assumed that vessels are full. The structural integrity of the tubes and isolation valves is questioned.							
I-242T-3- FLW-A	Frequency based on human error of opening valve or valve mechanical failure. The presence of any vessel inventory is unknown therefore assumed that vessels are full. The structural integrity of the isolation valves is questioned. Assume the jumper is 1.							
I-242T-4- FLW-A	Frequency is based strictly on the current structural integrity of the 242-T building (this score might collapse). The presence of any vessel inventory is unknown therefore assumed that vessels are full. The structural integrity of the building is questionable.							
I-BPLANT-1- CMP-A	Based strictly on the human error of failing to add caustic							
I-BPLANT-1- CMP-B	Based strictly on the human error of failing to add caustic							
I-BPLANT-1- CMP-C	Based strictly on the human error of failing to add caustic							
I-BPLANT-1- CMP-D	Based strictly on the human error of failing to add corrosion inhibitor							

Table A-J. Process History. (118 Sheets)

ID	MEMO NC	Re- banned Safety	Re- banned Freq	Re-banned MEMO	Org Freq	Org Freq MC	Org Safety	Remarks
I-BPLANT- 1-CMP-E	Based on a tank failure at B Plant and human error to transfer the organic material to tank 7000							
I-BPLANT- 1-TMP-A	Based on testing up the contents of tank 24-1 at B Plant and then transferring the 801 sample to tank 7000							
I-BPLANT- 2-FLW-A								
I-BPLANT- 2-FLW-B	Based strictly on the human error of failing to determine that sufficient volume is available in the receiver tank							
I-BPLANT- 2-FLW-C	Based strictly on the human error of failing to determine that sufficient volume is available in the receiver tank							
I-BPLANT- 2-FLW-D	Based on communication error between B Plant and tank 7000							
I-BPLANT- 2-LEK-A								
I-BPLANT- 2-LEK-B								
I-BPLANT- 2-LEK-C	Based on digging in the searing area and applying sufficient force to feel the line							
I-BPLANT- 2-LEK-D	Based on a seismic event							
I-BPLANT- 2-LEK-E	Based on a seismic event							
I-PFP-1- AGT-A	Based strictly on the human error of failing to turn on the agitator							
I-PFP-1- CMP-A	Based strictly on the human error of failing to add catalyst							
I-PFP-1- CMP-B	Based strictly on the human error of failing to add ferro nitrate							

Table A-7. Process History. (116 Sheets)

ID	MEMO NC	Re- tuned Safety	Re- tuned Freq	Re-tuned MEMO	Orig Freq	Orig Freq NC	Orig Safety	Remarks
I-PFP-1- CMP-C	Based strictly on the human error of failing to add sodium hydroxide							
I-PFP-1- CMP-D	Based strictly on the human error of getting sodium hydroxide solution to C-5 which is then transferred to the receiver tank							
I-PFP-1- CMP-E	Based strictly on the human error of getting sodium hydroxide into the vessel							
I-PFP-1- LVLA-A	Based strictly on the human error of failing to shut off the steam jet							
I-PFP-1- MTH-A	Based strictly on the human error of failing to properly produce compressions and then assuming that the operator relies on the interlock to shut off steam when needed							
I-PFP-2- FLUX-A	Based strictly on the human error of failing to determine that sufficient volume is available in 244-TX							
I-PFP-2- LEK-A	Requires failure of the lower pipe							
I-PFP-2- LEK-B								
I-PFP-2- LEK-C	Based on digging in the wrong area and applying sufficient force to hit the tee							
I-PFP-2- LEK-D	Based strictly on a design event							
I-PFP-2- LEK-E	Based strictly on a design event							
I-PFP-2- TMP-A	Based strictly on the mechanical failure of the steam reducer. Assumptions: Instead of any maintenance is performed on the reducer and that the higher pressure steam will "gas out" the steam jet resulting in just steam being sent							
I-PFP-2- TMP-B	Based strictly on the mechanical failure of the steam reducer. Assumptions: Instead of any maintenance is performed on the reducer and that the higher pressure steam will "gas out" the steam jet resulting in just steam being sent							

Table A-7. Process History. (116 Sheets)

ID	MEMO NO	Re- binned Safety	Re- binned Freq	Re-binned MEMO	Ong Freq	Ong Freq NO	Ong Safety	Remarks
I-PFP-3- CMP-A	Based strictly on the human error of transferring to and from tank C-5 at the same time							
I-PFP-3- FLW-B	Based strictly on the human error of failing to determine that sufficient volume is available in 244-TX							
I-PFP-3- FLW-C	Based strictly on the human error of transferring to and from tank C-5 at the same time							
I-PFP-3- LEK-A	Requires failure of the entire pipe							
I-PFP-3- LEK-B								
I-PFP-3- LEK-C	Based on digging at the wrong spot and applying sufficient force to fail the tank							
I-PFP-3- LEK-D	Based strictly on a seismic event							
I-PFP-3- LEK-E	Based strictly on a seismic event							
I-PUREX-1- AGT-A	Based primarily on the human error of failing to turn on the agitator. The frequency is also considered to include the probability of mechanical failure							
I-PUREX-1- AGT-B	Based primarily on the human error of failing to turn on the agitator. The frequency is also considered to include the probability of mechanical failure							
I-PUREX-1- AGT-C	Based primarily on the human error of failing to turn on the agitator. The frequency is also considered to include the probability of mechanical failure							
I-PUREX-1- CMP-A	Based strictly on the human error of failing to add caustic							
I-PUREX-1- CMP-B	Based strictly on the human error of failing to add caustic							
I-PUREX-1- CMP-C								

Table A-7. Process History. (116 Sheets)

ID	MEMO NO	Re- tained Safety	Re- tained Freq	Re-tained MEMO	Org Freq	Org Freq NO	Org Safety	Remarks
I-PUREX-1- CMP-D								
I-PUREX-1- LV1-A	Based strictly on the human error of failing to shut-off the steam jet when U-2 is empty							
I-PUREX-1- TMP-A	Based on the probability of human error to transfer the waste out of U-2 before it boils. Waste can be heated by steam transfer to U-3 or by adding coolant							
I-PUREX-2- FLWA-A								
I-PUREX-2- LEK-A								
I-PUREX-2- LEK-B								
I-PUREX-2- LEK-C	Based on digging in the wrong area and applying sufficient force to find the line							
I-PUREX-2- LEK-D	Based strictly on a seismic event							
I-PUREX-2- LEK-E	Based strictly on a seismic event							
I-PUREX-2- PRS-A	Based strictly on the mechanical failure of the steam receiver. Assumes that if any maintenance is performed on the receiver and that the higher pressure will "gun-out" the steam jet resulting in just steam being sent							
I-PUREX-2- PRS-B	Based on mechanical failure that results in an unattended air purge of the line after a receiver. Assumes no corrective action on the part of the operators.							
I-PUREX-2- PRS-C								
I-PUREX-3- AGT-A	Based primarily on the human error of failing to turn on the agitator. The frequency is also considered to include the probability of mechanical failure							

Table A-7. Process History. (146 Sheets)

ID	MEMO NC	Re- binned Safety	Re- binned Freq	Re-binned MEMO	Orig Freq	Orig Freq NC	Orig Safety	Remarks
I-PUREX-3- AGT-B	Based primarily on the human error of failing to turn on the agitator. The frequency is also considered to include the probability of mechanical failure.							
I-PUREX-3- AGT-C	Based primarily on the human error of failing to turn on the agitator. The frequency is also considered to include the probability of mechanical failure.							
I-PUREX-3- CMP-A	Based strictly on the human error of failing to add caustic.							
I-PUREX-3- CMP-B	Based strictly on the human error of failing to add caustic.							
I-PUREX-3- CMP-C								
I-PUREX-3- CMP-D								
I-PUREX-3- CMP-E	Based strictly on the human error of getting wrong feed's content into tank F-18 and then transferring it to tank three.							
I-PUREX-3- LVL-A	Based strictly on the human error of failing to stop the pump just when F-18 is empty.							
I-PUREX-3- TMP-A	Based on the probability of human error to transfer the waste out of F-18 before it cools. Waste can be heated by steam transfer to F-18 or by adding caustic.							
I-PUREX-4- FLW-B	Based primarily on the human error of failing to close the isolation valve for the North water. The frequency is also considered to include the probability of mechanical failure.							
I-PUREX-4- LEK-A								
I-PUREX-4- LEK-B								
I-PUREX-4- LEK-C	Based on stepping in the wrong area and applying sufficient force to test the line.							

Table A-7. Process History. (116 Sheets)

ID	MEMO NO	Re- learned Safety	Re- learned Freq	Re-learned MEMO	Org Freq	Org Freq NO	Org Safety	Remarks
I-PUREX-4- LER-D	Based strictly on a electric shock							
I-PUREX-4- LER-E	Based strictly on a electric shock							
I-PUREX-4- PRS-A	Based strictly on the mechanical failure of the steam reducer. Asbestos covered if any maintenance is performed on the reducer and that the higher pressure will "blow off" the steam jet resulting in just steam being sent							
I-PUREX-4- PRS-B	Based on mechanical failure that results in an extension or surge of the line after a trip/stop. Assuming no corrective action on the part of the Operators							
I-PUREX-4- PRS-C								
I-PUREX-4- FLW-A	Based strictly on the human error of opening multiple isolation valves (improper valve line up)							
I-PUREX-5- FLW-B	Based on putting organic material into tank R-4 which is no longer used and then transferring the organic material to tank R-301							
I-PUREX-5- FLW-C	Based strictly on the human error of failing to empty SOGA prior to transferring from V31							
I-PUREX-6- FLW-B	Based strictly on the human error of opening multiple isolation valves (improper valve line up)							
I-PUREX-6- FLW-C	Based strictly on the human error of opening multiple isolation valves (improper valve line up)							
I-PUREX-6- FLW-D								
I-TPANT- 1-CMP-A	Based strictly on the human error of failing to add caustic							
I-TPANT- 1-CMP-B	Based strictly on the human error of failing to add caustic							

Table A-7. Process History. (116 Sheets)

ID	MEMO NO	Re- blamed Safety	Re- blamed Freq	Re-blamed M&EO	Org Freq	Org Freq MC	Org Safety	Remarks
I-TPLANT- 1-CMP-C	Based strictly on the human error of failing to add caustic							
I-TPLANT- 1-CMP-D	Based strictly on the human error of failing to add caustic inhibitor							
I-TPLANT- 1-TMP-A	Based on heating up the contents of tank 15-1 at 7 P.m. and then transferring the first waste to tank farm							
I-TPLANT- 2-CMP-A	Based strictly on the human error of failing to shut off the steam jet or inadvertently opening steam to the steam jet when tank 15-1 is empty. Does not take into account that the jet is no longer used							
I-TPLANT- 2-FLW-A	Based strictly on the human error of failing to determine that sufficient volume is available in the receiver tank							
I-TPLANT- 2-FLW-B	Based strictly on the human error of failing to determine that sufficient volume is available in the receiver tank							
I-TPLANT- 2-LEK-A								
I-TPLANT- 2-LEK-B								
I-TPLANT- 2-LEK-C	Based on digging in the wrong area and applying sufficient force to feel the line							
I-TPLANT- 2-LEK-D	Based on a seismic event							
I-TPLANT- 2-LEK-E	Based on a seismic event							
I-TPLANT- 1-FLW-A	Based on failing to maintain water seal in drain line. The limited line size and length of piping limits the removal of particulates that will be released but will not be sucked into the recovery							
I-TPLANT- 1-LEK-A	A high frequency was assumed because the structural integrity of the line is not verified							

Table A-7. Process History. (116 Sheets)

ID	MEMO NO	Re- banned Safety	Re- banned Freq	Re-banned MEMO	Org Freq	Org Freq NO	Org Safety	Remarks
I-UP/LANT- I-LEK-B	Frequency based on digging in the wrong area and applying sufficient force to fold the line							
I-UP/LANT- I-LEK-C	Frequency based strictly on a specific event							
I-UP/LANT- I-RANA	Run water that enters the catch tank via the line must first fall into the U Plant sluick which has a behind area and a severe run must occur							
ITK-01	see CCF-05				F2	F2	S1	
ITK-01-I	Reactions could occur as a result of an over-torqued tank that causes a release from opened				F1		S1	
ITK-02	Several non fire/explosion protected releases that lead to an S2 consequence are P1 frequencies. One of these releases are related to a waste storage tanks and caused by suppression due to pressurized equipment released into the tank during intrusive activities. Such an event is supposed to activate any ventilation system and produce a release. Procedures and training for intrusive activities would be considered the preventive mitigation features in this case. If such controls are taken away, the expected accident frequency would increase but not higher than the F2 frequency if it is already mitigated. The large vapor space in the tank does pose the potential for credible polymerization events				F2	F2	S1	
ITK-02-I	Downrated by the expected frequency of the initiator				F1		S1	
ITK-03	IE or device in removal of contaminated equipment leading to contamination spread. Controls include Procedures (which with controls the equipment is replaced a F3 frequency, no, without controls it remains an F3 frequency				F3	F3	S1	
ITK-03-I	Without controls spread of contamination is likely				F2		S1	
ITK-04	IE: High Wind, Severe Event Lack of Operational Procedures with High Winds, Ventilation				F1	F3	S1	
ITK-04-I	High wind is common				F0		S1	
ITK-05	The IE is left largely from intrusive activity. Controls include procedures and wash plans. Also the large vapor space could have a mitigating effect. However, the frequency of this accident is dominated by the chance of the burst, so, even without controls the frequency remains an F2	S2		INVS-020496 - Revised due to application of new risk acceptance guidelines	F2	F2	S1	

Table A-7. Process History. (116 Sheets)

ID	MEMO NC	Re- binned Safety	Re- binned Freq	Re-binned MEMO	Orig Freq	Orig Freq NC	Orig Safety	Remarks
ITK-05-I	Combustible concentrations could build up in spent off gases but not beyond an F2 frequency	S2		SD495 - MVS - Revised due to applicability of new risk acceptance guidelines	F2		S1	
ITK-05	<p>1-E Selective Fine Material Concentrating Activity</p> <p>The frequency of a criticality is the single or double shell leaks due to material shortages was determined to be in F0 with a consequence of S2. All historical sample taken from the waste tanks show a wide range of activity (0.0002-0.0004-0.0008). The mean waste material concentrations are a factor of one thousand below the reportable limit of one gram per cubic meter. The ratio of soluble and insoluble material shortages in the waste to the waste materials present show a high margin of conservatism.</p> <p>The frequency of a criticality is a large single or double shell waste tank would be higher without administrative controls versus with administrative controls. Without administrative controls and any concern about criticality prevention there would a greater probability of a criticality occurring. The worst case category at which this criticality would fall would be in the F1 category.</p>				F0	F1	S2	
ITK-05-I	Intensive activity is not highly likely as all openings are blocked off				F0		S2	
ITK-07	1-E Human Error, Equipment Failure Lack of Administrative and Procedural Controls, Cause Operational Training				F2	F3	S1	
ITK-07-IA	If intensive activity is made there would not be likely without controls but not more than an F2 frequency				F2		S1	Differing facility depths can result in operator confusion as to how deep to penetrate or operate equipment

Table A-7. Process History. (116 Sheets)

ID	MEMO NC	Re- tained Safety	Re- tained Freq	Re-binned MEMO	Orig Freq	Orig Freq NC	Orig Safety	Remarks
ITK-07-B	If an intrusive action is made these errors would not be unlikely without corrects but not more than at P2 frequency				P2		S1	Differing safety depths can result in operator confusion as to how deep to position of operate equipment
ITK-08	Ignition of flammable gas in the vapor space of a tank due to intrusive action is assigned to the P2 and S2 frequency and consequence categories respectively. The ignition source occurs due to the intrusive action. If the mitigative/preventative controls are removed, the accident would have the same consequence as before with controls. Without the engineered and administrative controls the frequency of this accident would increase to the next frequency category of P3	S3		MYS -5/24/86 - Revised during consistency check	P2	P3	S2	
ITK-08-1	Combustible control tank could build up to safety off levels				F1		S2	
ITK-09	Ignition of flammable gas in the vapor space of a tank due to intrusive action is assigned to the P2 and S2 frequency and consequence categories respectively. The ignition source occurs due to the intrusive action and the lack of proper bonding. If the mitigative/preventative controls are removed, the accident would have the same consequence as before with controls. Without procedures, training of personnel, bonding, and/or active ventilation the anticipated frequency of this accident would definitely increase to the next higher frequency category of P3	S3		MYS -5/24/86 - Revised during consistency check	P2	P3	S2	
ITK-09-1	Combustible control tank could build up to safety off levels				P2		S2	
ITK-10-1	Combustible control tank could build up to safety off levels				P2		S2	
ITK-10-a	See Mo Controls Memo for ITK-09	S3		MYS -5/24/86 - Revised during consistency check	P2	P3	S2	
ITK-10-b	See Mo Controls Memo for ITK-09	S3		MYS -5/24/86 - Revised during consistency check	P2	P3	S2	

Table A-7. Process History. (116 Sheets)

ID	MEMO NO	Re- turned Safety	Re- turned Freq	Re-turned MEMO	Orig Freq	Orig Freq NC	Orig Safety	Remarks
ITK-11	Ignition of flammable gas in the vapor space of a tank due to an inhibitive action is assigned to the F1 and S2 frequency and consequence categories respectively. This system failure occurs due to the software failure. If the mitigative/preventative controls are removed, the accident would have the same consequence as before with controls. Without the engineered and administrative controls the frequency of this accident would remain the same. Since none of these controls would have any effect on the frequency of lightning strikes, cargo fires, or seismic events.	S3		INV-52495 - Reviewed during consistency check	F1	F2	S2	
ITK-11-1	The frequency of this event is dominated by the initiator (external event simultaneous with intrusion)				F0		S2	
ITK-FR-01	Frequency of failure to follow administrative controls and operator error							
ITK-FR-02	Frequency of excessive waste accumulation on equipment/condition exacerbated in conjunction with lack of administrative controls and operator error							
ITK-FR-03	Frequency of excessive waste accumulation on equipment/condition exacerbated in conjunction with lack of administrative controls and operator error resulting in structural failure of tank							
ITK-FR-04	Frequency of excessive waste accumulation on equipment/condition exacerbated in conjunction with lack of administrative controls and operator error resulting in structural failure of tank							
ITK-FR-05	Frequency of operator error							
ITK-FR-06	Frequency of operator error or mechanical failure of equipment							
ITK-FR-07	Frequency of material degradation during repair to one going undetected, primarily from lack of administrative controls							
ITK-FR-08	Frequency of high wind event sufficient to tear tag							
ITK-FR-09	Frequency of equipment failure in conjunction with failure to detect condition							
ITK-FR-10	Frequency of equipment failure in conjunction with failure to detect condition							
ITK-FR-11	Frequency of the loss of hydraulics during sealing operation resulting in inadequate seal in conjunction with condition going undetected until after shunt is complete							

Table A-7. Process History. (116 Sheets)

ID	MEMO NC	Re- binned Safety	Re- binned Freq	Re-binned MEMO	Orig Freq	Orig Freq NC	Orig Safety	Remarks
ITK-FR-12	Frequency of the loss of hydraulic during cutting operation resulting in dangerous vent in conjunction with dendrite gear undetected until after start is complete							
ITK-FR-13	Frequency of the build up of hydrogen in tank level travels into recovery in conjunction with ignition source being present							
ITK-FR-14	Frequency of operator error or lack of administrative controls							
ITK-FR-15	Frequency of operator error or lack of administrative controls							
ITK-FR-16	Frequency of the failure of bag seal in conjunction with failure of secondary containment bag							
ITK-FR-17	Frequency of flow in material sufficient to fed containment that goes undetected prior to web							
ITK-FR-18	Frequency of operator error or lack of administrative controls							
ITK-FR-19	Frequency of operator error or lack of administrative controls							
ITK-FR-20	Frequency of operator error or lack of administrative controls							
ITK-FR-21	Frequency of acid wash but event acid enough to damage equipment and/or lack of adequate safety controls							
ITK-FR-22	Frequency of buildup of gases in tank in sufficient quantities to travel into and overpressurize the bag							
ITK-FR-23	Frequency of operator error or mechanical failure of equipment							
ITK-FR-24	Frequency of cutter misoperation in conjunction with dendrite gear undetected							
ITK-FR-25	Frequency of the loss of water supply during cutting operation							
ITK-FR-26	Frequency of operator error or equipment malfunction							
ITK-FR-27	Frequency of equipment malfunction in conjunction with operator error and lack of administrative controls							
ITK-FR-28	Frequency of operator error or mechanical failure							

Table A-7. Process History. (116 Sheets)

ID	MEMO NC	Re- binned Safety	Re- binned Freq	Re-binned MEMO	Orig Freq	Orig Freq NC	Orig Safety	Remarks
NP-01	1E Lightning Strike				F3	F3	S1	
NP-02	1E Lightning Strike	S2		NP/3 - 5/24/95 - Revised during consistency check	F2	F2	S1	
NP-03	1E Lightning Strike Lack of Grounding of Tank Systems				F1	F2	S2	
NP-05	1E Toward				F1	F1	S2	
NP-06	1E High Wind				F3	F3	S1	
NP-07	1E Seismic Event				F1	F1	S3	
NP-08	1E Seismic Event	S3		NP/3 - 5/24/95 - Revised during consistency check	F1	F2	S1	
NP-09	1E Seismic Event				F1	F1	S1	
NP-10	1E Volcanic Ash Fall				F2	F2	S1	
NP-11	1E Volcanic Activity				F0	F0	S3	
NP-12	1E Dust Storm				F3	F3	S1	
NP-13	1E SpentRats Lack of Preparation for new events				F1	F2	S3	
NP-14	1E Sewer Flood Lack of Preparation for SpentRats Event				F3	F3	S1	
NP-15	1E Ignition Source Hydrogen-Generating Appliances in Confined Spaces	S2		NP/3 - 5/24/95 - Revised due to application of new risk acceptance guidelines	F3	F3	S1	

Table A-7. Process History. (116 Sheets)

ID	MEMO NC	Re- tained Safety	Re- tained Freq	Re-titled MEMO	Orig Freq	Orig Freq NC	Orig Safety	Remarks
OGT- EXT3-01A	The frequency of personnel not following administrative controls and no electrolyte should being in place							
OGT- EXT3-01B	The frequency of personnel not following administrative controls and design strength of the concrete shield being exceeded							
OGT- FLOW1-01								
OGT- FLOW1-02	Frequency of installing a pump with large enough output to erode EPDM in short (intermittent) operation time of OGT that would still fit into system in conjunction with a pipe failure or clogged drain							
OGT- FLOW1-03A	Frequency reflects potential conditions occurring simultaneously although conditions are P3 especially the magnitude of frequency increases dramatically as the conditions are required to occur together							
OGT- FLOW1-03B	Frequency reflects potential conditions occurring simultaneously although conditions are P3 especially the magnitude of frequency increases dramatically as the conditions are required to occur together							
OGT- FLOW1-04	Frequency of mechanical failure of several valves occurring simultaneously in conjunction with operator error							
OGT- FLOW1-05	Frequency of mechanical failure of pump							
OGT- FLOW1-06	Frequency of personnel not following administrative controls in conjunction with failure to detect condition during visual surveillance							
OGT- FLOW2-01A	Frequency of installing a pump with large enough output to erode EPDM in short (intermittent) operation time of OGT that would still fit into system in conjunction with a pipe failure or clogged drain							
OGT- FLOW2-01B	Frequency of installing a pump with large enough output to erode EPDM in short (intermittent) operation time of OGT that would still fit into system in conjunction with a pipe failure or clogged drain							
OGT- FLOW2-02	Frequency of installing a pump with large enough output to erode EPDM in short (intermittent) operation time of OGT that would still fit into system in conjunction with a pipe failure or clogged drain							

Table A-7. Process History. (118 Sheets)

ID	MEMO NO	Re- turned Safety	Re- turned Freq	Re-binned MEMO	Orig Freq	Orig Freq NO	Orig Safety	Remarks
OGT- FLOW2- 03A	Frequency of sending a pump with large enough output to over pressurize the EPCW accompanied by a electrical failure of both pipes in conjunction with an operator error in steam valve position							
OGT- FLOW2- 03B	Frequency of sending a pump with large enough output to over pressurize the EPCW accompanied by a electrical failure of both pipes in conjunction with an operator error in steam valve position							
OGT- INTEG3-01	The frequency of the OGT system operation period to assess the EPCW design life or a potential defect being printed in the piping that affects structural redreductive residual resistance							
OGT-NP3- 01	The frequency of a serious event large enough to cause damage							
OGT-NP3- 02	The frequency of a high wind event large enough to cause damage							
OGT- DPS1-01	Frequency of mechanical failure and/or operator error							
OGT- PRES1-01	The frequency of a mechanical failure caused by high heat vessels being present in OGT in conjunction with an operator error							
OGT- REAC1-01	The frequency of incompatible vessels being present in the requiring the lack of administrative controls and integrity error in conjunction with plugged drain							
OGT- SPEC1-01	Frequency of the loss of electrical supply							
OGT- TEMP1-01								
OGT- TEMP1-02	The frequency of a vehicle accident occurring in the OGT area with fuel leak and ignition in conjunction with no candlestick shield in place							
OGT- TEMP1-03	The frequency of a mechanical failure caused by high heat vessels being present in OGT in conjunction with an operator error							
RAD-01					F3		31	

Table A-7. Process History. (116 Sheets)

ID	MEMO ID	Re- vised Safety	Re- vised Freq	Revised MEMO	Org Freq	Org Freq MC	Org Safety	Remarks
RA0-01-1					F2		S1	Monitoring failures can contribute to accidents in other activities, see related PHAs
RA0-02					F3		S1	
RA0-02-1					F1		S1	Monitoring failures can contribute to accidents in other activities, see related PHAs
RA0-03					F3		S1	
RA0-03-1					F2		S1	Monitoring failures can contribute to accidents in other activities, see related PHAs
RSR-01	1. Human Error - Oversight Lack of Administrative and Procedural Controls				F3	F3	S1	
RSR-01-1	Without controls spaced of connection is faulty				F2		S1	See Electrical Bonding and Construct Temporary Confinement PHAs. Spent resistant tools used to open nuts
RSR-02					F3		S1	

Table A-7. Process History. (118 Sheets)

ID	MEMO NC	Re-binned Safety	Re-binned Freq	Re-binned MEMO	Orig Freq	Orig Freq NC	Orig Safety	Remarks
RBR-02-I					F2		S1	Asbestos gaskets are removed and replaced with non-asbestos gaskets whenever an asbestos-containing riser is opened
RBR-03					F1		S1	
RBR-03-I					F1		S1	Asbestos gaskets are removed and replaced with non-asbestos gaskets whenever an asbestos-containing riser is opened
RBR-04					F3		S1	
RBR-04-I					F2		S1	
RBR-05	1.E. Permit Review Lack of Administrative and Procedural Controls, Crane Operations Training				F3	F3	60	
RBR-05-IA	If an alternative and only if: make those errors would not be caught by various controls that are more than an F2 frequency				F2		S1	For equipment-made operational reviews, see In-Facility Equipment Installation PMA.

Table A-7. Process History. (116 Sheets)

ID	MEMO NC	Re- trained Safety	Re- trained Freq	Re-trained MEMO	Ong Freq	Ong Freq NC	Ong Safety	Remarks
RSR-05-18	If an intensive activity is made these errors would not be unlikely without controls but not above than an F2 deficiency				F2		S1	For equipment- waste chemical reactions, see In- Facility Equipment Installation PRA.
RSR-06-1	Contributable conditions could build up as failed off limits				F2		S2	
RSR-07-1	Contributable conditions could build up as failed off limits				F2		S2	
RSR-08-1					F2		S1	
SFF-01	IE Human Error, Instrument Failure Lack of Administrative and Procedural Controls Training				F3	F3	S1	
SFF-01-1					F2		S1	Failure to staff or improper staffing technique can contribute to accidents in other activities, see related PRAs
TFB-1								
VEH-01	The release of radioactive materials from a cask due to a fire on the transport vehicle assigned to the F2 and S2 frequency and consequences categories respectively. The potential fire to the cask would come about as a result of an accident involved with the rupturing of the vehicle fuel tank and spark source, as engine fire, etc. If the mitigative/preventative controls are removed, the accident would have higher consequences than with controls. The contribution of the cask has a large impact upon the consequences of the accident. Depending on the contents of the cask it is possible that an accident could have an offsite impact. S3 Without the administrative controls the frequency of this accident would also increase. The frequency category for this accident without controls is F5.				F2	F3	S2	
VEH-01-1	The frequency of this accident is dominated by the barrier frequency				F2		S2	

Table A-7. Process History. (118 Sheets)

ID	MEMO NC	Re- vised Safety	Re- vised Freq	Re-vised MEMO	Org Freq	Org Freq NC	Org Safety	Remarks
VEH-02	IE Section Error	S2		NVS-6/2496 - Revised due to application of new risk acceptance guidelines	F1	F1	S1	
VEH-02-I	Disrupted by frequency of an inhibitor that could break out	E2		6/2496 - NVS - Revised due to application of new risk acceptance guidelines	F0		S1	
VEH-03	IE High Wind Towards				F2	F2	S2	
VEH-03-I	The frequency of this accident is dominated by the inhibitor frequency				F0		S2	
VEH-04		S1		NVS-6/2496 - Revised during consistency check	F3		S0	
VEH-04-I					F1		S1	
VEH-05					F2		S1	
VEH-06-I					F2		S1	
VEH-06					F3		S1	
VEH-06-I					F2		S1	
VEH-07	<p>The release of radioactive and toxic materials from a waste tank due to the opening of a tank man into a waste tank is assigned to the F1 and S3 frequency and consequence categories respectively. This had would come from a ruptured fuel tank of the vehicle in the tank house blowing down the ruptured tank.</p> <p>If the mitigative/administrative controls are removed, the accident would have the same consequences as before with controls. Without the administrative controls the frequency of this accident would increase. The frequency category for this accident without controls is F3.</p>				F2	F3	S3	

Table A-7. Process History. (116 Sheets)

ID	MEMO NO	Re- tained Safety	Re- tained Freq	Re-tained MEMO	Org Freq	Org Freq NO	Org Safety	Re-tained
VEH-07-1	Area over facility is very accessible	S2		5/24/98 - NWS - Revised due to application of new risk acceptance guidelines	F2		S1	
VEH-08-4	Judged to be likely area with controls in place				F3		S0	
VSIU-01	IE Human Error - Oversight Lack of Administrative and Procedural Controls				F3	F3	S1	
VSIU-02	IE Human Error - Oversight Lack of Administrative Controls				F3	F3	S1	
VSIU-03	IE or oversight or skill degradation leading to control system bypass. Personnel controls include access control and backfilling of VSUs. Area with controls this scenario is assigned a F3 frequency, so, without controls it remains an F3 frequency				F3	F3	S1	
VSIU-04	IE or oversight or skill degradation leading to control system bypass. Personnel controls include access control and backfilling of VSUs. Area with controls this scenario is assigned a F3 frequency, so, without controls it remains an F3 frequency				F3	F3	S1	
VSIU-05					F3		S1	
VSIU-06					F3		S1	
WQ05- FLOW01	IE Human Error - Misreading of Waste Lack of Administrative and Procedural Controls, Deficient instrumentation, Oversight in Time				F1	F3	S2	
WQ05- FLOW03	IE or oversight or lack in waste body. Personnel controls include leak detection and mass balance procedures. Without controls the frequency of this scenario could be F2				F1	F2	S2	
WQ05- FLOW05a	IE Human Error - Misreading of Analyzer Lack of Administrative and Procedural Controls, Deficient instrumentation				F1	F3	S2	
WQ05- FLOW06b	IE or oversight or lack in waste body due to process failure. Personnel controls include leak detection and mass balance procedures. Without controls the frequency of this scenario could be F2				F1	F2	S2	

Table A-7. Process History. (118 Sheets)

ID	MEMO NO	Re-based Safety	Re-based Freq	Re-based MEMO	Org Freq	Org Freq NC	Org Safety	Remarks
W055-FLOW06	IE or cause a leak at jumper due to gasket failure. Personnel controls include leak detection and at-site balance procedures. Without controls the frequency of this scenario could be F2.				F1	F2	S2	
W055-FLOW07	IE Human Error - Misrouting of Water Lack of Administrative and Procedural Controls. Detection/test/maintenance, Dash to Tank				F1	F3	S2	
W055-FLOW08	IE or cause a leak at valve body. Personnel controls include leak detection and at-site balance procedures. Without controls the frequency of this scenario could be F2.				F1	F2	S2	
W055-FLOW11a	IE Human Error - Misalignment of Jumper Lack of Administrative and Procedural Controls. Detection/test/maintenance				F1	F3	S2	
W055-FLOW11b	IE or cause a leak at jumper due to gasket failure. Personnel controls include leak detection and at-site balance procedures. Without controls the frequency of this scenario could be F2.				F1	F2	S2	
W055-FLOW11c	IE or cause a leak at jumper due to corrosion. Personnel controls include leak detection and at-site balance procedures. Without controls the frequency of this scenario could be F2.				F1	F2	S2	
W055-FLOW13	IE Human Error Lack of Administrative and Procedural Controls. Personnel Training, Detection/test/maintenance				F1	F3	S2	
W055-FLOW16	Several spray leak events that involved human error were assigned a frequency of F1 and a consequence of S3. Six inches of spray leak from valve pi. The frequency is low because the leak must not only occur but be timely closed and, at a minimum, the cover blocks emergency venting. Pi leak detection is of questionable value since the volume from a spray leak is small and high level in the jet may not be received very soon, if at all. Pipes are not double wrapped in vitelgump; pi's so leaks would release directly into the pi atmosphere. Accordingly, if the emergency venting facilities were assumed to be failed the expected accident frequency (leading to an S3) would be increased. Assuming the spray is a fairly dense spray and the closure of a cover block after is W056, the frequency without safeguards would be F2.				F1	F2	S3	

Table A-7. Process History. (116 Sheets)

ID	MEMO NO	Re- tained Safety	Re- tained Freq	Re-tained MEMO	Orig Freq	Orig Freq MC	Orig Safety	Remarks
W058- FLOW16	Spray leaks from valve/pump pin will result in an SS consequence here F1 frequency is severe after event. The frequency is low because the leak event not only cover but be readily detected and, at a minimum, the cover blocks automatically decreasing. Pin leak detection is of questionable value since the volume from a spray leak is small and high level in the pit may not be reached very soon, if at all. Pumps are not double contained in valve/pump pin so leaks would release directly into the pit atmosphere. Accordingly, if the mitigation/preventive features were assumed to be failed the expected accident frequency resulting to an SS3 would be increased. Assuming the spray is a freely detected spray and the chance of a cover block error is 1/100, the frequency without safeguards would be F2.				F1	F2	S3	
W058- FLOW17a	see W058-FLOW16				F1	F2	S3	
W058- FLOW17b	see W058-FLOW16				F1	F2	S3	
W058- FLOW17c	see W058-FLOW16				F1	F2	S3	
W058- FLOW18	see W058-FLOW16				F1	F2	S3	
W058- FLOW19	see W058-FLOW16				F1	F2	S3	
W058- FLOW20a	see W058-FLOW16				F1	F2	S3	
W058- FLOW20b	see W058-FLOW16				F1	F2	S3	
W058- FLOW20c	see W058-FLOW16				F1	F2	S3	
W058- INT EG01a	LE or ORCA is back in primary piping and containment. Plant/vent controls include containment leak detection and stable response procedures. Vent/relief controls lead to containment or piping could be pre-existing, so the frequency of this scenario could be F2.				F1	F2	S2	

Table A-7. Process History. (116 Sheets)

ID	MEMO NC	Re- banned Safety	Re- banned Freq	Re-banned MEMO	Org Freq	Org Freq NC	Org Safety	Remarks
W086- INTEG01b	IE or cause is lack in primary piping and equipment. Pressure controls include inconsistent leak detection, leak testing and mass balance procedures. Without control's tests in measurement or piping could be pre-existing, so, the frequency of this scenario could be F2				F1	F2	S2	
W086- INTEG01c	IE or cause is lack in primary piping and equipment. Pressure controls include inconsistent leak detection, leak testing and mass balance procedures. Without control's tests in measurement or piping could be pre-existing, so, the frequency of this scenario could be F2				F1	F2	S2	
W086- INTEG01d	IE or cause is lack in primary piping and equipment. Pressure controls include inconsistent leak detection, leak testing and mass balance procedures. Without control's tests in measurement or piping could be pre-existing, so, the frequency of this scenario could be F2				F1	F2	S2	
W086- INTEG03a	IE Volcano Activity, Airplane Crash Lack of Administrative Procedures for Overflights				F1	F2	S2	
W086- INTEG03b	IE Volcano Activity, Airplane Crash Lack of Administrative Procedures for Overflights				F1	F2	S2	
W086- INTEG05a	IE Accidental Escalation of Pipe Lack of Administrative Controls for Escalation, Leak Detection				F1	F2	S2	
W086- INTEG05b	IE Accidental Escalation of Pipe Lack of Administrative Controls for Escalation, Leak Detection, Inventory Control				F1	F3	S2	
W086- INTEG07a	IE Pipe Leak and Subsequent Undermining Encasement Leak Detectors Ineffective, Valve pit leak detection, Lack of Surveillance of Surface Areas				F1	F3	S2	
W086- INTEG07b	IE Pipe Leak and Subsequent Undermining of Adjacent Transfer Line Encasement Leak Detectors Ineffective, Lack of Surveillance of Surface Areas, Lack of Inventory Control				F1	F2	S2	
W086- INTEG09a	IE Freezing Temperatures Pipe is below heat line				F1	F1	S2	
W086- INTEG09b	IE Freezing Temperatures Pipe is below heat line				F1	F1	S2	

Table A-7. Process History. (116 Sheets)

ID	MEMO NC	Re- leased Safety	Re- turned Freq	Re-born MEMO	Org Freq	Org Freq NC	Org Safety	Remarks
W006- INTEG11a	1E Seismic Event				F1	F1	S2	
W006- INTEG11b	1E Seismic Event				F1	F1	S2	
W006- INTEG13a	1E at cause is leak in primary piping and displacement. Particular controls include measurement leak detection, leak testing and mass balance procedures. Without controls leaks in measurement or piping could be pre-existing, so the frequency of this scenario could be F2				F1	F2	S2	
W006- INTEG13b	1E at cause is leak in primary piping and displacement. Particular controls include measurement leak detection, leak testing and mass balance procedures. Without controls leaks in measurement or piping could be pre-existing, so the frequency of this scenario could be F2				F1	F2	S2	
W006- INTEG13c	1E at cause is leak in primary piping and displacement. Particular controls include measurement leak detection, leak testing and mass balance procedures. Without controls leaks in measurement or piping could be pre-existing, so the frequency of this scenario could be F2				F1	F2	S2	
W006- INTEG13d	1E at cause is leak in primary piping and displacement. Particular controls include measurement leak detection, leak testing and mass balance procedures. Without controls leaks in measurement or piping could be pre-existing, so the frequency of this scenario could be F2				F1	F2	S2	
W006- INTEG14a	1E Volcano Activity, Airplane Crash Lack of Administrative Controls for Emergencies				F1	F2	S2	
W006- INTEG14b	1E Volcano Activity, Airplane Crash Lack of Administrative Controls for Emergencies				F1	F2	S2	
W006- INTEG16a	1E Accidental Excavation of Pipe Lack of Administrative Controls for Excavation, Leak Detection, Inventory Control				F1	F3	S2	
W006- INTEG16b	1E Accidental Excavation of Pipe Lack of Administrative Controls for Excavation, Leak Detection, Inventory Control				F1	F3	S2	
W006- INTEG16c	1E Pipe Leak and Subsequent Undermining of Adjacent Trencher Line Excavation Leak Detectors Ineffective, Lack of Surveillance of Surface Area, Lack of Inventory Control				F1	F2	S2	

Table A-7. Process History. (118 Sheets)

ID	MEMO NC	Re- binned Safety	Re- binned Freq	Re-binned MEMO	Orig Freq	Orig Freq NC	Orig Safety	Remarks
W088- INTEG189	1E Pipe Leak and Subsequent Unkinking of Adjacent Transfer Line Inadequate Leak Detectors (collective) Lack of Supervisory of Surface Area, Lack of Inventory Control				F1	F2	S2	
W089- INTEG208	1E Freezing Temperature Pipe is below frost line				F1	F1	S2	
W089- INTEG206	1E Freezing Temperature Pipe is below frost line				F1	F1	S2	
W089- INTEG22	1E Spurious Event				F1	F1	S2	
W089- INTEG24	1E Aircraft Crash Overlight Administrative Controls - Minimal Effect on Frequency of Crash into Tank Farm				F1	F1	S2	
W089- INTEG28	1E Spurious Event				F1	F1	S2	
W089- INTEG28	1E Aircraft Crash Overlight Administrative Controls - Minimal Effect on Frequency of Crash into Tank Farm				F1	F1	S2	
W089- INTEG30	1E Spurious Event				F1	F1	S2	
W089- INTEG32	Several spray leak event that involved human error were assigned a frequency of F1 and a consequence of S2. One involves a spray leak from a test near The primary failure mode is failure to restore after test or maintenance and at approximately the statistical failure Leak detection and confirmation series of test runs are the primary controls. If these physical maintenance features are assumed to be failed or missing then the expected accident frequency would increase to F2				F1	F2	S2	

Table A-7. Process History. (116 Sheets)

ID	MEMO NC	Re- banned Safety	Re- banned Freq	Re-banned MEMO	Org Freq	Org Freq NC	Org Safety	Remarks
W058- INTEG34	1 E Aircraft Crash Overlight Administrative Controls - Minimal Effect on Frequency of Crash into Tank Farms There are two abnormal events (airplane crash, etc.) that lead to a major leak. They are assigned a S3 consequence and a P1 frequency. Air traffic controls near the Hanford site exist. Such an event is very unlikely and the even with the absence of preventive/mitigative features the frequency of such an event would not increase beyond a P1 frequency.				P1	P1	S3	
W058- INTEG35	1 E System Event There are two system events that lead to major leaks and are assigned a S3 consequence and a P1 frequency. Mitigation/prevention features include gel over shields, flow monitoring, and leak detection. In design a failure event, mitigation/preventive features could fail. An event of a magnitude in that could produce a leak is likely to disrupt these features including operator access to controls. Because of this, if preventive/mitigative features were assumed not to exist then the expected accident frequency would still not increase beyond a P1.				P1	P1	S3	
W058- INTEG36	1 E Aircraft Crash Overlight Administrative Controls - Minimal Effect on Frequency of Crash into Tank Farms see W058-INTEG34				P1	P1	S3	
W058- INTEG37	1 E System Event see W058-INTEG35				P1	P1	S3	
W058- PRES01	1 E or closer to leak is piping. Perforated controls include leak detection and procedures that minimize water hammer possibility. Without controls the frequency of this scenario could be P3.				P2	P3	S2	
W058- PRES03	1 E or closer to leak is piping. Perforated controls include leak detection and procedures that minimize water hammer possibility. Without controls the frequency of this scenario could be P3.				P2	P3	S2	

Table A-7. Process History. (116 Sheets)

ID	MEHC NC	Re- tained Safety	Re- tained Freq	Re-tained MEHC	Org Freq	Org Freq NC	Org Safety	Remarks
XS-01- FLOW01	The fire/explosion is a DCRT due to the ignition of a flammable gas atmosphere is assigned to the F1 and S2 frequency and consequence categories respectively. A spill scenario is required for this accident to occur. If the management/preventative controls are removed, the accident would have the same consequences as before with controls. Without the engineered control the frequency of this accident would increase. The frequency category for this accident without controls is F2.				F1	F2	S2	
XS-01- FLOW02	A gas burn on the vapor space of a waste tank due to a flammable gas mixture and ignition source is assigned to the F1 and S3 frequency and consequence categories respectively. A spill scenario is required for this accident to occur. If the management/preventative controls are removed, the accident would have the same consequences as before with the controls. Without the engineered and administrative controls the frequency of this accident would increase to the next frequency category. Therefore, the frequency category for this accident without controls is F2.				F1	F2	S3	
XS-01- FLOW03	See No Controls Items for XS-01-FLOW03				F1	F2	S3	
XS-01- FLOW04	The I/E or cause is leaking water up after an opened tank. Controls include level measurements and transfer procedures. Without these controls the frequency would increase to F2 for a S1 consequence.				F1	F2	S1	
XS-01- FLOW05	The I/E or cause is freezing water up over water system. Controls include pressure switches, valve position and/or psi, procedures that isolate over water. Without these controls the frequency would increase to F2 for a S2 consequence.				F1	F2	S2	
XS-01- FLOW06	I/E or cause is an open jumper in a SST pump jet. Controls include leak detection and waste balance determination. The frequency reduction is already F3, so, without controls the frequency would remain the same.	S2		MVS-52486 - Revised due to application of new risk acceptance guidelines.	F3	F3	S1	
XS-01- FLOW07	Several pressurized liquid releases to the ground are assigned a F3 frequency and a S2 consequence. All of these are caused by some failure of the primary piping and subsequent failure of the environmental piping. Controls include environmental leak detectors. The event is already considered very likely, so, if all management/preventative controls did not exist the frequency would remain F3.	S2		MVS-52486 - Revised due to application of new risk acceptance guidelines.	F3	F3	S1	

Table A-7. Process History. (116 Sheets)

ID	MEMO AC	Re- turned Safety	Re- turned Freq	Re-returned MEMO	Orig Freq	Orig Freq AC	Orig Safety	Remarks
XS-01- PRES01	If it occurs it is use of wrong acid pump and inadvertently closed valves leading to over pressure. Controls include configuration control, setup verification before transfer and setup balance determinations. Without these controls the frequency could increase to F2				F1	F2	S2	
XS-01- PRES02	see XS-01 FLOW01				F3	F3	S1	
XS-01- TEMP01	see COS-01				F2	F3	S2	
XS-01- TEMP02	see COS-02				F3	F3	S1	
XS-02- FLOW01	The I/E or cause is misalignment of pumps which allows PEP steam jet or ventilation to put DORT vapors. Personnel control include transfer procedures. With controls the frequency is F2 and consequence S1 Because this is a very specific kind of misalignment that the frequency should not increase beyond an F2 even without controls				F2	F2	S1	
XS-02- FLOW02	Three hazardous conditions involving inadvertent addition of pressurizing material that involve human error and result in pressurized release were assigned a frequency of F1 and a consequence of S1. One possible failure to all of all blocks jet venting tube affects the HEMA filter. Controls include procedures and instrumentation If these preventive/mitigation features are assumed to be failed or missing then the expected accident frequency would increase to F3	S2		MVS-52409 - Revised due to application of new risk acceptance guidelines	F2	F3	S1	
XS-02- FLOW03	Three hazardous conditions involving inadvertent addition of pressurizing material that involve human error and result in pressurized release were assigned a frequency of F1 and a consequence of S2. Two involve loss of pH control. Controls include sampling prior to transfer and detectors for tank additions Even if these preventive/mitigation features are assumed to be failed or missing normal operations does not include transferring large amounts of acid. Therefore, the expected accident frequency, without controls, might increase but not beyond an F2	S2		MVS-52409 - Revised during contextual safety check	F2	F2	S1	
XS-02- FLOW04	The I/E or cause is failure to maintain proper pH resulting in loss of pipe integrity. Personnel control include leak detection in the enclosure and PEP sampling prior to transfer. Only in extreme cases would failure to maintain pH lead to loss of pipe integrity, so, even without controls the frequency is still F2	S2		MVS-52409 - Revised due to application of new risk acceptance guidelines	F2	F2	S1	

Table A-7. Process History. (116 Sheets)

ID	MEMO NO.	Re- vised Safety	Re- vised Freq	Revised MEMO	Org Freq	Org Freq NO.	Org Safety	Remarks
XS-02- FLOW05	See XS-01-FLOW07	S2		MVS-4/2466 - Revised due to application of new risk acceptance guidelines	F3	F3	S1	
XS-02- FLOW06	IE Human Error - Mismanagement Lack of Administrative and Procedural Controls, Detection/Prevention				F2	F3	S1	
XS-03- LEVE	IE or cause at lack of DORT. Past event control includes level and tank indication with CAS. This scenario is already assigned a frequency of F3 so without controls it is also an F3 frequency.				F3	F3	S1	
XS-03- LEVE01 XS-21- LEVE (244- S DORT)	See No Controls Memo for 100C-Na.				F1	F2	S2	
XS-03- LEVE02 XS-21- LEVE (244- S DORT)	IE Human Error Lack of Criticality Prevention Procedures The frequency of a criticality in a DORT or Catch Tank was determined to be an F1 with a consequence of S2. The basis for this frequency range selection is the frequency range selected for the double and single shell tanks. The double and single shell tanks have a larger physical diameter than these tanks. DORTs and Catch Tanks have diameters which are closely approximate to the diameters associated with critical masses of fissile material than the larger double and single shell tanks at Harvard. These confined diameters would lead to prevent any material being added to the tank from spreading out and resulting in fact tend to concentrate the material in comparison to the larger single and double shell waste tanks. oThe probability of a criticality in a smaller waste tank such as a DORT would be significantly higher without administrative controls versus with administrative controls. If enough fissile material was added to one of these tanks with the proper concentration of fissile material there could be a category event which would be systemic in nature. The likelihood category in which these accidents would fall without controls would increase from F1 to F3.				F1	F3	S2	
XS-03- PRES01	IE or cause at gas evolution. Several prevention controls apply. Even with controls this scenario was assigned a F3 frequency. Therefore, without these controls the frequency would still be F3.				F3	F3	S1	

Table A-7. Process History. (116 Sheets)

ID	MEMO NO.	Re- binned Safety	Re- binned Freq	Re-binned MEMO	Ong Freq	Ong Freq NO	Ong Safety	Remarks
X3-03- PRES01 X3-21- PRES (244- SOGAT)	See No Controls Allowed for X303 data				F1	F2	S2	
X3-03- PRES01A	IE or cause is ventilation failure that allows open path for radioactive particulates. Prevented controls include ventilation system failure alarm and procedures. Without these controls including the ventilation system itself the frequency would be F3				F3	F3	S1	
X3-03- PRES02	IE Human Error - Ventilation Damper Closed Lack of Administrative and Procedural Controls, Operator/Engineer/Technician Name				F3	F3	S1	
X3-03- PRES02 X3-21- PRES (244- SOGAT)	IE or cause is decontamination of waste area entering OGRT atmosphere Without the ventilation system itself the frequency would be F3	S2		MVS -5/24/96 - Revised during consistency check	F2	F3	S1	
X3-03- PRES03	IE Critical Damage Lack of Ventilation Alarm - HEPA Differential Pressure signals Surveillance				F3	F3	S1	
X3-03- PRES04	IE or cause is loss of power that leads to ventilation failure that allows open path for radioactive particulates. Prevented controls include ventilation system alarm alarm and procedures. Without these controls including the ventilation system itself the frequency would be F3				F3	F3	S1	
X3-03- PRES05	IE or cause is transfer of steam from PVP causing gas isolation due to heating tank. Control prevent controls supply. However, the control is very specific and dominates the the frequency of these scenarios. Therefore, even without these controls the frequency would still be F2	S2		MVS -5/24/96 - Revised during consistency check	F2	F2	S1	

Table A-7. Process History. (116 Sheets)

ID	MEMO NO	Re- vised Safety	Re- vised Freq	Re-vised MEMO	Org Freq	Org Freq Sec	Org Safety	Remarks
XS-03- TEMP01	A chemical or incompatible waste is added to the tank due to a overflowing which results in higher pressure in the tank. This was assigned to the frequency category of F3 since these activities are seldom or infrequently conducted. The accident was assigned to the consequence category S1 since the accident results in the release of material to the environment. If the mitigative/preventative measures are removed then a shortcoming of the waste material would be come more serious. With no controls or mitigative features the expected frequency of this accident would be higher and still be in the highest frequency category of F3.	S2	F2	MVB-62495 - Revised during consistency check	F3	F3	S1	
XS-03- TEMP01 XS-21- TEMP (244-S DCRT)	IE or cause is a leak of a DCRT and a consequent vent leak. Personnel controls include temperature and level indicators. A consequent vent leak is unlikely. Accordingly even without controls the frequency would still be F3.				F1	F3	S1	
XS-03- TEMP02	IE or cause is chemical handling causing spill or material release. Several prevent controls apply. Even with controls the consequence was assigned a F3 frequency. Therefore, without these controls the frequency would still be F3.	S2	F2	MVB-62496 - Revised during consistency check	F3	F3	S1	
XS-03- TEMP02 XS-21- TEMP (244-S- DCRT)	IE Human Error The frequency of a critically in a DCRT or Catch Tank was determined to be an F1 with a consequence of S2. The basis for this frequency range selection is the frequency range selected for the double and single shell tanks. The double and single shell tanks have a larger physical dimensions than these tanks. DCRT's and Catch Tanks have dimensions which were closely approximated those dimensions associated with critical releases of waste material then the larger double and single shell tanks at Hanford. These critical dimensions would tend to prevent any material being added to the tank from speeding out and would in fact tend to concentrate the material in comparison to the larger single and double shell waste tanks. The probability of a critically in a smaller waste tank such as a DCRT would be significantly higher without administrative controls versus with administrative controls. If enough preventative measures were added to one of these tanks with the proper concentration of waste material there could be a critically event which would be significant to have. The consequence category in which these accidents would fall without controls would increase from F1 to F3.				F1	F3	S2	

Table A-7. Process History. (116 Sheets)

ID	MEMO NO	Re- turned Safety	Re- turned Freq	Re-learned MEMO	Org Freq	Org Freq WC	Org Safety	Remarks
XS-03- TEMP03 XS-21- TEMP (244-S- DCRT)	Gas No Control Alarms for HSC-His				F1	F2	S2	
XS-03- TEMP04	The fire at 244-TX.DCRT due to the rupture of a flammable gas atmosphere is assigned to the F1 and S1 frequency and consequence categories respectively. A spark source is required for this accident to occur. If the design/operational controls are removed, the accident would have the same consequence as before with controls. Without the engineered control, the frequency of this accident would increase. However, the temperature elevation in the DCRT would not indicate a build up of flammable gas and would not have any effect on the frequency of this accident. The frequency category for this accident without controls would remain as F1.				F1	F1	S1	
XS-03- TEMP04 XS-21- TEMP (244-S- DCRT)	IE or cause is lost in raw water line due to flooding that overflows DCRT. Personnel controls include level measurements and water intake checkup. Without controls the frequency of this scenario could be F2.				F2	F3	S2	
XS-03- TEMP05	IE Over Agitation of Tank Wastes Loss of Administrative and Procedural Controls				F3	F3	S1	
XS-03- TEMP06	IE Over Agitation of Tank Wastes Loss of Administrative and Procedural Controls. Deformation/Inundation				F3	F3	S1	
XS-03- TEMP07	IE or cause is ventilation failure that allows oxygen path for redox reaction participation. Personnel controls include ventilation system failure alarm and procedures. Without these controls including the ventilation system itself the frequency remains F3.				F3	F3	S1	
XS-03- TEMP08	IE or cause is ventilation failure that allows oxygen path for redox reaction participation. Personnel controls include ventilation system failure alarm and procedures. Without these controls including the ventilation system itself the frequency remains F3.				F3	F3	S1	

Table A-7. Process History. (116 Sheets)

ID	MEMO NO	Re- hatched Safety	Re- hatched Freq	Re-hatched MEMO	Org Freq	Org Freq NO	Org Safety	Remarks
XS-05-TEMP00	IE or more is both DORT and rock. The rock is concrete with a stainless steel liner. Portable controls include the pump and temperature. Under the frequency of the accident is determined by the frequency of the very specific failure. So, without controls is still P1				P1	P1	S2	
XS-05-FLOW01	The IE or more is over sized replacement of mechanical on which damage HSPA/200r. Portable controls include design specifications, configuration control and HSPA off alarm. Without proper design specifications, configuration control and other controls the frequency would increase to P2	S2		MVS-502496 - Revised due to application of new NAI acceptance guidelines	P1	P2	S1	
XS-05-FLOW02	IE or more is initiation of overaged line which leads to overpressure and damages tank. Frequency without controls is P2				P1	P2	S2	
XS-05-TEMP01	Flammable gas builds up in the DORT and an ignition source occurs resulting in a fire. This accident was assigned to the frequency category of F3. This accident was assigned to the consequence category S2 since this accident results in the release of material to the offsite worker. If the mitigation/prevention features are enhanced then the frequency of this accident would be higher without preventive countermeasures. With no controls or mitigative features the expected frequency of this accident would be higher but would still be in the highest frequency category of F3				P3	F3	S2	
XS-05-TEMP02	Flammable gas builds up in the DORT and an ignition source occurs resulting in a fire. This accident was assigned to the frequency category of F3. This accident was assigned to the consequence category S2 since this accident results in the release of material to the offsite worker. With no controls or mitigative features the expected frequency of this accident would be higher but still in the highest frequency category of F3				F3	F3	S2	
XS-05-FLOW01	See N C Memo for XS-05-TEMP02 XS-21-TEMP (2445-DORT)				P1	F3	S2	
XS-05-FLOW02	see W05A-FLOW16				P1	P2	S3	
XS-05-FLOW03	see W05B-FLOW18				P1	P2	S3	

Table A-7. Process History. (116 Sheets)

ID	MEMO NO	Re- binned Safety	Re- binned Freq	Re-binned MEMO	Orig Freq	Orig Freq NC	Orig Safety	Remarks
XS-06- FLOW04	see W058FLOW18				F1	F2	S2	
XS-06- FLOW05	One pressurized liquid release to the ground, as opposed to F2 frequency and a S2 consequence. In this case Phase 4, concurrent failure of primary and containment piping. Controls include containment leak detectors and waste hold-up delay/minidelay. This event is dominated by the initiating frequency of each event, so, if all prevent/avoid/mitigation measures did not exist the frequency would remain F2.				F2	F2	S2	
XS-06- FLOW06	1E Human Error Lack of Administrative and Procedural Controls, Detection of Interim/Initial, HEPA Filters				F1	F3	S1	
XS-07- FLOW01	1E Accidental Excavation of Pipe Lack of Administrative Controls for Excavation, Leak Detection, Inventory Control				F3	F3	S2	
XS-07- FLOW02	see W049T-01-FLOW03				F3	F3	S2	
XS-07- FLOW03	1E Heavy Loads Lack of Efficient Leak Detectors, No Controls for Heavy Traffic Loads				F3	F3	S2	
XS-07- FLOW04	1E Seismic Event				F2	F2	S2	
XS-07- FLOW05	1E Pipe Leak and Subsequent Unavailability of Section of Transfer Line Containment Leak Detectors Ineffective, Lack of Surveillance of Surface Areas, Lack of Inventory Control				F3	F3	S2	
XS-07- FLOW06	see W02AA-01-FLOW03				F3	F3	S2	
XS-11- LEVE01	1E Human Error Lack of Administrative and Procedural Controls, Personnel Training, Detector/Instrumentation				F2	F3	S2	
XS-11- LEVE02	1E Human Error Lack of Administrative and Procedural Controls, Personnel Training, Detector/Instrumentation				F2	F3	S2	

Table A-7. Process History. (115 Sheets)

ID	MEMO NO	Re- labeled Safety	Re- labeled Freq	Re-labeled MEMO	Orig Freq	Orig Freq MC	Orig Safety	Revised
XS-11- LEVE03	IE or cause is lock-in piping that causes overflow. Permit controls include leak detection. Without controls the frequency of this scenario could be P3				P2	P3	S2	
XS-12- FLOW01	IE Physical Process Loss of Administrative and Procedural Controls				F1	F3	S1	
XS-12- FLOW02	The deflagration in a diversion tank is categorized to the P1 frequency category and S1 consequence category. There are no identified engineered or administrative barriers which would affect the frequency or consequence of the accident. Since there are no controls which would help prevent this accident, the frequency of this accident with no controls would remain in the frequency category P1	S2		MVS -5/24/96 - Revised due to application of new risk acceptance guidelines	P1	P1	S1	
XS-12- FLOW03	See No Controls Memo for XS-12-FLOW03	S2		MVS -5/24/96 - Revised due to application of new risk acceptance guidelines	F1	F1	S1	
XS-12- FLOW04	IE or cause is radiolysis of catch tank material. Permit controls include requirements to empty catch tank. Without controls the frequency of this scenario could be P3				F1	F3	S1	
XS-12- FLOW05	IE as backflow from catch tank that causes overflow from diversion tank. Permit controls include level and leak detection. Even with controls this scenario is already assigned a P3 frequency, so without controls it would be an P3 frequency				F3	F3	S2	
XS-12- FLOW06	IE or cause is leak detection loss. This scenario is already assigned a frequency of P3 so without controls it is also an P3 frequency				F3	F3	S1	
XS-13- LEVE	IE or cause is leak of catch tank. permit controls include level instrumentation. This scenario is already assigned a frequency of P3, so, without controls it is also a P3 frequency	S3		MVS -5/24/96 - Revised during opportunity check	F3	F3	S1	
XS-13- PRES01	IE or cause is chemical reaction causing major or minor release. Permit controls include a conceptual safety program and requirements to empty catch tank. Without controls including the ventilation system flood the frequency would be P3				P2	P3	S2	

Table A-7. Process History. (116 Sheets)

ID	MEMO NO	Re- assessed Safety	Re- assessed Freq	Re-issued MEMO	Orig Freq	Orig Freq NO	Orig Safety	Remarks
XS-13- PRE602	A fire/explosion at the 244-U301B each tank due to the ignition of a flammable gas atmosphere is assigned to the F2 and S2 frequency and consequence categories respectively. A spark source is required for the accident to occur. If the mitigation/preventative controls are removed, the accident would have the same consequences as before with controls. The removal of the emergency relief control of requiring the catch tank to be empty would not have any effect on the frequency of this accident. The frequency category for this accident without controls would remain as F2.	S3		MVS -5/24/96 - Reassessed using the new risk acceptance guidelines. In general S2 for deflagration and S3 for detonation, however the size & contents of this tank is the determining factor.	F2	F2	S2	
XS-13- PRE603	IE or issue in chemical handling during repair or normal release. Several different controls apply. Even with controls the scenario was assigned a F3 frequency. Therefore, without these controls the frequency would still be F3.	S2	F2	MVS -5/24/96 - Revised during consistency check.	F3	F3	S1	
XS-13- PRE604	See H.C. Memo for XS-21-TEMP-02 XS-21-TEMP (244-S-COAST)		F1	MVS -5/24/96 - Revised during consistency check.	F1	F3	S2	
XS-20- FLOW01	IE Human Error Lack of Administrative and Procedural Controls, Personnel Training, Distraction/Interference				F3	F3	S2	
XS-20- FLOW02	IE Human Error Lack of Administrative and Procedural Controls, Personnel Training, Distraction/Interference	S1	F2	MVS -5/24/96 - Revised during consistency check.	F3	F3	S2	
XS-20- FLOW03	A chemical or equipment failure is added to the tank due to a misrouting which results in higher pressures in the tank. This was assigned to the frequency category of F3 since these failures are administratively controlled. This accident was assigned to the consequence category S2 since this accident results in the release of material to the offsite water. If the mitigation/preventative features are removed from a functioning of the waste transfer would be come more serious. With no controls or mitigation features the expected frequency of this accident would still be in the highest frequency category of F3.		F2	MVS -5/24/96 - Revised during consistency check.	F3	F3	S2	
XS-20- FLOW04	IE Human Error - Misoperator Lack of Administrative and Procedural Controls, Distraction/Interference		F2	MVS -5/24/96 - Revised during consistency check.	F3	F3	S2	

Table A-7. Process History. (116 Sheets)

ID	MEMO NO	Re- binned Safety	Re- binned Freq	Re-binned MEMO	Orig Freq	Orig Freq NO	Orig Safety	Remarks
XS-20- FLOW05	See H.C. Memo for XS-03-TEMP02 XS-21-TEMP (244-6-0-GR1)		F1	MVS -52498 - Changed the frequency based on the assumption that a criticality would occur at 244-TX before it ever got to this DCRT	F1	F3	S2	
XS-20- FLOW06	IE Human Error - Misoperator Lack of Administrative and Procedural Controls, Detection/Intervention	S1	F2	MVS -52498 - S1 because the release occurs inside the building	F3	F3	S2	
XS-20- FLOW07	IE Human Error - Misoperator Lack of Administrative and Procedural Controls, Detection/Intervention	S1	F2	MVS -52498 - S1 because the release occurs inside the building	F3	F3	S2	
XS-20- FLOW08	IE Human Error Lack of Administrative and Procedural Controls, Personnel Training, Detection/Intervention				F2	F3	S2	
XS-20- FLOW09	IE Human Error Lack of Administrative and Procedural Controls, Personnel Training, Detection/Intervention				F3	F3	S2	
XS-20- PRES XS-20- TEMP	IE Human Error - Misoperator Lack of Administrative and Procedural Controls, Detection/Intervention				F3	F3	S2	
XS-20- PRES XS-20- TEMP 902-AW- TEMP (FOR TH- 902-AW)	See H.C. Memo for 1025-04 04				F0	F1	S2	

Table A-7. Process History. (116 Sheets)

ID	MEMO NO	Re-learned Safety	Re-learned Prog	Re-learned MEMO	Orig Freq	Orig Freq NC	Orig Safety	Remarks
XS-26-PRES01	IE Human Error - Misreading Lack of Administrative and Procedural Controls, Out-of-control instrumentation				F2	F3	S2	
XS-26-PRES01A 102AHV-02-PRES	IE or cause is ventilation feature that allows open path for radioactive particulates. Paramount controls include ventilation system failure alarms and procedures. Without these controls including the ventilation system itself the frequency remains F3.				F3	F3	S4	
XS-26-PRES02	See No Controls Memo for XS0-04a	S3		MVS-5/24/86 - Revised during consistency check	F1	F2	S2	
XS-26-PRES02A 102AHV-02-PRES	IE or cause is ventilation feature that allows open path for radioactive particulates. Paramount controls include ventilation system failure alarms and procedures. Without these controls including the ventilation system itself the frequency remains F3.				F3	F3	S4	
XS-26-PRES03	IE or cause is use of not required as causes pressurization and aerosol generation. Several features of design apply. Even with controls in the scenario you assigned a F3 frequency. Therefore, without these controls the frequency would still be F3.				F3	F3	S4	
XS-26-PRES03 102AHV-02-PRES	IE or cause is loss of power that leads to ventilation feature that allows open path for radioactive particulates. Paramount controls include ventilation system failure alarms and procedures. Without these controls including the ventilation system itself the frequency remains F3.				F3	F3	S4	
XS-26-TEMP 102AHV-06-TEMP	IE or cause is a leak from the primary tank to the atmosphere. Paramount controls include tank and ventilation indicators. The frequency of initial event decreases the frequency of the scenario regardless of controls. Even without controls the frequency of the scenario remains F1.				F1	F1	S1	

Table A-7. Process History. (116 Sheets)

ID	MEMO NO	Re- defined Safety	Re- defined Freq	Re-Defined MEMO	Org Freq	Org Freq, NC	Org Safety	Remarks
XS-09- TEMP01	<p>Atmospheric pressure releases that lead to B2 consequence are F1 frequency. Lots of wind due to delays that lead to a tank being empty are the cause of three releases for four of three accidents. The loss of ventilation must occur over a sufficiently long period of time to result in an B2 consequence effect. AT the same time, the loss of ventilation does not necessarily result in a bump. In fact in most cases a bump probably would not occur.</p> <p>Because the cause of the predicted accident is a pressure relief failure, safety staff, if it and with other failures are assumed to be failed. Even the assumed event is more likely to occur. Accordingly, the expected accident frequency would be F2.</p>				F1	F2	S2	
XS-26- TEMP02	IE or cause is exceeding design temperature due to loss of service ventilation. Portavent controls include temperature, level, and leak detection along with other safeguards that ensure ventilation has failed. The expected frequency of this condition is determined by the frequency of the very specific initiating event. So, without controls the frequency of this event is rated as F1.				F1	F1	S1	
XS-35- FLOW01	IE or cause is leak of uncontained direct bypass piping. Portavent controls include material balance determinations. This scenario is already assigned a frequency of F2, so, without controls it is also an F3 frequency.	S2		NRVS -52498 - Revised due to application of new risk acceptance guidelines.	F3	F3	S1	
XS-36- FLOW02	IE - Human Error Lack of Administrative and Procedural Controls, Personnel Training, Deficiencies.				F2	F3	S2	
XS-37- FLOW01	IE or cause is leak in transfer pipe that leads to overflowing of catch tank. Portavent controls include level and leak detection and mass balance determinations. Without any controls the scenario is a F3 frequency.	S2		NRVS -52498 - Revised due to application of new risk acceptance guidelines.	F2	F3	S1	
XS-37- FLOW02	IE or cause is leak in primary transfer pipe that leads to leak-out of concrete containment. Portavent controls include containment leak detection and mass balance determinations. Without any controls the scenario is a F3 frequency.	S2		NRVS -52498 - Revised due to application of new risk acceptance guidelines.	F2	F3	S1	
XS-49A- FLOW01	IE or cause is failure of vent piping that leads to overflow. Portavent controls include leak detection. Without any controls the scenario might increase to F3.				F2	F3	S2	

Table A-7. Process History. (116 Sheets)

ID	MEMO NC	Re- turned Safety	Re- turned Freq	Re-timed MEMO	Orig Freq	Orig Freq NC	Orig Safety	Remarks
X5-41A- FLOW02	IE Human Error - Oversight Lack of Administrative and Procedural Controls, Personnel Training Detection/Intermittent failure				F3	F3	S2	
X5-41B- LEVE01	See No Controls Memo for X5-13-PRE02				F2	F2	S2	
X5-41B- LEVE02	IE is operation of the vent station. Personnel controls include level and leak detection. Even with controls this scenario is already assigned a F3 frequency so without controls it would be an F3 frequency				F3	F3	S1	
X5-41B- LEVE03	IE Human Error Lack of Administrative and Procedural Controls, Personnel Training Detection/Intermittent failure				F3	F3	S2	
X5-41B- LEVE04	IE is operation of the vent station. Personnel controls include level and leak detection. Even with controls this scenario is already assigned a F3 frequency so without controls it would be an F3 frequency				F3	F3	S1	
X5-41C- LEVE01	See No Controls Memo for X5-13-PRE02				F2	F2	S2	
X5-41C- LEVE02	IE or cause is plugged drain that causes accumulated oil catch tank. Personnel controls include leak, detection and cover lock. The tank depth would have to be enough to collapse tank. The frequency of this scenario is dominated by the initiator frequency, so even without controls the frequency remains F1				F1	F1	S1	
X5-41C- LEVE03	IE or cause is in transfer pipe leaks to overflow. Personnel controls include three series to leak detection. Without controls the frequency of this scenario leading to a SI consequence would be F3				F1	F3	S1	
X5-45- FLOW	See X5-01-FLOW07	S2		hmv-4/24/06 - Revised due to application of new risk acceptance guidelines	F3	F3	S1	
X5-52- FLOW01	One prearranged flood release to the ground is assigned a F2 frequency and a S2 consequence. In this case there is failure of a specific section of primary and associated piping. Controls include level detection in TK-CR-009 This event is dominated by the initiating frequency of such an event, so, if all prevention/mitigation features did not exist the frequency would remain F2				F2	F2	S2	

Table A-7. Process History. (116 Sheets)

ID	MEMO NO	Re- binned Safety	Re- binned Freq	Re-binned MEMO	Orig Freq	Orig Freq MC	Orig Safety	Remarks
X3-62- FLOW02	U.S. Hama Envoy Lack of Administrative and Procedural Controls, Personnel Training, Detection/Instrumentation				F2	F3	S2	

APPENDIX B
HAZARD TOPOGRAPHY DATABASE TABLES

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Table B-1. Facility Code Data. (22 Sheets)

Facility Code	Farm	Facility Name	Field Name	Type
ER	A FARM	216-A-08C	216-A-08C	Cnb
WF	A FARM	216-A-08S	216-A-08S	Sample pit
ER	A FARM	216-A-26	216-A-26	Cnb
ER	A FARM	216-A-30	216-A-30	Cnb
ER	A FARM	216-A-36A	216-A-36A	Cnb
ER	A FARM	216-A-36B	216-A-36B	Cnb
ER	A FARM	216-A-37-1	216-A-37-1	Cnb
ER	A FARM	216-A-37-2	216-A-37-2	Cnb
ER	A FARM	216-A-39	216-A-39	Cnb
ER	A FARM	216-A-45	216-A-45	Cnb
TSSMO	A FARM	241-A-101	241-A-101	Single shell tank, flammable gas, organic
TSS	A FARM	241-A-102	241-A-102	Single shell tank
TSS	A FARM	241-A-103	241-A-103	Single shell tank
TSSL	A FARM	241-A-104	241-A-104	Single shell tank, high heat load
TSSL	A FARM	241-A-105	241-A-105	Single shell tank, high heat load
TSSL	A FARM	241-A-106	241-A-106	Single shell tank, high heat load
WD	A FARM	241-A-151	241-A-151	Diversion box
WD	A FARM	241-A-152	241-A-152	Diversion box
Z	A FARM	241-A-271	241-A-271	ADAY/AZOX tank farm control bldg
T CN	A FARM	241-A-302-A	241-A-302-A	Catch tank
T CD	A FARM	241-A-350	241-A-350	DCRT catch tank
T CN	A FARM	241-A-360	241-A-360	Drainage pit station catch tank

Table B-1. Facility Code Data. (22 Sheets)

Facility Code	Firm	Facility Name	Field Name	Type
WD	A FARM	241-A-401	241-A-401	Derivator cabinet
Z	A FARM	241-A-401	241-A-401	A/VAC condenser bldg
T C4	A FARM	241-A-417	241-A-417	Catch tank
Z	A FARM	241-A-701	241-A-701	Compressor building
Z	A FARM	241-A-702	241-A-702	Vented ventilation building
WD	A FARM	241-A-A	241-A-A	Valve pit
WF	A FARM	241-A-A	241-A-A	Flush pit
WD	A FARM	241-A-B	241-A-B	Valve pit
WF	A FARM	241-A-B	241-A-B	Flush pit
WS	A FARM	241-A-COB	241-A-COB	Cleanout box
WD	A FARM	244-A	244-A	DCRT catch station
SAT	A FARM	A Satellite Accumulation Area	A Satellite Accumulation Area	Satellite Accumulation Area
WF	AN FARM	241-AN-01D	241-AN-01D	Condensable reactor pit
T DS H V	AN FARM	241-AN-101	241-AN-101	Double shell tank, flammable gas, active ventilation
T DS V	AN FARM	241-AN-102	241-AN-102	Double shell tank, active ventilation
T DS H V	AN FARM	241-AN-103	241-AN-103	Double shell tank, flammable gas, active ventilation
T DS H V	AN FARM	241-AN-104	241-AN-104	Double shell tank, flammable gas, active ventilation
T DS H V	AN FARM	241-AN-106	241-AN-106	Double shell tank, flammable gas, active ventilation
T DS V	AN FARM	241-AN-108	241-AN-108	Double shell tank, active ventilation
T DS A C P V	AN FARM	241-AN-107	241-AN-107	Double shell tank, air lift circulation, caustic, active transfer/water pumps, active ventilation
Z	AN FARM	241-AN-271	241-AN-271	AN tank farm control bldg

Table B-1. Facility Code Data. (22 Sheets)

Facility Code	Farm	Facility Name	Field Name	Type
Z	AN FARM	241-AN-271	241-AN-271	Insulation building
WF	AN FARM	241-AN-273	241-AN-273	Service pit
Z	AN FARM	241-AN-701	241-AN-701	Compressor building
WD	AN FARM	241-AN-A	241-AN-A	Valve pit
WD	AN FARM	241-AN-B	241-AN-B	Valve pit
WS	AN FARM	241-AN-COB-1	COB-AN-1	Cleanout box
WS	AN FARM	241-AN-COB-2	COB-AN-2	Cleanout box
WS	AN FARM	241-AN-COB-3	COB-AN-3	Cleanout box
WS	AN FARM	241-AN-COB-4	COB-AN-4	Cleanout box
WS	AN FARM	241-AN-COB-5	COB-AN-5	Cleanout box
WS	AN FARM	241-AN-COB-6	COB-AN-6	Cleanout box
WS	AN FARM	241-AN-COB-7	COB-AN-7	Cleanout box
WS	AN FARM	241-AN-COB-8	COB-AN-8	Cleanout box
WF	AN FARM	241-AN-FP	241-AN-FP	Flash pit
SAT	AN FARM	AN Satellite Accumulation Area	AN Satellite Accumulation Area	Satellite Accumulation Area
WF	AP FARM	241-AP	241-AP	Flash pit
T DS V	AP FARM	241-AP-101	241-AP-101	Double shell tank, active ventilation
T DS V	AP FARM	241-AP-102	241-AP-102	Double shell tank, active ventilation
T DS V	AP FARM	241-AP-103	241-AP-103	Double shell tank, active ventilation
T DS V	AP FARM	241-AP-104	241-AP-104	Double shell tank, active ventilation
T DS V	AP FARM	241-AP-105	241-AP-105	Double shell tank, active ventilation
T DS V	AP FARM	241-AP-106	241-AP-106	Double shell tank, active ventilation

Table B-1. Facility Code Data. (22 Sheets)

Facility Code	Farm	Facility Name	Field Name	Type
T DS V	AP FARM	241-AP-107	241-AP-107	Double shell tank, active ventilation
T DS V	AP FARM	241-AP-108	241-AP-108	Double shell tank, active ventilation
Z	AP FARM	241-AP-271	241-AP-271	AP tank farm control bldg
WF	AP FARM	241-AP-273	241-AP-273	Service pit
Z	AP FARM	241-AP-273	241-AP-273	Service building
Z	AP FARM	241-AP-701	241-AP-701	Compressor building
WD	AP FARM	241-AP-A	241-AP-A	Valve pit
WD	AP FARM	241-AR-151	241-AR-151	Distillation box
SAT	AP FARM	AP Satellite Accumulation Area	AP Satellite Accumulation Area	Satellite Accumulation Area
F244	AP FARM	AR-204	AR-204	Refuel truck receiving
F244	AP FARM	AR-244	AR-244	Vault
WD	AW FARM	241-AW-02E	241-AW-02E	Feed pump pit
T DS H V	AW FARM	241-AW-101	241-AW-101	Double shell tank, flammable gas, active ventilation
T DS A E P V	AW FARM	241-AW-102	241-AW-102	Double shell tank, air lift, oxygenless, evaporator feed, active transfer/mover pumps, active ventilation
T DS V	AW FARM	241-AW-103	241-AW-103	Double shell tank, active ventilation
T DS V	AW FARM	241-AW-104	241-AW-104	Double shell tank, active ventilation
T DS V	AW FARM	241-AW-105	241-AW-105	Double shell tank, active ventilation
T DS V	AW FARM	241-AW-106	241-AW-106	Double shell tank, active ventilation
Z	AW FARM	241-AW-271	241-AW-271	AW tank farm control bldg
Z	AW FARM	241-AW-272	241-AW-272	Operational support facility
Z	AW FARM	241-AW-273	241-AW-273	Service building

Table B-1. Facility Code Data. (22 Sheets)

Facility Code	Farm	Facility Name	Field Name	Type
Z	AW FARM	241-AW-201	241-AW-201	Compressor building
WD	AW FARM	241-AW-A	241-AW-A	Valve pit
WD	AW FARM	241-AW-B	241-AW-B	Valve pit
WB	AW FARM	241-AW-COB-1	COB-AW-01	Cleanout box
WB	AW FARM	241-AW-COB-10	COB-AW-10	Cleanout box
WB	AW FARM	241-AW-COB-11	COB-AW-11	Cleanout box
WB	AW FARM	241-AW-COB-12	COB-AW-12	Cleanout box
WB	AW FARM	241-AW-COB-2	COB-AW-02	Cleanout box
WB	AW FARM	241-AW-COB-3	COB-AW-03	Cleanout box
WB	AW FARM	241-AW-COB-4	COB-AW-04	Cleanout box
WB	AW FARM	241-AW-COB-5	COB-AW-05	Cleanout box
WB	AW FARM	241-AW-COB-6	COB-AW-06	Cleanout box
WB	AW FARM	241-AW-COB-7	COB-AW-07	Cleanout box
WB	AW FARM	241-AW-COB-8	COB-AW-08	Cleanout box
WB	AW FARM	241-AW-COB-9	COB-AW-09	Cleanout box
WF	AW FARM	241-AW-PP	241-AW-PP	Flush pit
SAT	AW FARM	AW Satellite Accumulation Area	AW Satellite Accumulation Area	Satellite Accumulation Area
T.SLH	AX FARM	241-AX-101	241-AX-101	Single steel tank, flammable gas
T.SLH O	AX FARM	241-AX-102	241-AX-102	Single steel tank, flammable gas, organic
T.SLH	AX FARM	241-AX-103	241-AX-103	Single steel tank, flammable gas
T.SS	AX FARM	241-AX-104	241-AX-104	Single steel tank
CM	AX FARM	241-AX-151	241-AX-151	MUST read container label

Table B-1. Facility Code Data. (22 Sheets)

Facility Code	Farm	Facility Name	Field Name	Type
WD	AX FARM	241-AX-151	241-AX-151	Diversion tank
TCH	AX FARM	241-AX-152	241-AX-152	Catch tank
WD	AX FARM	241-AX-152	241-AX-152	Diveller station
WD	AX FARM	241-AX-153	241-AX-153	Diversion tank
WD	AX FARM	241-AX-155	241-AX-155	Diversion tank
Z	AX FARM	241-AX-2707	241-AX-2707	Change house
WD	AX FARM	241-AX-501	241-AX-501	Valve pit
WF	AX FARM	241-AX-50	241-AX-50	Service pit
WF	AX FARM	241-AX-50	241-AX-50	Service pit
WD	AX FARM	241-AX-A	241-AX-A	Valve pit
WF	AX FARM	241-AX-A	241-AX-A	Flush pit
WD	AX FARM	241-AX-B	241-AX-B	Valve pit
WF	AX FARM	241-AX-B	241-AX-B	Flush pit
WB	AX FARM	241-AX-C06	241-AX-C06	Cleanout box
SAT	AX FARM	AX Baseline Accumulation Area	AX Baseline Accumulation Area	Baseline Accumulation Area
TDS A V	AY FARM	241-AY-101	241-AY-101	Double shell tank, air lift circulators, active ventilation
TDS A V	AY FARM	241-AY-102	241-AY-102	Double shell tank, air lift circulators, active ventilation
WD	AY FARM	241-AY-151	241-AY-151	Pumpout pit
WD	AY FARM	241-AY-152	241-AY-152	Valve box
WD	AY FARM	241-AY-501	241-AY-501	Valve pit
Z	AY FARM	241-AY-501	241-AY-501	Insulation building
WB	AY FARM	241-AY-C06-1	241-AY-1	Cleanout box

Table B-1. Facility Code Data. (22 Sheets)

Facility Code	Farm	Facility Name	Field Name	Type
SAT	AZ FARM	AZ Satellite Accumulation Area	AZ Satellite Accumulation Area	Satellite Accumulation Area
T DS A V	AZ FARM	241-AZ-101	241-AZ-101	Double shell tank, air lift circulation, active ventilation
T DS A V	AZ FARM	241-AZ-102	241-AZ-102	Double shell tank, air lift circulation, active ventilation
T CH	AZ FARM	241-AZ-151	241-AZ-151	Catch tank
T CH	AZ FARM	241-AZ-152	241-AZ-152	Catch tank
WB	AZ FARM	241-AZ-152	241-AZ-152	Sludge transfer box
WD	AZ FARM	241-AZ-152	241-AZ-152	Diversions box
WD	AZ FARM	241-AZ-153	241-AZ-153	Valve pit
T CH	AZ FARM	241-AZ-154	241-AZ-154	Catch tank
WF	AZ FARM	241-AZ-155	241-AZ-155	Contaminated storage pit
WD	AZ FARM	241-AZ-161	241-AZ-161	Check valve cistern
WB	AZ FARM	241-AZ-162	241-AZ-162	Check valve cistern
WD	AZ FARM	241-AZ-562	241-AZ-562	Valve pit
Z	AZ FARM	241-AZ-801A	241-AZ-801A	Isolation building
WB	AZ FARM	241-AZ-00B-1	241-AZ-1	Cleanout box
WB	AZ FARM	241-AZ-00B-10	241-AZ-10	Cleanout box
WB	AZ FARM	241-AZ-00B-2	241-AZ-2	Cleanout box
WB	AZ FARM	241-AZ-00B-3	241-AZ-3	Cleanout box
WB	AZ FARM	241-AZ-00B-4	241-AZ-4	Cleanout box
WB	AZ FARM	241-AZ-00B-5	241-AZ-5	Cleanout box
WB	AZ FARM	241-AZ-00B-6	241-AZ-6	Cleanout box
WB	AZ FARM	241-AZ-00B-7	241-AZ-7	Cleanout box

Table B-1. Facility Code Data. (22 Sheets)

Facility Code	Form	Facility Name	Field Name	Type
WVB	AZ FARM	241-AZ-COB-8	241-AZ-8	Cleanout box
WVB	AZ FARM	241-AZ-COB-9	241-AZ-9	Cleanout box
Z	AZ FARM	300 KW	300 KW	AVIAZ Diesel generator
Z	AZ FARM	95 KW	95 KW	AVIAZ Diesel generator
ER	B FARM	216-B-3	216-B-3	Pond (B pond)
ER	B FARM	216-B-55	216-B-55	Crib
ER	B FARM	216-B-82	216-B-82	Crib
ER	B FARM	216-B-83	216-B-83	Deck
T SS	B FARM	241-B-101	241-B-101	Single shell tank
T SS	B FARM	241-B-102	241-B-102	Single shell tank
T SS G	B FARM	241-B-103	241-B-103	Single shell tank, organics
T SS	B FARM	241-B-104	241-B-104	Single shell tank
T SS	B FARM	241-B-105	241-B-105	Single shell tank
T SS	B FARM	241-B-106	241-B-106	Single shell tank
T SS	B FARM	241-B-107	241-B-107	Single shell tank
T SS	B FARM	241-B-108	241-B-108	Single shell tank
T SS	B FARM	241-B-109	241-B-109	Single shell tank
T SS	B FARM	241-B-110	241-B-110	Single shell tank
T SS	B FARM	241-B-111	241-B-111	Single shell tank
T SS	B FARM	241-B-112	241-B-112	Single shell tank
WD	B FARM	241-B-151	241-B-151	Demolition Box
WD	B FARM	241-B-152	241-B-152	Demolition Box

Table B-1. Facility Code Data, (22 Sheets)

Facility Code	Farm	Facility Name	Facility Name	Type
WD	B FARM	241-B-153	241-B-153	Direction box
WD	B FARM	241-B-154	241-B-154	Direction box
T 53	B FARM	241-B-201	241-B-201	Single shell tank
T 53	B FARM	241-B-202	241-B-202	Single shell tank
T 53	B FARM	241-B-203	241-B-203	Single shell tank
T 53	B FARM	241-B-204	241-B-204	Single shell tank
WD	B FARM	241-B-252	241-B-252	Direction box
OM	B FARM	241-B-301B	241-B-301B	HAUST rad contaminated
OM	B FARM	241-B-302B	241-B-302B	HAUST rad contaminated
WD	B FARM	242-B-151	242-B-151	Direction box
SAT	B FARM	B Satellite Accumulation Area	B Satellite Accumulation Area	Satellite Accumulation Area
T 53	BX FARM	241-BX-101	241-BX-101	Single shell tank
T 53	BX FARM	241-BX-102	241-BX-102	Single shell tank
T 53	BX FARM	241-BX-103	241-BX-103	Single shell tank
T 53	BX FARM	241-BX-104	241-BX-104	Single shell tank
T 53	BX FARM	241-BX-105	241-BX-105	Single shell tank
T 53	BX FARM	241-BX-106	241-BX-106	Single shell tank
T 53	BX FARM	241-BX-107	241-BX-107	Single shell tank
T 53	BX FARM	241-BX-108	241-BX-108	Single shell tank
T 53	BX FARM	241-BX-109	241-BX-109	Single shell tank
T 53	BX FARM	241-BX-110	241-BX-110	Single shell tank
T 53	BX FARM	241-BX-111	241-BX-111	Single shell tank

Table E-4. Facility Code Data. (22 Sheets)

Facility Code	Firm	Facility Name	Field Name	Type
T 85	BX FARM	241-BX-112	241-BX-112	Single shell tank
OM	BX FARM	241-BX-302A	241-BX-302A	HAUST rad contaminated
OM	BX FARM	241-BX-302B	241-BX-302B	HAUST rad contaminated
OM	BX FARM	241-BX-303C	241-BX-303C	HAUST rad contaminated
OM	BX FARM	241-BXR-001	241-BXR-001	HAUST rad contaminated
OM	BX FARM	241-BXR-002	241-BXR-002	HAUST rad contaminated
OM	BX FARM	241-BXR-003	241-BXR-003	HAUST rad contaminated
OM	BX FARM	241-BXR-011	241-BXR-011	HAUST rad contaminated
VID	BX FARM	241-BXR-151	241-BXR-151	Oversewer box
VID	BX FARM	241-BXR-152	241-BXR-152	Oversewer box
VID	BX FARM	241-BXR-153	241-BXR-153	Oversewer box
T CD	BX FARM	244-BX	244-BX	Double contained receiver tank
T CH	BX FARM	244-BX	244-BX	DCRT catch station
OM	BY FARM	216-BY-201	216-BY-201	HAUST rad contaminated
T 85	BY FARM	241-BY-101	241-BY-101	Single shell tank
T 85	BY FARM	241-BY-102	241-BY-102	Single shell tank
T 85 F	BY FARM	241-BY-103	241-BY-103	Single shell tank, ferrocyanide
T 85 F	BY FARM	241-BY-104	241-BY-104	Single shell tank, ferrocyanide
T 85 F	BY FARM	241-BY-105	241-BY-105	Single shell tank, ferrocyanide
T 85 F	BY FARM	241-BY-106	241-BY-106	Single shell tank, ferrocyanide
T 85 F	BY FARM	241-BY-107	241-BY-107	Single shell tank, ferrocyanide
T 85 F	BY FARM	241-BY-108	241-BY-108	Single shell tank, ferrocyanide

Table B-1. Facility Code Data, (22 Sheets)

Facility Code	Path	Facility Name	Field Name	Type
TSS	BY FARM	241-BY-109	241-BY-109	Single shell tank
TSS F	BY FARM	241-BY-110	241-BY-110	Single shell tank, ferrocyanide
TSS F	BY FARM	241-BY-111	241-BY-111	Single shell tank, ferrocyanide
TSS F	BY FARM	241 BY 112	241-BY-112	Single shell tank, ferrocyanide
Z	BY FARM	241-BY-301	241-BY-301	Instrument building
Z	BY FARM	241-BY-302	241-BY-302	Compressor building
WD	BY FARM	241-BYR-152	241-BYR-152	Direction box
WD	BY FARM	241-BYR-153	241-BYR-153	Direction box
WD	BY FARM	241-BYR-154	241-BYR-154	Direction box
WD	BY FARM	241-BYR-155	241-BYR-155	Direction box
TSS	C FARM	241-C-101	241-C-101	Single shell tank
TSS O	C FARM	241-C-102	241-C-102	Single shell tank
TSS	C FARM	241-C-103	241-C-103	Single shell tank
TSS	C FARM	241-C-104	241-C-104	Single shell tank
TSS V	C FARM	241-C-105	241-C-105	Single shell tank, active ventilation
TSS LV	C FARM	241-C-106	241-C-106	Single shell tank, high heat load, active ventilation
TSS	C FARM	241-C-107	241-C-107	Single shell tank
TSS F	C FARM	241-C-108	241-C-108	Single shell tank, ferrocyanide
TSS F	C FARM	241-C-109	241-C-109	Single shell tank, ferrocyanide
TSS	C FARM	241-C-110	241-C-110	Single shell tank
TSS F	C FARM	241-C-111	241-C-111	Single shell tank, ferrocyanide
TSS F	C FARM	241-C-112	241-C-112	Single shell tank, ferrocyanide

Table B-1. Facility Code Data. (22 Sheets)

Facility Code	Form	Facility Name	Field Name	Type
WD	C FARM	241-C-151	241-C-151	Diversion box
WD	C FARM	241-C-152	241-C-152	Diversion box
WD	C FARM	241-C-153	241-C-153	Diversion box
WD	C FARM	241-C-154	241-C-154	Diversion box
TSS	C FARM	241-C-201	241-C-201	Single shell tank
TSS	C FARM	241-C-202	241-C-202	Single shell tank
TSS	C FARM	241-C-203	241-C-203	Single shell tank
TSS	C FARM	241-C-204	241-C-204	Single shell tank
WD	C FARM	241-C-252	241-C-252	Diversion box
OM	C FARM	241-C-301C	241-C-301C	IMUST red contaminated
WD	C FARM	241-CR-151	241-CR-151	Diversion box
WD	C FARM	241-CR-152	241-CR-152	Diversion box
WD	C FARM	241-CR-153	241-CR-153	Diversion box
Z	C FARM	241-CR-271	241-CR-271	Control room
WD	C FARM	241-ER-151	241-ER-151	Diversion box
WD	C FARM	241-ER-152	241-ER-152	Diversion box
WD	C FARM	241-ER-153	241-ER-153	Diversion box
TCH	C FARM	241-ER-311	241-ER-311	Catch tank
WD	C FARM	241-ER-311	241-ER-311	Diversion box
OM	C FARM	241-ER-311A	241-ER-311A	IMUST red contaminated
TCD	C FARM	244-CR	244-CR	DCRT catch station
SAT	C FARM	C Satellite Accumulation Area	C Satellite Accumulation Area	Satellite Accumulation Area

Table E-1. Facility Code Data. (22 Sheets)

Facility Code	Form	Facility Name	Field Name	Type
SD	MISCELLANEOUS	209-E	209-E	80 day Storage pod
SP	MISCELLANEOUS	213 Compressor Bldg	213 Compressor Bldg	Compressor 563 R2
ER	MISCELLANEOUS	216-Z-20	216-Z-20	Crib
ER	MISCELLANEOUS	216-Z-21	216-Z-21	Pond
VXD	MISCELLANEOUS	241-EW-151	241-EW-151	Vent Station-Diversions Box for XS
VXD	MISCELLANEOUS	241-F-505	241-F-505	Dewater casing
VXD	MISCELLANEOUS	241-F-562	241-F-562	Valve pit
VXD	MISCELLANEOUS	241-UX-154	241-UX-154	Diversions Box for XS
SS	MISCELLANEOUS	2727-W	2727-W	Solvent storage bldg
PD	MISCELLANEOUS	Double Encased Piping	Double Encased Piping	Transfer Line Piping
WB	MISCELLANEOUS	Located in each tank farm	Located in each tank farm	Cleanout box
WB	MISCELLANEOUS	Located in each tank farm	Located in each tank farm	Sludge transfer box
WD	MISCELLANEOUS	Located in each tank farm	Located in each tank farm	Diversions box
WD	MISCELLANEOUS	Located in each tank farm	Located in each tank farm	Dewater station
WD	MISCELLANEOUS	Located in each tank farm	Located in each tank farm	Pump pit
WD	MISCELLANEOUS	Located in each tank farm	Located in each tank farm	Valve pit
WF	MISCELLANEOUS	Located in each tank farm	Located in each tank farm	Casework
WF	MISCELLANEOUS	Located in each tank farm	Located in each tank farm	Catch tank pit
WF	MISCELLANEOUS	Located in each tank farm	Located in each tank farm	Flush pit
WF	MISCELLANEOUS	Located in each tank farm	Located in each tank farm	Leak detection pit
WF	MISCELLANEOUS	Located in each tank farm	Located in each tank farm	Service pit
SV	MISCELLANEOUS	Located in various tank farms	Located in various tank farms	Vertical Storage units

Table B-1. Facility Code Data. (22 Sheets)

Facility Code	Form	Facility Name	Field Name	Type
PA	MISCELLANEOUS	Overground Transfer Line	Overground Transfer Line	Portable Overground Transfer Line
ER	MISCELLANEOUS	PFP Pond	PFP Pond	Pond
SAT	MISCELLANEOUS	Satellite Accumulation Area	Satellite Accumulation Area	Satellite Accumulation Area
PC	MISCELLANEOUS	Secondary Containment Piping	Secondary Containment Piping	Transfer Line Piping
PS	MISCELLANEOUS	Single Enclosed Piping	Single Enclosed Piping	Transfer Line Piping
SV	MISCELLANEOUS	Vertical Storage Units	Vertical Storage Units	12'-20' in depth
ER	S FARM	216-S-25	216-S-25	Cub
ER	S FARM	216-S-25	216-S-25	Cub
CM	S FARM	240-S-302	240-S-302	MUST red contaminated
T S6	S FARM	241-S-101	241-S-101	Single shell tank
T S S H O	S FARM	241-S-102	241-S-102	Single shell tank, flammable gas, organics
T S5	S FARM	241-S-103	241-S-103	Single shell tank
T S8	S FARM	241-S-104	241-S-104	Single shell tank
T S9	S FARM	241-S-105	241-S-105	Single shell tank
T S5	S FARM	241-S-106	241-S-106	Single shell tank
T S6	S FARM	241-S-107	241-S-107	Single shell tank
T S9	S FARM	241-S-108	241-S-108	Single shell tank
T S5	S FARM	241-S-109	241-S-109	Single shell tank
T S8	S FARM	241-S-110	241-S-110	Single shell tank
T S9	S FARM	241-S-111	241-S-111	Single shell tank
T S6	S FARM	241-S-112	241-S-112	Single shell tank
WD	S FARM	241-S-151	241-S-151	Overhead tank

Table B-1. Facility Code Data. (22 Sheets)

Facility Code	Form	Facility Name	Field Name	Type
WID	S FARM	241-S-1B2	241-S-1B2	Overpass box
OM	S FARM	241-S-302A	241-S-302A	MUST red contaminated
OM	S FARM	241-S-302B	241-S-302B	MUST red contaminated
T CW	S FARM	241-S-304	241-S-304	Catch tank
WID	S FARM	241-S-A	241-S-A	Valve pit
WID	S FARM	241-S-B	241-S-B	Valve pit
WID	S FARM	241-S-C	241-S-C	Valve pit
WID	S FARM	241-S-D	241-S-D	Valve pit
SV	S FARM	241-S-VSU	241-S-VSU	Vertical Storage Units
T CD	S FARM	244-S	244-S	DCRT catch station
SAT	S FARM	S Solids Accumulation Area	S Solids Accumulation Area	Solids Accumulation Area
Z	SX FARM			Latent Walls (3)
T SS H V	SX FARM	241-SX-101	241-SX-101	Single shell tank, flammable gas, active ventilation
T SS H V	SX FARM	241-SX-102	241-SX-102	Single shell tank, flammable gas, active ventilation
T SS H O V	SX FARM	241-SX-103	241-SX-103	Single shell tank, flammable gas, organic, active ventilation
T SS H V	SX FARM	241-SX-104	241-SX-104	Single shell tank, flammable gas, active ventilation
T SS H V	SX FARM	241-SX-105	241-SX-105	Single shell tank, flammable gas, active ventilation
T SS H O V	SX FARM	241-SX-106	241-SX-106	Single shell tank, flammable gas, organic, active ventilation
T SS L V	SX FARM	241-SX-107	241-SX-107	Single shell tank, high heat load, active ventilation
T SS L V	SX FARM	241-SX-108	241-SX-108	Single shell tank, high heat load, active ventilation
T SS L V	SX FARM	241-SX-109	241-SX-109	Single shell tank, high heat load, active ventilation
T SS L V	SX FARM	241-SX-110	241-SX-110	Single shell tank, high heat load, active ventilation

Table B-1. Facility Code Data. (22 Sheets)

Facility Code	Farm	Facility Name	Field Name	Type
TSS L V	SX FARM	241-SX-111	241-SX-111	Single shed tank, high heat load, active ventilation
TSS L V	SX FARM	241-SX-112	241-SX-112	Single shed tank, high heat load, active ventilation
TSS	SX FARM	241-SX-113	241-SX-113	Single shed tank
TSS O L V	SX FARM	241-SX-114	241-SX-114	Single shed tank, dry crust, high heat load, active ventilation
TSS	SX FARM	241-SX-115	241-SX-115	Single shed tank
WD	SX FARM	241-SX-151	241-SX-151	Overboard box
WD	SX FARM	241-SX-152	241-SX-152	Overboard box
OM	SX FARM	241-SX-302	241-SX-302	MUST not be contaminated
WD	SX FARM	241-SX-A	241-SX-A	Valve pit
WD	SX FARM	241-SX-B	241-SX-B	Valve pit
SV	SX FARM	Vertical Storage Units	Vertical Storage Units	12 - 20' in depth
WF	SY FARM	241-SY	241-SY	Sewage pit
WF	SY FARM	241-SY-01C	241-SY-01C	Leak Detection Pit
WF	SY FARM	241-SY-02C	241-SY-02C	Leak Detection Pit
WD	SY FARM	241-SY-02E	241-SY-02E	Feed pump pit
WF	SY FARM	241-SY-02E	241-SY-02E	Flush pit
WF	SY FARM	241-SY-03C	241-SY-03C	Leak Detection Pit
TDSHPV	SY FARM	241-SY-101	241-SY-101	Double shed tank, flammable gas, active transfer/sewer pumps, active ventilation
TDSPV	SY FARM	241-SY-102	241-SY-102	Double shed tank, active transfer/sewer pumps, active ventilation
TDSV	SY FARM	241-SY-103	241-SY-103	Double shed tank, active ventilation
Z	SY FARM	241-SY-271	241-SY-271	SY tank farm control bldg

Table B-1. Facility Code Data. (22 Sheets)

Facility Code	Form	Facility Name	Pool Name	Type
Z	SY FARM	241-SY-271-F1	241-SY-271-F1	Air compressor
WD	SY FARM	241-SY-A	241-SY-A	Valve pit
WF	SY FARM	241-SY-A	241-SY-A	Flash pit
WD	SY FARM	241-SY-B	241-SY-B	Valve pit
WF	SY FARM	241-SY-B	241-SY-B	Flash pit
WB	SY FARM	241-SY-COB-1	241-SY-1	Cleanout box
WB	SY FARM	241-SY-COB-2	241-SY-2	Cleanout box
WB	SY FARM	241-SY-COB-3	241-SY-3	Cleanout box
WB	SY FARM	241-SY-COB-4	241-SY-4	Cleanout box
WB	SY FARM	241-SY-COB-5	241-SY-5	Cleanout box
WB	SY FARM	241-SY-COB-6	241-SY-6	Cleanout box
ER	T FARM	216-T-1	216-T-1	Ditch
ER	T FARM	216-T-32	216-T-32	Crib
ER	T FARM	216-T-4-2	216-T-4-2	Ditch
ER	T FARM	216-T-7	216-T-7	Crib
WD	T FARM	240-T-181	240-T-181	Division box
WD	T FARM	240-T-152	240-T-152	Division box
WD	T FARM	240-T-153	240-T-153	Division box
WD	T FARM	240-T-262	240-T-262	Division box
WD	T FARM	240-TR-152	240-TR-152	Division box
WD	T FARM	240-TR-153	240-TR-153	Division box
T.BB	T FARM	241-T-101	241-T-101	Single street tank

Table B-1. Facility Code Data. (22 Sheets)

Facility Code	Farm	Facility Name	Field Name	Type
T 55	T FARM	241-T-102	241-T-102	Single shell tank
T 55	T FARM	241-T-103	241-T-103	Single shell tank
T 56	T FARM	241-T-104	241-T-104	Single shell tank
T 66	T FARM	241-T-105	241-T-105	Single shell tank
T 55	T FARM	241-T-106	241-T-106	Single shell tank
T 55 F	T FARM	241-T-107	241-T-107	Single shell tank, ferrocyanide
T 59	T FARM	241-T-108	241-T-108	Single shell tank
T 58	T FARM	241-T-109	241-T-109	Single shell tank
T 55 H	T FARM	241-T-110	241-T-110	Single shell tank, flammable gas
T 55 O	T FARM	241-T-111	241-T-111	Single shell tank, organic
T 55	T FARM	241-T-112	241-T-112	Single shell tank
WD	T FARM	241-T-151	241-T-151	Overseer box
T 55	T FARM	241-T-201	241-T-201	Single shell tank
T 55	T FARM	241-T-202	241-T-202	Single shell tank
T 66	T FARM	241-T-203	241-T-203	Single shell tank
T 55	T FARM	241-T-204	241-T-204	Single shell tank
OM	T FARM	241-T-301	241-T-301	MUST rad contaminated
Z	T FARM	241-T-601	241-T-601	Compressor building
Z	T FARM	241-T-701	241-T-701	Compressor building
OM	T FARM	242-T-135	242-T-135	MUST rad contaminated
OM	T FARM	242-TA-R1	242-TA-R1	MUST rad contaminated
SAT	T FARM	T Satellite Accumulation Area	T Satellite Accumulation Area	Satellite Accumulation Area

Table B-1. Facility Code Data, (22 Sheets)

Facility Code	Farm	Facility Name	Field Name	Type
SV	T FARM	Vertical Storage Units	Vertical Storage Units	12'-30" in depth
OM	TX FARM	241-TX-001	241-TX-001	IMUST rad contaminated
OM	TX FARM	241-TX-002	241-TX-002	IMUST rad contaminated
OM	TX FARM	241-TX-003	241-TX-003	IMUST rad contaminated
T SS	TX FARM	241-TX-101	241-TX-101	Single shell tank
T SS	TX FARM	241-TX-102	241-TX-102	Single shell tank
T SS	TX FARM	241-TX-103	241-TX-103	Single shell tank
T SS	TX FARM	241-TX-104	241-TX-104	Single shell tank
T SS O	TX FARM	241-TX-105	241-TX-105	Single shell tank, organics
T SS	TX FARM	241-TX-106	241-TX-106	Single shell tank
T SS	TX FARM	241-TX-107	241-TX-107	Single shell tank
T SS	TX FARM	241-TX-108	241-TX-108	Single shell tank
T SS	TX FARM	241-TX-109	241-TX-109	Single shell tank
T SS	TX FARM	241-TX-110	241-TX-110	Single shell tank
T SS	TX FARM	241-TX-111	241-TX-111	Single shell tank
T SS	TX FARM	241-TX-112	241-TX-112	Single shell tank
T SS	TX FARM	241-TX-113	241-TX-113	Single shell tank
T SS	TX FARM	241-TX-114	241-TX-114	Single shell tank
T SS	TX FARM	241-TX-115	241-TX-115	Single shell tank
T SS	TX FARM	241-TX-116	241-TX-116	Single shell tank
T SS	TX FARM	241-TX-117	241-TX-117	Single shell tank
T SS F	TX FARM	241-TX-118	241-TX-118	Single shell tank, ferrocyanide

Table B-1. Facility Code Data. (22 Sheets)

Facility Code	Farm	Facility Name	Field Name	Type
WD	TX FARM	241-TX-152	241-TX-152	Dimension box
WD	TX FARM	241-TX-153	241-TX-153	Dimension box
WD	TX FARM	241-TX-154	241-TX-154	Dimension box
WD	TX FARM	241-TX-155	241-TX-155	Dimension box
OM	TX FARM	241-TX-302A	241-TX-302A	HAUST rad contaminated
OM	TX FARM	241-TX-302B(R)	241-TX-302B(R)	HAUST rad contaminated
T CM	TX FARM	241-TX-302C	241-TX-302C	Calson tank
OM	TX FARM	241-TX-302X	241-TX-302X	HAUST rad contaminated
WD	TX FARM	241-TXR-151	241-TXR-151	Dimension box
WD	TX FARM	241-TXR-152	241-TXR-152	Dimension box
WD	TX FARM	241-TXR-153	241-TXR-153	Dimension box
T CD	TX FARM	244-TX	244-TX	DCRT switch station
SAT	TX FARM	TX Satellite Accumulation Area	TX Satellite Accumulation Area	Satellite Accumulation Area
SV	TX FARM	Vertical Storage Units	Vertical Storage Units	12'-20' in depth
OM	TY FARM	241-TY-201	241-TY-201	HAUST rad contaminated
T SS F	TY FARM	241-TY-101	241-TY-101	Single shell tank, ferrocyanide
T SS	TY FARM	241-TY-102	241-TY-102	Single shell tank
T SS F	TY FARM	241-TY-103	241-TY-103	Single shell tank, ferrocyanide
T SS F	TY FARM	241-TY-104	241-TY-104	Single shell tank, ferrocyanide
T SS	TY FARM	241-TY-105	241-TY-105	Single shell tank
T SS	TY FARM	241-TY-106	241-TY-106	Single shell tank
OM	TY FARM	241-TY-302A	241-TY-302A	HAUST rad contaminated

Table B-1. Facility Code Data. (22 Sheets)

Facility Code	Farm	Facility Name	Field Name	Type
OM	TY FARM	241-TY-302B	241-TY-302B	MUST not contaminated
SV	TY FARM	Vertical Storage Units	Vertical Storage Units	12'-20' in depth
ER	U FARM	218-U-12	218-U-12	Cab
ER	U FARM	218-U-14	218-U-14	Ditch
ER	U FARM	218-U-17	218-U-17	Cab
T SS	U FARM	241-U-101	241-U-101	Single shell tank
T SS	U FARM	241-U-102	241-U-102	Single shell tank
T SS H O	U FARM	241-U-103	241-U-103	Single shell tank, flammable gas, organics
T SS	U FARM	241-U-104	241-U-104	Single shell tank
T SS H O	U FARM	241-U-105	241-U-105	Single shell tank, flammable gas, organics
T SS O	U FARM	241-U-106	241-U-106	Single shell tank, organics
T SS H O	U FARM	241-U-107	241-U-107	Single shell tank, flammable gas, organics
T SS H	U FARM	241-U-108	241-U-108	Single shell tank, flammable gas
T SS H	U FARM	241-U-109	241-U-109	Single shell tank, flammable gas
T SS	U FARM	241-U-110	241-U-110	Single shell tank
T SS O	U FARM	241-U-111	241-U-111	Single shell tank, organics
T SS	U FARM	241-U-112	241-U-112	Single shell tank
WD	U FARM	241-U-151	241-U-151	Detention box
WD	U FARM	241-U-152	241-U-152	Detention box
WD	U FARM	241-U-153	241-U-153	Detention box
WD	U FARM	241-U-154	241-U-154	Detention box
T SS	U FARM	241-U-201	241-U-201	Single shell tank

Table B-1. Facility Code Data. (22 Sheets)

Facility Code	Farm	Facility Name	Field Name	Type
TSS	U FARM	241-U-202	241-U-202	Single shell tank
TSS O	U FARM	241-U-203	241-U-203	Single shell tank, organic
TSS O	U FARM	241-U-204	241-U-204	Single shell tank, organic
WD	U FARM	241-U-252	241-U-252	Diversion box
TCN	U FARM	241-U-301B	241-U-301B	Catch tank
Z	U FARM	241-U-701	241-U-701	Compressor building
WD	U FARM	241-UA	241-UA	Valve pit
WD	U FARM	241-UB	241-U-B	Valve pit
WD	U FARM	241-UC	241-U C	Valve pit
WD	U FARM	241-UD	241-UD	Valve pit
WD	U FARM	241-UR-151	241-UR-151	Diversion box
WD	U FARM	241-UR-152	241-UR-152	Diversion box
WD	U FARM	241-UR-153	241-UR-153	Diversion box
WD	U FARM	241-UR-154	241-UR-154	Diversion box
TCN	U FARM	241-UX-302A	241-UX-302A	Catch tank
TCO	U FARM	244-U	244-U	DCRT catch station
SAT	U FARM	U Satellite Accumulation Area	U Satellite Accumulation Area	Satellite Accumulation Area
SV	U FARM	Vertical Storage Units	Vertical Storage Units	12'-20' in depth

Table B-2. Topography Data. (23 Sheets)

Facility Name	Type	Applicable Hazard Eval
200-5	60 day storage pond	PHA 2006
213 Compressor Bldg	Compressor Bldg R2	PHA 2727W
216-A-08	Cnb	PHA CDP
216-A-06	Sample pit	HAZOP AW-102 SV-102006
216-A-26	Cnb	PHA CDP
216-A-30	Cnb	PHA CDP
216-A-38A	Cnb	PHA CDP
216-A-38B	Cnb	PHA CDP
216-A-37-1	Cnb	PHA CDP
216-A-37-2	Cnb	PHA CDP
216-A-39	Cnb	PHA CDP
216-A-45	Cnb	PHA CDP
216-B-3	Pond (B pond)	PHA CDP
216-B-55	Cnb	PHA CDP
216-B-62	Cnb	PHA CDP
216-B-63	Ditch	PHA CDP
216-BY-201	IMUST used contaminated	PHA AZ-102/BX-10W/SY-MH/BND,CRA/CVR,DCN,GRN,ITK,RAD,RSR,SFF,VEH
216-G-26	Cnb	PHA CDP
216-S-20	Cnb	PHA CDP
216-T-1	Ditch	PHA CDP
216-T-32	Cnb	PHA CDP
216-T-4-2	Ditch	PHA CDP

Table B-2. Topography Data. (23 Sheets)

Facility Name	Type	Applicable Hazard Eval
215-T-7	Cnb	PHA, CDP
215-TY-201	IMUST rad contaminated	PHA AZ-102/SX-106/SY-101/BND, C/RN, C/R, DCM, GRN, ITR, RAD, RSR, SFF, VEH
216-U-12	Cnb	PHA, CDP
216-U-14	Dch	PHA, CDP
216-U-17	Cnb	PHA, CDP
216-Z-23	Cnb	PHA, CDP
218-Z-21	Pond	PHA, CDP
240-S-302	IMUST rad contaminated	PHA AZ-102/SX-106/SY-101/BND, C/RN, C/R, DCM, GRN, ITR, RAD, RSR, SFF, VEH
240-T-151	Diversion box	HAZOP 222-S, 242-A, 242-S, 242-T, AN-102, C-106, S-102, SX-114, SY-102/V058, SY-102/X3, B Plant, T Plant, U Plant, PFP, PUREX, Overground Transfers PHA AZ-102/CVR, SX-106/CVR, SY-101/CVR
240-T-152	Diversion box	HAZOP 222-S, 242-A, 242-S, 242-T, AN-102, C-106, S-102, SX-114, SY-102/V058, SY-102/X3, B Plant, T Plant, U Plant, PFP, PUREX, Overground Transfers PHA AZ-102/CVR, SX-106/CVR, SY-101/CVR
240-T-153	Diversion box	HAZOP 222-S, 242-A, 242-S, 242-T, AN-102, C-106, S-102, SX-114, SY-102/V058, SY-102/X3, B Plant, T Plant, U Plant, PFP, PUREX, Overground Transfers PHA AZ-102/CVR, SX-106/CVR, SY-101/CVR
240-T-252	Diversion box	HAZOP 222-S, 242-A, 242-S, 242-T, AN-102, C-106, S-102, SX-114, SY-102/V058, SY-102/X3, B Plant, T Plant, U Plant, PFP, PUREX, Overground Transfers PHA AZ-102/CVR, SX-106/CVR, SY-101/CVR
240-TR-152	Diversion box	HAZOP 222-S, 242-A, 242-S, 242-T, AN-102, C-106, S-102, SX-114, SY-102/V058, SY-102/X3, B Plant, T Plant, U Plant, PFP, PUREX, Overground Transfers PHA AZ-102/CVR, SX-106/CVR, SY-101/CVR
240-TR-153	Diversion box	HAZOP 222-S, 242-A, 242-S, 242-T, AN-102, C-106, S-102, SX-114, SY-102/V058, SY-102/X3, B Plant, T Plant, U Plant, PFP, PUREX, Overground Transfers PHA AZ-102/CVR, SX-106/CVR, SY-101/CVR
241-A-101	Single shell tank	HAZOP 242-T, C-106, S-102, SX-114, Overground Transfers WHAT IF CDP
241-A-102	Single shell tank	HAZOP 242-T, C-106, S-102, SX-114, Overground Transfers WHAT IF CDP
241-A-103	Single shell tank	HAZOP 242-T, C-106, S-102, SX-114, Overground Transfers WHAT IF CDP
241-A-104	Single shell tank	HAZOP 242-T, C-106, S-102, SX-114, Overground Transfers WHAT IF CDP
241-A-105	Single shell tank	HAZOP 242-T, C-106, S-102, SX-114, Overground Transfers WHAT IF CDP

Table B-2. Topography Data. (23 Sheets)

Facility Name	Type	Applicable Hazard Eval
241-A-108	Single shell tank	HAZOP 242-T, C-108, S-102, SX-114, Overground Transfers: WHAT IF: CCF
241-A-151	Oversewer box	HAZOP 222-S, 242-A, 242-S, 242-T, AW-102, C-108, S-102, SX-114, SY-102AW058, SY-102XS, B Plant, T Plant, U Plant, PFP, PUREX, Overground Transfers: PHA AZ-102CVR, BX-109CVR, SY-101ACVR
241-A-152	Oversewer box	HAZOP 222-S, 242-A, 242-S, 242-T, AW-102, C-108, S-102, SX-114, SY-102AW058, SY-102XS, B Plant, T Plant, U Plant, PFP, PUREX, Overground Transfers: PHA AZ-102CVR, BX-109CVR, SY-101ACVR
241-A-302-A	Catch tank	HAZOP SY-102XS, PUREX
241-A-350	BCRT catch station	HAZOP 222-S, 242-S, SY-102XS, PFP, T Plant, Siphoning, Overground Transfers
241-A-350	Drainage pit station catch tank	HAZOP SY-102XS, PUREX
241-A-401	Drivert carson	HAZOP 222-S, 242-A, 242-S, 242-T, AW-102, C-108, S-102, SX-114, SY-102AW058, SY-102XS, B Plant, T Plant, U Plant, PFP, PUREX, Overground Transfers: PHA AZ-102CVR, BX-109CVR, SY-101ACVR
241-A-417	Catch tank	HAZOP SY-102XS, PUREX
241-A-A	Flush pit	HAZOP AW-102, SY-102XS
241-A-A	Valve pit	HAZOP 222-S, 242-A, 242-S, 242-T, AW-102, C-108, S-102, SX-114, SY-102AW058, SY-102XS, B Plant, T Plant, U Plant, PFP, PUREX, Overground Transfers: PHA AZ-102CVR, BX-109CVR, SY-101ACVR
241-A-B	Flush pit	HAZOP AW-102, SY-102XS
241-A-B	Valve pit	HAZOP 222-S, 242-A, 242-S, 242-T, AW-102, C-108, S-102, SX-114, SY-102AW058, SY-102XS, B Plant, T Plant, U Plant, PFP, PUREX, Overground Transfers: PHA AZ-102CVR, BX-109CVR, SY-101ACVR
241-A-COB	Cleasout box	PHA COB
241-AH-01D	Condensate receiver pit	HAZOP AW-102, SY-102XS
241-AH-101	Double shell tank	HAZOP 222-S, 242-A, 242-S, AW-102, SY-102XS, PFP, PUREX, B Plant, T Plant
241-AH-102	Double shell tank	HAZOP 222-S, 242-A, 242-S, AW-102, SY-102XS, PFP, PUREX, B Plant, T Plant
241-AH-103	Double shell tank	HAZOP 222-S, 242-A, 242-S, AW-102, SY-102XS, PFP, PUREX, B Plant, T Plant
241-AH-104	Double shell tank	HAZOP 222-S, 242-A, 242-S, AW-102, SY-102XS, PFP, PUREX, B Plant, T Plant
241-AH-105	Double shell tank	HAZOP 222-S, 242-A, 242-S, AW-102, SY-102XS, PFP, PUREX, B Plant, T Plant

Table B-2. Topography Data. (23 Sheets)

Facility Name	Type	Applicable Hazard Event
241-AM-105	Double shell tank	HAZOP 222-S, 242-A, 242-S, AW-102, SY-102XS, PFP, PUREX, B Plant, T Plant
241-AM-107	Double shell tank	HAZOP 222-S, 242-A, 242-S, AW-102, SY-102XS, PFP, PUREX, B Plant, T Plant
241-AM-273	Service pit	HAZOP AW-102, SY-102XS
241-AN-A	Valve pit	HAZOP 222-S, 242-A, 242-S, 242-T, AW-102, C-106, S-102, SX-114, SY-102AW058, SY-102XS, B Plant, T Plant, U Plant, PFP, PUREX, Overground Transfer PHA AZ-102CVR, BX-106CVR, SY-101CVR
241-AN-B	Valve pit	HAZOP 222-S, 242-A, 242-S, 242-T, AW-102, C-106, S-102, SX-114, SY-102AW058, SY-102XS, B Plant, T Plant, U Plant, PFP, PUREX, Overground Transfer PHA AZ-102CVR, BX-106CVR, SY-101CVR
241-AN-FP	Flush pit	HAZOP AW-102, SY-102XS
241-AP	Flush pit	HAZOP AW-102, SY-102XS
241-AP-101	Double shell tank	HAZOP 222-S, 242-A, 242-S, AW-102, SY-102XS, PFP, PUREX, B Plant, T Plant
241-AP-102	Double shell tank	HAZOP 222-S, 242-A, 242-S, AW-102, SY-102XS, PFP, PUREX, B Plant, T Plant
241-AP-103	Double shell tank	HAZOP 222-S, 242-A, 242-S, AW-102, SY-102XS, PFP, PUREX, B Plant, T Plant
241-AP-104	Double shell tank	HAZOP 222-S, 242-A, 242-S, AW-102, SY-102XS, PFP, PUREX, B Plant, T Plant
241-AP-105	Double shell tank	HAZOP 222-S, 242-A, 242-S, AW-102, SY-102XS, PFP, PUREX, B Plant, T Plant
241-AP-106	Double shell tank	HAZOP 222-S, 242-A, 242-S, AW-102, SY-102XS, PFP, PUREX, B Plant, T Plant
241-AP-107	Double shell tank	HAZOP 222-S, 242-A, 242-S, AW-102, SY-102XS, PFP, PUREX, B Plant, T Plant
241-AP-108	Double shell tank	HAZOP 222-S, 242-A, 242-S, AW-102, SY-102XS, PFP, PUREX, B Plant, T Plant
241-AP-273	Service pit	HAZOP AW-102, SY-102XS
241-AP-A	Valve pit	HAZOP 222-S, 242-A, 242-S, 242-T, AW-102, C-106, S-102, SX-114, SY-102AW058, SY-102XS, B Plant, T Plant, U Plant, PFP, PUREX, Overground Transfer PHA AZ-102CVR, BX-106CVR, SY-101CVR
241-AR-151	Diversion box	HAZOP 222-S, 242-A, 242-S, 242-T, AW-102, C-106, S-102, SX-114, SY-102AW058, SY-102XS, B Plant, T Plant, U Plant, PFP, PUREX, Overground Transfer PHA AZ-102CVR, BX-106CVR, SY-101CVR
241-AW-02E	Feed pump pit	HAZOP 222-S, 242-A, 242-S, 242-T, AW-102, C-106, S-102, SX-114, SY-102AW058, SY-102XS, B Plant, T Plant, U Plant, PFP, PUREX, Overground Transfer PHA AZ-102CVR, BX-106CVR, SY-101CVR

Table B-2. Topography Data. (23 Sheets)

Facility Name	Type	Applicable Hazard Eval
241-AW-101	Double shell tank	HAZOP 222-S, 242-A, 242-S, AW-102, SY-102XS, PFP, PUREX, B Plant, T Plant
241-AW-102	Double shell tank	HAZOP 222-S, 242-A, 242-S, AW-102, SY-102XS, PFP, PUREX, B Plant, T Plant
241-AW-103	Double shell tank	HAZOP 222-S, 242-A, 242-S, AW-102, SY-102XS, PFP, PUREX, B Plant, T Plant
241-AW-104	Double shell tank	HAZOP 222-S, 242-A, 242-S, AW-102, SY-102XS, PFP, PUREX, B Plant, T Plant
241-AW-105	Double shell tank	HAZOP 222-S, 242-A, 242-S, AW-102, SY-102XS, PFP, PUREX, B Plant, T Plant
241-AW-106	Double shell tank	HAZOP 222-S, 242-A, 242-S, AW-102, SY-102XS, PFP, PUREX, B Plant, T Plant
241-AW-A	Valve pit	HAZOP 222-S, 242-A, 242-S, 242-T, AW-102, C-105, S-102, SX-114, SY-102AW058, SY-102XS, B Plant, T Plant, U Plant, PFP, PUREX, Overground Transfers PHA AZ-102CVR, BX-106CVR, SY-101CVR
241-AW-B	Valve pit	HAZOP 222-S, 242-A, 242-S, 242-T, AW-102, C-105, S-102, SX-114, SY-102AW058, SY-102XS, B Plant, T Plant, U Plant, PFP, PUREX, Overground Transfers PHA AZ-102CVR, BX-106CVR, SY-101CVR
241-AW-FP	Flush pit	HAZOP AW-102, SY-102XS
241-AX-101	Single shell tank	HAZOP 242-T, C-105, S-102, SX-114, Overground Transfers WHAT IF CCF
241-AX-102	Single shell tank	HAZOP 242-T, C-105, S-102, SX-114, Overground Transfers WHAT IF CCF
241-AX-103	Single shell tank	HAZOP 242-T, C-105, S-102, SX-114, Overground Transfers WHAT IF CCF
241-AX-104	Single shell tank	HAZOP 242-T, C-105, S-102, SX-114, Overground Transfers WHAT IF CCF
241-AX-151	Diversion box	HAZOP 222-S, 242-A, 242-S, 242-T, AW-102, C-105, S-102, SX-114, SY-102AW058, SY-102XS, B Plant, T Plant, U Plant, PFP, PUREX, Overground Transfers PHA AZ-102CVR, BX-106CVR, SY-101CVR
241-AX-151	MUST led contaminated	PHA AZ-102BX-106SY-101BND, CRM,CVR, DCM,GRN,ITC,RAD,RSR,SFF,VEH
241-AX-152	Catch tank	HAZOP SY-102XS, PUREX
241-AX-152	Disperser station	HAZOP 222-S, 242-A, 242-S, 242-T, AW-102, C-105, S-102, SX-114, SY-102AW058, SY-102XS, B Plant, T Plant, U Plant, PFP, PUREX, Overground Transfers PHA AZ-102CVR, BX-106CVR, SY-101CVR
241-AX-153	Diversion box	HAZOP 222-S, 242-A, 242-S, 242-T, AW-102, C-105, S-102, SX-114, SY-102AW058, SY-102XS, B Plant, T Plant, U Plant, PFP, PUREX, Overground Transfers PHA AZ-102CVR, BX-106CVR, SY-101CVR
241-AX-155	Diversion box	HAZOP 222-S, 242-A, 242-S, 242-T, AW-102, C-105, S-102, SX-114, SY-102AW058, SY-102XS, B Plant, T Plant, U Plant, PFP, PUREX, Overground Transfers PHA AZ-102CVR, BX-106CVR, SY-101CVR

Table B-2. Topography Data. (23 Sheets)

Facility Name	Type	Applicable Hazard Event
241-AK-S01	Valve pit	HAZOP 222-S, 242-A, 242-S, 242-T, AW-102, C-100, S-102, SX-114, SY-102W058, SY-102XS, B Plant, T Plant, U Plant, PFP, PUREX, Overground Transfers PHA AZ-102CVR, BX-102CVR, SY-101CVR
241-AK-S0	Service pit	HAZOP AW-102, SY-102XS
241-AX-A	Flush pit	HAZOP AW-102, SY-102XS
241-AX-A	Valve pit	HAZOP 222-S, 242-A, 242-S, 242-T, AW-102, C-100, S-102, SX-114, SY-102W058, SY-102XS, B Plant, T Plant, U Plant, PFP, PUREX, Overground Transfers PHA AZ-102CVR, BX-102CVR, SY-101CVR
241-AX-B	Flush pit	HAZOP AW-102, SY-102XS
241-AX-B	Valve pit	HAZOP 222-S, 242-A, 242-S, 242-T, AW-102, C-100, S-102, SX-114, SY-102W058, SY-102XS, B Plant, T Plant, U Plant, PFP, PUREX, Overground Transfers PHA AZ-102CVR, BX-102CVR, SY-101CVR
241-AX-COB	Cleanout box	PHA COB
241-AY-1	Cleanout box	PHA COB
241-AY-101	Double shell tank	HAZOP 222-S, 242-A, 242-S, AW-102, SY-102XS, PFP, PUREX, B Plant, T Plant
241-AY-102	Double shell tank	HAZOP 222-S, 242-A, 242-S, AW-102, SY-102XS, PFP, PUREX, B Plant, T Plant
241-AY-151	Pumpout pit	HAZOP 222-S, 242-A, 242-S, 242-T, AW-102, C-100, S-102, SX-114, SY-102W058, SY-102XS, B Plant, T Plant, U Plant, PFP, PUREX, Overground Transfers PHA AZ-102CVR, BX-102CVR, SY-101CVR
241-AY-152	Valve box	HAZOP 222-S, 242-A, 242-S, 242-T, AW-102, C-100, S-102, SX-114, SY-102W058, SY-102XS, B Plant, T Plant, U Plant, PFP, PUREX, Overground Transfers PHA AZ-102CVR, BX-102CVR, SY-101CVR
241-AY-501	Valve pit	HAZOP 222-S, 242-A, 242-S, 242-T, AW-102, C-100, S-102, SX-114, SY-102W058, SY-102XS, B Plant, T Plant, U Plant, PFP, PUREX, Overground Transfers PHA AZ-102CVR, BX-102CVR, SY-101CVR
241-AZ-1	Cleanout box	PHA COB
241-AZ-10	Cleanout box	PHA COB
241-AZ-101	Double shell tank	HAZOP 222-S, 242-A, 242-S, AW-102, SY-102XS, PFP, PUREX, B Plant, T Plant
241-AZ-102	Double shell tank	HAZOP 222-S, 242-A, 242-S, AW-102, SY-102XS, PFP, PUREX, B Plant, T Plant
241-AZ-151	Catch tank	HAZOP SY-102XS, PUREX
241-AZ-152	Catch tank	HAZOP SY-102XS, PUREX

Table B-2. Topography Data. (23 Sheets)

Facility Name	Type	Applicable Hazard Eval
241-AZ-152	Sluice Transfer Box	PHA COB
241-AZ-153	Sluice transfer box	PHA COB
241-AZ-153	Valve pit	HAZOP 222-S, 242-A, 242-S, 242-T, AW-102, C-106, S-102, SX-114, SY-102AW05B, SY-102XS, B Plant, T Plant, U Plant, PFP, PUREX, Overground Transferers PHA AZ-102CVR, SX-106CVR, SY-101CVR
241-AZ-154	Catch tank	HAZOP SY-102XS, PUREX
241-AZ-155	Contaminated storage pit	HAZOP AW-102, SY-102XS
241-AZ-161	Check valve caisson	HAZOP 222-S, 242-A, 242-S, 242-T, AW-102, C-106, S-102, SX-114, SY-102AW05B, SY-102XS, B Plant, T Plant, U Plant, PFP, PUREX, Overground Transferers PHA AZ-102CVR, SX-106CVR, SY-101CVR
241-AZ-162	Check valve caisson	HAZOP 222-S, 242-A, 242-S, 242-T, AW-102, C-106, S-102, SX-114, SY-102AW05B, SY-102XS, B Plant, T Plant, U Plant, PFP, PUREX, Overground Transferers PHA AZ-102CVR, SX-106CVR, SY-101CVR
241-AZ-2	Cleanout box	PHA COB
241-AZ-3	Cleanout box	PHA COB
241-AZ-4	Cleanout box	PHA COB
241-AZ-5	Cleanout box	PHA COB
241-AZ-6B2	Valve pit	HAZOP 222-S, 242-A, 242-S, 242-T, AW-102, C-106, S-102, SX-114, SY-102AW05B, SY-102XS, B Plant, T Plant, U Plant, PFP, PUREX, Overground Transferers PHA AZ-102CVR, SX-106CVR, SY-101CVR
241-AZ-6	Cleanout box	PHA COB
241-AZ-7	Cleanout box	PHA COB
241-AZ-8	Cleanout box	PHA COB
241-AZ-9	Cleanout box	PHA COB
241-B-101	Single shell tank	HAZOP 242-T, C-106, S-102, SX-114, Overground Transferers WHAT IF COF
241-B-102	Single shell tank	HAZOP 242-T, C-106, S-102, SX-114, Overground Transferers WHAT IF COF
241-B-103	Single shell tank	HAZOP 242-T, C-106, S-102, SX-114, Overground Transferers WHAT IF COF
241-B-104	Single shell tank	HAZOP 242-T, C-106, S-102, SX-114, Overground Transferers WHAT IF COF

Table B-2. Topography Data. (23 Sheets)

Facility Name	Type	Applicable Hazard Event
241-B-106	Single shell tank	HAZOP 242-T, C-106, S-102, SX-114, Overground Transfers WHAT IF CCF
241-B-108	Single shell tank	HAZOP 242-T, C-106, S-102, SX-114, Overground Transfers WHAT IF CCF
241-B-107	Single shell tank	HAZOP 242-T, C-106, S-102, SX-114, Overground Transfers WHAT IF CCF
241-B-108	Single shell tank	HAZOP 242-T, C-106, S-102, SX-114, Overground Transfers WHAT IF CCF
241-B-109	Single shell tank	HAZOP 242-T, C-106, S-102, SX-114, Overground Transfers WHAT IF CCF
241-B-110	Single shell tank	HAZOP 242-T, C-106, S-102, SX-114, Overground Transfers WHAT IF CCF
241-B-111	Single shell tank	HAZOP 242-T, C-106, S-102, SX-114, Overground Transfers WHAT IF CCF
241-B-112	Single shell tank	HAZOP 242-T, C-106, S-102, SX-114, Overground Transfers WHAT IF CCF
241-B-151	Diversion box	HAZOP 222-S, 242-A, 242-B, 242-T, AW-102, C-106, S-102, SX-114, SY-102W068, SY-102XS, B Plant, T Plant, U Plant, PFP, PUREX, Overground Transfers PHA AZ-102ACVR, BX-106ACVR, SY-101ACVR
241-B-152	Diversion box	HAZOP 222-S, 242-A, 242-S, 242-T, AW-102, C-106, S-102, SX-114, SY-102W068, SY-102XS, B Plant, T Plant, U Plant, PFP, PUREX, Overground Transfers PHA AZ-102ACVR, BX-106ACVR, SY-101ACVR
241-B-153	Diversion box	HAZOP 222-S, 242-A, 242-S, 242-T, AW-102, C-106, S-102, SX-114, SY-102W068, SY-102XS, B Plant, T Plant, U Plant, PFP, PUREX, Overground Transfers PHA AZ-102ACVR, BX-106ACVR, SY-101ACVR
241-B-154	Diversion box	HAZOP 222-S, 242-A, 242-S, 242-T, AW-102, C-106, S-102, SX-114, SY-102W068, SY-102XS, B Plant, T Plant, U Plant, PFP, PUREX, Overground Transfers PHA AZ-102ACVR, BX-106ACVR, SY-101ACVR
241-B-201	Single shell tank	HAZOP 242-T, C-106, S-102, SX-114, Overground Transfers WHAT IF CCF
241-B-202	Single shell tank	HAZOP 242-T, C-106, S-102, SX-114, Overground Transfers WHAT IF CCF
241-B-203	Single shell tank	HAZOP 242-T, C-106, S-102, SX-114, Overground Transfers WHAT IF CCF
241-B-204	Single shell tank	HAZOP 242-T, C-106, S-102, SX-114, Overground Transfers WHAT IF CCF
241-B-252	Diversion box	HAZOP 222-S, 242-A, 242-S, 242-T, AW-102, C-106, S-102, SX-114, SY-102W068, SY-102XS, B Plant, T Plant, U Plant, PFP, PUREX, Overground Transfers PHA AZ-102ACVR, BX-106ACVR, SY-101ACVR
241-B-301B	HAUST red contaminated	PHA AZ-102BX-106/SY-101BND,CRN,CVR,DCH,QRN,ITK,RAD,RGR,SFF,VEH
241-B-302B	HAUST red contaminated	PHA AZ-102BX-106/SY-101BND,CRN,CVR,DCH,QRN,ITK,RAD,RGR,SFF,VEH

Table B-2. Topography Data. (23 Sheets)

Facility Name	Type	Applicable Hazard Eval
241-BX-101	Single shell tank	HAZOP 242-T, C-100, S-102, SX-114, Overground Transfers WHAT IF CCF
241-BX-102	Single shell tank	HAZOP 242-T, C-100, S-102, SX-114, Overground Transfers WHAT IF CCF
241-BX-103	Single shell tank	HAZOP 242-T, C-100, S-102, SX-114, Overground Transfers WHAT IF CCF
241-BX-104	Single shell tank	HAZOP 242-T, C-100, S-102, SX-114, Overground Transfers WHAT IF CCF
241-BX-105	Single shell tank	HAZOP 242-T, C-100, S-102, SX-114, Overground Transfers WHAT IF CCF
241-BX-106	Single shell tank	HAZOP 242-T, C-100, S-102, SX-114, Overground Transfers WHAT IF CCF
241-BX-107	Single shell tank	HAZOP 242-T, C-100, S-102, SX-114, Overground Transfers WHAT IF CCF
241-BX-108	Single shell tank	HAZOP 242-T, C-100, S-102, SX-114, Overground Transfers WHAT IF CCF
241-BX-109	Single shell tank	HAZOP 242-T, C-100, S-102, SX-114, Overground Transfers WHAT IF CCF
241-BX-110	Single shell tank	HAZOP 242-T, C-100, S-102, SX-114, Overground Transfers WHAT IF CCF
241-BX-111	Single shell tank	HAZOP 242-T, C-100, S-102, SX-114, Overground Transfers WHAT IF CCF
241-BX-112	Single shell tank	HAZOP 242-T, C-100, S-102, SX-114, Overground Transfers WHAT IF CCF
241-BX-302A	MUST rad contaminated	PHA AZ-102BX-100SY-101BND,CRN,CVR,DCN,GRN,ITK,RAD,RSR,SFF,VEH
241-BX-302B	MUST rad contaminated	PHA AZ-102BX-100SY-101BND,CRN,CVR,DCN,GRN,ITK,RAD,RSR,SFF,VEH
241-BX-302C	MUST rad contaminated	PHA AZ-102BX-100SY-101BND,CRN,CVR,DCN,GRN,ITK,RAD,RSR,SFF,VEH
241-BXR-401	MUST rad contaminated	PHA AZ-102BX-100SY-101BND,CRN,CVR,DCN,GRN,ITK,RAD,RSR,SFF,VEH
241-BXR-402	MUST rad contaminated	PHA AZ-102BX-100SY-101BND,CRN,CVR,DCN,GRN,ITK,RAD,RSR,SFF,VEH
241-BXR-403	MUST rad contaminated	PHA AZ-102BX-100SY-101BND,CRN,CVR,DCN,GRN,ITK,RAD,RSR,SFF,VEH
241-BXR-411	MUST rad contaminated	PHA AZ-102BX-100SY-101BND,CRN,CVR,DCN,GRN,ITK,RAD,RSR,SFF,VEH
241-BXR-416	Diversion box	HAZOP 222-S, 242-A, 242-S, 242-T, AW-102, C-106, S-102, SX-114, SY-102H058, SY-102/XS, B Plant, T Plant, U Plant, PFP, PUREX, Overground Transfers PHA AZ-102CVR, SX-102CVR, SY-101CVR
241-BXR-453	Diversion box	HAZOP 222-S, 242-A, 242-S, 242-T, AW-102, C-106, S-102, SX-114, SY-102H058, SY-102/XS, B Plant, T Plant, U Plant, PFP, PUREX, Overground Transfers PHA AZ-102CVR, SX-102CVR, SY-101CVR

Table B-2. Topography Data. (23 Sheets)

Facility Name	Type	Applicable Hazard Event
241-BYR-153	Diversion box	HAZOP 222-S, 242-A, 242-S, 242-T, AW-102, C-106, S-102, SX-114, SY-102AW058, SY-102XS, B Plant, T Plant, U Plant, PFP, PUREX, Overground Transfers PHA AZ-102CVR, BX-102CVR, SY-101CVR
241-BY-101	Single shell tank	HAZOP 242-T, C-106, S-102, SX-114, Overground Transfers WHAT IF CCF
241-BY-102	Single shell tank	HAZOP 242-T, C-106, S-102, SX-114, Overground Transfers WHAT IF CCF
241-BY-103	Single shell tank	HAZOP 242-T, C-106, S-102, SX-114, Overground Transfers WHAT IF CCF
241-BY-104	Single shell tank	HAZOP 242-T, C-106, S-102, SX-114, Overground Transfers WHAT IF CCF
241-BY-105	Single shell tank	HAZOP 242-T, C-106, S-102, SX-114, Overground Transfers WHAT IF CCF
241-BY-106	Single shell tank	HAZOP 242-T, C-106, S-102, SX-114, Overground Transfers WHAT IF CCF
241-BY-107	Single shell tank	HAZOP 242-T, C-106, S-102, SX-114, Overground Transfers WHAT IF CCF
241-BY-108	Single shell tank	HAZOP 242-T, C-106, S-102, SX-114, Overground Transfers WHAT IF CCF
241-BY-109	Single shell tank	HAZOP 242-T, C-106, S-102, SX-114, Overground Transfers WHAT IF CCF
241-BY-110	Single shell tank	HAZOP 242-T, C-106, S-102, SX-114, Overground Transfers WHAT IF CCF
241-BY-111	Single shell tank	HAZOP 242-T, C-106, S-102, SX-114, Overground Transfers WHAT IF CCF
241-BY-112	Single shell tank	HAZOP 242-T, C-106, S-102, SX-114, Overground Transfers WHAT IF CCF
241-BYR-152	Diversion box	HAZOP 222-S, 242-A, 242-S, 242-T, AW-102, C-106, S-102, SX-114, SY-102AW058, SY-102XS, B Plant, T Plant, U Plant, PFP, PUREX, Overground Transfers PHA AZ-102CVR, BX-102CVR, SY-101CVR
241-BYR-153	Diversion box	HAZOP 222-S, 242-A, 242-S, 242-T, AW-102, C-106, S-102, SX-114, SY-102AW058, SY-102XS, B Plant, T Plant, U Plant, PFP, PUREX, Overground Transfers PHA AZ-102CVR, BX-102CVR, SY-101CVR
241-BYR-154	Diversion box	HAZOP 222-S, 242-A, 242-S, 242-T, AW-102, C-106, S-102, SX-114, SY-102AW058, SY-102XS, B Plant, T Plant, U Plant, PFP, PUREX, Overground Transfers PHA AZ-102CVR, BX-102CVR, SY-101CVR
241-BYR-155	Diversion box	HAZOP 222-S, 242-A, 242-S, 242-T, AW-102, C-106, S-102, SX-114, SY-102AW058, SY-102XS, B Plant, T Plant, U Plant, PFP, PUREX, Overground Transfers PHA AZ-102CVR, BX-102CVR, SY-101CVR
241-C-101	Single shell tank	HAZOP 242-T, C-106, S-102, SX-114, Overground Transfers WHAT IF CCF
241-C-102	Single shell tank	HAZOP 242-T, C-106, S-102, SX-114, Overground Transfers WHAT IF CCF

Table B-2. Topography Data. (23 Sheets)

Facility Name	Type	Applicable Hazard Eval
241-C-103	Single shell tank	HAZOP 242-T, C-100, S-102, SX-114, Overground Transfers WHAT IF CCF
241-C-104	Single shell tank	HAZOP 242-T, C-100, S-102, SX-114, Overground Transfers WHAT IF CCF
241-C-105	Single shell tank	HAZOP 242-T, C-100, S-102, SX-114, Overground Transfers WHAT IF CCF
241-C-106	Single shell tank	HAZOP 242-T, C-100, S-102, SX-114, Overground Transfers WHAT IF CCF
241-C-107	Single shell tank	HAZOP 242-T, C-100, S-102, SX-114, Overground Transfers WHAT IF CCF
241-C-108	Single shell tank	HAZOP 242-T, C-100, S-102, SX-114, Overground Transfers WHAT IF CCF
241-C-109	Single shell tank	HAZOP 242-T, C-100, S-102, SX-114, Overground Transfers WHAT IF CCF
241-C-110	Single shell tank	HAZOP 242-T, C-100, S-102, SX-114, Overground Transfers WHAT IF CCF
241-C-111	Single shell tank	HAZOP 242-T, C-100, S-102, SX-114, Overground Transfers WHAT IF CCF
241-C-112	Single shell tank	HAZOP 242-T, C-100, S-102, SX-114, Overground Transfers WHAT IF CCF
241-C-151	Overturn box	HAZOP 222-S, 242-A, 242-S, 242-T, A/W-102, C-100, S-102, SX-114, SY-102W058, SY-102X05, B Plant, T Plant, U Plant, PFP, PUREX, Overground Transfers PHA A2-102CVR, BX-100CVR, SY-101ACVR
241-C-152	Overturn box	HAZOP 222-S, 242-A, 242-S, 242-T, A/W-102, C-100, S-102, SX-114, SY-102W058, SY-102X05, B Plant, T Plant, U Plant, PFP, PUREX, Overground Transfers PHA A2-102CVR, BX-100CVR, SY-101ACVR
241-C-153	Overturn box	HAZOP 222-S, 242-A, 242-S, 242-T, A/W-102, C-100, S-102, SX-114, SY-102W058, SY-102X05, B Plant, T Plant, U Plant, PFP, PUREX, Overground Transfers PHA A2-102CVR, BX-100CVR, SY-101ACVR
241-C-154	Overturn box	HAZOP 222-S, 242-A, 242-S, 242-T, A/W-102, C-100, S-102, SX-114, SY-102W058, SY-102X05, B Plant, T Plant, U Plant, PFP, PUREX, Overground Transfers PHA A2-102CVR, BX-100CVR, SY-101ACVR
241-C-201	Single shell tank	HAZOP 242-T, C-100, S-102, SX-114, Overground Transfers WHAT IF CCF
241-C-202	Single shell tank	HAZOP 242-T, C-100, S-102, SX-114, Overground Transfers WHAT IF CCF
241-C-203	Single shell tank	HAZOP 242-T, C-100, S-102, SX-114, Overground Transfers WHAT IF CCF
241-C-204	Single shell tank	HAZOP 242-T, C-100, S-102, SX-114, Overground Transfers WHAT IF CCF
241-C-252	Overturn box	HAZOP 222-S, 242-A, 242-S, 242-T, A/W-102, C-100, S-102, SX-114, SY-102W058, SY-102X05, B Plant, T Plant, U Plant, PFP, PUREX, Overground Transfers PHA A2-102CVR, BX-100CVR, SY-101ACVR

Table B-2. Topography Data. (23 Sheets)

Facility Name	Type	Applicable Hazard Eval
241-C-301C	MUST rad contaminated	PHA AZ-102BX-106SY-101BND,CRN,CVR,DCN,GRN,ITK,RAD,RSR,BFF,VEH
241-CR-151	Oversewn box	HAZOP 222-S, 242-A, 242-S, 242-T, AWW-102, C-106, S-102, SX-114, SY-102AW058, SY-102XS, B Plant, T Plant, U Plant, PFP, PUREX, Overground Transfers PHA AZ-102CVR, BX-106CVR, SY-101CVR
241-CR-152	Oversewn box	HAZOP 222-S, 242-A, 242-S, 242-T, AWW-102, C-106, S-102, SX-114, SY-102AW058, SY-102XS, B Plant, T Plant, U Plant, PFP, PUREX, Overground Transfers PHA AZ-102CVR, BX-106CVR, SY-101CVR
241-CR-153	Oversewn box	HAZOP 222-S, 242-A, 242-S, 242-T, AWW-102, C-106, S-102, SX-114, SY-102AW058, SY-102XS, B Plant, T Plant, U Plant, PFP, PUREX, Overground Transfers PHA AZ-102CVR, BX-106CVR, SY-101CVR
241-ER-151	Oversewn box	HAZOP 222-S, 242-A, 242-S, 242-T, AWW-102, C-106, S-102, SX-114, SY-102AW058, SY-102XS, B Plant, T Plant, U Plant, PFP, PUREX, Overground Transfers PHA AZ-102CVR, BX-106CVR, SY-101CVR
241-ER-152	Oversewn box	HAZOP 222-S, 242-A, 242-S, 242-T, AWW-102, C-106, S-102, SX-114, SY-102AW058, SY-102XS, B Plant, T Plant, U Plant, PFP, PUREX, Overground Transfers PHA AZ-102CVR, BX-106CVR, SY-101CVR
241-ER-153	Oversewn box	HAZOP 222-S, 242-A, 242-S, 242-T, AWW-102, C-106, S-102, SX-114, SY-102AW058, SY-102XS, B Plant, T Plant, U Plant, PFP, PUREX, Overground Transfers PHA AZ-102CVR, BX-106CVR, SY-101CVR
241-ER-311	Catch tank	HAZOP SY-102XS, PUREX
241-ER-311	Oversewn box	HAZOP 222-S, 242-A, 242-S, 242-T, AWW-102, C-106, S-102, SX-114, SY-102AW058, SY-102XS, B Plant, T Plant, U Plant, PFP, PUREX, Overground Transfers PHA AZ-102CVR, BX-106CVR, SY-101CVR
241-ER-311A	MUST rad contaminated	PHA AZ-102BX-106SY-101BND,CRN,CVR,DCN,GRN,ITK,RAD,RSR,BFF,VEH
241-F-505	Oversewn cation	HAZOP 222-S, 242-A, 242-S, 242-T, AWW-102, C-106, S-102, SX-114, SY-102AW058, SY-102XS, B Plant, T Plant, U Plant, PFP, PUREX, Overground Transfers PHA AZ-102CVR, BX-106CVR, SY-101CVR
241-F-582	Valve pit	HAZOP 222-S, 242-A, 242-S, 242-T, AWW-102, C-106, S-102, SX-114, SY-102AW058, SY-102XS, B Plant, T Plant, U Plant, PFP, PUREX, Overground Transfers PHA AZ-102CVR, BX-106CVR, SY-101CVR
241-S-101	Single shell tank	HAZOP 242-T, C-106, S-102, SX-114, Overground Transfers WHAT IF GCF
241-S-102	Single shell tank	HAZOP 242-T, C-106, S-102, SX-114, Overground Transfers WHAT IF GCF
241-S-103	Single shell tank	HAZOP 242-T, C-106, S-102, SX-114, Overground Transfers WHAT IF GCF
241-S-104	Single shell tank	HAZOP 242-T, C-106, S-102, SX-114, Overground Transfers WHAT IF GCF
241-S-105	Single shell tank	HAZOP 242-T, C-106, S-102, SX-114, Overground Transfers WHAT IF GCF

Table B-2. Topography Data. (23 Sheets)

Facility Name	Type	Applicable Hazard Eval
241-S-106	Single shell tank	HAZOP 242-T, C-106, S-102, SX-114, Overground Transfers WHAT IF CCF
241-S-107	Single shell tank	HAZOP 242-T, C-106, S-102, SX-114, Overground Transfers WHAT IF CCF
241-S-108	Single shell tank	HAZOP 242-T, C-106, S-102, SX-114, Overground Transfers WHAT IF CCF
241-S-109	Single shell tank	HAZOP 242-T, C-106, S-102, SX-114, Overground Transfers WHAT IF CCF
241-S-110	Single shell tank	HAZOP 242-T, C-106, S-102, SX-114, Overground Transfers WHAT IF CCF
241-S-111	Single shell tank	HAZOP 242-T, C-106, S-102, SX-114, Overground Transfers WHAT IF CCF
241-S-112	Single shell tank	HAZOP 242-T, C-106, S-102, SX-114, Overground Transfers WHAT IF CCF
241-S-151	Diversion box	HAZOP 222-S, 242-A, 242-S, 242-T, AW-102, C-106, S-102, SX-114, SY-102W058, SY-102X03, B Plant, T Plant, U Plant, PFP, PUREX, Overground Transfers PHA AZ-102CVR, BX-108CVR, SY-101CVR
241-S-152	Diversion box	HAZOP 222-S, 242-A, 242-S, 242-T, AW-102, C-106, S-102, SX-114, SY-102W058, SY-102X03, B Plant, T Plant, U Plant, PFP, PUREX, Overground Transfers PHA AZ-102CVR, BX-108CVR, SY-101CVR
241-S-302A	IMUST red contaminated	PHA AZ-102EX-109/SY-101BND,CRN,CVR,DCN,GRN,ITC,RAD,RSR,BFF,VEH
241-S-302B	IMUST red contaminated	PHA AZ-102EX-109/SY-101BND,CRN,CVR,DCN,GRN,ITC,RAD,RSR,BFF,VEH
241-S-304	Catch tank	HAZOP SY-102X03, PUREX
241-S-A	Valve pit	HAZOP 222-S, 242-A, 242-S, 242-T, AW-102, C-106, S-102, SX-114, SY-102W058, SY-102X03, B Plant, T Plant, U Plant, PFP, PUREX, Overground Transfers PHA AZ-102CVR, BX-108CVR, SY-101CVR
241-S-B	Valve pit	HAZOP 222-S, 242-A, 242-S, 242-T, AW-102, C-106, S-102, SX-114, SY-102W058, SY-102X03, B Plant, T Plant, U Plant, PFP, PUREX, Overground Transfers PHA AZ-102CVR, BX-108CVR, SY-101CVR
241-S-C	Valve pit	HAZOP 222-S, 242-A, 242-S, 242-T, AW-102, C-106, S-102, SX-114, SY-102W058, SY-102X03, B Plant, T Plant, U Plant, PFP, PUREX, Overground Transfers PHA AZ-102CVR, BX-108CVR, SY-101CVR
241-S-D	Valve pit	HAZOP 222-S, 242-A, 242-S, 242-T, AW-102, C-106, S-102, SX-114, SY-102W058, SY-102X03, B Plant, T Plant, U Plant, PFP, PUREX, Overground Transfers PHA AZ-102CVR, BX-108CVR, SY-101CVR
241-S-VBU	Vertical Storage Units	PHA VBU
241-SX-101	Single shell tank	HAZOP 242-T, C-106, S-102, SX-114, Overground Transfers WHAT IF CCF
241-SX-102	Single shell tank	HAZOP 242-T, C-106, S-102, SX-114, Overground Transfers WHAT IF CCF

Table B-2. Topography Data. (23 Sheets)

Facility Name	Type	Applicable Hazard Eval
241-SX-103	Single shell tank	HAZOP 242-T, C-105, S-102, SX-114, Overground Transfers WHAT IF CCF
241-SX-104	Single shell tank	HAZOP 242-T, C-105, S-102, SX-114, Overground Transfers WHAT IF CCF
241-SX-105	Single shell tank	HAZOP 242-T, C-105, S-102, SX-114, Overground Transfers WHAT IF CCF
241-SX-106	Single shell tank	HAZOP 242-T, C-105, S-102, SX-114, Overground Transfers WHAT IF CCF
241-SX-107	Single shell tank	HAZOP 242-T, C-105, S-102, SX-114, Overground Transfers WHAT IF CCF
241-SX-108	Single shell tank	HAZOP 242-T, C-105, S-102, SX-114, Overground Transfers WHAT IF CCF
241-SX-109	Single shell tank	HAZOP 242-T, C-105, S-102, SX-114, Overground Transfers WHAT IF CCF
241-SX-110	Single shell tank	HAZOP 242-T, C-105, S-102, SX-114, Overground Transfers WHAT IF CCF
241-SX-111	Single shell tank	HAZOP 242-T, C-105, S-102, SX-114, Overground Transfers WHAT IF CCF
241-SX-112	Single shell tank	HAZOP 242-T, C-105, S-102, SX-114, Overground Transfers WHAT IF CCF
241-SX-113	Single shell tank	HAZOP 242-T, C-105, S-102, SX-114, Overground Transfers WHAT IF CCF
241-SX-114	Single shell tank	HAZOP 242-T, C-105, S-102, SX-114, Overground Transfers WHAT IF CCF
241-SX-115	Single shell tank	HAZOP 242-T, C-105, S-102, SX-114, Overground Transfers WHAT IF CCF
241-SX-151	Distillation bar	HAZOP 222-S, 242-A, 242-B, 242-T, AWW-102, C-105, S-102, SX-114, SY-102X/S, B Plant, T Plant, U Plant, PFP, PUREX, Overground Transfers PHA AZ-102CVR, BX-103CVR, SY-101CVR
241-SX-152	Distillation bar	HAZOP 222-S, 242-A, 242-B, 242-T, AWW-102, C-105, S-102, SX-114, SY-102X/S, B Plant, T Plant, U Plant, PFP, PUREX, Overground Transfers PHA AZ-102CVR, BX-103CVR, SY-101CVR
241-SX-302	Wt6T and contaminated	PHA AZ-102BX-105/SY-101/BMD,CRM,CVR,DCN,GRN,ITC,RAD,RSR,BFF,VEH
241-SX-A	Valve pit	HAZOP 222-S, 242-A, 242-B, 242-T, AWW-102, C-105, S-102, SX-114, SY-102X/S, B Plant, T Plant, U Plant, PFP, PUREX, Overground Transfers PHA AZ-102CVR, BX-103CVR, SY-101CVR
241-SX-B	Valve pit	HAZOP 222-S, 242-A, 242-B, 242-T, AWW-102, C-105, S-102, SX-114, SY-102X/S, B Plant, T Plant, U Plant, PFP, PUREX, Overground Transfers PHA AZ-102CVR, BX-103CVR, SY-101CVR
241-SY	Service pit	HAZOP AWW-102, SY-102X/S
241-SY-DIC	Leak Detection Pit	HAZOP AWW-102, SY-102X/S

Table B-2. Topography Data. (23 Sheets)

Facility Name	Type	Applicable Hazard Event
241-SY-02C	Leak Detection Pit	HAZOP AW-102, SY-102XS
241-SY-02E	Feed pump pit	HAZOP 222-S, 242-A, 242-S, 242-T, AW-102, C-105, S-102, SX-114, SY-102W05B, SY-102XS, B Plant, T Plant, U Plant, PFP, PUREX, Overground Transfers PHA AZ-102CVR, BX-105CVR, SY-101CVR
241-SY-02E	Flush pit	HAZOP AW-102, SY-102XS
241-SY-03C	Leak Detection Pit	HAZOP AW-102, SY-102XS
241-SY-1	Cleanout box	PHA COB
241-SY-101	Double shell tank	HAZOP 222-S, 242-A, 242-S, AW-102, SY-102XS, PFP, PUREX, B Plant, T Plant
241-SY-102	Double shell tank	HAZOP 222-S, 242-A, 242-S, AW-102, SY-102XS, PFP, PUREX, B Plant, T Plant
241-SY-103	Double shell tank	HAZOP 222-S, 242-A, 242-S, AW-102, SY-102XS, PFP, PUREX, B Plant, T Plant
241-SY-2	Cleanout box	PHA COB
241-SY-3	Cleanout box	PHA COB
241-SY-4	Cleanout box	PHA COB
241-SY-5	Cleanout box	PHA COB
241-SY-6	Cleanout box	PHA COB
241-SY-A	Flush pit	HAZOP AW-102, SY-102XS
241-SY-A	Valve pit	HAZOP 222-S, 242-A, 242-S, 242-T, AW-102, C-105, S-102, SX-114, SY-102W05B, SY-102XS, B Plant, T Plant, U Plant, PFP, PUREX, Overground Transfers PHA AZ-102CVR, BX-105CVR, SY-101CVR
241-SY-B	Flush pit	HAZOP AW-102, SY-102XS
241-SY-B	Valve pit	HAZOP 222-S, 242-A, 242-S, 242-T, AW-102, C-105, S-102, SX-114, SY-102W05B, SY-102XS, B Plant, T Plant, U Plant, PFP, PUREX, Overground Transfers PHA AZ-102CVR, BX-105CVR, SY-101CVR
241-T-101	Single shell tank	HAZOP 242-T, C-105, S-102, SX-114, Overground Transfers WHAT IF CCF
241-T-102	Single shell tank	HAZOP 242-T, C-105, S-102, SX-114, Overground Transfers WHAT IF CCF
241-T-103	Single shell tank	HAZOP 242-T, C-105, S-102, SX-114, Overground Transfers WHAT IF CCF

Table B-2. Topography Data. (23 Streets)

Facility Name	Type	Applicable Hazard Eval
241-T-104	Single shell tank	HAZOP 242-T, C-106, S-102, SX-114, Overground Transfers WHAT IF CCF
241-T-108	Single shell tank	HAZOP 242-T, C-106, S-102, SX-114, Overground Transfers WHAT IF CCF
241-T-109	Single shell tank	HAZOP 242-T, C-106, S-102, SX-114, Overground Transfers WHAT IF CCF
241-T-107	Single shell tank	HAZOP 242-T, C-106, S-102, SX-114, Overground Transfers WHAT IF CCF
241-T-108	Single shell tank	HAZOP 242-T, C-106, S-102, SX-114, Overground Transfers WHAT IF CCF
241-T-108	Single shell tank	HAZOP 242-T, C-106, S-102, SX-114, Overground Transfers WHAT IF CCF
241-T-110	Single shell tank	HAZOP 242-T, C-106, S-102, SX-114, Overground Transfers WHAT IF CCF
241-T-111	Single shell tank	HAZOP 242-T, C-106, S-102, SX-114, Overground Transfers WHAT IF CCF
241-T-112	Single shell tank	HAZOP 242-T, C-106, S-102, SX-114, Overground Transfers WHAT IF CCF
241-T-151	Diversion box	HAZOP 222-S, 242-A, 242-S, 242-T, AHA-102, C-106, S-102, SX-114, SY-102A/CVR, SY-102B/C, B Plant, 7 Plant, U Plant, PFP, PUREX, Overground Transfers PHA AZ-102CVR, SX-109CVR, SY-101CVR
241-T-201	Single shell tank	HAZOP 242-T, C-106, S-102, SX-114, Overground Transfers WHAT IF CCF
241-T-202	Single shell tank	HAZOP 242-T, C-106, S-102, SX-114, Overground Transfers WHAT IF CCF
241-T-203	Single shell tank	HAZOP 242-T, C-106, S-102, SX-114, Overground Transfers WHAT IF CCF
241-T-204	Single shell tank	HAZOP 242-T, C-106, S-102, SX-114, Overground Transfers WHAT IF CCF
241-T-301	WALST rad contaminated	PHA AZ-102BX-106/SY-101/BND, CRN, CVR, DCM, GRNUYK, RAD, RSR, SFF, VEH
241-TX-001	WALST rad contaminated	PHA AZ-102BX-106/SY-101/BND, CRN, CVR, DCM, GRNUYK, RAD, RSR, SFF, VEH
241-TX-002	WALST rad contaminated	PHA AZ-102BX-106/SY-101/BND, CRN, CVR, DCM, GRNUYK, RAD, RSR, SFF, VEH
241-TX-003	WALST rad contaminated	PHA AZ-102BX-106/SY-101/BND, CRN, CVR, DCM, GRNUYK, RAD, RSR, SFF, VEH
241-TX-101	Single shell tank	HAZOP 242-T, C-106, S-102, SX-114, Overground Transfers WHAT IF CCF
241-TX-102	Single shell tank	HAZOP 242-T, C-106, S-102, SX-114, Overground Transfers WHAT IF CCF
241-TX-103	Single shell tank	HAZOP 242-T, C-106, S-102, SX-114, Overground Transfers WHAT IF CCF

Table B-2. Topography Data. (23 Sheets)

Facility Name	Type	Applicable Hazard Event
241-TX-104	Single shell tank	HAZOP 242-T, C-105, S-102, SX-114, Overground Transfers WHAT IF CCF
241-TX-105	Single shell tank	HAZOP 242-T, C-105, S-102, SX-114, Overground Transfers WHAT IF CCF
241-TX-106	Single shell tank	HAZOP 242-T, C-105, S-102, SX-114, Overground Transfers WHAT IF CCF
241-TX-107	Single shell tank	HAZOP 242-T, C-105, S-102, SX-114, Overground Transfers WHAT IF CCF
241-TX-108	Single shell tank	HAZOP 242-T, C-105, S-102, SX-114, Overground Transfers WHAT IF CCF
241-TX-109	Single shell tank	HAZOP 242-T, C-105, S-102, SX-114, Overground Transfers WHAT IF CCF
241-TX-110	Single shell tank	HAZOP 242-T, C-105, S-102, SX-114, Overground Transfers WHAT IF CCF
241-TX-111	Single shell tank	HAZOP 242-T, C-105, S-102, SX-114, Overground Transfers WHAT IF CCF
241-TX-112	Single shell tank	HAZOP 242-T, C-105, S-102, SX-114, Overground Transfers WHAT IF CCF
241-TX-113	Single shell tank	HAZOP 242-T, C-105, S-102, SX-114, Overground Transfers WHAT IF CCF
241-TX-114	Single shell tank	HAZOP 242-T, C-105, S-102, SX-114, Overground Transfers WHAT IF CCF
241-TX-115	Single shell tank	HAZOP 242-T, C-105, S-102, SX-114, Overground Transfers WHAT IF CCF
241-TX-116	Single shell tank	HAZOP 242-T, C-105, S-102, SX-114, Overground Transfers WHAT IF CCF
241-TX-117	Single shell tank	HAZOP 242-T, C-105, S-102, SX-114, Overground Transfers WHAT IF CCF
241-TX-118	Single shell tank	HAZOP 242-T, C-105, S-102, SX-114, Overground Transfers WHAT IF CCF
241-TX-152	Diversion box	HAZOP 222-B, 242-A, 242-S, 242-T, AW-102, C-105, S-102, SX-114, SY-102A055, SY-102XS, B Plant, T Plant, U Plant, PPP, PUREX, Overground Transfers PHA AZ-102CVR, SX-102CVR, SY-101CVR
241-TX-153	Diversion box	HAZOP 222-S, 242-A, 242-S, 242-T, AW-102, C-105, S-102, SX-114, SY-102A055, SY-102XS, B Plant, T Plant, U Plant, PPP, PUREX, Overground Transfers PHA AZ-102CVR, SX-102CVR, SY-101CVR
241-TX-154	Diversion box	HAZOP 222-S, 242-A, 242-S, 242-T, AW-102, C-105, S-102, SX-114, SY-102A055, SY-102XS, B Plant, T Plant, U Plant, PPP, PUREX, Overground Transfers PHA AZ-102CVR, SX-102CVR, SY-101CVR
241-TX-155	Diversion box	HAZOP 222-S, 242-A, 242-S, 242-T, AW-102, C-105, S-102, SX-114, SY-102A055, SY-102XS, B Plant, T Plant, U Plant, PPP, PUREX, Overground Transfers PHA AZ-102CVR, SX-102CVR, SY-101CVR
241-TX-302A	IMJBT and postburned	PHA AZ-102BXX-102SY-101UBMD,GRN,CVR,DCN,GRN,ITK,RAD,RBR,BFF,VEN

Table B-2. Topography Data. (23 Sheets)

Facility Name	Type	Applicable Hazard Event
241-TX-302B(R)	IMUST rad contaminated	PHA AZ-102BX-109/SY-101/BND,CRN,CVR,DCN,GRN,ITK,RAD,RSR,SFF,VEH
241-TX-302C	Catch tank	HAZOP SY-102XS, PUREX
241-TX-302X	IMUST rad contaminated	PHA AZ-102BX-109/SY-101/BND,CRN,CVR,DCN,GRN,ITK,RAD,RSR,SFF,VEH
241-TXR-151	Oversewn box	HAZOP 222-S, 242-A, 242-B, 242-T, AHA-102, C-106, S-102, SX-114, SY-102/M058, SY-102XS, B Plant, T Plant, U Plant, PFP, PUREX, Overground Transfers PHA AZ-102CVR, BX-108CVR, SY-101CVR
241-TXR-152	Oversewn box	HAZOP 222-S, 242-A, 242-B, 242-T, AHA-102, C-106, S-102, SX-114, SY-102/M058, SY-102XS, B Plant, T Plant, U Plant, PFP, PUREX, Overground Transfers PHA AZ-102CVR, BX-108CVR, SY-101CVR
241-TXR-153	Oversewn box	HAZOP 222-S, 242-A, 242-B, 242-T, AHA-102, C-106, S-102, SX-114, SY-102/M058, SY-102XS, B Plant, T Plant, U Plant, PFP, PUREX, Overground Transfers PHA AZ-102CVR, BX-108CVR, SY-101CVR
241-TY-101	Single shell tank	HAZOP 242-T, C-106, S-102, SX-114, Overground Transfers WHAT IF CCF
241-TY-102	Single shell tank	HAZOP 242-T, C-106, S-102, SX-114, Overground Transfers WHAT IF CCF
241-TY-103	Single shell tank	HAZOP 242-T, C-106, S-102, SX-114, Overground Transfers WHAT IF CCF
241-TY-104	Single shell tank	HAZOP 242-T, C-106, S-102, SX-114, Overground Transfers WHAT IF CCF
241-TY-105	Single shell tank	HAZOP 242-T, C-106, S-102, SX-114, Overground Transfers WHAT IF CCF
241-TY-106	Single shell tank	HAZOP 242-T, C-106, S-102, SX-114, Overground Transfers WHAT IF CCF
241-TY-302A	IMUST rad contaminated	PHA AZ-102BX-109/SY-101/BND,CRN,CVR,DCN,GRN,ITK,RAD,RSR,SFF,VEH
241-TY-302B	IMUST rad contaminated	PHA AZ-102BX-109/SY-101/BND,CRN,CVR,DCN,GRN,ITK,RAD,RSR,SFF,VEH
241-U-101	Single shell tank	HAZOP 242-T, C-106, S-102, SX-114, Overground Transfers WHAT IF CCF
241-U-102	Single shell tank	HAZOP 242-T, C-106, S-102, SX-114, Overground Transfers WHAT IF CCF
241-U-103	Single shell tank	HAZOP 242-T, C-106, S-102, SX-114, Overground Transfers WHAT IF CCF
241-U-104	Single shell tank	HAZOP 242-T, C-106, S-102, SX-114, Overground Transfers WHAT IF CCF
241-U-105	Single shell tank	HAZOP 242-T, C-106, S-102, SX-114, Overground Transfers WHAT IF CCF
241-U-106	Single shell tank	HAZOP 242-T, C-106, S-102, SX-114, Overground Transfers WHAT IF CCF

Table B-1. Topography Data. (23 Sheets)

Facility Name	Type	Applicable Hazard Event
241-U-107	Single shell tank	HAZOP 242-T, C-106, S-102, SX-114, Overground Transfers WHAT IF CQF
241-U-108	Single shell tank	HAZOP 242-T, C-106, S-102, SX-114, Overground Transfers WHAT IF CQF
241-U-109	Single shell tank	HAZOP 242-T, C-106, S-102, SX-114, Overground Transfers WHAT IF CQF
241-U-110	Single shell tank	HAZOP 242-T, C-106, S-102, SX-114, Overground Transfers WHAT IF CQF
241-U-111	Single shell tank	HAZOP 242-T, C-106, S-102, SX-114, Overground Transfers WHAT IF CQF
241-U-112	Single shell tank	HAZOP 242-T, C-106, S-102, SX-114, Overground Transfers WHAT IF CQF
241-U-151	Diversion box	HAZOP 222-S, 242-A, 242-S, 242-T, AWW-102, C-106, S-102, SX-114, SY-102A0058, SY-102XS, B Plant, T Plant, U Plant, PFP, PUREX, Overground Transfers PHA AZ-102CVR, BX-106CVR, SY-101ACVR
241-U-152	Diversion box	HAZOP 222-S, 242-A, 242-S, 242-T, AWW-102, C-106, S-102, SX-114, SY-102A0058, SY-102XS, B Plant, T Plant, U Plant, PFP, PUREX, Overground Transfers PHA AZ-102CVR, BX-106CVR, SY-101ACVR
241-U-153	Diversion box	HAZOP 222-S, 242-A, 242-S, 242-T, AWW-102, C-106, S-102, SX-114, SY-102A0058, SY-102XS, B Plant, T Plant, U Plant, PFP, PUREX, Overground Transfers PHA AZ-102CVR, BX-106CVR, SY-101ACVR
241-U-154	Diversion box	HAZOP 222-S, 242-A, 242-S, 242-T, AWW-102, C-106, S-102, SX-114, SY-102A0058, SY-102XS, B Plant, T Plant, U Plant, PFP, PUREX, Overground Transfers PHA AZ-102CVR, BX-106CVR, SY-101ACVR
241-U-201	Single shell tank	HAZOP 242-T, C-106, S-102, SX-114, Overground Transfers WHAT IF CQF
241-U-202	Single shell tank	HAZOP 242-T, C-106, S-102, SX-114, Overground Transfers WHAT IF CQF
241-U-203	Single shell tank	HAZOP 242-T, C-106, S-102, SX-114, Overground Transfers WHAT IF CQF
241-U-204	Single shell tank	HAZOP 242-T, C-106, S-102, SX-114, Overground Transfers WHAT IF CQF
241-U-262	Diversion box	HAZOP 222-S, 242-A, 242-S, 242-T, AWW-102, C-106, S-102, SX-114, SY-102A0058, SY-102XS, B Plant, T Plant, U Plant, PFP, PUREX, Overground Transfers PHA AZ-102CVR, BX-106CVR, SY-101ACVR
241-U-3018	Catch tank	HAZOP SY-102XS, PUREX
241-U-4	Valve pit	HAZOP 222-S, 242-A, 242-S, 242-T, AWW-102, C-106, S-102, SX-114, SY-102A0058, SY-102XS, B Plant, T Plant, U Plant, PFP, PUREX, Overground Transfers PHA AZ-102CVR, BX-106CVR, SY-101ACVR
241-U-6	Valve pit	HAZOP 222-S, 242-A, 242-S, 242-T, AWW-102, C-106, S-102, SX-114, SY-102A0058, SY-102XS, B Plant, T Plant, U Plant, PFP, PUREX, Overground Transfers PHA AZ-102CVR, BX-106CVR, SY-101ACVR

Table B-2. Topography Data. (23 Sheets)

Facility Name	Type	Applicable Hazard Eval
241-U-C	Valve pit	HAZOP 222-S, 242-A, 242-S, 242-T, AW-102, C-105, S-102, SX-114, SY-102W055, SY-102XS, B Plant, T Plant, U Plant, PFP, PUREX, Overground Transfers PHA AZ-102CVR, BX-105CVR, SY-101CVR
241-U-D	Valve pit	HAZOP 222-S, 242-A, 242-S, 242-T, AW-102, C-105, S-102, SX-114, SY-102W055, SY-102XS, B Plant, T Plant, U Plant, PFP, PUREX, Overground Transfers PHA AZ-102CVR, BX-105CVR, SY-101CVR
241-UR-151	Diversion box	HAZOP 222-S, 242-A, 242-S, 242-T, AW-102, C-105, S-102, SX-114, SY-102W055, SY-102XS, B Plant, T Plant, U Plant, PFP, PUREX, Overground Transfers PHA AZ-102CVR, BX-105CVR, SY-101CVR
241-UR-152	Diversion box	HAZOP 222-S, 242-A, 242-S, 242-T, AW-102, C-105, S-102, SX-114, SY-102W055, SY-102XS, B Plant, T Plant, U Plant, PFP, PUREX, Overground Transfers PHA AZ-102CVR, BX-105CVR, SY-101CVR
241-UR-153	Diversion box	HAZOP 222-S, 242-A, 242-S, 242-T, AW-102, C-105, S-102, SX-114, SY-102W055, SY-102XS, B Plant, T Plant, U Plant, PFP, PUREX, Overground Transfers PHA AZ-102CVR, BX-105CVR, SY-101CVR
241-UR-154	Diversion box	HAZOP 222-S, 242-A, 242-S, 242-T, AW-102, C-105, S-102, SX-114, SY-102W055, SY-102XS, B Plant, T Plant, U Plant, PFP, PUREX, Overground Transfers PHA AZ-102CVR, BX-105CVR, SY-101CVR
241-UX-302A	Catch tank	HAZOP SY-102XS, PUREX
242-B-151	Diversion box	HAZOP 222-S, 242-A, 242-S, 242-T, AW-102, C-105, S-102, SX-114, SY-102W055, SY-102XS, B Plant, T Plant, U Plant, PFP, PUREX, Overground Transfers PHA AZ-102CVR, BX-105CVR, SY-101CVR
242-T-135	IMUST rad contaminated	PHA AZ-102BX-105SY-101BND,CRN,CVR,DON,GRN,ITK,RAD,RSR,SFF,VEH
242-TA-R1	IMUST rad contaminated	PHA AZ-102BX-105SY-101BND,CRN,CVR,DON,GRN,ITK,RAD,RSR,SFF,VEH
244-A	Lift station 244-A	HAZOP 222-S, 242-A, 242-S, 242-T, AW-102, C-105, S-102, SX-114, SY-102W055, SY-102XS, B Plant, T Plant, U Plant, PFP, PUREX, Overground Transfers PHA AZ-102CVR, BX-105CVR, SY-101CVR
244-BX	DCRT catch station	HAZOP 222-S, 242-S, SY-102XS, PFP, PUREX, T Plant, Siphoning, Overground Transfers
244-OR	DCRT catch station	HAZOP 222-S, 242-S, SY-102XS, PFP, T Plant, Siphoning, Overground Transfers
244-S	DCRT catch station	HAZOP 222-S, 242-S, SY-102XS, PFP, T Plant, Siphoning, Overground Transfers
244-TX	DCRT catch station	HAZOP 222-S, 242-S, SY-102XS, PFP, T Plant, Siphoning, Overground Transfers
244-U	DCRT catch station	HAZOP 222-S, 242-S, SY-102XS, PFP, T Plant, Siphoning, Overground Transfers
2727-W	Sodium storage bldg	PHA 2727W

Table B-2. Topography Data. (23 Sheets)

Facility Name	Type	Applicable Hazard Eval
A Satellite Accumulation Area	Satellite Accumulation Area	PHA 208E
AN Satellite Accumulation Area	Satellite Accumulation Area	PHA 208E
AP Satellite Accumulation Area	Satellite Accumulation Area	PHA 209E
AR-204	Railcar/truck receiving	HAZOP 204-AR
AR-244	Vault	PHA 244-AR
AW Satellite Accumulation Area	Satellite Accumulation Area	PHA 208E
AX Satellite Accumulation Area	Satellite Accumulation Area	PHA 208E
AY Satellite Accumulation Area	Satellite Accumulation Area	PHA 208E
B Satellite Accumulation Area	Satellite Accumulation Area	PHA 208E
C Satellite Accumulation Area	Satellite Accumulation Area	PHA 208E
COB-AN-1	Cleanout box	PHA COB
COB-AN-2	Cleanout box	PHA COB
COB-AN-3	Cleanout box	PHA COB
COB-AN-4	Cleanout box	PHA COB
COB-AN-5	Cleanout box	PHA COB
COB-AN-6	Cleanout box	PHA COB
COB-AN-7	Cleanout box	PHA COB
COB-AN-8	Cleanout box	PHA COB

Table B-2. Topography Data. (23 Sheets)

Facility Name	Type	Applicable Hazard Eval
COB-AW-01	Cleanout box	PHA COB
COB-AW-02	Cleanout box	PHA COB
COB-AW-03	Cleanout box	PHA COB
COB-AW-04	Cleanout box	PHA COB
COB-AW-05	Cleanout box	PHA COB
COB-AW-06	Cleanout box	PHA COB
COB-AW-07	Cleanout box	PHA COB
COB-AW-08	Cleanout box	PHA COB
COB-AW-09	Cleanout box	PHA COB
COB-AW-10	Cleanout box	PHA COB
COB-AW-11	Cleanout box	PHA COB
COB-AW-12	Cleanout box	PHA COB
Double Encased Piping	Transfer Line Piping	HAZOP 242-A, 242-S, AW-102, PFP, SY-102AW058X3 WHAT IF EE
Located in each tank farm	Caisson	HAZOP AW-102, SY-102X3
Located in each tank farm	Catch tank pit	HAZOP AW-102, SY-102X3
Located in each tank farm	Cleanout box	PHA COB
Located in each tank farm	Damper box	HAZOP 223-S, 242-A, 242-S, 242-T, AW-102, C-106, S-102, SX-114, SY-102AW058, SY-102X3, B Plant, T Plant, U Plant, PFP, PUREX, Overground Transfers PHA AZ-102CVR, BX-102CVR, SY-101ACVR
Located in each tank farm	Diverter station	HAZOP 223-S, 242-A, 242-S, 242-T, AW-102, C-106, S-102, SX-114, SY-102AW058, SY-102X3, B Plant, T Plant, U Plant, PFP, PUREX, Overground Transfers PHA AZ-102CVR, BX-102CVR, SY-101ACVR
Located in each tank farm	Flush pit	HAZOP AW-102, SY-102X3
Located in each tank farm	Leak detection pit	HAZOP AW-102, SY-102X3

Table B-2. Topography Data. (23 Sheets)

Facility Name	Type	Applicable Hazard Eval
Located in each tank farm	Pump pit	HAZOP: 222-S, 242-A, 242-S, 242-T, AM-102, C-106, S-102, SX-114, SY-102/V055, SY-102/X5, B Plant, T Plant, U Plant, PFP, PUREX, Overground Transfers: PHA: AZ-102/CVR, BX-106/CVR, SY-101/CVR
Located in each tank farm	Service pit	HAZOP: AM-102, SY-102/X5
Located in each tank farm	Sluice transfer box	PHA: COB
Located in each tank farm	Valve pit	HAZOP: 222-S, 242-A, 242-S, 242-T, AM-102, C-106, S-102, SX-114, SY-102/V055, SY-102/X5, B Plant, T Plant, U Plant, PFP, PUREX, Overground Transfers: PHA: AZ-102/CVR, BX-106/CVR, SY-101/CVR
Located in various tank farms	Vertical Storage Units	PHA: VSU
Overground Transfer Line	Portable Overground Transfer Line	HAZOP: Overground Transfers
PFP Pond	Pond	PHA: CDP
S Satellite Accumulation Area	Satellite Accumulation Area	PHA: 200E
Satellite Accumulation Area	Satellite Accumulation Area	PHA: 200E
Secondary Containment Piping	Transfer Line Piping	HAZOP: 222-S, PUREX, SY-102/X5, B Plant, T Plant, U Plant
Single Encased Piping	Transfer Line Piping	HAZOP: AM-107, S-102, SY-102/X5
T Satellite Accumulation Area	Satellite Accumulation Area	PHA: 200E
TX Satellite Accumulation Area	Satellite Accumulation Area	PHA: 200E
U Satellite Accumulation Area	Satellite Accumulation Area	PHA: 200E
Vertical Storage Units	12'-30" in depth	PHA: VSU
Vertical Storage Units	12'-30" in depth	PHA: VSU

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Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Transient	Quantity	Comments
2727-WA-M	Tank Contents	None	NA	NA	NA	NA	NA	NA	NA	No tanks associated with 2727-WA
2727-WA-M	Tank Headspace	None	NA		NA	NA	NA	NA	NA	No tanks associated with 2727-WA
2727-WA	Rail or Truck Tanker Contents	Tanker truck head	NA	5000 gal estimated	NA	Liquid/Residual	Head of liquid	Yes	NA	An abandoned truck tankers is parked within the fenced area near 2727-WA. Inside has been moved out, radioactive head expected to remain
2727-WA	Contamination on Vehicle	Tanker truck; Noted above	NA	NA	NA	Residual	One spot about 1 meter	Yes	NA	Contaminated tanker truck stored near 2727-WA
2727-WA-M	Contamination on Equipment or Tools	None	NA	NA	NA	NA	NA	NA	NA	2727-WA is a clean storage area with the exception of the truck trailer Noted above and a buffer area with possibly contaminated wood pallets
2727-WA-M	Ventilation Filter Condition	None	NA	NA	NA	NA	NA	NA	NA	No ventilation associated with 2727-WA
2727-WA-M	Contaminants in Ventilation System	No contaminants	NA	NA	NA	NA	NA	NA	NA	No contaminants
2727-WA-M	Contaminants in Ventilation System	Seal leak	NA	NA	NA	NA	NA	NA	NA	No seal leaks
2727-WA-M	Contents of Pipeline and/or Source Tank During Transfer	NA	NA	NA	NA	NA	NA	NA	NA	See transfer line Table 7
2727-WA-M	Contents of Bump or Encasement	None	NA	NA	NA	NA	NA	NA	NA	No bumps or encasements

Table B-3. Materials at Risk Data. (131 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Molten Type	Physical Form	Volume or Activity	Transfer	Quantity	Comments
2727-WA-41	Contamination in Pil or Box	None	NA	NA	NA	NA	NA	NA	NA	No pits or boxes
2727-WA-41	SARA 313 Materials	None	NA	NA	NA	NA	NA	NA	NA	NA
2727-WA-0	Other	Unlabeled drum	Unknown	55 gal drum	NA	Unknown	Unknown, up to 55 gallons	Yes	NA	Recently dropped off. Found in the Northwest corner of the fenced area, outside the building
2727-WA-0	Other	Gas bottles	acetylene (1), oxygen (1), Ar (2)	450 cubic feet per bottle	NA	Vapor	Four bottles @ 450 cubic feet, each	Yes	4 bottles, 2 Ar, 1 oxygen, 1 acetylene	Used as a mobile welding unit. Stored behind 2727-WA
2727-WA-0	Other	Calcium chloride	calcium chloride	55 gallons	NA	Solid	~55 gallons	Yes	One container	Stored in corner near 2727-WA
2727-WA-0	Other	Scale cleaners	Scale Clean	55 gallons	NA	Liquid	55 gallons	Yes	One container	Stored in corner near 2727-WA
2727-WA-0	Other	Dry Inhibited Acid Deceler	Dry Inhibited Acid Deceler	55 gallons	NA	Solid	~55 gallons	Yes	One container	Stored in corner near 2727-WA
2727-WA-0	Other	Neutralorb	Neutralorb	55 gallons	NA	Liquid	55 gallons	Yes	One container	Stored in corner near 2727-WA
2727-WA-0	Other	Kenite D E, Cells	Diatomaceous earth	55 gallons	NA	Solid	55 gallons	Yes	One drum	Stored in corner near 2727-WA
2727-WA-0	Other	Sodium carbonate	sodium carbonate	110 gallons	NA	Liquid	55 gallons	Yes	One drum	Stored in corner near 2727-WA
2727-WA-0	Other	Neutral 2	caustic neutralizer	105 gallons	NA	Solid	105 gallons	Yes	Three drums	Stored in corner near 2727-WA
2727-WA-0	Other	Absorbent	Solid absorbent	500 lbs? unmetrized	NA	Solid	about 20 bags, each about 10 lbs	Yes	about 20 bags, each about 10 lbs	Stored in corner near 2727-WA

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Transient	Quantity	Comments
2727-W	Tank Contents	Tank 1	Sodium	about 15,000 gal (12' dia x 21'-3" with dished head)	NA	Solid	300 gal Head	No	NA	No data available in ref #3. Total of 178 tons of sodium remaining in all three tanks
2727-W	Tank Contents	Tank 2	Sodium	about 15,000 gal (12' dia x 21'-3" with dished head)	NA	Solid	300 gal Head	No	NA	Ref #3 (1981) states there is 50,503 kg of sodium in this tank. This material was transferred to FFTF. Total of 178 tons of sodium remaining in all three tanks
2727-W	Tank Contents	Tank 3	Sodium	about 15,000 gal (12' dia x 21'-3" with dished head)	NA	Solid	7500 gal (head full)	No	NA	Ref #3 (1981) states there is 43,327 kg in this tank. Some of the sodium was removed at FFTF. Total of 178 tons of sodium remaining in all three tanks
2727-W	Tank Contents	Tank 4	Sodium	about 15,000 gal (12' dia x 21'-3" with dished head)	NA	Solid	15000 gal (full) 60,866 kg	No	NA	Total of 178 tons of sodium remaining in all three tanks
2727-W	Tank Contents	Tank 5	Sodium	about 15,000 gal (12' dia x 21'-3" with dished head)	NA	Solid	15000 gal (full) 49,828 kg	No	NA	Total of 178 tons of sodium remaining in all three tanks
2727-W	Tank Headspace	Tank 1	Nitrogen	NA	NA	Vapor	14700 gal (capacity - available)	No	NA	Tank headspace filled with nitrogen cover gas
2727-W	Tank Headspace	Tank 2	Nitrogen	NA	NA	Vapor	14700 gal (capacity - available)	No	NA	Tank headspace filled with nitrogen cover gas
2727-W	Tank Headspace	Tank 3	Nitrogen	NA	NA	Vapor	7500 gal (capacity - available)	No	NA	Tank headspace filled with nitrogen cover gas

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Transient	Quantity	Comments
2727-W	Tank Headspace	Tank 4	Nitrogen	NA	NA	Vapor	minimal	No	NA	Tank headspace filled with nitrogen cover gas
2727-W	Tank Headspace	Tank 5	Nitrogen	NA	NA	Vapor	minimal	No	NA	Tank headspace filled with nitrogen cover gas
2727-W-M	Rail or Truck Tanker Contents	None	NA	NA	NA	NA	NA	NA	NA	No rail or truck tankers associated with sodium storage building
2727-W-M	Contamination on Vehicle	None	NA	NA	NA	NA	NA	NA	NA	No contaminated vehicles associated with sodium storage building
2727-W-M	Contamination on Equipment or Tools	None	NA	NA	NA	NA	NA	NA	NA	No contaminated tools or equipment associated with sodium storage building
2727-W-M	Ventilation Filter Contents	None	NA	NA	NA	NA	NA	NA	NA	No ventilation filters associated with sodium storage building
2727-W-M	Contamination in Ventilation System	None	NA	NA	NA	NA	NA	NA	NA	No ventilation system associated with sodium storage building
2727-W-M	Contents of Pipeline and/or Source Tank During Transfer	NA	NA	NA	NA	NA	NA	NA	NA	See transfer line Table 7
2727-W-M	Contents of Sump or Encasement	None	NA	NA	NA	NA	NA	NA	NA	No sump or encasements in sodium storage building
2727-W-M	Contamination in Pot or Box	None	NA	NA	NA	NA	NA	NA	NA	No pots or boxes associated with sodium storage building
2727-W-M	SARA 313 Materials	None	NA	NA	NA	NA	NA	NA	NA	NA

Table B-2. Material at Risk Data. (131 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Transport	Quantity	Comments
2727-4N-G	Other	None	NA	NA	NA	NA	NA	NA	NA	NA
209-E	Tank Contents	None	NA	NA	NA	NA	NA	NA	NA	NA
209-E	Tank Headspace	NA	NA	NA	NA	NA	NA	NA	NA	No tanks
209-E-N	Rail or Truck Tanker Contents	None	NA	NA	NA	NA	NA	NA	NA	No rail or truck tankers associated with 209 E
209-E-M	Contamination on Vehicle	None	NA	NA	NA	NA	NA	NA	NA	No contaminated vehicles associated with 209 E
209-E-M	Contamination on Equipment or Tools	None	NA	NA	NA	NA	NA	NA	NA	No contaminated tools or equipment associated with 209 E
209-E-M	Ventilation Filter Contents	None	NA	NA	NA	NA	NA	NA	NA	No ventilation associated with 209 E
209-E-M	Contamination in Ventilation System	De-entrainment	NA	NA	NA	NA	NA	NA	NA	No ventilation associated with 209 E
209-E-M	Contamination in Ventilation System	Seal leak	NA	NA	NA	NA	NA	NA	NA	No ventilation associated with 209 E
209-E-M	Contents of Pipeline and/or Storage Tank During Transfer	NA	NA	NA	NA	NA	NA	NA	NA	See transfer line Table 7
209-E-N	Contents of Sump or Encasement	None	NA	NA	NA	NA	NA	NA	NA	No sump associated with 209 E
209-E-N	Contamination in Pit or Box	None	NA	NA	NA	NA	NA	NA	NA	No pits or boxes associated with 209 E

Table E-3. Material at Risk Data. (151 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Transient	Quantity	Comments
209-E-M	SARA 313 Materials	Pyroclon	NA	575 lbs (max reported in 1995)	NA	Solid	550 lbs on 12/19/95	Yes	NA	Not observed on walkdown
209-E-M	SARA 313 Materials	Granular urea	NA	380 lbs (max reported in 1995)	NA	Solid	0 lbs on 12/19/95	Yes	NA	Not observed on walkdown
209-E-M	SARA 313 Materials	3M Super 77 Spray Adhesive	NA	247 fluid oz (max reported in 1995)	NA	Liquid	152 fluid oz on 12/19/95	Yes	NA	Airused cans, Not observed on walkdown
209-E-M	SARA 313 Materials	AS527 Polyurethane Cabin Waterbased Paint	NA	732 fluid oz (max reported in 1995)	NA	Liquid	732 fluid oz on 12/19/95	Yes	NA	Airused cans, Not observed on walkdown
209-E-M	SARA 313 Materials	"Clean Up"	NA	8500 lbs (max reported in 1995)	NA	Solid	1500 lbs on 12/19/95	Yes	NA	Not observed on walkdown
209-E-M	SARA 313 Materials	CRC-2-20 (Acroco)	NA	112 fluid oz (max reported in 1995)	NA	Liquid	112 fluid oz on 12/19/95	Yes	NA	Not observed on walkdown
209-E-M	SARA 313 Materials	Argonoff/Behrman Gas 3010	NA	720 cubic feet (max reported in 1995)	NA	Gas	720 cubic feet on 11/30/95	Yes	NA	Not observed on walkdown
209-E-M	SARA 313 Materials	Krytox 1501-25012 Spray 4thanol	NA	247 fluid oz (max reported in 1995)	NA	Liquid	155 fluid oz on 12/19/95	Yes	NA	Not observed on walkdown
209-E-M	SARA 313 Materials	Propane	NA	50 gallons (max reported in 1995)	NA	Liquid	50 gallons on 11/30/95	Yes	NA	Not observed on walkdown
209-E-M	SARA 313 Materials	Shell Aerial EP Gesso 2	NA	5 gallons (max reported in 1995)	NA	Liquid	5 gallons on 1/1/95	Yes	NA	Not observed on walkdown

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Transient	Quantity	Comments
208-E-M	SARA 313 Materials	Sprayer Primers	NA	72 fluid oz (max reported in 1995)	NA	Liquid	72 fluid oz on 12/19/95	Yes	NA	Not observed on shutdown
208-E-M	SARA 313 Materials	WD-40 Aerosol	NA	272 fluid oz (max reported in 1995)	NA	Liquid	144 fluid oz on 12/18/95	Yes	NA	Not observed on shutdown
208-E-O	Other	Drums	tank contacted toxic waste (mixed waste)	55 gallons each	NA	Solid	forty-four 55 gallon drums	Yes	44 drums	NA
208-E-O	Other	DOT boxes (7A)	tank contacted toxic waste (mixed waste)	400 gallons (3' x 3' x 8') or 180 gallons (2' x 2' x 8')	NA	Solid	two 400 gallon boxes and one 180 gallon box	Yes	three boxes	NA
208-E-O	Other	DOT box (7A)	tank contacted persistent waste* (mixed waste)	1700 gallons (8' x 8' x 8')	NA	Solid	one 1700 gallon box	Yes	one box	*generated at 241-A waste pit
208-E-O	Other	Drums	toxic* (mixed waste)	55 gallons each	NA	Solid	three 55 gallon drums	Yes	three drums	*generated at 241-J farm and 241-S farm
208-E-O	Other	Drums	disposable medical (Non-rad)	55 gallons each	NA	Solid	two 55 gallon drums	Yes	two drums	NA
208-E-O	Other	Drum	regulated toxic (Non-rad)	55 gallon	NA	Solid	one 55 gallon drum	Yes	one drum	NA
208-E-O	Other	Drum	corrosive materials (Non-rad)	55 gallon	NA	Solid	one 55 gallon drum	Yes	one drum	incompatible materials segregated within the storage area
208-E-O	Other	Drum	ethylene glycol (Non-rad)	55 gallon or 25 gallon	NA	Liquid	four 55 gallon drums and one 25 gallon drum	Yes	five drums	NA

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Threat	Quantity	Comments
AR-204	Tank Contents	Tank 1 - Catch tank	same stuff as tank car or tank trailer or chemical make-up solutions identified below	1,500 gal [H-2-70704]	NA	Liquid	800 gal	No	NA	Floor drains through 204-AR drain to the catch tank
AR-204	Tank Contents	Tank 2 - Chemical make-up	1 lb/gal sodium nitrate solution [H-2-70704]	500 gal [H-2-70704]	NA	Liquid	120 gal	No	NA	NA
AR-204	Tank Contents	Tank 3 - Chemical make-up	5.4 M caustic [H-2-70704]	500 gal [H-2-70704]	NA	Liquid	80 gal	No	NA	NA
AR-204	Tank Contents	Tank 4 - Chemical make-up	high pH buffer solution (sodium hydroxide and sodium phosphate) [H-2-70704]	200 gal [H-2-70704]	NA	Liquid	0.00	No	NA	Solution was used for pH probe calibration. Currently Not in use
AR-204	Tank Contents	Tank 5 - Chemical make-up	50% sodium hydroxide [H-2-70704]	1800 gal [H-2-70704]	NA	Liquid	0 gal Residual	No	NA	Currently Not in use
AR-204	Tank Contents	Underground storage tank	Diesel fuel	850 gal [H-2-99035]	NA	Liquid	550 gal	No	NA	For diesel generator
AR-204	Tank Headspace	Catch tank	NA	NA	NA	NA	NA	NA	NA	No data available
AR-204	Tank Headspace	Tank 2 - Chemical make-up	NA	NA	NA	NA	NA	NA	NA	No data available
AR-204	Tank Headspace	Tank 3 - Chemical make-up	NA	NA	NA	NA	NA	NA	NA	No data available

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Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Transient	Quantity	Comments
AR-204	Tank Headspace	Tank 4 - Chemical storage	NA	NA	NA	NA	NA	NA	NA	No data available
AR-204	Tank Headspace	Tank 5 - Chemical storage	NA	NA	NA	NA	NA	NA	NA	No data available
AR-204	Tank Headspace	Underground storage tank	NA	NA	NA	NA	NA	NA	NA	No data available
AR-204	Rail or Truck Tanker Contents	Railroad tank car	pH between 7-14, chloride <0.01 M, No separable organic phase, <0.01 g/gal flammable material [OSD-T-151-00006, Rev E-2]	20,000 gal [E-2-71502/7]	NA	Liquid	up to 20,000 gal	No	NA	Transporting waste from 340 facility. *Risks just being hooked up during walkdown, exact volume Unknown
AR-204	Rail or Truck Tanker Contents	Tank trailer	pH between 7-14, chloride <0.004 M, No separable organic phase, <0.01 g/gal flammable material [OSD-T-151-00006, Rev E-2]	5,000 gal [VHC-SD-VHC-SAR-006, Rev 0]	NA	Liquid	up to 5,000 gal	No	NA	Waste from 222-8 laboratory. Other facilities hope to send waste to 204-AR in the future. *No tank trailer present during walkdown
AR-204-M	Contamination on Vehicle	See vehicles above	NA	NA	NA	NA	NA	NA	NA	NA
AR-204-M	Contamination on Equipment or Tools	contaminated equipment (e.g., pumps) in working area	Residual contamination	NA	NA	Residue	NA	Yes	NA	NA

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volatility or Activity	Toxicant	Quantity	Comments
AR-204-M	Contamination on Equipment or Tools	shed recontaminated material	soiled laundry?	NA	NA	Solid	NA	Yes	NA	Located outside building on east side. Shed locked up, Not entered during walkdown
AR-204-M	Ventilation Filter Contents	Primary HEPA's MSG-1 and MSG-2*	NA	1 Filter at six inches	NA	Particulates	NA	Yes, filter disposed of in accordance with EP-0063-4 (0493)	NA	*for main unloading area ventilation system
AR-204-M	Ventilation Filter Contents	HEPA MSG-3*	NA	1 Filter at six inches	NA	Particulates	NA	Yes, filter disposed of in accordance with EP-0063-4 (0493)	NA	*for catch tank ventilation
AR-204-M	Condensation in Ventilation System	Moisture separators	Process condensate	NA	NA	Liquid	NA	No	2 moisture separators	Moisture separators on main unloading area vent system and on catch tank vent system
AR-204-M	Condensation in Ventilation System	Seal loop	NA	NA	NA	NA	NA	NA	NA	No seal loops identified associated with ventilation system
AR-204-M		Contents of Pipelines and/or Source Tank During Transfer	NA	NA	NA	NA	NA	NA	NA	See Interfering Table 7
AR-204-M	Contents of Sump or Encasement	Catch tank pit sump	None*	5 gal (1' x 7' x 3') (H-2-70621)	NA	NA	None*	NA	NA	*No known spills from catch tank
AR-204-M	Condensation in Pit or Box	Catch tank pit	None*	3300 gal (8' x 7' x 10'-6") (H-2-70621)	NA	NA	None*	NA	NA	*No known spills from catch tank

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Class/Label	Capacity	Material Type	Physical Form	Volume or Activity	Transient	Quantity	Comments
AR-204-M	SARA 313 Materials	Plastic bottles/jugs of disodium phosphate	sodium phosphate	20 lbs = max reported in 1995	NA	Solid	20 lbs on 12/19/95	Yes	NA	Not observed on walkdown. Cog containers of this - No bags used
AR-204-M	SARA 313 Materials	Bag of sodium hydroxide	sodium hydroxide, 100%	1100 lbs = max reported in 1995	NA	Solid	550 lbs on 12/19/95	Yes	NA	Not observed on walkdown. Make-up material for sodium hydroxide solution
AR-204-M	SARA 313 Materials	Sodium hydroxide solution	18.6% sodium hydroxide solution	145 gal = max reported in 1995	NA	Liquid	43 gal on 12/19/95	Yes	NA	Material is located in tank 3. Noted above
AR-204-M	SARA 313 Materials	Sodium nitrite solution	11% sodium nitrite solution	265 gal = max reported in 1995	NA	Liquid	187 gal on 12/19/95	Yes	NA	Material is located in tank 2. Noted above
AR-204-M	SARA 313 Materials	Diesel fuel	Diesel fuel	500 gal	NA	Liquid	500 gal on 1/1/95	No	NA	Material is located in below ground tank, noted above
AR-204-O	Other	204-AR Spill Kit	spill clean-up materials	Small shed*	NA	Solid	NA	Yes	NA	*Small shed behind (North of) 204-AR. Locked, Not entered during walkdown
213 Corrupt or Bldg	Tank Contents	213-W-TK-1	Believed to be remanent (WHC-EP-0601, Rev 0)	1875 gal	NA	Liquid	1875 (WHC-EP-0601, Rev 0)	No	NA	This MURST is on the Mon-TW/RE owned MURST lot (WHC-SD-WM-PO-045, Rev 0)
213 Corrupt or Bldg	Tank Headpace	213-W-TK-1	NA	NA	NA	NA	0 gal (tank believed to be full of oil/water)	NA	NA	No available headspace believed present (WHC-EP-0601, Rev 0)
213 Corrupt or Bldg*	Rail or Truck Tanker Contents	None	NA	NA	NA	NA	NA	NA	NA	No rail or truck tankers associated with 213-W
213 Corrupt or Bldg*	Contamination on Vehicle	None	NA	NA	NA	NA	NA	NA	NA	No contaminated vehicles stored in 213-W

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Transient	Quantity	Comments
213 Compact or Bldg	Contamination on Equipment or Tools	possibly contaminated instruments*	NA	small shelf in work room, all <100 sq ft/yr	NA	Residue	<100 sq ft/yr	yes*	NA	*Possibly contaminated instruments are brought into the work area for repairs. All low levels of contamination
213 Compact or Bldg	Ventilation Filter Contents	HEPA filters for 213-W Bldg ventilation	NA	1 R/W at six inches	NA	Residue	NA	Yes	4 HEPA filters	Two parallel sets of two HEPAs in series
213 Compact or Bldg	Ventilation Filter Contents	breather filter for MUST (213-W-TK-1)	NA	1 R/W at six inches	NA	Residue	NA	Yes	NA	Breather filter on MUST adjacent to 213-W
213 Compact or Bldg*	Contamination in Ventilation System	De-containers	NA	NA	NA	NA	NA	NA	NA	No de-containers
213 Compact or Bldg*	Contamination in Ventilation System	Seal loop	NA	NA	NA	NA	NA	NA	NA	No seal loops
213 Compact or Bldg	Contents of Pipeline and/or Source Tank During Transfer	NA	NA	NA	NA	NA	NA	NA	NA	See transfer log Table 7
213 Compact or Bldg*	Contents of Sump or Encasement	None	NA	NA	NA	NA	NA	NA	NA	No sludge or encasements
213 Compact or Bldg	Contamination in Pit or Box	MUST pit	Isolated empty	about 240 gal (4' x 4' x 2')	NA	NA	Lowest empty. No warnings of contamination	No	NA	Concrete pit with steel lid. Operated lid as enclosure, could see inside to test. No evidence of contaminated material in pit
213 Compact or Bldg*	BARA 313 Materials	None	NA	NA	NA	NA	NA	NA	NA	NA

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Transient	Quantity	Comments
213 Cofferd or Bldg	Other	Asphalt emulsion cleaner	cleaning compound	55 gal drums	NA	NA	Unknown, up to 55 gallons	Yes	NA	Believed to be temporarily stored in building. Not used in building
213 Cofferd or Bldg	Other	Chemical cleaners, degreasers*	solvent cleaners	small quantities, <1 gal	NA	Liquid	None during walkdown*	Yes	NA	*Chemical cleaners/degreasers may be brought into facility temporarily. None observed during walkdown
AR-244	Tank Contents	244-AR-001	Unknown*	40,400 gal (20' dia x 17'- 6") [H-2- 62360]	NA	Liquid	3300 gal	No	NA	*No data obtained
AR-244	Tank Contents	244-AR-002	Sourness Sludge from tank 104-AK and fresh water	45,400 gal (20' dia x 18'- 6") [H-2- 62360]	Liquid and Sludge	Liquid and Solid	23,000 gal total, believed to be 800 gal of Sludge, remainder = liquid Activity of 200 C/gal for the Sludge calculated in ref 42, (198 C/gal Sludge and 3.22 C/gal Oil 37)	No	NA	*Ref 42 indicates 600 gallons of Sludge from AK-103 stored in tank 4, word-of-mouth from retired operator recalls transfer of Sludge and other liquids in tank 4 to tank 2. Remainder of Liquid believed to be water transferred from cell 3 tamp, flush water
AR-244	Tank Contents	244-AR-003	Unknown*	4700 gal (9'- 6" dia x 8') [H-2-62097]	NA	Liquid	2000 gal	No	NA	*No data on tank contents obtained
AR-244	Tank Contents	244-AR-004	Unknown*	4700 gal (9'- 6" dia x 8') [H-2-62097]	NA	Liquid	<300 gal	No	NA	*Ref 42 indicates 600 gallons of Sludge from AK-103 stored in tank 4, word-of-mouth from retired operator recalls transfer of Sludge and other liquids in tank 4 to tank 2

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Transient	Quantity	Comments
AR-244	Tank Contents	Underground fuel tank	Gasol fuel	550 gal [H-2-83508]	NA	Liquid	525 gal	No	NA	Rising read off level gaugs during waitdown
AR-244	Tank Headspace	244-AR-001	No hydrogen or organics	NA	NA	Vapor	about 44,900 gal (capacity - contents) activity unknown	No	NA	NA
AR-244	Tank Headspace	244-AR-002	0.222 mole % hydrogen	NA	NA	Vapor	about 23,400 gal (capacity - contents) activity unknown	No	NA	NA
AR-244	Tank Headspace	244-AR-003	No hydrogen or organics	NA	NA	Vapor	about 2700 gal (capacity - contents) activity unknown	No	NA	NA
AR-244	Tank Headspace	244-AR-004	No hydrogen or organics	NA	NA	Vapor	about 4400 gal (capacity - contents) activity unknown	No	NA	NA
AR-244-M	Rail or Truck Tender Contents	None	NA	NA	NA	NA	NA	NA	NA	No rail or truck tenders associated with 244-AR vault
AR-244-M	Contaminates on Vehicle	None	NA	NA	NA	NA	NA	NA	NA	No contaminated vehicles associated with 244-AR vault

Table E-3. Material at Risk Data. (131 Sheets)

Field Name	MNR-Subject	MNR-Description	MNR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Treatment	Quantity	Comments
AR-244-M	Contamination on Equipment or Tools	Contaminated equipment stored in wind reduction facility	NA	82'-6" H x 40' x 16' are dimensions of wind reduction facility	NA	Solid	Unknown*	yes*	NA	This building contained numerous bags of waste material. Old cameras and other equipment, possibly contaminated have been stored within this building and are currently being sorted out. Four 55 gal drums of material with labels indicating lead were there.
AR-244-M	Contamination on Equipment or Tools	Failed equipment in storage tubes	NA	each 4200 gal (4'-6" dia x 35') (H-2-61897)	NA	Solids	Unknown*	Yes	NA	*Failed equipment was put in tubes below cover blocks within the canyon. The vault has been in stand-by mode for years. Actual contents of the storage tubes is currently Unknown.
AR-244-M	Ventilation Filter Contents	Canyon ventilation filters	NA	NA	NA	Residue	Unknown*	Yes	NA	*The ventilation associated with 244-AR has not been operated since 1993. Some filters have been removed for use in other locations. Most are located in underground vaults (current quantities and activity levels are Unknown).
AR-244-M	Ventilation Filter Contents	Vessel ventilation filters	NA	NA	NA	Residue	Unknown*	Yes	NA	*The ventilation associated with 244-AR has not been operated since 1993. Most filters are located in underground vaults (current quantities and activity levels are Unknown).
AR-244	Contamination in Ventilation Systems	De-aerators	NA	NA	NA	NA	NA	NA	NA	No de-aerators associated with ventilation, but liquids are collected in a seal pot.
AR-244	Contamination in Ventilation Systems	Seal pot	Process condensate	100 gal (2' dia x 4'-1") (H-2-36488)	NA	Liquid	Unknown*	No	NA	*The ventilation associated with 244-AR has not been operated since 1993 (current quantity and activity level of liquid in seal pot is Unknown).

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Transport	Quantity	Comments
AR-244-M	Contents of Pipeline and/or Service Tank During Transfer	NA	NA	NA	NA	NA	NA	NA	NA	See transfer line Table 7
AR-244	Contents of Sump or Encasement	Vault oil sumps	NA	25 gal (48" x 18" x 18") estimated from H-2-55190	NA	Liquid	2400 gal in cell 3; about 15 gal in cell 1 (net factor reading of 23) and about 2 gal in cell 2 (net factor reading of 3) [roundhead TF-O-5F-244-AR, Rev B-2, week of 2/29/06]	No	One sump in each of the three cells	*Sump has overflowed. Liquid in the bottom of the cell
AR-244	Containment in Pit or Box	Valve pit	Residual contamination*	1300 gal (4'-0" dia x 11") [H-2-09552]	NA	Residue	NA	No	NA	*Lines 717 and 718 (drain lines) pass through this valve pit on the way to tanks in the 244-AR vault
AR-244-M	SARA 313 Materials	None*	NA	NA	NA	NA	NA	NA	NA	Correct fuel noted above
AR-244-M	Other	None	NA	NA	NA	NA	NA	NA	NA	NA
241-AR-151*	Tank Contents	NA	NA	NA	NA	NA	NA	NA	NA	No tanks within the diversion box
241-AR-151*	Tank Headspace	NA	NA	NA	NA	NA	NA	NA	NA	No tanks within the diversion box
241-AR-151*	Rail or Truck Tanker Contents	None	NA	NA	NA	NA	NA	NA	NA	No rail or truck tankers associated with diversion box

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Transfer	Quantity	Comments
241-AR-151*	Contamination on Vehicle	None	NA	NA	NA	NA	NA	NA	NA	No contaminated vehicles associated with diversion box
241-AR-151*	Contamination on Equipment or Tools	None	NA	NA	NA	NA	NA	NA	NA	No contaminated tools associated with diversion box
241-AR-151*	Ventilation Filter Contents	None	NA	NA	NA	NA	NA	NA	NA	No ventilation associated with diversion box
241-AR-151*	Contamination in Ventilation System	De-entrainers	NA	NA	NA	NA	NA	NA	NA	No ventilation associated with diversion box
241-AR-151*	Contamination in Ventilation System	Seal loop	NA	NA	NA	NA	NA	NA	NA	No ventilation associated with diversion box
241-AR-151*	Contents of Pipeline and/or Source Tank During Transfer	NA	NA	NA	NA	NA	NA	NA	NA	See transfer line Table 7
241-AR-151*	Contents of Pump or Encasement	None	NA	NA	NA	NA	NA	NA	NA	No pump associated with diversion box. See transfer line Table 7 for encasement discussion
241-AR-151	Contamination in Pit or Box	Diversion Box	Residual contamination*	2800 gal (7' x 7' x 6') (H-2-63831)	NA	Residue*	NA	No	NA	*Diversion box contents driven to 244-AR vault. Diversion box transports mixed waste solutions from processing and decontamination operations. Also NCAW (neutralized current and waste) and NHHW (neutralized high level waste) (WERC-SD-Mat-EV-040, Rev 1)
241-AR-151*	SARA 913 Materials	None	NA	NA	NA	NA	NA	NA	NA	NA

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Transport	Quantity	Comments
241-AR-151*	Other	None	NA	NA	NA	NA	NA	NA	NA	NA
241-ER-151*	Tank Contents	NA	NA	NA	NA	NA	NA	NA	NA	No tanks within the diversion box
241-ER-151*	Tank Headspace	NA	NA	NA	NA	NA	NA	NA	NA	No tanks within the diversion box
241-ER-151*	Rail or Truck Tanker Contents	NA	NA	NA	NA	NA	NA	NA	NA	No rail or truck tankers associated with diversion box
241-ER-151*	Contamination on Vehicle	None	NA	NA	NA	NA	NA	NA	NA	No contaminated vehicles associated with diversion box
241-ER-151*	Contamination on Equipment or Tools	None	NA	NA	NA	NA	NA	NA	NA	No contaminated equipment or tools associated with diversion box
241-ER-151*	Ventilation Filter Contents	None	NA	NA	NA	NA	NA	NA	NA	No ventilation associated with diversion box
241-ER-151*	Contamination in Ventilation System	De-airframes	NA	NA	NA	NA	NA	NA	NA	No ventilation associated with diversion box
241-ER-151*	Contamination in Ventilation System	Ball loop	NA	NA	NA	NA	NA	NA	NA	No ventilation associated with diversion box
241-ER-151*	Contents of Pipeline and/or Source Tank During Transfer	NA	NA	NA	NA	NA	NA	NA	NA	See transfer line Table 7
241-ER-151*	Contents of Pump or Equipment	None	NA	NA	NA	NA	NA	NA	NA	No pumps associated with diversion box. See transfer line Table 7 for assessment discussion

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAIR-Subject	MAIR-Description	MAIR-Classification	Capacity	Material Type	Physical Form	Volume or Acreage	Transient	Quantity	Comments
241-ER-151	Contamination in Pit or Box	Node Pit	Residual*	15,750 gal (5' x 27' x 13') (H-2-2338447)	NA	Residue*	NA	No	NA	*Overseer box contents drain to catch tank 241-ER-311. Overseer box transports flush water mixed with waste from SY farm, B plant, and B farm (VINCC-SD-WM-EV-040, Rev 1)
241-ER-151	Contamination in Pit or Box	Pipe Pit	Residual*	14,300 gal (28'-10" x 6'-6" x 7') (H-2-430742)	NA	Residue*	NA	No	NA	*Overseer box contents drain to catch tank 241-ER-311. Overseer box transports flush water mixed with waste from SY farm, B plant, and B farm (VINCC-SD-WM-EV-040, Rev 1)
241-ER-151	Contamination in Pit or Box	Jumper Storage Pit	Residual*	8900 gal (8' x 11'-4.5' x 13') (H-2-2338447)	NA	Residue*	NA	No	NA	*Overseer box contents drain to catch tank 241-ER-311. Overseer box transports flush water mixed with waste from SY farm, B plant, and B farm (VINCC-SD-WM-EV-040, Rev 1)
241-ER-151*	SARA 313 Materials	None	NA	NA	NA	NA	NA	NA	NA	NA
241-ER-151*	Other	None	NA	NA	NA	NA	NA	NA	NA	NA
241-ER-152*	Tank Contents	NA	NA	NA	NA	NA	NA	NA	NA	No tanks within the overseer box
241-ER-152*	Tank Headspace	NA	NA	NA	NA	NA	NA	NA	NA	No tanks within the overseer box
241-ER-152*	Rail or Truck Tanker Contents	None	NA	NA	NA	NA	NA	NA	NA	No rail or truck tankers associated with overseer box
241-ER-152*	Contamination on Vehicle	None	NA	NA	NA	NA	NA	NA	NA	No contaminated vehicles associated with overseer box

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Transfer	Quantity	Comments
241-ER-152*	Contamination on Equipment or Tools	None	NA	NA	NA	NA	NA	NA	NA	No contaminated tools or equipment associated with diversion box
241-ER-152*	Ventilation Filter Contents	None	NA	NA	NA	NA	NA	NA	NA	No ventilation associated with diversion box
241-ER-152*	Contamination in Ventilation System	De-spreaders	NA	NA	NA	NA	NA	NA	NA	No ventilation associated with diversion box
241-ER-152*	Contamination in Ventilation System	Seal loop	NA	NA	NA	NA	NA	NA	NA	No ventilation associated with diversion box
241-ER-152	Contents of Pipeline and/or Source Tank During Transfer	NA	NA	NA	NA	NA	NA	NA	NA	See transfer line Table 7
241-ER-152	Contents of Sump or Encasement	Diversion box, sump	Residue/contamination*	25 gal (18" x 18" x 18") [PI-2-37965]	NA	Residue*	NA	No	NA	*Diversion box drains to 241-ER-311 catch tank. See transfer line Table 7 for encasement discussion
241-ER-162	Contamination in Pit or Box	Diversion Box	Residue/contamination*	9850 gal (30" x 10' x 13'-2") [PI-2-37965]	NA	Residue*	NA	No	NA	*Diversion box drains to 241-ER-311 Catch Tank. Diversion box transports slush and/or mud with waste from SY tank, B plant, and B tank (WHS-80-WHS-EV-040, Rev. 1)
241-ER-182*	SARA 310 Materials	None	NA	NA	NA	NA	NA	NA	NA	NA
241-ER-153*	Other	None	NA	NA	NA	NA	NA	NA	NA	NA
241-ER-183*	Tank Contents	NA	NA	NA	NA	NA	NA	NA	NA	No tanks within the diversion box

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Mixing Type	Physical Form	Volume or Activity	Transient	Quantity	Comments
241-ER-153*	Tank Headspace	NA	NA	NA	NA	NA	NA	NA	NA	No tanks within the diversion box
241-ER-153*	Rail or Truck Tanker Contents	None	NA	NA	NA	NA	NA	NA	NA	No rail or truck tankers associated with diversion box
241-ER-153*	Contamination on Vehicle	None	NA	NA	NA	NA	NA	NA	NA	No contaminated vehicles associated with diversion box
241-ER-153*	Contamination on Equipment or Tools	None	NA	NA	NA	NA	NA	NA	NA	No contaminated tools or equipment associated with diversion box
241-ER-153*	Ventilation Filter Contents	None	NA	NA	NA	NA	NA	NA	NA	No ventilation associated with diversion box
241-ER-153*	Contamination in Ventilation Systems	De-entrainers	NA	NA	NA	NA	NA	NA	NA	No ventilation associated with diversion box
241-ER-153*	Contamination in Ventilation Systems	Seal loop	NA	NA	NA	NA	NA	NA	NA	No ventilation associated with diversion box
241-ER-153	Contents of Pipeline and/or Source Tank During Transfer	NA	NA	NA	NA	NA	NA	NA	NA	See transfer line Table 7
241-ER-153	Contents of Bump or Encasement	Diversion box pump	Residue contamination*	25 gal (18 x 18 x 18) (P-2-37900)	NA	Residue*	NA	No	NA	Diversion box drain is 244-A left section. Diversion box transfers fresh water and leaks from (SY term, B plant, B Area, and C Room (MHC-SD-WM-EV-040, Rev 0) See transfer line Table 7 for encasement discussion

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Transient	Quantity	Comments
241-ER-153	Contamination in Pit or Box	Division Box	Residual contamination*	11,400 gal (13' x 13' x 9') [H-2-37938]	NA	Residue	NA	No	NA	*On hole drains to 244-A 3ft station. Drawn box transfers flush water and leaks from SY farm, B plant, B farm, and C farm [WHC-BD-WM-EV-040, Rev 0]
241-ER-153*	BARA 313 Material	None	NA	NA	NA	NA	NA	NA	NA	NA
241-ER-153*	Other	None	NA	NA	NA	NA	NA	NA	NA	NA
241-ER-319A	Tank Contents	241-ER-311	Process condensate and flush water from division box 241-ER-161 and 241-ER-153 from B Plant and B Tank farm [WHC-BD-WM-EV-040, Rev 1, WHC-EP-0182-93]*	22,000 gal (10' diameter x 33' long) [H-2-25337]	NA	Liquid	4211 gal [WHC-EP-0182-93]	No	NA	*Exact composition Unknown
241-ER-311A	Tank Headspace	241-ER-311	NA	NA	NA	Vapor	NA	No	NA	No data available
241-ER-311*	Rail or Truck Tanker Contents	None	NA	NA	NA	NA	NA	NA	NA	No rail or truck tankers associated with catch tank
241-ER-311*	Contamination on Vehicle	None	NA	NA	NA	NA	NA	NA	NA	No contaminated vehicles associated with catch tank
241-ER-311*	Contamination on Equipment or Tools	None	NA	NA	NA	NA	NA	NA	NA	No contaminated tools associated with catch tank

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Connection	Capacity	Material Type	Physical Form	Volume or Activity	Transfer	Quantity	Comments
241-ER-311*	Ventilation Filter Contents	None	NA	NA	NA	NA	NA	NA	NA	No ventilation associated with catch tank
241-ER-311*	Contamination in Ventilation System	De-entrainers	NA	NA	NA	NA	NA	NA	NA	No ventilation associated with catch tank
241-ER-311*	Contamination in Ventilation System	Seal loop	NA	NA	NA	NA	NA	NA	NA	No ventilation associated with catch tank
241-ER-311*	Contents of Pipeline and/or Source Tank During Transfer	NA	NA	NA	NA	NA	NA	NA	NA	See transfer loss Table 7
241-ER-311*	Contents of Pump or Encasement	None	NA	NA	NA	NA	NA	NA	NA	No pump associated with catch tank. See transfer loss table for encasement discussion
241-ER-311	Contamination in Pit or Box	Pump Pit	Residual contamination	800 gal (5' diameter x 4' 6") [H-2-716-43]	NA	Residue	NA	No	NA	*Any Liquid will drain to catch tank
241-ER-311*	SARA 313 Materials	None	NA	NA	NA	NA	NA	NA	NA	NA
241-ER-311*	Other	None	NA	NA	NA	NA	NA	NA	NA	NA
241-A-101	Tank Contents	A-101	D3GF	1 Mgal	Sludge Solids	Solid Solid	3 Kg of 350 Kg of Saltwater contains an estimated 360 Kg of pumpable liquid	No	NA	A-101 is a watchlist tank (hydrocarbon/flammable Gas, organic). A-101 will be pumped pending completion of the LARL Safety Assessment

Table B-3. Material at Risk Data. (134 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Transit	Quantity	Comments
241-A-102	Tank Contents	A-102	DGSH	1 Mgal	Supernatant Sludge	Liquid Solid	4 Kgal 15 Kgal 22 Kgal	No	NA	Interim stabilized
241-A-103	Tank Contents	A-103	DGSH	1 Mgal	Supernatant Sludge	Liquid Solid	6 Kgal 300 Kgal	No	NA	Recommended to be added as a wettest tank for hydrogen/flammable Gas Accumulated Interim Interim stabilized
241-A-104	Tank Contents	A-104	NOPLX	1 Mgal	Sludge	Solid	26 Kgal	No	NA	Assumed Interim Interim stabilized
241-A-105	Tank Contents	A-105	NOPLX	1 Mgal	Sludge	Solid	19 Kgal	No	NA	Assumed Interim Interim stabilized
241-A-106	Tank Contents	A-106	CP	1 Mgal	Sludge	Solid	125 Kgal	No	NA	Interim stabilized
241-A-101	Tank Headspace	A-101	NA	NA	NA	Vapor	117 M3 Total NH3 67 g	No	NA	NA
241-A-102	Tank Headspace	A-102	NA	NA	NA	Vapor	4829 M3 No NH3 present	No	NA	NA
241-A-103	Tank Headspace	A-103	NA	NA	NA	Vapor	3380 M3 No NH3 present	No	NA	NA
241-A-104	Tank Headspace	A-104	NA	NA	NA	Vapor	4576 M3 No NH3 present	No	NA	NA
241-A-105	Tank Headspace	A-105	NA	NA	NA	Vapor	4712 M3 No NH3 present	No	NA	NA
241-A-106	Tank Headspace	A-106	NA	NA	NA	Vapor	4311 M3 No NH3 present	No	NA	NA

Table B-3. Material at Risk Data, (131 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume or Weight	Treatment	Quantity	Comments
241-A*	Riel or Truck Tanker Contents	NA	NA	NA	NA	NA	NA	NA	NA	There are No riel or truck tankers in A Farm
241-A*	Contamination on Vehicle	NA	NA	NA	NA	NA	NA	NA	NA	There are No vehicles permanently stationed in A Farm
241-A*	Contamination on Equipment or Tools	NA	NA	NA	NA	NA	NA	NA	NA	There are No tools in A Farm at this time
241-A*	Ventilation Filter Contents	Passive	NA	NA	NA	NA	NA	NA	NA	NA
241-A*	Ventilation Filter Contents	Active	NA	NA	NA	NA	NA	NA	NA	Single shell tanks have No shells
241-A*	Ventilation Filter Contents	Breather	NA	1 ft ³ at 6 inches	NA	Particulate	<100 mPC/hr * WHC-SD-100-EMP-031, Rev 2, summarized the assay results of HEPA filters for the DCRT stack 200-A-25 for 244-A	Yes, filters disposed of in accordance with E.P. 0063-4 (BWS)	NA	One breather per tank. Not identified by East Tanr Farms. High/Low High Radiation Area Log as a high end area (red survey) Report 221830, 8/2/98. SART for DSTs indicated 200 mPC/hr limit on HEPA filters through administrative controls. No reference found to
241-A-703	Contamination in Ventilation System	De-entrainers	Process condensate	NA	NA	Liquid	Residual	NA	NA	NA
241-A-702	Contamination in Ventilation System	Seal loop	Silicon based oil	<1 gallon	NA	Liquid	Residual	NA	NA	One seal loop per breather filter
241-A*	Contents of Pipeline and/or Source Tank During Transfer	NA	NA	NA	NA	NA	NA	NA	NA	Refer to Transfer Line Table 7

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Transient	Quantity	Comments
241-A*	Contents of Sump or Encasement	Warm water sump	Residual contamination	7.2 Kgal	NA	Residue	Unknown	No	1 sump	Ordway identifies as "warm water sump"
241-A-01A	Contamination in Pit or Box	Central pump pit A-101	Residual contamination	4.9 Kgal	NA	Residue	Unknown	No	1 central pump pit	NA
241-A-01H	Contamination in Pit or Box	Distributor pit 01H	Residual contamination	1.3 Kgal	NA	Residue	Unknown	No	1 distributor pit	Distributor pit used to support filter solenoid pit purging of 241-A-101
241-A-A	Contamination in Pit or Box	Valve pit A-A	Residual contamination	4.3 Kgal	NA	Residue	Unknown	No	1 valve pit	NA
241-A-B	Contamination in Pit or Box	Valve pit A-B	Residual contamination	4.3 Kgal	NA	Residue	Unknown	No	1 valve pit	NA
241-A-151	Contamination in Pit or Box	Diversion box A-151	Residual contamination	64.1 Kgal	NA	Residue	Unknown	No	1 diversion box	NA
241-A-152	Contamination in Pit or Box	Diversion box A-152	Residual contamination	78.9 Kgal	NA	Residue	Unknown	No	1 diversion box	NA
241-A-401	Contamination in Pit or Box	Driveter casing A-401	Residual contamination	2.9 Kgal	NA	Residue	Unknown	No	1 casing	NA
241-A-501	Contamination in Pit or Box	Control valve pit A-501	Residual contamination	See component	NA	Residue	Unknown	No	1 valve pit	This is NOT a pit, but a room w/ a door, there is no cover block
241-A-582	Contamination in Pit or Box	Valve pit F-582	Residual contamination	1.9 Kgal	NA	Residue	Unknown	No	1 valve pit	NA
241-A-COB	Contamination in Pit or Box	Clean-out boxes	Residual contamination	22 Kgal	NA	Residue	Unknown	No	11 COBs	NA
241-AUX-80	Contamination in Pit or Box	Service pit AUX-80	Raw Water	2.1 Kgal	NA	Residue	Unknown	No	1 service pit	NA

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Transient	Quantity	Comments
241-A-990	Contamination in Pit or Box	Lift station A-350 (Catch tank)	Residual contamination	63 Kgal	NA	Residue	Unknown	No	1 lift station	NA
244-A	Contamination in Pit or Box	Lift station 244-A	Residual contamination	25 Kgal	NA	Residue	Unknown	No	1 lift station	NA
241-A*	Contamination in Pit or Box	Lift station (No ID)	Residual contamination	Unknown	NA	Residue	Unknown	No	1 lift station	This facility is located outside of the fence NE of A Farm
241-A-302-A	Contamination in Pit or Box	Catch tank A-302-A	Residual contamination	7.9 Kgal	NA	Residue	Unknown	No	1 catch tank	NA
241-A-417	Contamination in Pit or Box	Catch tank A-417	Residual contamination	48.8 Kgal	NA	Residue	Unknown	No	1 catch tank	NA
241-F-505	Contamination in Pit or Box	Driveway cinder block	Residual contamination	85 Kgal	NA	Residue	Unknown	No	1 cinder block	This facility is located outside of the fence NE of A Farm
216-A-08	Contamination in Pit or Box	Crib, sample pit and weir pit 216-A-08	Residual contamination	Control structure #1 5 Kgal Control structure #2 16 Kgal Sampler pit#1 3.8 Kgal Sampler pit#2 8 Kgal	NA	Residue	Unknown	No	1 crib, 2 control structures, 2 sampler pits	Facilities are associated with Crib 216-A-08. The crib of this facility received 1,350 M liters of condensate and cooling water from 241-A, AX, AY and AZ farms, and 241-A-431. This facility is located outside of the fence NE of A Farm
241-F-581	Contamination in Pit or Box	Rear water valve pit F-681 (part of 216-A-08)	Raw water	2.4 Kgal	NA	Residue	Unknown	No	1 RW pit	This facility is located outside of the fence NE of A Farm
216-A-25	Contamination in Pit or Box	Crib 216-A-25	Residual contamination	NA	NA	Residue	Unknown	No	1 crib	This crib received 30 K liters of liquid waste from a enclosure escape and heating coil condensate from 231-A. The waste is low salt and neutralized. This crib is located SW of A Farm

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAIR-Subject	MAIR-Description	MAIR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Transient	Quantity	Contents
216-A-30	Contamination in Pit or Box	Crib 216-A-30	Residual contamination	NA	NA	Residue	Unknown	No	1 crib	This crib received 7,110 Kiloliters of steam condensate, floor drainage, and storage basin overflow waste from 202-A. This crib is located SE of A Farm.
216-A-36A	Contamination in Pit or Box	Crib 216-A-36A	Residual contamination	NA	NA	Residue	Unknown	No	1 crib	This crib received 1,070 Kiloliters of ammonia scrubber waste from 202-A. The waste is low salt and neutral/basic. This crib is located SW of A Farm.
216-A-36B	Contamination in Pit or Box	Crib 216-A-36B	Residual contamination	NA	NA	Residue	Unknown	No	1 crib	This crib received 317 Kiloliters of ammonia scrubber waste from 202-A. The waste is low salt and neutral/basic. This crib is located SW of A Farm.
216-A-37-1	Contamination in Pit or Box	Crib 216-A-37-1	Residual contamination	NA	NA	Residue	Unknown	No	1 crib	This crib received 327 Kiloliters of Process condensate from 242-A. The condensate was determined to be mixed waste due to hydrogenated and nonhydrogenated solvents and the toxicity of ammonia. This crib is located SE of A Farm.
216-A-37-2	Contamination in Pit or Box	Crib 216-37-2	Residual contamination	NA	NA	Residue	Unknown	No	1 crib	Crib permanently isolated by filling the distribution box with concrete. The site received steam condensate from PUMEX.
216-A-45	Contamination in Pit or Box	Crib 216-A-45	Residual contamination	NA	NA	Residue	Unknown	No	1 crib	This crib received 103 Kiloliters of Process condensate from 202-A. This crib is located SW of A Farm.
244-A*	SARA 313 Materials	Change trailer for 244-A	10 % Methanol/ 90% Argon	400 G / bottle	NA	Gas	NA	Yes	2 bottles	PCMIS support. The change trailer is located at the 244-A facility.

Table B-3. Material at Risk Data. (131 Sheets)

File Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Transient	Quantity	Comments
241-A*	SARA 313 Interlocks	Fuel storage tank	Unknown	Unknown	NA	Unknown	Unknown	No	Unknown	This facility is located underground outside of the fence NE of A Farm
241-A*	Other	Hazardous material storage	See comment	NA	See comment	Solid	Did not leak in building as it was locked	Yes	Unknown	This facility is located outside of the fence NE of A Farm, and is locked and controlled by HPTs
241-A-401	Other	Condenser building A-401	Low level waste	NA	NA	Solid	Low level	No	Isolated old condenser	This facility is located outside of the fence NE of A Farm, and is locked and controlled by HPTs
241-A*	Other	Contaminated burial boxes	Low level waste	NA	NA	Solid	Low level	Yes	2 boxes	NA
241-A-702	Other	Ventilation building 241-A-702	Low level waste	NA	NA	Residue	Low level	No	1 building	NA
241-A*	Other	Leak detection lateral buildings 103A, 105A, 106A	Low level waste	NA	NA	Residue	Low level	No	3 buildings	NA
241-A*	Other	Ion exchange facility	Low level waste	NA	NA	Residue	Low level	No	1 facility	Inactive
241-A-831	Other	Old ventilation storage building A-831	Low level waste	NA	NA	Residue	Low level	No	1 building	NA
A Satellite Accumulation Area	Other	Solvents accumulation area for 241-A	RCRA mixed waste	0-55 gallon mixed waste drums (maximum)	Soil, HFEPA, solvents, misc. PWWY wastes	Solid	Low Level (less than class C)	Yes	0-55 gal drums max. capacity	NA
241-A*	Other	Oil	Compressor oil	2 quarts	NA	Liquid	2 quarts	Yes	1 container	Located in compressor building

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	HAZ-Subject	HAZ-Description	HAZ-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Transfer	Quantity	Comments
241-A*	Other	Heavy duty air filter	For compressors	55 gallon drum	NA	Liquid	55 gal drum	Yes	1 drum	Located in compressor building
241-AN-101	Tank Contents	AN-101	DN	1.16 Mgal	Supernate	Liquid	1060 Kgal	No	NA	AN-101 will be pumped to 106-AP
241-AN-102	Tank Contents	AN-102	CC	1.16 Mgal	Supernate Solid	Liquid Unknown	993 Kgal 99 Kgal	No	NA	NA
241-AN-103	Tank Contents	AN-103	DSS	1.16 Mgal	DSS	Liquid	968 Kgal	No	NA	NA
241-AN-104	Tank Contents	AN-104	DSSP	1.16 Mgal	Slurry	Liquid	1090 Kgal	No	NA	NA
241-AN-105	Tank Contents	AN-105	DSSP	1.16 Mgal	Slurry	Liquid	1128 Kgal	No	NA	NA
241-AN-106	Tank Contents	AN-106	DSSP	1.16 Mgal	Supernate Solid	Liquid Solid	400 Kgal 17 Kgal	No	NA	NA
241-AN-107	Tank Contents	AN-107	CC	1.16 Mgal	Supernate Solid	Liquid Solid	923 Kgal 134 Kgal	No	NA	NA
241-AN-101	Tank Headspace	AN-101	NA	NA	NA	Vapor	1235 M3 No NH3 present	No	NA	NA
241-AN-102	Tank Headspace	AN-102	NA	NA	NA	Vapor	1228 M3 No NH3 present	No	NA	NA
241-AN-103	Tank Headspace	AN-103	NA	NA	NA	Vapor	1706 M3 No NH3 present	No	NA	NA
241-AN-104	Tank Headspace	AN-104	NA	NA	NA	Vapor	1311 M3 No NH3 present	No	NA	NA

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Treatment	Quantity	Comments
241-AN-105	Tank Headspace	AN-105	NA	NA	NA	Vapor	1083 M3 No HPI3 present	No	NA	NA
241-AN-106	Tank Headspace	AN-106	NA	NA	NA	Vapor	3745 M3 No HPI3 present	No	NA	NA
241-AN-107	Tank Headspace	AN-107	NA	NA	NA	Vapor	1322 M3 No HPI3 present	No	NA	NA
241-AN*	Rail or Truck Tanker Contents	NA	NA	NA	NA	NA	NA	NA	NA	There are no rails or trucks in AN Farm
241-AN*	Contamination on Vehicle	NA	NA	NA	NA	NA	NA	NA	NA	There are no vehicles in AN Farm
241-AN*	Contamination on Equipment or Tools	NA	NA	NA	NA	NA	NA	NA	NA	NA
241-AN	Ventilation Filter Contents	Powder	NA	200 mR/hr maximum for all HEPA filters	NA	Particulate	<200 mR/hr WHC-8D- WHC-EMP- 031, Rev 2, summarizes the assay results of HEPA filters for the DCRT stack 295-A-29	Yes - disposal in accordance with WHC-EP-0083-4 (WS3)	NA	HEPA filters monitored for DP droploading in accordance with manufacturer's spec
241-AN	Ventilation Filter Contents	Aerosols	NA	200 mR/hr maximum for all HEPA filters	NA	Particulate	<200 mR/hr	Yes - disposal in accordance with WHC-EP-0083-4 (WS3)	NA	HEPA filters monitored for DP droploading in accordance with manufacturer's spec

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Transient	Quantity	Comments
241-AN*	Ventilation Filter Cartridges	Breather	HA	NA	NA	NA	NA	NA	NA	There are No breathers on ANI basis
241-AN	Contamination in Ventilation System	Demisters	Process condensate	NA	NA	Liquid	Residual	NA	NA	
241-AN	Contamination in Ventilation System	Seal Ring	Process condensate	NA	NA	Liquid	Residual	NA	NA	
241-AN	Contents of Pipeline and/or Source Tank During Transfer	NA	NA	NA	NA	NA	NA	NA	NA	Refer to Transfer Line Table 7
241-AN	Contents of Sump or Encasement	NA	NA	NA	NA	NA	NA	NA	NA	Refer to Transfer Line Table 7
241-AN-01A-07A	Contamination in Pit or Box	Central pump pit AN 01A-07A	Residual contamination	3-8 K gal ea	HA	Residue	Unknown	No	7 pits	NA
241-AN-01B-07B	Contamination in Pit or Box	Asphalts pump pit AN 01B-07B	Residual contamination	1-7 K gal ea	HA	Residue	Unknown	No	7 pits	NA
241-AN-01C-07C	Contamination in Pit or Box	Leak detection pump pit AN 01C-07C	Residual contamination	1-7 K gal ea	HA	Residue	Unknown	No	7 pits	NA
241-AN-01D	Contamination in Pit or Box	Condensate pit AN 01D	Residual contamination	2-4 K gal ea	HA	Residue	Unknown	No	2 pits	NA
241-AN-01E	Contamination in Pit or Box	Separate receiver pit AN 01E	Residual contamination	1-4 K gal	HA	Residue	Unknown	No	1 pit	NA
241-AN	Contamination in Pit or Box	AN tank pit	Residual contamination	1-9 K gal	HA	Residue	Unknown	No	1 pits	Exists on drawing. Not found in the field
241-AN-A	Contamination in Pit or Box	Valve Pit AN-A	Residual contamination	5-6 K gal	HA	Residue	Unknown	No	1 valve pit	NA

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume or Quantity	Trickleable	Quantity	Comments
241-AN-B	Contamination in Pit or Box	Valve Pit AN-B	Residual contamination	5.4 K gal	NA	Residue	Unknown	No	1 valve pit	NA
241-AN-FP	Contamination in Pit or Box	Flash pit	Residual contamination	1 K gal	NA	Residue	Unknown	No	1 flash pit	NA
241-AN-223	Contamination in Pit or Box	Service pit	Raw Water	2.4 K gal	NA	Residue	No	No	1 service pit	NA
COB-AN-1	Contamination in Pit or Box	Clean out box AN 1	Residual contamination	0.47 K gal ea	NA	Residue	Unknown	No	9 COBs	NA
COB-AN-2	Contamination in Pit or Box	Clean out box AN 2	Residual contamination	0.47 K gal ea	NA	Residue	Unknown	No	9 COBs	NA
COB-AN-3	Contamination in Pit or Box	Clean out box AN 3	Residual contamination	0.47 K gal ea	NA	Residue	Unknown	No	9 COBs	NA
COB-AN-4	Contamination in Pit or Box	Clean out box AN 4	Residual contamination	0.47 K gal ea	NA	Residue	Unknown	No	9 COBs	NA
COB-AN-5	Contamination in Pit or Box	Clean out box AN 5	Residual contamination	0.47 K gal ea	NA	Residue	Unknown	No	9 COBs	NA
COB-AN-6	Contamination in Pit or Box	Clean out box AN 6	Residual contamination	0.47 K gal ea	NA	Residue	Unknown	No	9 COBs	NA
COB-AN-7	Contamination in Pit or Box	Clean out box AN 7	Residual contamination	0.47 K gal ea	NA	Residue	Unknown	No	9 COBs	NA
COB-AN-8	Contamination in Pit or Box	Clean out box AN 8	Residual contamination	0.47 K gal ea	NA	Residue	Unknown	No	9 COBs	NA
241-AN	Contamination in Pit or Box	Vent pits AN #1,2,3,4	Residual contamination	6 K gal ea	NA	Residue	Unknown	No	4 vent pits	NA
241-AN	Contamination in Pit or Box	Dewister pit	Residual contamination	1.9 K gal	NA	Residue	Unknown	No	dewister pit	NA
241-AN	SARA 313 Materials	Quabbin change tank	10% acetone/90% argon	480 l	NA	Gas	NA	Yes	2 bottles	Bottles support PCM18 personnel and monitor

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Transient	Quantity	Comments
241-AN	Other	Casualty addition building and shed	See comment	1 unit	NA	NA	NA	NA	NA	No casualty present at this time
AN Satellite Accumulation Area	Other	Satellite accumulation area	RCRA Mixed Waste	8 55gal mixed waste drums (impoundment)	Soil, paint waste, tank contents, metal cartridges, HEPA filters, misc RSHV residue	Solid	Low level (less than class C)	Yes	8-55 gal drums max capacity for SAA	Inventory removed when filled, transported to 209-E 90 day storage facility
241-AN	Other	Buildings	Low level waste	2 small buildings roped off for red buffer area	SURF, other low level waste	Solid	Low level	Yes	Did Not look in buildings as they were roped off	2 small buildings near change trailer
241-AP-101	Tank Contents	241-AP-101	DSSIF	1 15 Mgal	Supernate	Liquid	735 Kgal	No	NA	NA
241-AP-102	Tank Contents	241-AP-102	CP	1 15 Mgal	Supernate	Liquid	1066 Kgal	No	NA	NA
241-AP-103	Tank Contents	241-AP-103	DN	1 15 Mgal	Supernate	Liquid	25 Kgal	No	NA	NA
241-AP-104	Tank Contents	241-AP-104	DN	1 15 Mgal	Supernate	Liquid	1123 Kgal	No	NA	NA
241-AP-105	Tank Contents	241-AP-105	DSSIF	1 15 Mgal	Sludge	Solid	155 Kgal	No	NA	NA
241-AP-106	Tank Contents	241-AP-106	DN	1 15 Mgal	Supernate	Liquid	107 Kgal	No	NA	NA

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Transient	Quantity	Comments
241-AP-102	Tank Contents	241-AP-107	DN	1.18 Mgal	Supernate	Liquid	25 Kgal	No	NA	NA
241-AP-108	Tank Contents	241-AP-108	DN	1.18 Mgal	Supernate	Liquid	29 Kgal	No	NA	NA
241-AP-101	Tank Headspace	241-AP-101	NA	NA	NA	Vapor	2833 cubic meters. No NMS present	No	NA	NA
241-AP-102	Tank Headspace	241-AP-102	NA	NA	NA	Vapor	1187 cubic meters. No NMS present	No	NA	NA
241-AP-103	Tank Headspace	241-AP-103	NA	NA	NA	Vapor	8228 cubic meters. No NMS present	No	NA	NA
241-AP-104	Tank Headspace	241-AP-104	NA	NA	NA	Vapor	2186 cubic meters. No NMS present	No	NA	NA
241-AP-105	Tank Headspace	241-AP-105	NA	NA	NA	Vapor	4740 cubic meters. No NMS present	No	NA	NA
241-AP-106	Tank Headspace	241-AP-106	NA	NA	NA	Vapor	4919 cubic meters. No NMS present	No	NA	NA
241-AP-107	Tank Headspace	241-AP-107	NA	NA	NA	Vapor	5229 cubic meters. No NMS present	No	NA	NA
241-AP-108	Tank Headspace	241-AP-108	NA	NA	NA	Vapor	5217 cubic meters. No NMS present	No	NA	NA

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Transient	Quantity	Comments
241-AP*	Rail or Truck Tanker Contents	None	NA	NA	NA	NA	NA	NA	NA	No rail or truck tankers at AP location
241-AP*	Contamination on Vehicle	Contaminated vehicles	Residual surface contamination on farm vehicles	Various Residual	Residual	NA	Unknown	NA	NA	Contaminated vehicle housed in storage area (outside of AP farm fence)
241-AP*	Contamination on Equipment or Tools	None	NA	NA	NA	NA	NA	NA	NA	Tool crib located in AP farm contained misc. hand tools. No contamination detected on risk survey
241-AP	Ventilation Filter Contents	Primary	NA	200 m filter replacement for all HEPA filters	NA	Particulate +	Unknown	Yes - Disposed in accordance with WHC-EP-0083-d (RSG)	NA	HEPA filters monitored for DP drop/flooding in accordance with manufacturers specs
241-AP	Ventilation Filter Contents	Annulus	NA	200 m filter replacement for all HEPA filters	NA	Particulate +	Unknown	Yes - Disposed in accordance with WHC-EP-0083-d (RSG)	NA	HEPA filters monitored for DP drop/flooding in accordance with manufacturers specs
241-AP*	Ventilation Filter Contents	Breather	NA	NA	NA	NA	NA	NA	NA	NA
241-AP*	Contamination in Ventilation System	De-emphasize	Process condensate	NA	NA	Liquid	Residual	NA	NA	NA
241-AP*	Contamination in Ventilation System	Seal Rop	Process condensate	NA	NA	Liquid	Residual	NA	NA	NA

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAIR-Subject	MAIR-Description	MAIR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Transient	Quantity	Comments
241-AP*	Contents of Pipeline and/or Source Tank During Transfer	NA	NA	NA	NA	NA	NA	NA	NA	Refer to transfer line Table 7
241-AP-273	Contents of Sump Contents of Pipeline and/or Source Tank During Transfer	Service pit pump	raw water	NA	NA	Liquid	NA	NA	NA	No standing water Noted during site walkdowns
241-AP	Contamination in Pit or Box	Process pits	Residual contamination	NA	NA	Residue	Unknown	No	NA	No standing water Noted
241-AP-A	Contamination in Pit or Box	241 AP Valve pit	Residual contamination	~21.5 Kgal	NA	Residue	Unknown	No	1 capital valve pit to AP	NA
241-AP-01A	Contamination in Pit or Box	Control Pump Pits 101	Residual contamination	~5.4 Kgal	NA	Residue	Unknown	No	8 pits total (1 pit per tank)	NA
241-AP-02A	Contamination in Pit or Box	Control Pump Pits 102	Residual contamination	~5.4 Kgal	NA	Residue	Unknown	No	8 pits total (1 pit per tank)	NA
241-AP-03A	Contamination in Pit or Box	Control Pump Pits 103	Residual contamination	~5.4 Kgal	NA	Residue	Unknown	No	8 pits total (1 pit per tank)	NA
241-AP-04A	Contamination in Pit or Box	Control Pump Pits 104	Residual contamination	~5.4 Kgal	NA	Residue	Unknown	No	8 pits total (1 pit per tank)	NA
241-AP-05A	Contamination in Pit or Box	Control Pump Pits 105	Residual contamination	~5.4 Kgal	NA	Residue	Unknown	No	8 pits total (1 pit per tank)	NA

Table B-3. Material at Risk Data. (331 Sheets)

Field Name	ABAP-Subject	ABAP-Description	HAZOP-Classification	Capacity	Material Type	Physical Form	Volume or Amount	Transient	Quantity	Comments
241-AP-06A	Contamination in Pit or Box	Central Pump Pit 106	Residual contamination	~5.4 K gal	NA	Residue	Unknown	No	8 pt total (4 pt per tank)	NA
241-AP-07A	Contamination in Pit or Box	Central Pump Pit 107	Residual contamination	~5.4 K gal	NA	Residue	Unknown	No	8 pt total (4 pt per tank)	NA
241-AP-08A	Contamination in Pit or Box	Central Pump Pit 108	Residual contamination	~5.4 K gal	NA	Residue	Unknown	No	8 pt total (4 pt per tank)	NA
241-AP*	SARA 313 Materials	Flammable storage cabinet - compressor bldg	NA	NA	NA	Liquids	Unknown	Yes	NA	Standard - small quantity classified materials (paints, cleaning solvents)
241-AP*	SARA 313 Materials	Flammable storage cabinet - near change trailer	NA	NA	NA	Liquids	Unknown	Yes	NA	Standard - small quantity classified materials (paints, cleaning solvents)
241-AP*	Other	Bottle storage area	-Nitrogen	26 bottles (max)	NA	Gas	450 ft ³	Yes	26 bottles	Bottle storage area located adjacent to AP instrument bld
241-AP*	Other	Bottle storage area	-Hydrogen	3 bottles	NA	Gas	450 ft ³	Yes	1 bottle	Bottle storage area located adjacent to AP instrument bld
241-AP*	Other	Bottle storage area	-H ₂ / He Mix	14 bottles	NA	Gas	450 ft ³	Yes	4 bottles	Bottle storage area located adjacent to AP instrument bld
241-AP*	Other	Bottle storage area	10% Methane / 90% Argon	14 bottles	NA	Gas	450 ft ³	Yes	8 bottles	Bottle storage area located adjacent to AP instrument bld
241-AP*	Other	Outside change trailer	10% methane / 90% Argon	2 bottles	NA	Gas	450 ft ³	Yes	2 bottles	Bottle support PCM16 personnel rad monitor

Table E-3. Material at Risk Data. (131 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Transient	Quantity	Comments
AP Satellite Accumulation Area	Other	Satellite accumulation area	RCRA Mixed Waste	5-55 gallon mixed waste drums (mixed waste)	Sol, paint waste, tank contents, shock cartridges, HEPA filters, waste fill W waste	Solid	Low Level (less than class C)	Yes	5-55 gal drums max capacity for each satellite enclosure	containers removed when filled, transported to 206-E 90 day storage facility
241-AW-101	Tank Contents	241-AW-101	DSSP	116 Mgal	Supernate	Liquid	1043 kgal	No	NA	NA
241-AW-101	Tank Contents	241-AW-101	DSSP	NA	Saltcake	Solid	84 kgal	No	NA	NA
241-AW-102	Tank Contents	241-AW-102	DN	116 Mgal	Supernate	Liquid	32 kgal	No	NA	NA
241-AW-102	Tank Contents	241-AW-102	DN	NA	Saltcake	Solid	35 kgal	No	NA	NA
241-AW-103	Tank Contents	241-AW-103	DN/PO	116 Mgal	Supernate	Liquid	145 kgal	No	NA	NA
241-AW-103	Tank Contents	241-AW-103	DN/PO	NA	Saltcake	Solid	353 kgal	No	NA	NA
241-AW-104	Tank Contents	241-AW-104	DN	116 Mgal	Supernate	Liquid	834 kgal	No	NA	NA
241-AW-104	Tank Contents	241-AW-104	DN	NA	Saltcake	Solid	290 kgal	No	NA	NA
241-AW-105	Tank Contents	241-AW-105	DN/PO	116 Mgal	Supernate	Liquid	138 kgal	No	NA	NA
241-AW-105	Tank Contents	241-AW-105	DN/PO	NA	Saltcake	Solid	290 kgal	No	NA	NA

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Transport	Quantity	Comments
241-AW-109	Tank Contents	241-AW-109	DN	118 Mgal	Supernate	Liquid	308 kgal	No	NA	NA
241-AW-108	Tank Contents	241-AW-108	DN	NA	Silicates	Solid	228 kgal	No	NA	NA
241-AW-101	Tank Headspace	241-AW-101	NA	NA	NA	Vapor	1057 M3 No NH3 present	No	NA	NA
241-AW-102	Tank Headspace	241-AW-102	NA	NA	NA	Vapor	4993 M3 No NH3 present	No	NA	NA
241-AW-903	Tank Headspace	241-AW-903	NA	NA	NA	Vapor	3377 M3 No NH3 present	No	NA	NA
241-AW-904	Tank Headspace	241-AW-904	NA	NA	NA	Vapor	1089 M3 No NH3 present	No	NA	NA
241-AW-105	Tank Headspace	241-AW-105	NA	NA	NA	Vapor	3911 M3 No NH3 present	No	NA	NA
241-AW-106	Tank Headspace	241-AW-106	NA	NA	NA	Vapor	3280 M3 No NH3 present See RID structure concentration in Note 1	No	NA	NA
241-AW*	Rest of Truck Trailer Contents	Name	NA	NA	NA	NA	NA	NA	NA	NA
241-AW*	Contamination on Vehicle	Name	NA	NA	NA	NA	NA	NA	NA	Contaminated vehicle staying here present - No vehicles noted

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Transfer	Quantity	Comments
241-AW	Contamination on Equipment or Tools	None	NA	NA	NA	NA	NA	NA	NA	NA
241-AW	Ventilation Filter Contents	Primary	NA	200 mcf/hr maximum for all HEPA filters	NA	Particulate	Yes - Disposal in accordance with NC-EP-0063-4 (R/S3)	Yes	NA	HEPA filters monitored for DP degrading
241-AW	Ventilation Filter Contents	Annulus	NA	200 mcf/hr maximum for all HEPA filters	NA	Particulate	Yes - Disposal in accordance with NC-EP-0063-4 (R/S3)	Yes	NA	HEPA filters monitored for DP degrading
241-AW	Ventilation Filter Contents	Breather	NA	NA	NA	NA	NA	NA	NA	NA
241-AW	Contamination in Ventilation Systems	De-aerifiers	Process condensate	NA	NA	Liquid	Residual	NA	NA	NA
241-AW	Contamination in Ventilation Systems	Seal loop	Process condensate	NA	NA	Liquid	Residual	NA	NA	NA
241-AW	Contents of Pipeline and/or Source Tank During Transfer	None	NA	NA	NA	NA	NA	NA	NA	NA
241-AW	Contents of Sumps	NA	NA	NA	NA	NA	NA	NA	NA	There are no sumps in AW Firms
241-AW-01B-08B	Contamination in Pit or Box	Annulus pump pit 01B-08B	Residual contamination	1.8 Kgal	NA	Residue	Unknown	No	6 pbs	NA
241-AW-01B	Contamination in Pit or Box	Annulus pump pit 01B	Residual contamination	1.5 Kgal	NA	Residue	Unknown	No	1 pit	NA

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Transfer	Quantity	Comments
241-AW-02B	Contamination in Pit or Box	Annulus pump pit 02B	Residual contamination	1.5 Kgal	NA	Residue	Unknown	No	1 pt	NA
241-AW-03B	Contamination in Pit or Box	Annulus pump pit 03B	Residual contamination	1.5 Kgal	NA	Residue	Unknown	No	1 pt	NA
241-AW-04B	Contamination in Pit or Box	Annulus pump pit 04B	Residual contamination	1.5 Kgal	NA	Residue	Unknown	No	1 pt	NA
241-AW-05B	Contamination in Pit or Box	Annulus pump pit 05B	Residual contamination	1.5 Kgal	NA	Residue	Unknown	No	1 pt	NA
241-AW-06B	Contamination in Pit or Box	Annulus pump pit 06B	Residual contamination	1.5 Kgal	NA	Residue	Unknown	No	1 pt	NA
241-AW-01A-06A	Contamination in Pit or Box	Central pump pits 01A-06A	Residual contamination	3.7 Kgal	NA	Residue	Unknown	No	6 pfs	NA
241-AW-01A	Contamination in Pit or Box	Central pump pit 01A	Residual contamination	3.7 Kgal	NA	Residue	Unknown	No	1 pt	NA
241-AW-02A	Contamination in Pit or Box	Central pump pit 02A	Residual contamination	3.7 Kgal	NA	Residue	Unknown	No	1 pt	NA
241-AW-03A	Contamination in Pit or Box	Central pump pit 03A	Residual contamination	3.7 Kgal	NA	Residue	Unknown	No	1 pt	NA
241-AW-04A	Contamination in Pit or Box	Central pump pit 04A	Residual contamination	3.7 Kgal	NA	Residue	Unknown	No	1 pt	NA
241-AW-05A	Contamination in Pit or Box	Central pump pit 05A	Residual contamination	3.7 Kgal	NA	Residue	Unknown	No	1 pt	NA
241-AW-06A	Contamination in Pit or Box	Central pump pit 06A	Residual contamination	3.7 Kgal	NA	Residue	Unknown	No	1 pt	NA
241-AW-01C-06C	Contamination in Pit or Box	Leak detection pump pits 01C-06C	Residual contamination	1.7 Kgal	NA	Residue	Unknown	No	6 pfs	NA
241-AW-01C	Contamination in Pit or Box	Leak detection pump pit 01C	Residual contamination	1.7 Kgal	NA	Residue	Unknown	No	1 pt	NA

Table B-3. Material at Risk Data. (151 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Transit	Quantity	Comments
241-AW-02C	Contamination in Pit or Box	Leak detection pump pit 02C	Residual contamination	1.7 Kgal	NA	Residue	Unknown	No	1 pit	NA
241-AW-03C	Contamination in Pit or Box	Leak detection pump pit 03C	Residual contamination	1.7 Kgal	NA	Residue	Unknown	No	1 pit	NA
241-AW-04C	Contamination in Pit or Box	Leak detection pump pit 04C	Residual contamination	1.7 Kgal	NA	Residue	Unknown	No	1 pit	NA
241-AW-05C	Contamination in Pit or Box	Leak detection pump pit 05C	Residual contamination	1.7 Kgal	NA	Residue	Unknown	No	1 pit	NA
241-AW-06C	Contamination in Pit or Box	Leak detection pump pit 06C	Residual contamination	1.7 Kgal	NA	Residue	Unknown	No	1 pit	NA
241-AW-02D	Contamination in Pit or Box	Drain pit 02D	Residual contamination	7.1 Kgal	NA	Residue	Unknown	No	1 pit	NA
241-AW-A	Contamination in Pit or Box	Valve pit AW-A	Residual contamination	4.4 Kgal	NA	Residue	Unknown	No	1 pits	NA
241-AW-B	Contamination in Pit or Box	Valve pit AW-B	Residual contamination	4.4 Kgal	NA	Residue	Unknown	No	1 pits	NA
241-AW-K1	Contamination in Pit or Box	Primary seal pit pit AW K1	Residual contamination	06 Kgal	NA	Residue	Unknown	No	1 pit	NA
241-AW-K2	Contamination in Pit or Box	Annulus seal pit pit AW K2	Residual contamination	Unknown	NA	Residue	Unknown	No	1 pits	NA
241-AW-02E	Contamination in Pit or Box	Feed pump pit 02E	Residual contamination	3 Kgal	NA	Residue	Unknown	No	1 pits	NA
241-AW-VIP	Contamination in Pit or Box	Ventilation equipment pits VIP-1,2,3	Residual contamination	5.2 Kgal	NA	Residue	Unknown	No	3 pits	NA
241-AW-PP	Contamination in Pit or Box	Flush pit	Residual contamination	6 Kgal	NA	Residue	Unknown	No	1 pit	NA
COB-AW-1-12	Contamination in Pit or Box	Clean out device AW 9, 10	Residual contamination	047 Kgal	NA	Residue	Unknown	No	2 COBs	NA

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Transient	Quantity	Comments
COB-AW-01	Contamination in Pit or Box	Clean out boxes AW 9, 10	Residual contamination	047 Kg/L	NA	Residue	Unknown	No	2 COBs	NA
COB-AW-02	Contamination in Pit or Box	Clean out boxes AW 9, 10	Residual contamination	047 Kg/L	NA	Residue	Unknown	No	2 COBs	NA
COB-AW-03	Contamination in Pit or Box	Clean out boxes AW 9, 10	Residual contamination	047 Kg/L	NA	Residue	Unknown	No	2 COBs	NA
COB-AW-04	Contamination in Pit or Box	Clean out boxes AW 9, 10	Residual contamination	047 Kg/L	NA	Residue	Unknown	No	2 COBs	NA
COB-AW-05	Contamination in Pit or Box	Clean out boxes AW 9, 10	Residual contamination	047 Kg/L	NA	Residue	Unknown	No	2 COBs	NA
COB-AW-06	Contamination in Pit or Box	Clean out boxes AW 9, 10	Residual contamination	047 Kg/L	NA	Residue	Unknown	No	2 COBs	NA
COB-AW-07	Contamination in Pit or Box	Clean out boxes AW 9, 10	Residual contamination	047 Kg/L	NA	Residue	Unknown	No	2 COBs	NA
COB-AW-08	Contamination in Pit or Box	Clean out boxes AW 9, 10	Residual contamination	047 Kg/L	NA	Residue	Unknown	No	2 COBs	NA
COB-AW-09	Contamination in Pit or Box	Clean out boxes AW 9, 10	Residual contamination	047 Kg/L	NA	Residue	Unknown	No	2 COBs	NA
COB-AW-10	Contamination in Pit or Box	Clean out boxes AW 9, 10	Residual contamination	047 Kg/L	NA	Residue	Unknown	No	2 COBs	NA
COB-AW-11	Contamination in Pit or Box	Clean out boxes AW 9, 10	Residual contamination	047 Kg/L	NA	Residue	Unknown	No	2 COBs	NA
COB-AW-12	Contamination in Pit or Box	Clean out boxes AW 9, 10	Residual contamination	047 Kg/L	NA	Residue	Unknown	No	2 COBs	NA
241-AW*	SARA 343 Materials	Cylinder	50% Argon / 10% Helium	450 cuft	NA	Gas mixture	450 cuft	Yes	2 bottles	For PGM1-S
241-AW*	Other	Service building	Raw water	NA	NA	Residue	NA	No	NA	NA

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Transient	Quantity	Comments
241-AW*	Other	Change trailer	Low level waste	NA	SWP's, other low level waste	Solid	Low level	Yes	NA	Controlled by HPTs
241-AW*	Other	Operations support facility 272-AW	See comment	See comment	See comment	See comment	See comment	See comment	See comment	For maintenance shop employees refer to the "Hazardous Materials Inventory Database," 1/10/99
241-AW*	Other	Aod sewer manhole	See comment	See comment	See comment	See comment	See comment	See comment	See comment	The aod sewer manhole is located outside of the AW Farm. It is now isolated, and was used for access to the PUREX chemical sewer
AW Soluble Accumulation Area	Other	Soluble accumulation area	RCRA mixed waste	5 - 55 gallon mixed waste drums (maximum)	Sol, tank collected, HEPA filters, mixed RMW wastes	Solid	Low Level (less than class C)	Yes	5 - 55 gal drums max capacity	NA
241-AX-101	Tank Contents	AX-101	DSBF	1.0 Kgal	Sludge Sulfate	Solid Solid	3 Kgal 745 Kgal Sulfate contains an estimated 268 Kgal of pumpable solid	No	NA	AX-101 is a wetch cell tank (hydrogenflammable Gas) AX-101 will be pumped
241-AX-102	Tank Contents	AX-102	CC	1.0 Kgal	Supernat Sludge Sulfate	Liquid Solid Solid	3 Kgal 7 Kgal 29 Kgal	No	NA	AX-102 is a wetch cell tank (organic). Tank is taken on stabilized. Assumed locker
241-AX-103	Tank Contents	AX-103	CC	1.0 Kgal	Sludge Sulfate	Solid Solid	2 Kgal 110 Kgal	No	NA	AX-103 is a wetch cell tank (hydrogenflammable Gas) Tank is taken on stabilized
241-AX-104	Tank Contents	AX-104	NOPLX	1.0 Kgal	Sludge	Solid	7 Kgal	No	NA	Tank is taken on stabilized Assumed locker

Table 8-3. Material at Risk Data. (131 Sheets)

Folio Name	MAR-Subject	MAR-Description	MAR- Classification	Capacity	Material Type	Physical Form	Volume or Activity	Transfer	Quantity	Comments
241-AX- 101	Tank Headspace	AX-101	NA	NA	MA	Vapor	1953 M3 Total NH3 67 g	NA	MA	NA
241-AX- 102	Tank Headspace	AX-102	NA	NA	MA	Vapor	1953 M3 Total NH3 120 g	NA	MA	NA
241-AX- 103	Tank Headspace	AX-103	NA	NA	MA	Vapor	1953 M3 Total NH3 140 g	NA	MA	NA
241-AX- 104	Tank Headspace	AX-104	NA	NA	MA	Vapor	1953 M3 No NH3 present	NA	NA	NA
241-AX*	Rail or Truck Tender Contents	None	NA	NA	NA	MA	MA	NA	NA	NA
241-AX*	Contamination on Vehicle	None	MA	NA	NA	NA	NA	MA	NA	NA
241-AX*	Contamination on Equipment or Tools	None	MA	NA	NA	NA	NA	MA	NA	NA
241-AX*	Ventilation Filter Contents	Primary	MA	NA	NA	NA	NA	MA	NA	NA
241-AX*	Ventilation Filter Contents	Annulus	MA	NA	NA	NA	NA	MA	NA	NA

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Transient	Quantity	Comments
241-AX*	Verification Filter Containers	Breather	NA	1 R/hr at or below	NA	Particulate	<100 mR/hr**	Yes, being disposed of in accordance with EPA 0063-4 (593)	NA	** Not identified by East Tank Farms High/Very High Radiation Area Log as a high rad area [red survey report 221830, 5/29/95] SAR for OSTs indicates 200 mR/hr limit on HEPA filters through administrative controls. No reference found that indicates this limit
241-AX*	Containment In Ventilation System	De-entrainers	NA	NA	NA	NA	NA	NA	NA	AX Farms has No ventilation system. It is served by Tank Farm A.
241-AX*	Containment In Ventilation System	Sealloop	Sealon based oil	<1 gallon	NA	Liquid	Residual	No	1 per breather (total 4)	NA
241-AX*	Contents of Pipeline and/or Source Tank During Transfer	NA	NA	NA	NA	NA	NA	NA	NA	Refer to Transfer Line Table 7
241-AX*	Contents of Bump or Encasement	None	NA	NA	NA	NA	NA	NA	NA	NA
241-AX*	Contamination in Pit or Box	Primary seal pot pit	Residual contamination	1 K gal	NA	Residue	Unknown	No	1 seal pot pit	NA
241-AX*	Contamination in Pit or Box	Distributor pit	Residual contamination	25 K gal	NA	Residue	Unknown	No	1 distributor pit	NA
241-AX*	Contamination in Pit or Box	Leak detection pit (4)	Residual contamination	9 K gal each	NA	Residue	Unknown	No	4 leak detection pits	NA
241-AX*	Contamination in Pit or Box	Dry wells	NA	NA	NA	NA	<900 mR/hr	No	29 dry wells	NA

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Transfer	Quantity	Comments
241-AX*	Contamination in Pit or Box	Drain pit	Unknown	Unknown	NA	Unknown	Unknown	No	1 drain pit	NA
241-AX-151	Contamination in Pit or Box	Driveter station AX-151	Residual contamination	31.8 K gal	NA	Residue	Unknown	No	1 driveter station	NA
241-AX-152	Contamination in Pit or Box	Driveter station and catch tank AX-152	Residual contamination	21.2 K gal	NA	Residue	Unknown	No	1 driveter station	NA
241-AX	Contamination in Pit or Box	Valve pit for driveter	Residual contamination	8 K gal	NA	Residue	Unknown	No	1 valve pit	NA
241-AX-153	Contamination in Pit or Box	Isolation jumper pit AX-153	Residual contamination	1.6 K gal	NA	Residue	Unknown	No	1 isolation jumper pit	NA
241-AX-155	Contamination in Pit or Box	Diverison box AX-155	Residual contamination	3.3 K gal	NA	Residue	Unknown	No	1 diverison box	NA
241-AX-B01	Contamination in Pit or Box	Valve pit AX-B01	Residual contamination	1.1 K gal	NA	Residue	Unknown	No	1 valve pit	NA
241-AX-4P	Contamination in Pit or Box	Valve pit	Residual contamination	3.2 K gal	NA	Residue	Unknown	No	1 valve pit	NA
241-AX-A	Contamination in Pit or Box	Valve pit AX-A	Residual contamination	4.3 K gal each	NA	Residue	Unknown	No	1 valve pit	NA
241-AX-B	Contamination in Pit or Box	Valve pit AX-B	Residual contamination	4.3 K gal each	NA	Residue	Unknown	No	1 valve pit	NA
241-AX-8P	Contamination in Pit or Box	Service pit	Raw water	62 K gal	NA	Liquid	NA	No	1 service pit	NA
241-AX-A	Contamination in Pit or Box	Flush pit (2)	Raw water	62 K gal	NA	Liquid	NA	No	1 flush pit	NA
241-AX-B	Contamination in Pit or Box	Flush pit	Raw water	62 K gal	NA	Liquid	NA	No	1 flush pit	NA

Table E-3. Material at Risk Data. (131 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Treatment	Quantity	Comments
241-AK-COB	Contamination in Pit or Box	Cleanout boxes	Residual contamination	07 K gal/ea	NA	Residue	Unknown	No	10 COBs	NA
241-AK	SARA 313 Materials	None	NA	NA	NA	NA	NA	NA	NA	NA
AK Boletole Accumulation Area	Other	Solids accumulation area	RCRA metal waste	Six 55-gal empty waste drums	Sol, tank contacted, HEPA filter, spec RAHU ventiles	Solid	Low Level (less than class C)	Yes	Six 55-gal drums near capacity	Inventories removed when filed, transported to 209-6.90 day storage facility. This SAA serves A, AK, AY and AZ farms, and is located in AY Farm
241-AY- R01	Tank Contents	AY-101	DC	118 Mgal	Supermate Solid	Liquid Solid	850 Kg/ 83 Kg/1	No	NA	NA
241-AY- 102	Tank Contents	AY-102	DN	116 Mgal	Supermate Solid	Liquid Solid	894 Kg/ 32 Kg/1	No	NA	NA
241-AY- 101	Tank Headspace	AY-101	NA	NA	NA	Vapor	1799 M3 No NH3 present	No	NA	NA
241-AY- 102	Tank Headspace	AY-102	NA	NA	NA	Vapor	1572 M3 No NH3 present	No	NA	NA
241-AY	Rail or Truck Tanker Contents	None	NA	NA	NA	NA	NA	NA	NA	NA
241-AY	Contamination on Vehicle	Construction equipment (tractor, craw)	Residual contamination	NA	NA	Residue	Unknown	Yes	Venue with construct on activities	Construction for new ventilation localities for AY and AZ Farms

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Transient	Quantity	Comments
241-AV*	Contamination on Equipment or Tools	Construction tools	Residual contamination	NA	NA	Residue	Unknown	Yes	Vented with construction activities	Construction for new ventilation facilities for AV and AZ Farms
241-AV*	Ventilation Filter Contents	Primary	NA	NA	NA	NA	NA	NA	NA	NA
241-AV*	Ventilation Filter Contents	Annulus	NA	200 m³/hr maximum for all HEPA filters	NA	Particulate	200 m³/hr maximum VVHC-SD-VVHC-MP-031, Rev 2, summarizes the test results of HEPA filters for stock 280-A-17	Yes - disposed in accordance with VVHC-EP-0069-4 (9/80)	NA	HEPA filters monitored for OP drop/leak in accordance with manufacturer's specs
241-AV*	Ventilation Filter Contents	Breather	NA	NA	NA	NA	NA	NA	NA	NA
241-AV*	Contamination in Ventilation Systems	De-aerators	Process condensate	NA	NA	Liquid	Residual	NA	NA	NA
241-AV*	Contamination in Ventilation Systems	Seal keep	Process condensate	NA	NA	Liquid	Residual	NA	NA	NA
241-AV*	Contents of Pipeline and/or Source Tank During Transfer	NA	NA	NA	NA	NA	NA	NA	NA	Refer to transfer line Table 7
241-AV*	Contents of Storage Encasement	Encasement Farm 101-AV to 102-AV	Residual contamination	12 K gal	NA	Residue	Unknown	No	NA	Volume calculations represent available area in pipe encasements

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAP-Subject	MAP-Description	MAP-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Transient	Quantity	Comments
241-AY*	Contents of Sump or Encasement	Encasement between tanks in 241-AX-152 division box	Residual contamination	9.9 K gal	NA	Residue	Unknown	No	NA	Volume calculations represent available area in pipe encasements
241-AY-01A	Contamination in Pit or Box	Pump pit 01A	Residual contamination	3.6 K gal	NA	Residue	Unknown	No	1 pump pit	NA
241-AY-01F	Contamination in Pit or Box	Annulus pumpout pit 01F	Residual contamination	1.5 K gal	NA	Residue	Unknown	No	1 pumpout pit	NA
241-AY-01B-E	Contamination in Pit or Box	Shake pits 01B,C,D,E	Residual contamination	2.5 K gal each	NA	Residue	Unknown	No	4 shake pits	NA
241-AY*	Contamination in Pit or Box	Leak detection pit	Residual contamination	3.1 K gal	NA	Residue	Unknown	No	1 leak det pit 16 inches 16 det well, 16 det pit, rad det well, rad dry well	NA
241-AY*	Contamination in Pit or Box	Encasement leak detection pit	Residual contamination	3.1 K gal	NA	Residue	Unknown	No	1 enc pit 16 inches 16 det pit enc drain well, rad det well	Volume calculations represent available area in pipe encasements
241-AY*	Contamination in Pit or Box	Encasement on N side of tank	Residual contamination	26.7 K gal	NA	Residue	Unknown	No	1 encasement	Volume calculations represent available area in pipe encasements
241-AY-02A	Contamination in Pit or Box	Pump pit 02A	Residual contamination	3.6 K gal	NA	Residue	Unknown	No	1 pump pit	NA

Table B-9. Material at Risk Data. (131 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Transfer	Quantity	Comments
241-AY*	Contamination in Pit or Box	Annulus pumpout pit	Residual contamination	9.8 K gal	NA	Residue	Unknown	No	1 pumpout pit	NA
241-AY-02B-E	Contamination in Pit or Box	Sludge pits 02B,C,D,E	Residual contamination	2.5 K gal ea	NA	Residue	Unknown	No	4 sludge pits	NA
241-AY*	Contamination in Pit or Box	Leak detection pit	Residual contamination	3 K gal	NA	Residue	Unknown	No	1 leak det pit includes 1K det well, 1K det oil, 1K det air, 1K det rad, 1K det well	NA
241-AY*	Contamination in Pit or Box	Encasement S side of tank	Residual contamination	3 K gal	NA	Residue	Unknown	No	1 encasement	NA
241-AY-501	Contamination in Pit or Box	Condensate valve pit AY-501	Residual contamination	4 K gal	NA	Residue	Unknown	No	1 valve pit	NA
241-AY-151	Contamination in Pit or Box	Pumpout pit AY-151	Residual contamination	1.3 K gal	NA	Residue	Unknown	No	1 pumpout pit	NA
241-AY-152	Contamination in Pit or Box	Transfer box AY-152	Residual contamination	4.8 K gal	NA	Residue	Unknown	No	1 transfer box	NA
241-AY*	Contamination in Pit or Box	Raw water pits	Residual contamination	2 @ 1.2 K gal ea, 5 @ 2 K gal ea, 1 @ 6 K gal	NA	Residue	Unknown	No	11 Raw water pits	NA
241-AY*	Contamination in Pit or Box	Condensate drain valve pit	Residual contamination	1 K gal	NA	Residue	Unknown	No	1 sand dr pit	NA
241-AY-1	Contamination in Pit or Box	Clempout box AY-1	Residual contamination	0.7 K gal	NA	Residue	Unknown	No	1 COB	NA

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Transient	Quantity	Comments
241-AV*	SARA 313 Materials	Outside change trailer (2)	10 % Methanol/ 90% Argon	400 US / bottle	NA	Gas	NA	Yes	2 bottles on trailer	NA
241-AV*	SARA 313 Materials	See comment	NA	NA	NA	NA	NA	NA	NA	Major amount of construction materials for new vent modifications
AV Sulfuric Acid Storage Area	Other	Sulfuric acid accumulation area	RCRA listed waste	6 - 55 gallon mixed waste drums (incidental)	Sol, tank contacted, NEPA filter, was RMW wastes	Solid	Low Level (less than class C)	Yes	6- 55 gal drums max capacity	NA
241-AV	Other	Sheds (3)	Misc low level waste	NA	SWPa	Solid	Low Level	Yes	Approx 3 sheds per shed	NA
241-AZ- 101	Tank Contents	AZ-101	Agria	1.16 Mgal	Supernate Solid	Liquid Solid	882 Kgal 36 Kgal	No	NA	NA
241-AZ- 102	Tank Contents	AZ-102	Agria	1.16 Mgal	Supernate Solid	Liquid Solid	859 Kgal 95 Kgal	No	NA	NA
241-AZ- 101	Tank Headspace	AZ-101	NA	NA	NA	Vapor	1428 MB No NH3 present	No	NA	NA
241-AZ- 102	Tank Headspace	AZ-102	NA	NA	NA	Vapor	1704 MB No NH3 present	No	NA	NA
241-AZ*	Rail or Truck Tender Contents	None	NA	NA	NA	NA	NA	NA	NA	NA

Table E-3. Material at Risk Data. (131 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Transport	Quantity	Comments
241-AZ*	Contamination on Vehicle	Construction equipment (trucks, crane)	Residual contamination	NA	NA	Residue	Unknown	Yes	Verifies with construction activities	Construction for new ventilation and recirculation facilities for AY and AZ
241-AZ*	Contamination on Equipment or Tools	Construction tools	Residual contamination	NA	NA	Residue	Unknown	Yes	Verifies with construction activities	Construction for new ventilation and recirculation facilities for AY and AZ Farms
241-AZ*	Ventilation Filter Contents	Primary	NA	NA	NA	NA	NA	NA	NA	NA
241-AZ*	Ventilation Filter Contents	Accessory	NA	200 mBq/m maximum for all HEPA filters	NA	Particulate	200 mBq/m maximum	Yes - disposed in accordance with NRC-SP-0083-6 (9/83)	NA	HEPA filters monitored for DP droploading in accordance with manufacturer's specs
241-AZ*	Ventilation Filter Contents	Breather	NA	NA	NA	NA	NA	NA	NA	NA
241-AZ*	Contamination in Ventilation System	De-entrainers	Process condensate	NA	NA	Liquid	Residual	NA	NA	NA
241-AZ*	Contamination in Ventilation System	Snail loop	Process condensate	NA	NA	Liquid	Residual	NA	NA	NA
241-AZ*	Contents of Pipeline and/or Source Tank During Transfer	NA	NA	NA	NA	NA	NA	NA	NA	Refer to transfer log Table 7

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Characterization	Capacity	Material Type	Physical Form	Volume or Activity	Treatment	Quantity	Comments
241-AZ*	Contents of Pump or Encasement	North encasement	Residual contamination	12 K gal	NA	Residue	Unknown	No	NA	Volume calculations represent available area in pipe encasements
241-AZ*	Contents of Pump or Encasement	South encasement	Residual contamination	51 K gal	NA	Residue	Unknown	No	NA	Volume calculations represent available area in pipe encasements
241-AZ*	Contents of Pump or Encasement	West encasement to sludge transfer box	Residual contamination	68 K gal	NA	Residue	Unknown	No	NA	Volume calculations represent available area in pipe encasements
241-AZ*	Contents of Pump or Encasement	Encasement between AZ-151 and AZ-152	Residual contamination	2 K gal	NA	Residue	Unknown	No	NA	Volume calculations represent available area in pipe encasements
241-AZ*	Contents of Pump or Encasement	Sludge transfer box encasement	Residual contamination	45 K gal	NA	Residue	Unknown	No	NA	Volume calculations represent available area in pipe encasements
241-AZ*	Contamination in Pit or Box	AZ-101								
241-AZ-01A	Contamination in Pit or Box	Pump pit 01A	Residual contamination	34 K gal	NA	Residue	Unknown	No	1 pump pit	NA
241-AZ-01F	Contamination in Pit or Box	Annulus pumpout pit 01F	Residual contamination	15 K gal	NA	Residue	Unknown	No	1 annulus pumpout pit	NA
241-AZ-01B-C	Contamination in Pit or Box	Sludge pits 01B,C	Residual contamination	29 K gal ea	NA	Residue	Unknown	No	2 sludge pits	NA
241-AZ-01B	Contamination in Pit or Box	Sludge pit 01B	Residual contamination	28 K gal ea	NA	Residue	Unknown	No	1 sludge pit	NA
241-AZ-01C	Contamination in Pit or Box	Sludge pit 01C	Residual contamination	29 K gal ea	NA	Residue	Unknown	No	1 sludge pit	NA

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Transient	Quantity	Comments
241-AZ	Contamination in Pit or Box	Leak detection pit	Residual contamination	3 K gal	NA	Residue	Unknown	No	1 leak det. pit includes 1K det well, 1K det pit, rad det well, rad dry well	NA
241-AZ	Contamination in Pit or Box	Raw water valve pit	Raw water	1.3 K gal	NA	Residue	No	No	1 raw water valve pit	NA
241-AZ-153	Contamination in Pit or Box	Vent valve pit	Residual contamination	8 K gal	NA	Residue	Unknown	No	1 vent valve pit	NA
241-AZ	Contamination in Pit or Box	Shut-off raw water pit	Raw water	2 K gal	NA	Residue	No	No	1 shut-off raw water valve pit	NA
241-AZ	Contamination in Pit or Box	AZ-102								
241-AZ-02A	Contamination in Pit or Box	Pump pit 02A	Residual contamination	9.4 K gal	NA	Residue	Unknown	No	1 pump pit	NA
241-AZ-02F	Contamination in Pit or Box	Annulus pumpout pit 02F	Residual contamination	1.6 K gal	NA	Residue	Unknown	No	1 pumpout pit	NA
241-AZ-02B-C	Contamination in Pit or Box	Shut-off pits 02B, C	Residual contamination	2.8 K gal ea	NA	Residue	Unknown	No	2 shut-off pits	NA
241-AZ-02B	Contamination in Pit or Box	Shut-off pit 02B	Residual contamination	2.8 K gal ea	NA	Residue	Unknown	No	1 shut-off pit	NA
241-AZ-02C	Contamination in Pit or Box	Shut-off pit 02C	Residual contamination	2.8 K gal ea	NA	Residue	Unknown	No	1 shut-off pit	NA

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Threats	Quantity	Comments
241-AZ	Contamination in Pit or Box	Leak detection pit	Residual contamination	1 G K gal	NA	Residue	Unknown	No	1 leak det pit includes 10 det well, 10 det pit, red dry well, red det well	NA
241-AZ	Contamination in Pit or Box	Encapsment leak detection pit	Residual contamination	2 B K gal	NA	Residue	Unknown	No	1 encapsment	NA
241-AZ	Contamination in Pit or Box	Raw water valve pit	Raw water	1 B K gal	NA	Residue	No	No	1 raw water valve pit	NA
241-AZ-552	Contamination in Pit or Box	Vent valve pit	Residual contamination	8 K gal	NA	Residue	Unknown	No	1 vent valve pit	NA
241-AZ	Contamination in Pit or Box	Shut raw water pit	Raw water	2 K gal	NA	Residue	No	No	1 shut raw water valve pit	NA
241-AZ	Contamination in Pit or Box	Other pits								
COB-AZ-1-90	Contamination in Pit or Box	Cleanout boxes AZ1-10	Residual contamination	05 K gal ea	NA	Residue	Unknown	No	10 COBs	NA
241-AZ-1	Contamination in Pit or Box	Cleanout box AZ1	Residual contamination	05 K gal ea	NA	Residue	Unknown	No	10 COBs	NA
241-AZ-2	Contamination in Pit or Box	Cleanout box AZ2	Residual contamination	05 K gal ea	NA	Residue	Unknown	No	10 COBs	NA
241-AZ-3	Contamination in Pit or Box	Cleanout box AZ3	Residual contamination	05 K gal ea	NA	Residue	Unknown	No	10 COBs	NA

Table E-3. Material at Risk Data. (131 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Transient	Quantity	Comments
241-AZ-4	Contamination in Pit or Box	Cleanout box AZ-4	Residual contamination	06 K gal ea	NA	Residue	Unknown	No	10 COBs	NA
241-AZ-5	Contamination in Pit or Box	Cleanout box AZ-5	Residual contamination	06 K gal ea	NA	Residue	Unknown	No	10 COBs	NA
241-AZ-6	Contamination in Pit or Box	Cleanout box AZ-6	Residual contamination	06 K gal ea	NA	Residue	Unknown	No	10 COBs	NA
241-AZ-7	Contamination in Pit or Box	Cleanout box AZ-7	Residual contamination	06 K gal ea	NA	Residue	Unknown	No	10 COBs	NA
241-AZ-8	Contamination in Pit or Box	Cleanout box AZ-8	Residual contamination	05 K gal ea	NA	Residue	Unknown	No	10 COBs	NA
241-AZ-9	Contamination in Pit or Box	Cleanout box AZ-9	Residual contamination	06 K gal ea	NA	Residue	Unknown	No	10 COBs	NA
241-AZ-10	Contamination in Pit or Box	Cleanout box AZ-10	Residual contamination	05 K gal ea	NA	Residue	Unknown	No	10 COBs	NA
241-AZ-161	Contamination in Pit or Box	Airfit circulator 601 class AZ-161	NA	89 K gal	NA	None	NA	NA	1 canbox	NA
241-AZ-162	Contamination in Pit or Box	Airfit circulator 602 class AZ-162	NA	73 K gal	NA	None	NA	NA	1 canbox	NA
241-AZ-152	Contamination in Pit or Box	Sludge transfer box AZ-152	Residual contamination	75 K gal	NA	Residue	Unknown	No	1 sludge transfer box	NA
241-AZ-155	Contamination in Pit or Box	Contaminated equipment storage pit AZ-155	Residual contamination	53.7 K gal	NA	Residue	Unknown	No	1 storage pit	NA
241-AZ-181	Contamination in Pit or Box	Catch tank pit AZ-181	Residual contamination	29 K gal	NA	Residue	Unknown	No	1 catch tank pit	NA

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Transport	Quantity	Comments
241-AZ-154	Contamination in Pit or Box	Condensate pump pit AZ-154	Residual contamination	2.3 K gal	NA	Residue	Unknown	No	1 con pump pit	NA
241-AZ*	Contamination in Pit or Box	Steam trap	Residual contamination	1.5 K gal	NA	Residue	Unknown	No	1 steam trap	Steam has been isolated to the facility
241-AZ*	Contamination in Pit or Box	Condensate valve casing	Residual contamination	2 K gal	NA	Residue	Unknown	No	1 con valve casing	NA
241-AZ*	Contamination in Pit or Box	Steam trap and PRV station	Residual contamination	1.1 K gal	NA	Residue	Unknown	No	1 st. trap and prv site	NA
216-A-39	Contamination in Pit or Box	Cnb 216-A-39	Residual contamination	Unknown	NA	Residue	Unknown	No	1 cnb	AN
241-AZ*	SARA 313 Materials	See comment	NA	NA	NA	NA	NA	NA	NA	Major amount of construction materials for new vent modifications
241-AZ*	Other	Steel storage box	Unknown	NA	NA	Solid	Low Level	Yes	1 small shed	NA
216-W-LWC	Cnb	216-W-LWC	NA	NA	NA	NA	NA	NA	NA	Cnb received 1,200,000,000 liters of Liquid protect inside water from contaminated laundry
216-Z-20	Cnb	216-Z-20	NA	NA	NA	NA	NA	NA	NA	Cnb received 3,900,000,000 liters of Liquid cooling water, steam condensate, storm sewer, and drains from 234-SZ, 231-Z, 231-Z, 232-Z, 236-Z, and 2736-Z
216-B-3-3	Ditch	216-B-3-3	NA	NA	NA	NA	NA	NA	NA	Ditch transported and percolated cooling water and chemical sewer drain from 221-B, 202-A, 241-BY, and 244-CR Vapil

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAR-Subplot	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Transfer	Quantity	Comments
PPP Pond	Pond	PPP Pond	NA	NA	NA	NA	NA	NA	NA	This pond, also known as the 11a Pond, is Not in the Environmental Sites Database. It was Not used for radiologically contaminated waste.
216-Z-21	Cnb	216-Z-21	NA	NA	NA	NA	NA	NA	NA	This cnd did Not appear in the WRES database. It is also called the 216-Z-21 seepage pond. It received steam condensate and cooling water from the PPP plant.
241-B-101	Tank Contents	B-101	MCPLX	530 kgal	Sludge	Solid	113 kgal	No	NA	Assumed leaked. Interns stabilized 3/81 (documentation complete 7/81)
241-B-102	Tank Contents	B-102	MCPLX	530 kgal	Supernatant Sludge Sulfate	Liquid Solid Solid	4 kgal 18 kgal 10 kgal	No	NA	Interns stabilized 8/85
241-B-103	Tank Contents	B-103	MCPLX	530 kgal	Sludge	Solid	59 kgal	No	NA	Assumed leaked. Interns stabilized 2/85
241-B-104	Tank Contents	B-104	MCPLX	530 kgal	Supernatant Sludge Sulfate	Liquid Solid Solid	1 kgal 301 kgal 69 kgal	No	NA	Interns stabilized 8/85
241-B-105	Tank Contents	B-105	MCPLX	530 kgal	Sludge Sulfate	Solid Solid	40 kgal 289 kgal	No	NA	Assumed leaked. Interns stabilized 12/84
241-B-106	Tank Contents	B-106	MCPLX	530 kgal	Supernatant Sludge	Liquid Solid	1 kgal 119 kgal	No	NA	Interns stabilized 8/85
241-B-107	Tank Contents	B-107	MCPLX	530 kgal	Supernatant Sludge	Liquid Solid	1 kgal 164 kgal	No	NA	Assumed leaked. Interns stabilized 12/84
241-B-108	Tank Contents	B-108	MCPLX	530 kgal	Sludge	Solid	94 kgal	No	NA	Interns stabilized 5/85
241-B-109	Tank Contents	B-109	MCPLX	530 kgal	Sludge	Solid	127 kgal	No	NA	Interns stabilized 4/86

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Transient	Quantity	Comments
241-B-110	Tank Contents	B-110	NCPLX	530 kgal	Supernatant Sludge	Liquid Solid	1 kgal 240 kgal	No	NA	Assumed leaked Intern stabilized 12/84
241-B-111	Tank Contents	B-111	NCPLX	530 kgal	Supernatant Sludge	Liquid Solid	1 kgal 230 kgal	No	NA	Assumed leaked Intern stabilized 6/85
241-B-112	Tank Contents	B-112	NCPLX	530 kgal	Supernatant Sludge	Liquid Solid	3 kgal 30 kgal	No	NA	Assumed leaked Intern stabilized 5/85
241-B-201	Tank Contents	B-201	NCPLX	55,000 g	Supernatant Sludge	Liquid Solid	1 kgal 29 kgal	No	NA	Assumed leaked Intern stabilized 5/81
241-B-202	Tank Contents	B-202	NCPLX	55,000 g	Sludge	Solid	27 kgal	No	NA	Intern stabilized 5/85
241-B-203	Tank Contents	B-203	NCPLX	55,000 g	Supernatant Sludge	Liquid Solid	1 kgal 50 kgal	No	NA	Assumed leaked Intern stabilized 5/84
241-B-204	Tank Contents	B-204	NCPLX	55,000 g	Supernatant Sludge	Liquid Solid	1 kgal 45 kgal	No	NA	Assumed leaked Intern stabilized 5/84
241-B-301B	Tank Contents	241-B-301B IMJST	pH = 6.5 T 4.77 x10 ⁻³ grams/gal Pu 46.88 x10 ⁻⁸ grams/gal U 1.77 x 10 ⁻⁵ lbs. gal T 8.01 x 10 ² Ca137 1.14 x 104 µCi/gal in Supernatant Pu 6.50 x 10 ⁻⁷ g/gal in Supernatant	35,000 g	Supernatant and Solid	Liquid and Solids	580 gal Liquid 21 660 gal Solids	No	NA	Isolated 1985
241-B-302B	Tank Contents	241-B-302B IMJST	6 plant waste	17,084 g	Supernatant and Sludge	Liquid and Solids	4240 gal Liquid 990 gal Sludge	No	NA	Located at the corner of Baltimore and 7th Street Isolated 1985

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Transient	Quantity	Comments
241-B-101	Tank Headspace	B-101	NA	NA	NA	Vapor	2812 cubic meters. No ammonia present.	No	NA	NA
241-B-102	Tank Headspace	B-102	NA	NA	NA	Vapor	3115 cubic meters. No ammonia present.	No	NA	NA
241-B-103	Tank Headspace	B-103	NA	NA	NA	Vapor	3015 cubic meters. 20 grams of ammonia.	No	NA	NA
241-B-104	Tank Headspace	B-104	NA	NA	NA	Vapor	1835 cubic meters. No ammonia present.	No	NA	NA
241-B-105	Tank Headspace	B-105	NA	NA	NA	Vapor	2061 cubic meters. No ammonia present.	No	NA	NA
241-B-106	Tank Headspace	B-106	NA	NA	NA	Vapor	2267 cubic meters. No ammonia present.	No	NA	NA
241-B-107	Tank Headspace	B-107	NA	NA	NA	Vapor	2615 cubic meters. No ammonia present.	No	NA	NA
241-B-108	Tank Headspace	B-108	NA	NA	NA	Vapor	2684 cubic meters. No ammonia present.	No	NA	NA

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Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Transient	Quantity	Comments
241-B-109	Tank Headspace	B-109	NA	NA	NA	Vapor	2759 cubic meters. No ammonia present	No	NA	NA
241-B-110	Tank Headspace	B-110	NA	NA	NA	Vapor	2308 cubic meters. No ammonia present	No	NA	NA
241-B-111	Tank Headspace	B-111	NA	NA	NA	Vapor	2342 cubic meters. No ammonia present	No	NA	NA
241-B-112	Tank Headspace	B-112	NA	NA	NA	Vapor	3115 cubic meters. No ammonia present	No	NA	NA
241-B-201	Tank Headspace	B-201	NA	NA	NA	Vapor	124 cubic meters. No ammonia present	No	NA	NA
241-B-202	Tank Headspace	B-202	NA	NA	NA	Vapor	131 cubic meters. No ammonia present	No	NA	NA
241-B-203	Tank Headspace	B-203	NA	NA	NA	Vapor	40 cubic meters. No ammonia present	No	NA	NA
241-B-204	Tank Headspace	B-204	NA	NA	NA	Vapor	44 cubic meters. 2.2 grams ammonia.*	No	NA	*Maximum pipe values used from data obtained 1/93 to 2/96. Accuracy of ammonia measurements may degrade 25%.

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Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Treatment	Quantity	Comments
241-B-301B	Tank Headspace	241-B-301B	NA	NA	NA	Vapor	13750 gal Unknown composition	No	NA	NA
241-B-303B	Tank Headspace	241-B-303B	NA	NA	NA	Vapor	12784 gal Unknown composition	No	NA	NA
241-B	Rail or Truck Tanker Contents	None	NA	NA	NA	NA	NA	NA	NA	No rail or truck tankers in B Farm
241-B	Contamination on Vehicle	None	NA	NA	NA	NA	NA	NA	NA	No contaminated vehicles in B Farm
241-B	Contamination on Equipment or Tools	Contaminated tools possibly abandoned in pits	possibly contaminated tools	NA	NA	Solid	Unknown	No	NA	*Tools in pits are not expected to be easily moved
241-B	Ventilation Filter Contents	Primary	NA	NA	NA	NA	NA	NA	NA	NA
241-B	Ventilation Filter Contents	Annulus	NA	NA	NA	NA	NA	NA	NA	NA
241-B	Ventilation Filter Contents	Breathers	NA	1 RWH at ex: inches**	NA	Particulate	<100 mR/hr*	Yes, filters disposed of in accordance with EPA CERCLA (1980)	NA	*Not identified by East Tank Farms High/Very High Radiation Area Log as a high rad area [rad survey report 221830, 8/2/98] **SAR for DGTs indicates 200 mR/hr limit on HEPA filters through administrative controls. No reference found that indicates that limit.
241-B	Contamination in Ventilation Systems	De-contaminated	NA	NA	NA	NA	NA	NA	NA	NA

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Transient	Quantity	Comments
241-B	Contamination in Ventilation System	Seal loops	oil	< 1 gal	NA	Liquid	Residual	No	One per tank	Seal loops associated with breather filters on oil tanks
241-B	Contents of Pipeline and/or Source Tank During Transfer	NA	NA	NA	NA	NA	NA	NA	NA	See transfer pipeline table 7
241-B	Contents of Sump or Encasement	None*	NA	NA	NA	NA	NA	NA	NA	*No sumps present in B item, refer to transfer pipeline table 7 for encasements
241-B	Contamination in Pit or Box	Pits	Residual contamination	NA	NA	Residue	NA	No	NA	Pits are all isolated and inactive
241-B	Contamination in Pit or Box	Diversion boxes	Residual contamination	NA	NA	Residue	NA	No	NA	Diversion boxes are all isolated and inactive
241-B-151	Contamination in Pit or Box	Diversion box	Residual contamination	NA	NA	Residue	NA	No	NA	Diversion boxes are all isolated and inactive
241-B-152	Contamination in Pit or Box	Diversion box	Residual contamination	NA	NA	Residue	NA	No	NA	Diversion boxes are all isolated and inactive
241-B-153	Contamination in Pit or Box	Diversion box	Residual contamination	NA	NA	Residue	NA	No	NA	Diversion boxes are all isolated and inactive
241-B-154	Contamination in Pit or Box	Diversion box	Residual contamination	NA	NA	Residue	NA	No	NA	Diversion boxes are all isolated and inactive
241-B-232	Contamination in Pit or Box	Diversion box	Residual contamination	NA	NA	Residue	NA	No	NA	Diversion boxes are all isolated and inactive
242-B-151	Contamination in Pit or Box	Diversion box	Residual contamination	NA	NA	Residue	NA	No	NA	Diversion boxes are all isolated and inactive
241-B	SARA 313 Materials	None	NA	NA	NA	NA	NA	NA	NA	NA

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	HAZ-Subject	HAZ-Description	HAZ-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Transient	Quantity	Comments
6 Solid Waste Accumulation Area	Other	Solid waste accumulation area	RCRA mixed waste	Six 55-gallon mixed waste drums (medium)	sol, paint waste, tank contents, metal cartridges, HEPA filter, misc mixed wastes possible	Solid	low level (less than class C)	Yes	six 55-gallon drums maximum capacity for each satellite accumulation enclosure	Inventory reported when filled, transported to 200-E 90 day storage facility
216-B-55	Other	Ditch 216-B-55	NA	NA	NA	NA	NA	NA	NA	This ditch received 1,230,000,000 liters of steam condensate from 221-B. The waste is low salt and neutral/basic. Currently inactive
216-B-62	Other	Ditch 216-B-62	NA	NA	NA	NA	NA	NA	NA	This ditch received 282,000,000 liters of Process condensate from 221-B Separation Facilities. Currently inactive
216-B-63	Other	Ditch 216-B-63	NA	NA	NA	NA	NA	NA	NA	This ditch received 7,220,000,000 liters of effluent from floor drains and chemical sewer wastes from 221-B, 225-B, and 271-B. Currently inactive
216-B-3	Other	Pond 216-B-3	NA	NA	NA	Liquid	NA	Yes	NA	Evaporation ponds are active, monitored weekly for level and inflow. Not in the WILDS database because they do not receive contaminated waste. They receive clean liquid such as steam condensate and cooling water
241-BX-101	Tank Contents	80X-101	NOCLX	530 kgal	Supernatant Sludge	Liquid Solid	1 kgal / 42 kgal	No	NA	Accumulated leaker. Interim stabilized 9/75

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Class/Location	Capacity	Material Type	Physical Form	Volume or Activity	Transient	Quantity	Comments
241-BX-102	Tank Contents	BX-102	NCPLX	530 kgal	Sludge	Solid	86 kgal	No	NA	Assumed leakers Interim stabilized 11/79
241-BX-103	Tank Contents	BX-103	NCPLX	530 kgal	Supernatant Sludge	Liquid Solid	5 kgal 62 kgal	No	NA	Interim stabilized 11/83
241-BX-104	Tank Contents	BX-104	NCPLX	530 kgal	Supernatant Sludge	Liquid Solid	3 kgal 96 kgal	No	NA	Interim stabilized 8/83
241-BX-105	Tank Contents	BX-105	NCPLX	530 kgal	Supernatant Sludge Saltcake	Liquid Solid Solid	5 kgal 43 kgal 3 kgal	No	NA	Interim stabilized 3/81 (discernation complete 8/81)
241-BX-106	Tank Contents	BX-106	NCPLX	530 kgal	Sludge	Solid	38 kgal	No	NA	Interim stabilized 8/86
241-BX-107	Tank Contents	BX-107	NCPLX	530 kgal	Supernatant Sludge	Liquid Solid	1 kgal 344 kgal	No	NA	Interim stabilized 8/80
241-BX-108	Tank Contents	BX-108	NCPLX	530 kgal	Sludge	Solid	26 kgal	No	NA	Assumed leakers Interim stabilized 7/79
241-BX-109	Tank Contents	BX-109	NCPLX	530 kgal	Sludge	Solid	183 kgal	No	NA	Interim stabilized 8/80
241-BX-110	Tank Contents	BX-110	NCPLX	530 kgal	Supernatant Sludge Saltcake	Liquid Solid Solid	3 kgal 125 kgal 9 kgal	No	NA	Assumed leakers Interim stabilized 6/80
241-BX-111	Tank Contents	BX-111	NCPLX	620 kgal	Supernatant Sludge Saltcake	Liquid Solid Solid	1 kgal 62 kgal 100 kgal	No	NA	Assumed leakers Interim stabilized 3/85
241-BX-112	Tank Contents	BX-112	NCPLX	620 kgal	Supernatant Sludge	Liquid Solid	1 kgal 164 kgal	No	NA	Interim stabilized 6/80
244-BX	Tank Contents	244-BX DCRT	Saltwell pumping waste from BX, BY, and BZ tanks	31 kgal	NA	Liquid and Solid	1800 gal total, about 1200-1300 gal of Sludge	No	NA	DCRT receives waste from B, BX, and BY tanks

Table B-3. Material at Risk Data. (331 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Transient	Quantity	Comments
241-BX-302A	Tank Contents	241-BX-302A INUJST	drainage from diversion boxes BX-162, BX-153, BYR-152, and BXR-152. SREO-Solids 7150 μ Ci/gal SREO-Supernatant 719 μ Ci/gal Co137-Supernatant 358 μ Ci/gal Pu - Supernatant 6.95×10^{-6} g/L	17854 g	NA	Solid	835 gal Solids	No	NA	Isolated 1995. Supernatant composition refers to samples taken when there was Supernatant in the tank
241-BX-302B	Tank Contents	241-BX-302B INUJST	drainage from BX-164 drainage box	11368 g	Supernatant and Solids	Liquid and Solid	84 gal Liquid and 950 gal Solid	No	NA	Isolated 1995
241-BX-302C	Tank Contents	241-BX-302C INUJST	drainage from BX-166 diversion box	11378 g	Supernatant and Solids	Liquid and Solid	633 gal Solids and 228 gal Liquid	No	NA	Isolated 1995
241-BYR-001	Tank Contents	241-BYR-001 INUJST	Metal waste slurry SREO-Solids 346220 μ Ci/gal SREO-Supernatant 34622 μ Ci/gal Co137-Supernatant 38228 μ Ci/gal	80,000 g	Supernatant and Solids	Liquid and Solid	7218 gal Solids	No	NA	Inferred unlabeled 1995. Supernatant composition refers to samples taken when there was Supernatant in the tank

Table B-3. Material at Risk Data. (331 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Clarification	Capacity	Material Type	Physical Form	Volume or Activity	Transient	Quantity	Comments
244-BXR-002	Tank Contents	244-BXR-002 HAUST	Slurry from 244-BXR-001 mixed with no solid. 8190- Solids 38270 µCi/gal. 5r90- Supernatant 38227 µCi/gal. Cs137. Supernatant 1964 µCi/gal.	15,000 g	Supernatant and Solids	Liquid and Solid	380 gal Liquid and 1808 gal Solids	No	NA	Interim stabilized 1985
244-BXR-003	Tank Contents	244-BXR-003 HAUST	Slurry from 244-BXR-001 mixed with no solid. 8r90- Solids 3174480 µCi/gal. 8r90- Supernatant 317448 µCi/gal. Cs137- Supernatant 22624 µCi/gal.	15,000 g	Supernatant and Solids	Liquid and Solid	358 gal Liquid and 1440 gal Solids	No	NA	Interim stabilized 1985

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Transient	Quantity	Comments
241-BX-011	Tank Contents	244-BXR-011 MUST	acid solutions from 244-BXR-002 and 244-BXR-003 Sr90-waste 183573 μCi/gal Sr90-Supernatant 183587 μCi/gal Cs137-waste 72798 μCi/gal Cs137-Supernatant 727966 μCi/gal Pu-waste 3.78 x 10 ⁻⁷ g/g @ 0.684 g/mL	50,000 g	Supernatant and Solids	Liquid and Solid	90 gal Liquid and 7020 gal Solids	No	NA	Inventor stabilized 1965
241-BX-101	Tank Headspace	BX-101	NA	NA	NA	Vapor	3077 cubic meters No ammonia present	No	NA	NA
241-BX-102	Tank Headspace	BX-102	NA	NA	NA	Vapor	2878 cubic meters No ammonia present	No	NA	NA
241-BX-103	Tank Headspace	BX-103	NA	NA	NA	Vapor	2582 cubic meters No ammonia present	No	NA	NA
241-BX-104	Tank Headspace	BX-104	NA	NA	NA	Vapor	2878 cubic meters 520 g ammonia	No	NA	NA

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume of Activity	Transient	Quantity	Comments
241-BX-105	Tank Headspace	BX-105	NA	NA	NA	Vapor	3046 cubic meters. No anomalies present.	No	NA	NA
241-BX-106	Tank Headspace	BX-106	NA	NA	NA	Vapor	3065 cubic meters. No anomalies present.	No	NA	NA
241-BX-107	Tank Headspace	BX-107	NA	NA	NA	Vapor	1834 cubic meters. No anomalies present.	No	NA	NA
241-BX-108	Tank Headspace	BX-108	NA	NA	NA	Vapor	3141 cubic meters. No anomalies present.	No	NA	NA
241-BX-109	Tank Headspace	BX-109	NA	NA	NA	Vapor	2509 cubic meters. No anomalies present.	No	NA	NA
241-BX-110	Tank Headspace	BX-110	NA	NA	NA	Vapor	2456 cubic meters. No anomalies present.	No	NA	NA
241-BX-111	Tank Headspace	BX-111	NA	NA	NA	Vapor	2626 cubic meters. No anomalies present.	No	NA	NA
241-BX-112	Tank Headspace	BX-112	NA	NA	NA	Vapor	2515 cubic meters. No anomalies present.	No	NA	NA

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Transient	Quantity	Comments
244-BX	Tank Headspace	244-BX DCRT	NA	NA	NA	Vapor	Unknown	No	NA	No data on tank headspace composition available
241-BX-302A	Tank Headspace	241-BX-302A IMUST	NA	NA	NA	Vapor	18848 gal Unknown composition	No	NA	No data on tank headspace composition available
241-BX-302B	Tank Headspace	241-BX-302B IMUST	NA	NA	NA	Vapor	10345 gal Unknown composition	No	NA	No data on tank headspace composition available
241-BX-302C	Tank Headspace	241-BX-302C IMUST	NA	NA	NA	Vapor	10515 gal Unknown composition	No	NA	No data on tank headspace composition available
241-BX-001	Tank Headspace	244-BXR-001 IMUST	NA	NA	NA	Vapor	42295 gal Unknown composition	No	NA	No data on tank headspace composition available
241-BX-002	Tank Headspace	244-BXR-002 IMUST	NA	NA	NA	Vapor	12816 gal Unknown composition	No	NA	No data on tank headspace composition available
241-BX-003	Tank Headspace	244-BXR-003 IMUST	NA	NA	NA	Vapor	13195 gal Unknown composition	No	NA	No data on tank headspace composition available
241-BXR-011	Tank Headspace	244-BXR-011 IMUST	NA	NA	NA	Vapor	42652 gal Unknown composition	No	NA	No data on tank headspace composition available
244-BX	Rail or Truck Tanker Contents	None	NA	NA	NA	NA	NA	NA	NA	No rail or truck tanker in BX Farm
244-BX	Contamination on Vehicle	None	NA	NA	NA	NA	NA	NA	NA	No contaminated vehicles stored near BX Farm
244-BX	Contamination on Equipment or Tools	Abandoned tools possibly in tank pits	possibly contaminated tools	NA	NA	Solid	Unknown	No *	NA	*Tools Not expected to be easily removed from pits

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	HAAR-Subject	HAAR-Description	HAAR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Threshold	Quantity	Comments
241-BX	Ventilation Filter Contents	Primary	NA	NA	NA	NA	NA	NA	NA	NA
241-BX	Ventilation Filter Contents	Annulus	NA	NA	NA	NA	NA	NA	NA	NA
241-BX	Ventilation Filter Contents	Breather	NA	1 R/hr at six inches**	NA	Particulate	<100 mR/hr*	Yes, filters disposed of as accordance with EPA D063-4 (SWQ)	NA	*Not identified by East Tank Farms High/Very High Radiation Area Log as a high rad area (red survey report 221630, 5/2/86) **SAR for DGTs indicates 200 mR/hr level on HEPA filters through administrative controls. No reference found that indicates this is so.
241-BX	Ventilation Filter Contents	Filter on Vent system for DGRT 241-BX	NA	1 R/hr at six inches**	NA	Particulate	<100 mR/hr*	Yes	NA	*Not identified by East Tank Farms High/Very High Radiation Area Log as a high rad area (red survey report 221630, 5/2/86) **SAR for DGTs indicates 200 mR/hr level on HEPA filters through administrative controls. No reference found that indicates this is so.
241-BX	Contamination in Ventilation System	De-entrainers	NA	NA	NA	NA	NA	NA	NA	No de-entrainers
241-BX	Contamination in Ventilation System	Seal loops for breathers	OL	< 1 gal	NA	Liquid	Residual	No	One per tank	Seal loops associated with breather filters on all tanks
241-BX	Contents of Pipeline and/or Source Tank During Transfer	NA	NA	NA	NA	NA	NA	NA	NA	See transfer line table 7

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Transport	Quantity	Comments
241-BX	Contents of Pump or Encasement	DCRT vault ^a	NA	41,000 gal ^a	NA	NA	NA	No	NA	"Volume of vault = (44' x 16' x 13.7') - volume of the tank. DCRT is used as rainfall collector. ^a Vault serves as "encasement" for the DCRT
241-BX	Contamination in Pit or Box	Pump, skuse, Heat, and condenser pits	Residual contamination	NA	NA	Residue	NA	No	NA	All pump, skuse, Heat, and condenser pits are weather covered in BX Farm
241-BX	Contamination in Pit or Box	Raw water service pit	water	1450 gal (7" diameter x 5')	NA	Liquid	NA	No	NA	Service pit provides raw water to BX and BY Farms for wellhead pumping
241-BX	Contamination in Pit or Box	Selfwell pumping pits	Residual contamination	1060 gal (8" diameter x 5') on BX-107 and BX-108 and 740 gal (5" diameter x 5') on BX-110, BX-111, and BX-112	NA	Residue	NA	No	NA	"Selfwell pump pits Not isolated on tanks BX-107, 108-112 only
244-BX	Contamination in Pit or Box	244-BX DCRT Pump Pit	Residual contamination	23,000 gal (19' x 17' x 8'-6")	NA	Residue	NA	No	NA	NA
244-BX	Contamination in Pit or Box	244-BX DCRT Filter Pit	Residual contamination	13,500 gal (11' x 17' x 8'-6")	NA	Residue	NA	No	NA	Filters decontaminated separately
244-BX	Contamination in Pit or Box	244-BX DCRT (Inactivation) Pit	Residual contamination	800 gal (4' diameter x 5'-4")	NA	Residue	NA	No	NA	NA
241-BX/151	Contamination in Pit or Box	Diversion box	Residual contamination	NA	NA	Residue	NA	No	NA	Diversion boxes in BX Farm are all isolated and inactive
241-BX/152	Contamination in Pit or Box	Diversion box	Residual contamination	NA	NA	Residue	NA	No	NA	Diversion boxes in BX Farm are all isolated and inactive

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Transient	Quantity	Comments
241-BX-103	Contamination in Pit or Box	Demon box	Residual contamination	NA	NA	Residue	NA	No	NA	Demon boxes in BX Farm are all isolated and inactive
241-BX	SARA 313 Materials	Gas bottles for PCM16	80% Ar 10% Methane	480 cubic feet	NA	Gas	480 cubic ft	Yes	2 bottles	NA
BX Satellite Accumulation Area	Other	Satellite accumulation area	RCRA mixed waste	8x-55-gallon mixed waste drums (maximum)	sol, paint waste, tank collected, neck cartridges, HEPA filter, max mixed waste possible	Solid	low level (less than class C)	Yes	8x-55 gallon drums maximum capacity for each satellite accumulation enclosure	Ironlines removed when filled, transported to 200-E 90-day storage facility
241-BX	Other	Large tank of phosphoric acid west of BX-112	phosphoric acid	1000 gallons?	NA	Liquid	100 gallon Hewlett / Unknown	Yes*	1 tank	Tank scheduled for removal by WRC Operations
241-BY-101	Tank Contents	BY-101	NCPLX	758,000	Sludge Solids	Solid Solid	108 kgal 278 kgal	No	NA	Interim stabilized 5/84
241-BY-102	Tank Contents	BY-102	NCPLX	758,000	Solids	Solid	277 kgal	No	NA	Interim stabilized 4/85
241-BY-103	Tank Contents	BY-103	NCPLX	758,000	Sludge Solids	Solid Solid	6 kgal 305 kgal	No	NA	Assumed inactive BY-103 is being pumped
241-BY-104	Tank Contents	BY-104	NCPLX	758,000	Sludge Solids	Solid Solid	40 kgal 398 kgal	No	NA	Interim stabilized 1/85
241-BY-105	Tank Contents	BY-105	NCPLX	758,000	Sludge Solids	Solid Solid	44 kgal 439 kgal	No	NA	Assumed inactive BY-105 has had cement added. It may be pumped further in the future
241-BY-106	Tank Contents	BY-106	NCPLX	758,000	Sludge Solids	Solid Solid	95 kgal 547 kgal	No	NA	Assumed inactive BY-106 is being pumped

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume of Activity	Transient	Quantity	Comments
241-BY-107	Tank Contents	BY-107	NOPLX	758,000	Sludge Saltcake	Solid Solid	80 legal 208 kgal	No	NA	Assumed lesser interim stabilized 779
241-BY-108	Tank Contents	BY-108	NOPLX	758,000	Sludge Saltcake	Solid Solid	154 legal 74 kgal	No	NA	Assumed lesser interim stabilized 295
241-BY-109	Tank Contents	BY-109	NOPLX	758,000	Sludge Saltcake	Solid Solid	83 legal 340 kgal	No	NA	BY-109 is being pumped
241-BY-110	Tank Contents	BY-110	NOPLX	758,000	Sludge Saltcake	Solid Solid	103 legal 295 kgal	No	NA	Interim stabilized 185
241-BY-111	Tank Contents	BY-111	NOPLX	758,000	Sludge Saltcake	Solid Solid	21 legal 438 kgal	No	NA	Interim stabilized 188
241-BY-112	Tank Contents	BY-112	NOPLX	758,000	Sludge Saltcake	Solid Solid	5 legal 288 kgal	No	NA	Interim stabilized 854
241-BY-201	Tank Contents	241-BY-201 IMUST	See comments	Unknown	Unknown	Unknown	Unknown	No	NA	The tank received waste from 241-BY Farm and the Tri-butyl Phosphate Waste Line. Leaked waste to the ground in 1955
241-BY-101	Tank Headspace	BY-101	NA	NA	NA	Vapor	2817 cubic meters. No ammonia present	No	NA	NA
241-BY-102	Tank Headspace	BY-102	NA	NA	NA	Vapor	2893 cubic meters. No ammonia present	No	NA	NA
241-BY-103	Tank Headspace	BY-103	NA	NA	NA	Vapor	2487 cubic meters. 48 g ammonia	No	NA	Tank is being pumped, headspace will change
241-BY-104	Tank Headspace	BY-104	NA	NA	NA	Vapor	2445 cubic meters. 470 g ammonia	No	NA	NA

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Intervent Type	Physical Form	Volume or Activity	Transport	Quantity	Comments
241-BY-105	Tank Headspace	BY-105	NA	NA	NA	Vapor	2078 cubic meters 69 / 71 g ammonia	No	NA	Tank may be pumped in the future, headspace will change
241-BY-106	Tank Headspace	BY-106	NA	NA	NA	Vapor	1501 cubic meters 88 g ammonia	No	NA	Tank is being pumped, headspace will change
241-BY-107	Tank Headspace	BY-107	NA	NA	NA	Vapor	2975 cubic meters 2200 g ammonia	No	NA	NA
241-BY-108	Tank Headspace	BY-108	NA	NA	NA	Vapor	3118 cubic meters 2500 / 890 g ammonia	No	NA	NA
241-BY-109	Tank Headspace	BY-109	NA	NA	NA	Vapor	2390 cubic meters No ammonia present	No	NA	Tank is being pumped, headspace will change
241-BY-110	Tank Headspace	BY-110	NA	NA	NA	Vapor	2475 cubic meters 740 / 510 g ammonia	No	NA	NA
241-BY-111	Tank Headspace	BY-111	NA	NA	NA	Vapor	2241 cubic meters 100 g ammonia	No	NA	NA
241-BY-112	Tank Headspace	BY-112	NA	NA	NA	Vapor	2680 cubic meters 140 g ammonia	No	NA	NA
218-BY-201	Tank Headspace	218-BY-201	Unknown	NA	Unknown	Vapor	Unknown	No	NA	No data available

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAR-Subtype	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Transient	Quantity	Comments
241-BY	Rail or Truck Tankcar Contents	None	NA	NA	NA	NA	NA	NA	NA	No rail or truck tankcars in BY Farm
241-BY	Contamination on Vehicle	None	NA	NA	NA	NA	NA	NA	NA	No contaminated vehicles stored near BY Farm
241-BY	Contamination on Equipment or Tools	Asbestos covered evaporator near BY-101, radioactively contaminated	Contaminated equipment	NA	NA	Solid	Unknown	Yes	NA	Commonly called "the big pink thing"
241-BY	Contamination on Equipment or Tools	Several 30' long, 4.5' diameter concrete w/contaminated equipment inside (above ground)	Contaminated equipment	NA	NA	Solid	Unknown	Yes	NA	NA
241-BY	Contamination on Equipment or Tools	Abandoned contaminated tools possibly in pits	Contaminated tools	NA	NA	Solids	Unknown	No	NA	*Tools Not expected to be easily removed from pits
241-BY	Ventilation Filter Contents	Primary	NA	NA	NA	NA	NA	NA	NA	NA
241-BY	Ventilation Filter Contents	Annulus	NA	NA	NA	NA	NA	NA	NA	NA

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Internal Type	Physical Form	Volume or Activity	Treatment	Quantity	Comments
241-BY	Ventilation Filter Controls	Breather	NA	1 R/hr at max inches"	NA	Particulate	<100 mR/hr on all tanks except possibly BY-101, 102, 105, and 109 which are on the West Tank Farm Shift Office High Radiation Area Key Assignment List. (Not sure if this means the breather filters. No exact rad numbers provided - No response from ref)	Yes, Disposed of in accordance with EP-0083-4 (R153)	NA	"SAR for DSTs indicates 200 mR/hr limit on HEPA filters through administrative controls. No reference found that indicates this limit applies to SSTs. Filter efficiency is tested annually and filters are replaced if they fail [Procedure STP157-BY]
241-BY	Contamination in Ventilation System	De-entrainers	NA	NA	NA	NA	NA	NA	NA	No de-entrainers
241-BY	Contamination in Ventilation System	Seal bags for breathers	oil	<1 gal	NA	Liquid	Residual	No	One per tank	Seal bags associated with breather filters on all tanks
241-BY	Contents of Pipeline under Source Tank During Transfer	NA	NA	NA	NA	NA	NA	NA	NA	See transfer in table 7

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAR-Subplot	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Transient	Quantity	Comments
241-BY	Contents of Bump or Encasement	NA	NA	NA	NA	NA	NA	NA	NA	No known spills with material inventory in BY Farm. See transfer line table 7 for discussion of encasements
241-BY	Contamination in Pit or Box	Saltpile pump pits	Residual contamination	6000 gal (14.5' x 11' x 5') for tanks BY-102, 103, 105, 106 6400 gal (17' x 11' x 4-7') for BY-108	NA	Residue	NA	No	NA	Pump pits (saltpile pumping) are active (Not weather covered) on tanks BY-102, 103, 105, 106, and 108
241-BY	Contamination in Pit or Box	All other pits at BY Farm	Residual contamination	NA	NA	Residue	NA	No	NA	All pits except pump pits listed above are weather covered
241-BYR-152	Contamination in Pit or Box	Diversion box	Residual contamination	NA	NA	Residue	NA	No	NA	Diversion boxes are all isolated and weather covered
241-BYR-153	Contamination in Pit or Box	Diversion box	Residual contamination	NA	NA	Residue	NA	No	NA	Diversion boxes are all isolated and weather covered
241-BYR-154	Contamination in Pit or Box	Diversion box	Residual contamination	NA	NA	Residue	NA	No	NA	Diversion boxes are all isolated and weather covered
241-BYR-155	Contamination in Pit or Box	Diversion box	Residual contamination	NA	NA	Residue	NA	No	NA	Diversion boxes are all isolated and weather covered
241-BY	SARA 313 Materials	Gas bottles for SHMS*	Hydrogen / Nitrogen mixture	480 cubic feet	NA	Gas	480 cubic feet	Yes	3 bottles per tank	*Only on tanks BY-103, BY-106, and BY-108
241-BY	Other	None	NA	NA	NA	NA	NA	NA	NA	
241-C-101	Tank Contents	C-101	NOPLX	530 kgal	Sludge	Solid	88 kgal	No	NA	Additional leaker. Inlet is stabilized 11/83
241-C-102	Tank Contents	C-102	DC	530 kgal	Sludge	Solid	376 kgal	No	NA	Inlet is stabilized 2/85

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Threatened	Quantity	Comments
241-C-103	Tank Contents	C-103	MCPLX	530 kgal	Supermat nt Sludge	Liquid Solid	133 kgal 52 kgal	No	NA	C-103 will be pumped in the future
241-C-104	Tank Contents	C-104	CC	530 kgal	Sludge	Solid	295 kgal	No	NA	Interim stabilized 6/89
241-C-105	Tank Contents	C-105	MCPLX	600 kgal	Supermat nt Sludge	Liquid Solid	2 kgal 132 kgal	No	NA	Interim stabilized 10/95
241-C-106	Tank Contents	C-106	MCPLX	630 kgal	Supermat nt Sludge	Liquid Solid	32 kgal 187 kgal	No	NA	C-106 will be diked in the future Theated cooling water (241 9-10) is added to tank, about 6000 gallons/month
241-C-107	Tank Contents	C-107	CC	530 kgal	Sludge	Solid	237 kgal	No	NA	Interim stabilized 8/95
241-C-108	Tank Contents	C-108	MCPLX	530 kgal	Sludge	Solid	69 kgal	No	NA	Interim stabilized 3/84
241-C-109	Tank Contents	C-109	MCPLX	530 kgal	Supermat nt Sludge	Liquid Solid	4 kgal 62 kgal	No	NA	Interim stabilized 11/83
241-C-110	Tank Contents	C-110	CC	530 kgal	Supermat nt Sludge	Liquid Solid	1 kgal 177 kgal	No	NA	Assumed leaker Interim stabilized 6/86
241-C-111	Tank Contents	C-111	MCPLX	530 kgal	Sludge	Solid	67 kgal	No	NA	Assumed leaker Interim stabilized 3/84
241-C-112	Tank Contents	C-112	MCPLX	530 kgal	Sludge	Solid	104 kgal	No	NA	Interim stabilized 8/80
241-C-201	Tank Contents	C-201	MCPLX	55 kgal	Sludge	Solid	2 kgal	No	NA	Assumed leaker Interim stabilized 3/82
241-C-202	Tank Contents	C-202	EMPTY	65 kgal	Sludge	Solid	1 kgal	No	NA	Assumed leaker Interim stabilized 6/81
241-C-203	Tank Contents	C-203	MCPLX	55 kgal	Sludge	Solid	5 kgal	No	NA	Assumed leaker Interim stabilized 3/82

Table B-3, Material at Risk Data. (131 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Treatment	Quantity	Comments
241-C-204	Tank Contents	C-204	NCPLX	55 kgal	Sludge	Solid	3 kgal	No	NA	Assumed leaked. Inferred stabilized S&B2
244-CR	Tank Contents	CR Vault tank 001	Unknown	50 kgal	Unknown	Unknown	Unknown	No	NA	Inactive. No data on tank contents obtained
244-CR	Tank Contents	CR Vault tank 002	Unknown	15 kgal	Unknown	Unknown	Unknown	No	NA	Inactive. No data on tank contents obtained
244-CR	Tank Contents	CR Vault tank 003	Soft-soil waste from C Basin (C-102, C-907, C-110)	15 kgal	NA	Liquid and Solid	4853 gal total	No	NA	This is the only CR Vault tank still in use. Amount of Solids in tank Unknown
244-CR	Tank Contents	CR Vault tank 011	Unknown	50 kgal	Unknown	Unknown	Unknown	No	NA	Inactive. No data on tank contents obtained. Transfer from Hot Sump Works to tank recorded around 1978
241-C-301C	Tank Contents	241-C-301C BASIN	pH 9.3, T 6.06 x 103, Pu < 8.69 g/gal, U 5.0 x 10-4 lb/gal, T 1.7 x 103 µCi/gal, Cs134 1.42 x 102 µCi/gal, Cs137-super 2.86 x 104 µCi/gal, Sr90-Solids 17000 µCi/gal, Sr90-super 1700 µCi/gal, Pu-super 6.88 x 10-7 g/gal	28 kgal	Superheated and Sludge	Liquid and Solid	1470 gal Liquid 9016 gal Solid	No	NA	Isolated
241-C-101	Tank Headspace	C-101	NA	NA	NA	Vapor	2005 cubic meters 220 g ammonia	No	NA	NA

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAF-Subject	MAF-Description	MAF-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Transient	Quantity	Comments
241-C-102	Tank Headspace	C-102	NA	NA	NA	Vapor	2043 cubic meters 228 g ammonia	No	NA	NA
241-C-103	Tank Headspace	C-103	NA	NA	NA	Vapor	2501 cubic meters 540 g ammonia	No	NA	Tank C-103 will be pumped in the future, headspace will change "insufficient data to correct for temperature. A temperature of 11°C assumed where no data exists"
241-C-104	Tank Headspace	C-104	NA	NA	NA	Vapor	2123 cubic meters 70 g ammonia	No	NA	NA
241-C-105	Tank Headspace	C-105	NA	NA	NA	Vapor	2738 cubic meters 5.2 g ammonia	No	NA	NA
241-C-106	Tank Headspace	C-106	NA	NA	NA	Vapor	2373 cubic meters 4.5 g ammonia	No	NA	Tank C-106 will be ejected in the future, headspace will change
241-C-107	Tank Headspace	C-107	NA	NA	NA	Vapor	2342 cubic meters 150 g ammonia	No	NA	NA
241-C-108	Tank Headspace	C-108	NA	NA	NA	Vapor	2990 cubic meters 6 g ammonia	No	NA	NA
241-C-109	Tank Headspace	C-109	NA	NA	NA	Vapor	3005 cubic meters 29 g ammonia	No	NA	NA
241-C-110	Tank Headspace	C-110	NA	NA	NA	Vapor	2570 cubic meters 240 g ammonia	No	NA	NA

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Toxicant	Quantity	Comments
241-C-111	Tank Headspace	C-111	NA	NA	NA	Vapor	3004 cubic meters 130 g ammonia	No	NA	NA
241-C-112	Tank Headspace	C-112	NA	NA	NA	Vapor	2546 cubic meters 46 g ammonia	No	NA	NA
241-C-201	Tank Headspace	C-201	NA	NA	NA	Vapor	228 cubic meters No ammonia present	No	NA	NA
241-C-202	Tank Headspace	C-202	NA	NA	NA	Vapor	230 cubic meters No ammonia present	No	NA	NA
241-C-203	Tank Headspace	C-203	NA	NA	NA	Vapor	215 cubic meters No ammonia present	No	NA	NA
241-C-204	Tank Headspace	C-204	NA	NA	NA	Vapor	222 cubic meters No ammonia present	No	NA	NA
244-CR	Tank Headspace	CR Vault tank 001	NA	NA	NA	NA	NA	NA	NA	No headspace data available
244-CR	Tank Headspace	CR Vault tank 002	NA	NA	NA	NA	NA	NA	NA	No headspace data available
244-CR	Tank Headspace	CR Vault tank 003	NA	NA	NA	NA	NA	NA	NA	No headspace data available This is the only CR vault tank currently in use
244-CR	Tank Headspace	CR Vault tank 011	NA	NA	NA	NA	NA	NA	NA	No headspace data available

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Transient	Quantity	Comments
241-C-301C	Tank Headspace	241-C-301C MUST	NA	NA	NA	Vapor	22514 gal Unknown composition	No	NA	No headspace data available
241-C	Rail or Truck Tanker Contents	None	NA	NA	NA	NA	NA	NA	NA	No rail or truck tankers at C Farm
241-C	Contamination on Vehicles	None	NA	NA	NA	NA	NA	NA	NA	No contaminated vehicles stored in C Farm
241-C	Contamination on Equipment or Tools	Contaminated tools or jugs are possibly abandoned in pits	contaminated tools, jugs etc	NA	NA	Solid	Unknown	No	NA	*Tools are Not expected to be easily moved from pits
241-C	Contamination on Equipment or Tools	Contaminated equipment stored near C-301C MUST	contaminated equipment	NA	NA	Solid	Unknown	Yes	NA	Bowls and drums with contaminated materials
241-C	Ventilation Filter Contents	Primary - C-105C-106 Exhaust System	NA	1 Rate of six engines**	NA	Particulate	<100 mR/hr, 70 cpm on top of C-105 Inlet filter (rad survey report 221830, 8/2/98)	Yes, filters disposed of in accordance with EP-0063-4 (2/93)	NA	*Not identified by Enal Tank Farm as High/Very High Radiation Area top as a high radiation (except C-105 inlet filter) (rad survey report 221830, 8/2/98) **SAAR for D5Ts indicates 200 mR/hr based on NEPA limits through administrative controls No reference f
241-C	Ventilation Filter Contents	Accessory Exhaust	NA	NA	NA	NA	NA	NA	NA	NA

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Transfer	Quantity	Comments
241-C	Ventilation Filter Contents	Breathere	HA	1 R/hr at six inches ¹⁴	HA	Particulate	<100 mR/hr ¹⁴	Yes, MAR disposed of in accordance with EP-0053-4 (W93)	NA	¹⁴ Not identified by East Tank Farms High/Very High Radiation Area Log as a high rad area (rad survey report 221839, 5/2/94) ¹⁵ SAR for DSTs indicates 300 mR/hr limit on HEPA filters through administrative controls. No reference found that indicates this limit.
244-CR	Ventilation Filter Contents	244-CR Vault vent system filter	HA	1 R/hr at six inches ¹⁴	HA	Particulate	Unknown	Yes, filters disposed of in accordance with EP-0053-4 (W93)	NA	¹⁴ SAR for DSTs indicates 300 mR/hr limit on HEPA filters through administrative controls. No reference found that indicates this limit applies to CR vault. Filter efficiency as tested annually, filters are replaced if they fail.
241-C	Contamination in Ventilation System	De-entrainer	Process condensate	NA	NA	Liquid	Residual	No	NA	For the C-105/C-106 exhaust system
241-C	Contamination in Ventilation System	Seal loops	condensate	<1 gal	NA	Liquid	Residual	No	One per tank, except C-105 and C-106	Seal loops on breather filters for all tanks except C-105 and C-106
241-C	Contents of Pipeline and/or Source Tank During Transfer	NA	HA	NA	NA	NA	NA	NA	NA	See transfer line study
244-CR	Contents of Sump or Encasement	CR Vault Space (including sump)	Residual contamination, standing liquid possible	about 74,000 gal (2 large vaults and about 30,000 gal (2 smaller vaults) ¹	NA	Residual and possibly liquid	Unknown	No	4 vaults	¹ Capacity of vaults = volume of vault - volume of leak in vault. Large vaults are 22 x 22 x 22', small vaults are 15 x 22 x 12'. Each vault also has a small sump, 2 x 5 x 1'. Standing liquid in sump possible.

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAIR-Subject	MAIR-Description	MAIR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Transport	Quantity	Comments
244-CR	Contents of Sump or Encasement	CR Visual Filter Pit Sump	Residual contamination	about 30 gal (2'-10" square x 6" deep)	NA	Residue	NA	No	1	NA
241-C	Contamination in Pit or Box	Inactive pit*	Residual contamination	NA	NA	Residue	NA	No	NA	*All pits except those listed below are isolated and inactive
244-C	Contamination in Pit or Box	Pump pits*	Residual contamination	10,000 gal (11' x 14'-6" x 2'-8")	NA	Residue	NA	No	NA	*Pump pits Not isolated on C-102, C-103, C-105, and C-106 Isolated on tanks C-104 and C-101 See siltwell pump pits for C-107 through C-112
241-C	Contamination in Pit or Box	Heat pits*	Residual contamination	2000 gal (8' x 6' x 4'-10")	NA	Residue	NA	No	NA	*Isolated on tanks C-101 and C-104 C-105 is weather covered Only expected to be used on C-103 (for siltwell pumping) and possibly C-106 in the future
241-C	Contamination in Pit or Box	Siltwell pump pits*	Residual contamination	1000 gal (8' dia x 5' deep)	NA	Residue	NA	No	NA	*Only potentially active (Not weather covered) on C-107, 110, and 112 (see Heat pits above) C-110 and C-112 Not expected to be used
241-C	Contamination in Pit or Box	Sludge pit*	Residual contamination	4000 gal (8' x 6'-6" x 7')	NA	Residue	NA	No	NA	*Potentially active on tank C-103, which will be diked
241-C	Contamination in Pit or Box	Valve pit 241-C	Residual contamination	6000 gal (10' dia x 6'-6")	NA	Residue	NA	No	NA	May be used in the future for pumping C-103
241-C	Contamination in Pit or Box	Rain water service pit	new water	NA	NA	Liquid	NA	No	NA	Service pit only has rain water in it No longer in use
244-CR	Contamination in Pit or Box	CR Visual Pump Pits (one each above CR-D11 and CR-D13)	Residual contamination	30,000 gal (26' x 8' x 18'-4")	NA	Residue	NA	No	NA	NA

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Transient	Quantity	Comments
244-CR	Contamination in Pit or Box	CR Vault Pump Pit (one above CR-002 and CR-003)	Residual contamination	48,800 gal (42' x 8' x 18'-4")	NA	Residue	NA	No	NA	NA
244-CR	Contamination in Pit or Box	CR Vault Filter Pit	Residual contamination	9500 gal (11'-6" x 11'-10" x 9'-2")	NA	Residue	NA	No	NA	NA
244-CR	Contamination in Pit or Box	CR Vault Access Pits	Residual contamination	one at 1400 gal (7'-8" x 5' x 5'), one at 1500 gal (7'-10" x 5' x 5'), and two at 800 (6'-10" x 3' x 5')	NA	Residue	NA	No	NA	1400 gal pit associated with CR-011, 1500 gal pit associated with CR-001, and/or pits associated with CR-002 and CR-003
245-C	Contamination in Pit or Box	Diversion boxes	Residual contamination	NA	NA	Residue	NA	No	NA	All diversion boxes are isolated and inactive
245-C-151	Contamination in Pit or Box	Diversion box	Residual contamination	NA	NA	Residue	NA	No	NA	All diversion boxes are isolated and inactive
245-C-152	Contamination in Pit or Box	Diversion box	Residual contamination	NA	NA	Residue	NA	No	NA	All diversion boxes are isolated and inactive
245-C-153	Contamination in Pit or Box	Diversion box	Residual contamination	NA	NA	Residue	NA	No	NA	All diversion boxes are isolated and inactive
245-C-154	Contamination in Pit or Box	Diversion box	Residual contamination	NA	NA	Residue	NA	No	NA	All diversion boxes are isolated and inactive
245-C-252	Contamination in Pit or Box	Diversion box	Residual contamination	NA	NA	Residue	NA	No	NA	All diversion boxes are isolated and inactive
245-CR-151	Contamination in Pit or Box	Diversion box	Residual contamination	NA	NA	Residue	NA	No	NA	All diversion boxes are isolated and inactive
245-CR-152	Contamination in Pit or Box	Diversion box	Residual contamination	NA	NA	Residue	NA	No	NA	All diversion boxes are isolated and inactive

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAU-Subject	MAU-Description	MAU-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Transient	Quantity	Comments
241-CR-153	Contamination in Pit or Bore	Diversions box	Residual contamination	NA	NA	Residue	NA	No	NA	All diversion boxes are isolated and inactive
241-G	SARA 313 Materials	Gas bottles for PCM15	90% Ar 10% Methane	480 cubic feet	NA	Gas	480 cubic ft	Yes	2 bottles	NA
C Soluble Accumulation Area	Other	Soluble accumulation area	RCRA mixed waste	Soc SS station mixed waste drums (material)	oil, paint waste, tank collected, tank cartridges, MEPA filters, misc mixed wastes possible	Solid	low level (less than class C)	Yes	Soc SS gallon drums minimum capacity for each soluble accumulation enclosure	Inventories removed when filled, transported to 208-E SD dry storage facility
241-O	Other	Gas bottles*	Acetylene?	480 cubic feet	NA	Gas	480 cubic feet	Yes	2 bottles	*Two Gas bottles of unknown contents were located within a construction area near C-108 (intended to be acetylene for welding)
241-S-101	Tank Contents	241-S-101	NCPLX	756 Kgal	Supermale Sludge Solids	Liquid Solid Solid	12 Kgal 244 Kgal 171 Kgal	No	NA	Scheduled completion of interim stabilization 8/30/97
241-S-102	Tank Contents	241-S-102	DSSF	756 Kgal	Sludge Solids	Solid Solid	4 Kgal 548 Kgal	No	NA	Scheduled completion of interim stabilization 1/31/99
241-S-103	Tank Contents	241-S-103	DSSF	756 Kgal	Supermale Sludge Solids	Liquid Solid Solid	17 Kgal 10 Kgal 221 Kgal	No	NA	Scheduled completion of interim stabilization 8/31/98
241-S-104	Tank Contents	241-S-104	NCPLX	756 Kgal	Supermale Sludge	Liquid Solid	1 Kgal 293 Kgal	No	NA	Assumed leaky: interim stabilized 12/84
241-S-105	Tank Contents	241-S-105	NCPLX	756 Kgal	Sludge Solids	Solid Solid	2 Kgal 454 Kgal	No	NA	Interim stabilized 8/88

Table B-3. Material at Risk Data. (137 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Transient	Quantity	Comments
241-S-106	Tank Contents	241-S-106	MCPLX	758 Kgal	Separate Sludge Solids	Liquid Solid Solid	4 Kgal 28 Kgal 447 Kgal	No	NA	Scheduled completion of interim stabilization 11/30/98
241-S-107	Tank Contents	241-S-107	MCPLX	758 Kgal	Separate Sludge Solids	Liquid Solid Solid	14 Kgal 263 Kgal 69 Kgal	No	NA	Scheduled completion of interim stabilization 4/30/99
241-S-108	Tank Contents	241-S-108	MCPLX	758 Kgal	Sludge Solids	Solid Solid	4 Kgal 600 Kgal	No	NA	Scheduled completion of interim stabilization 2/28/97
241-S-109	Tank Contents	241-S-109	MCPLX	758 Kgal	Sludge Solids	Solid Solid	13 Kgal 655 Kgal	No	NA	Scheduled completion of interim stabilization 2/28/98
241-S-110	Tank Contents	241-S-110	MCPLX	758 Kgal	Sludge Solids	Solid Solid	131 Kgal 268 Kgal	No	NA	Scheduled completion of interim stabilization 2/28/97
241-S-111	Tank Contents	241-S-111	MCPLX	758 Kgal	Separate Sludge Solids	Liquid Solid Solid	10 Kgal 130 Kgal 447 Kgal	No	NA	Scheduled completion of interim stabilization 8/30/98
241-S-112	Tank Contents	241-S-112	MCPLX	758 Kgal	Sludge Solids	Solid Solid	6 Kgal 618 Kgal	No	NA	Scheduled completion of interim stabilization 1/31/99
244-S	Tank Contents	DOGT 244-S	See comments	67,720 Kgal **	See comments	See comment 1	Unknown	No	NA	* Waste from West Area Tank Farms, PFP, T-Plant, and 222-S labs ** 106 Kgal vault volume less 20,280 tank volume
241-S-304	Tank Contents	Catch Tank 241-S-304	No data	6300 gal	No data	No data	2379 gal	No	NA	NA
240-S-302	Tank Contents	HAUST 240-S-302	No data	17684 gal	No data	No data	2276 gallons total waste	No	NA	Tank level monitored weekly for level
240-S-302A	Tank Contents	HAUST 241-S-302A	No data	17684 gal	No data	No data	5130 gallons total waste	No	NA	Tank monitored by a leak detector-FIC level gauge
240-S-302B	Tank Contents	HAUST 241-S-302B	NA	14354 gal	0.00	NA	0 gal	No	NA	NA

Table B-3. Material at Risk Data. (134 Streets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Toxicant	Quantity	Comments
218-S-25	Tank Contents	Cnb 218-S-25	NA	NA	NA	NA	NA	NA	NA	This crib receives 268,000,000 liters of process steam condensate from 242-S and 218-L-1 & 2
218-S-26	Tank Contents	Cnb 218-S-26	NA	NA	NA	NA	NA	NA	NA	This crib receives 184,000,000 liters of steam condensate, byproduct radioactive wastes, and sink wastes from 222-S
241-S-101	Tank Headspace	241-S-101	NA	NA	NA	Vapor	2985 m3 1200 g NH3	No	NA	NA
241-S-102	Tank Headspace	241-S-102	NA	NA	NA	Vapor	1903 m3 590 / 360 g NH3	No	NA	NA
241-S-103	Tank Headspace	241-S-103	NA	NA	NA	Vapor	3043 m3 No NH3 present	No	NA	NA
241-S-104	Tank Headspace	241-S-104	NA	NA	NA	Vapor	2809 m3 No NH3 present	No	NA	NA
241-S-105	Tank Headspace	241-S-105	NA	NA	NA	Vapor	2295 m3 No NH3 present	No	NA	NA
241-S-106	Tank Headspace	241-S-106	NA	NA	NA	Vapor	2166 m3 No NH3 present	No	NA	NA
241-S-107	Tank Headspace	241-S-107	NA	NA	NA	Vapor	2656 m3 370 g NH3	No	NA	NA
241-S-108	Tank Headspace	241-S-108	NA	NA	NA	Vapor	1885 m3 No NH3 present	No	NA	NA

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Toxicity	Quantity	Comments
241-S-109	Tank Headspace	241-S-109	NA	NA	NA	Vapor	1831 m3 No NH3 present	No	NA	NA
241-S-110	Tank Headspace	241-S-110	NA	NA	NA	Vapor	2805 m3 270 g NH3	No	NA	NA
241-S-111	Tank Headspace	241-S-111	NA	NA	NA	Vapor	1728 m3 180 g NH3	No	NA	NA
241-S-112	Tank Headspace	241-S-112	NA	NA	NA	Vapor	2002 m3 No NH3 present	No	NA	NA
244-S	Tank Headspace	DCRT 244-S	NA	NA	NA	Vapor	Unknown	No	NA	NA
241-S-304	Tank Headspace	Catch Tank 241-S-304	NA	No data	NA	Vapor	Unknown	No	NA	No data on tank headspace composition available
240-S-302	Tank Headspace	WAST 240-S-302	NA	NA	NA	Vapor	17854 gal	No	NA	No data on tank headspace composition available
241-S-302A	Tank Headspace	WAST 241-S-302A	NA	NA	NA	Vapor	17854gal	No	NA	No data on tank headspace composition available
241-S-302B	Tank Headspace	WAST 241-S-302B	NA	NA	NA	Vapor	14314gal	No	NA	No data on tank headspace composition available
241-S	Rail or Truck Tanker Contents	None	NA	NA	NA	NA	NA	NA	NA	NA
241-S	Contamination on Vehicle	None	NA	NA	NA	NA	NA	NA	NA	NA
241-S	Contamination on Equipment or Tools	Oil ventilation system	Residual	NA	NA	Residue	NA	Yes	NA	* Shroud ventilation system is being dismantled. Sections are tagged and stored in cones boxes on the east side of the tank.

Table E-3. Material at Risk Data. (131 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Transported	Quantity	Comments
241-S	Contamination on Equipment or Tools	Cover Blocks	Residual	NA	NA	Residue	NA	Yes	NA	* Cover blocks for tanks being setwell pumped are stored on east side of the farm
241-S	Contamination on Equipment or Tools	Bone Yard	NA	NA	NA	NA	NA	Yes	NA	* Storage area for equipment on east side of the farm
241-S	Ventilation Filter Contents	Primary	NA	NA	NA	NA	NA	NA	NA	NA
241-S	Ventilation Filter Contents	Annular	NA	NA	NA	NA	NA	NA	NA	NA
241-S	Ventilation Filter Contents	Breather	NA	1 R/hat 6 inches	NA	Particulate	NA	Yes - disposal in accordance with NHC-EP-0003-1	NA	Filter efficiency is tested annually and replaced if they fail (procedure 6TF157-9)
241-S	Contamination in Ventilation System	De-astrainers	NA	NA	NA	NA	NA	NA	NA	NA
241-S	Contamination in Ventilation System	Seal loop	Oil and condensate	1 cup	NA	Liquid	Residual	No	1 per tank	Seal loops accompanied with breather filters on tanks
241-S	Contents of Pipeline and/or Source Tank Dumping Transfer	NA	NA	NA	NA	NA	NA	NA	NA	See transfer line table 7
241-S	Contents of Tanks or Encasement	None	NA	NA	NA	NA	NA	NA	NA	No known pumps with material inventory in S Farm - See transfer line table 7 for discussion of discharge area

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAIR-Subject	MAIR-Description	MAIR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Transport	Quantity	Comments
241-S	Contamination in Pit or Box	Chestnut boxes COB 1 through 18, COB 51-1 and 52-1	Unknown	73 gal	NA	Unknown	Unknown	No	29 boxes	NA
241-S	Contamination in Pit or Box	Valve pits 241-S-A, B, C, D	Residue	3142 gal	NA	Residue	Unknown	No	4 pits	NA
241-S-A	Contamination in Pit or Box	Valve pit 241-S-A	Residue	3142 gal	NA	Residue	Unknown	No	1 pit	NA
241-S-B	Contamination in Pit or Box	Valve pit 241-S-B	Residue	3142 gal	NA	Residue	Unknown	No	1 pit	NA
241-S-C	Contamination in Pit or Box	Valve pit 241-S-C	Residue	3142 gal	NA	Residue	Unknown	No	1 pit	NA
241-S-D	Contamination in Pit or Box	Valve pit 241-S-D	Residue	3142 gal	NA	Residue	Unknown	No	1 pit	NA
241-S-151	Contamination in Pit or Box	Diversion Box 241-S-151	Residue	33510 gal	NA	Residue	Unknown	No	1 pit	NA
241-S-152	Contamination in Pit or Box	Diversion Box 241-S-152	Residue	NA	NA	Residue	Unknown	No	1 pit	NA
241-S-01A	Contamination in Pit or Box	Pump Pits 241-S-01A, 03A, 05A, 07A, 09A, 09A, 10A, 11A, 12A	Residue	2723 gal	NA	Residue	Unknown	No	9 pits	NA
241-S-02B	Contamination in Pit or Box	Dissolutor pit 241-S-02B	Residue	881 gal	NA	Residue	Unknown	No	1 pit	NA
241-S	Contamination in Pit or Box	Other pits	Residue	NA	NA	Residue	Unknown	No	NA	All other pits are weather covered
241-S	SARA 313 Materials	None	NA	NA	NA	NA	NA	NA	NA	NA

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Transient	Quantity	Comments
241-S-VSLU	Other	Vertical Storage Units	NA	NA	Solid	Unknown	Yes *	NA	" Rise plug and valve handle storage. Also may have wrenches and tools.	NA
241-S	Other	Flammable Storage Cabinet	Paint	NA	NA	NA	NA	Yes	NA	Spray paint stored in flammable storage cabinet in back yard
241-S	Other	Propane bottles	Propane	2 bottles	NA	Gas	NA	Yes	2 bottles	Propane for small space heater near green house on Northwest side of farm
241-S	Other	Trailer	Liquid nitrogen propane	2 tanks	NA	Gas	NA	Yes	2 tanks	Trailer parked on outside of fence on west side of farm. Hoses are routed to sample truck inside farm
8 Solvents Accumulation Area	Other	Solvents Accumulation Area	RCRA listed Wastes	6 - 55 gal moved waste drums (maximum)	NA	Solid	Low level (less than class C)	Yes	6 - 55 gal drums, max capacity for each solvents enclosure	3-Farm SAA covers 8, 9, 10, and 11 farms. Involvement removed when filled, transported to 208-E 30 day storage facility
241-SX-101	Tank Contents	241-SX-101	DC	1 million gal	Superficial Sediment Solids	Liquid Solid Solid	1 Kgal 112 Kgal 343 Kgal	No	NA	Scheduled completion of interim stabilization 3/31/99
241-SX-102	Tank Contents	241-SX-102	DSSF	1 million gal	Sediment Solids	Solid Solid	117 Kgal 425 Kgal	No	NA	Scheduled completion of interim stabilization 9/30/98
241-SX-103	Tank Contents	241-SX-103	MCPLX	1 million gal	Superficial Sediment Solids	Liquid Solid Solid	1 Kgal 115 Kgal 336 Kgal	No	NA	Scheduled completion of interim stabilization 2/28/98

Table B-3. Material at Risk Data. (33 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Transient	Quantity	Comments
241-SX-104	Tank Contents	241-SX-104	DSSF	1 million gal	Sludge Saltcake	Solid Solid	135 Kgal 475 Kgal	No	NA	Assumed leaker. Scheduled completion of interim stabilization 1/31/99
241-SX-105	Tank Contents	241-SX-105	DSSF	1 million gal	Sludge Saltcake	Solid Solid	73 Kgal 610 Kgal	No	NA	Scheduled completion of interim stabilization 1/31/99
241-SX-106	Tank Contents	241-SX-106	NCPLX	1 million gal	Supernat Sludge Saltcake	Liquid Solid Solid	61 Kgal 12 Kgal 485 Kgal	No	NA	Scheduled completion of interim stabilization 4/30/99
241-SX-107	Tank Contents	241-SX-107	NCPLX	1 million gal	Sludge	Solid	104 Kgal	No	NA	Assumed leaker
241-SX-108	Tank Contents	241-SX-108	NCPLX	1 million gal	Sludge	Solid	87 Kgal	No	NA	Assumed leaker
241-SX-109	Tank Contents	241-SX-109	NCPLX	1 million gal	Saltcake	Solid	244 Kgal	No	NA	Assumed leaker
241-SX-110	Tank Contents	241-SX-110	NCPLX	1 million gal	Sludge	Solid	62 Kgal	No	NA	Assumed leaker
241-SX-111	Tank Contents	241-SX-111	NCPLX	1 million gal	Sludge	Solid	125 Kgal	No	NA	Assumed leaker. Interim stabilized 7/79
241-SX-112	Tank Contents	241-SX-112	NCPLX	1 million gal	Sludge	Solid	92 Kgal	No	NA	Assumed leaker. Interim stabilized 7/79
241-SX-113	Tank Contents	241-SX-113	NCPLX	1 million gal	Sludge	Solid	28 Kgal	No	NA	Assumed leaker. Interim stabilized 11/79
241-SX-114	Tank Contents	241-SX-114	NCPLX	1 million gal	Sludge	Solid	187 Kgal	No	NA	Assumed leaker. Interim stabilized 7/79
241-SX-115	Tank Contents	241-SX-115	NCPLX	1 million gal	Sludge	Solid	12 Kgal	No	NA	Assumed leaker. Interim stabilized 9/79
241-SX-302	Tank Contents	INUGT 241-SX-302	CPLX, DSSF, NCPLX	17954 gal	NA	Solid Supernat	1050 gal 305 gal	No	NA	Isolated

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Transient	Quantity	Comments
241-SX-101	Tank Headspace	241-SX-101	NA	NA	NA	Vapor	3105 m3 9 g NH3 present	No	NA	NA
241-SX-102	Tank Headspace	241-SX-102	NA	NA	NA	Vapor	2778 m3 39 g NH3 present	No	NA	NA
241-SX-103	Tank Headspace	241-SX-103	NA	NA	NA	Vapor	2364 m3 140 g NH3 present	No	NA	NA
241-SX-104	Tank Headspace	241-SX-104	NA	NA	NA	Vapor	2507 m3 No NH3 present.	No	NA	NA
241-SX-105	Tank Headspace	241-SX-105	NA	NA	NA	Vapor	2246 m3 No NH3 present.	No	NA	NA
241-SX-106	Tank Headspace	241-SX-106	NA	NA	NA	Vapor	2796 m3 390 g NH3 present	No	NA	NA
241-SX-107	Tank Headspace	241-SX-107	NA	NA	NA	Vapor	4436 m3 No NH3 present.	No	NA	NA
241-SX-108	Tank Headspace	241-SX-108	NA	NA	NA	Vapor	4302 m3 No NH3 present.	No	NA	NA
241-SX-109	Tank Headspace	241-SX-109	NA	NA	NA	Vapor	3606 m3 No NH3 present.	No	NA	NA
241-SX-110	Tank Headspace	241-SX-110	NA	NA	NA	Vapor	4067 m3 No NH3 present.	No	NA	NA

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Transmit	Quantity	Comments
241-SX-111	Tank Headspace	241-SX-111	NA	NA	NA	Vapor	4359 m3 No NH3 present	No	NA	NA
241-SX-112	Tank Headspace	241-SX-112	NA	NA	NA	Vapor	4483 m3 No NH3 present	No	NA	NA
241-SX-113	Tank Headspace	241-SX-113	NA	NA	NA	Vapor	4733 m3 No NH3 present	No	NA	NA
241-SX-114	Tank Headspace	241-SX-114	NA	NA	NA	Vapor	4145 m3 No NH3 present	No	NA	NA
241-SX-115	Tank Headspace	241-SX-115	NA	NA	NA	Vapor	4786 m3 No NH3 present	No	NA	NA
241-SX-302	Tank Headspace	MIXTURE 241-SX-302	NA	NA	NA	Vapor	15328 gal	No	NA	No data on tank headspace composition available
241-SX	Rail or Truck Tanker Contents	None	NA	NA	NA	NA	NA	NA	NA	NA
241-SX	Contamination on Vehicle	None	NA	NA	NA	NA	NA	NA	NA	NA
241-SX	Contamination on Equipment or Tools	None	NA	NA	NA	NA	NA	NA	NA	NA
241-SX	Ventilation Filter Contents	Primary	NA	1 ft ³ at 6 inches	NA	Particulate	NA	Yes - disposed in accordance with WHC-EP-0083-1	NA	NA

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume of Activity	Transfer	Quantity	Comments
241-SX	Ventilation Filter Contents	Annular	NA	NA	NA	NA	NA	NA	NA	NA
241-SX	Ventilation Filter Contents	Breather	NA	1 RUH at 6 inches	NA	Particulate	NA	Yes - disposed in accordance with WHC-EP-0093-4	NA	Filter efficiency is tested annually and replaced if they fail (procedure 6TF152-S3)
241-SX	Contamination in Ventilation System	De-entrainers	NA	NA	NA	NA	NA	NA	NA	NA
241-SX	Contamination in Ventilation System	Seal loop	Oil and condensate	1 cup	NA	Liquid	Residue	No	One per tank	Seal loops associated with breather fillers on all tanks
241-EX	Contents of Pipeline and/or Source Tank During Transfer	NA	NA	NA	NA	NA	NA	NA	NA	See transfer log table 7
241-EX	Contents of Sump or Encasement	NA	NA	NA	NA	NA	NA	NA	NA	No known sumps with material inventory in SX Form. See transfer log table 7 for disposition of encasements
241-SX-01A	Contamination in Pit or Box	Pump pit 241-SX-01A	Residual	2245 gal	NA	Residue	NA	No	1 pit	NA
241-SX-04A	Contamination in Pit or Box	Pump pit 241-SX-04A	Residue	2245 gal	NA	Residue	NA	No	1 pit	NA
241-SX-06A	Contamination in Pit or Box	Pump pit 241-SX-06A	Residual	2245 gal	NA	Residue	NA	No	1 pit	NA
241-SX-05A	Contamination in Pit or Box	Pump pit 241-SX-05A	Residue	962 gal	NA	Residue	NA	No	1 pit	NA
241-SX-109B	Contamination in Pit or Box	Distributor pit 241-SX-109B	Residue	3042 gal	NA	Residue	NA	No	1 pit	NA

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Transfer	Quantity	Comments
241-SX-105B	Contamination in Pit or Box	Drainbow pit 241-SX-105B	Residual	4031 gal	NA	Residue	NA	No	1 pt	NA
241-SX-A	Contamination in Pit or Box	Valve box 241-SX-A	Residual	3142 gal	NA	Residue	NA	No	1 box	NA
241-SX-B	Contamination in Pit or Box	Valve box 241-SX-B	Residual	3142 gal	NA	Residue	NA	No	1 box	NA
241-SX-151	Contamination in Pit or Box	Diverson box 241-SX-151	Residual	NA	NA	Residue	NA	No	1 box	* Both diversion boxes are weather covered
241-SX-152	Contamination in Pit or Box	Diverson box 241-SX-152	Residual	NA	NA	Residue	NA	No	1 box	* Both diversion boxes are weather covered
241-SX	Contamination in Pit or Box	Other pits and boxes	Residual	NA	NA	Residue	NA	No	NA	All other pits in SX Farm are weather covered
241-SX	SARA 313 Materials	Gas bottles for PCMB/B	80% Argon/ 10% Methane	480 cubic feet	NA	Gas	480 cubic feet	Yes	2 bottles	NA
241-SX	Other	Material storage	Miscellaneous equipment storage	NA	NA	Solid	NA	Yes	NA	* North of change trailer outside of west fence
241-SY-101	Tank Contents	241-SY-101	CC	1 18 bl gal	NA	Bulk	1100 Kgbl	No	NA	NA
241-SY-102	Tank Contents	241-SY-102	DN/PT	1 18 bl gal	NA	Liquid Solid	310 Kgbl 71 Kgbl	No	NA	NA
241-SY-103	Tank Contents	241-SY-103	CC	1 18 bl gal	NA	Liquid Solid	352 Kgbl 352 Kgbl	No	NA	NA
241-SY-101	Tank Headspace	241-SY-101	NA	NA	NA	Vapor	1125 m3 See comment for m3	No	NA	* For SY Tank Farm Block, the head space volumes were pertained to calculate the total amount of emissions

Table B-3. Material at Risk Data. (321 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Isotopic Type	Physical Form	Volume or Activity	Transfer	Quantity	Comments
241-SY-102	Tank Headspace	241-SY-102	MA	NA	NA	Vapor	3883 m3 See comment for NH3	No	NA	* For SY Tank Farm Stack, the head space volumes were combined to calculate the total amount of emissions
241-SY-103	Tank Headspace	241-SY-103	MA	NA	NA	Vapor	2507 m3 See comment for NH3	No	NA	* For SY Tank Farm Stack, the head space volumes were combined to calculate the total amount of emissions
241-SY	Tank Headspace	SY-Stack	MA	NA	NA	Vapor	7517 m3 640 g NH3	No	NA	* For SY Tank Farm Stack, the head space volumes were combined to calculate the total amount of emissions
241-SY	Rail or Truck Tanker Contents	None	MA	NA	NA	NA	NA	NA	NA	NA
241-SY	Contamination on Vehicle	None	MA	NA	NA	NA	NA	NA	NA	NA
241-SY	Contamination on Equipment or Tools	101-SY Mixer	Tank waste	NA	NA	NA	NA	NA	NA	Mixer for tank 101-SY. Shielding is provided on east side of the SY Farm for change out.
241-SY	Ventilation Filter Contents	Primary	NA	200 m3/hr maximum for all HEPA filters	NA	Particulate	* Head surface rad measurement	Yes - Disposed in accordance with NRC-EP-0054-4	NA	HEPA filters monitored for DP droploading in accordance with manufacturers specs
241-SY	Ventilation Filter Contents	Ammonia	NA	200 m3/hr maximum for all HEPA filters	NA	Particulate	* Head surface rad measurement	Yes - Disposed in accordance with NRC-EP-0054-4	NA	HEPA filters monitored for DP droploading in accordance with manufacturers specs

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Treatment	Quantity	Comments
241-SY	Ventilation Filter Contigsafe	Inlet Breather	NA	1 Rtn at 6 inches	NA	Particulate	NA	Yes - Disposed in accordance with WHMHC-EP-0054-4	NA	HEPA filters monitored for DP dropchecking in accordance with manufacturers specs
241-SY	Condensate in Ventilation System	De-entrainers	Condensate	NA	NA	Liquid	NA	NA	NA	NA
241-SY	Contamination in Ventilation System	Seal loop	Condensate	NA	NA	Liquid	NA	NA	NA	Drains to SY-102 drain pit
241-SY	Contents of Pipeline and/or Source Tank During Transfer	NA	NA	NA	NA	NA	NA	NA	NA	See transfer line table 7
241-SY	Contents of Pump or Encasement	NA	NA	NA	NA	NA	NA	NA	NA	No known samples with material inventory in SY-Fields. See transfer line table 7 for disposition of encasements
241-SY-01A	Contamination in Pit or Box	Pump pit 241-SY-01A	Residual	2374 gal	NA	Residue	Unknown	No	1 pit	NA
241-SY-03A	Contamination in Pit or Box	Pump pit 241-SY-03A	Residual	2374 gal	NA	Residue	Unknown	No	1 pit	NA
241-SY-02A	Contamination in Pit or Box	Pump pit 241-SY-02A	Residual	2513 gal	NA	Residue	Unknown	No	1 pit	NA
241-SY-01B	Contamination in Pit or Box	Arrested pump pit 241-SY-01B	Residual	1231 gal	NA	Residue	Unknown	No	1 pit	NA
241-SY-02B	Contamination in Pit or Box	Arrested pump pit 241-SY-02B	Residual	1231 gal	NA	Residue	Unknown	No	1 pit	NA
241-SY-03B	Contamination in Pit or Box	Arrested pump pit 241-SY-03B	Residual	1231 gal	NA	Residue	Unknown	No	1 pit	NA

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Threat	Quantity	Comments
241-SY-01C	Contamination in Pit or Box	Leak detection pit 241-SY-01C	Residual	1366 gal	NA	Residue	Unknown	No	1 pit	NA
241-SY-02C	Contamination in Pit or Box	Leak detection pit 241-SY-02C	Residual	1358 gal	NA	Residue	Unknown	No	1 pit	NA
241-SY-03C	Contamination in Pit or Box	Leak detection pit 241-SY-03C	Residual	1366 gal	NA	Residue	Unknown	No	1 pit	NA
241-SY-02D	Contamination in Pit or Box	Drain pit 241-SY-02D	Residual	1459 gal	NA	Residue	Unknown	No	1 pit	NA
241-SY-02E	Contamination in Pit or Box	Feed pump pit 241-SY-02E	Residual	2474 gal	NA	Residue	Unknown	No	1 pit	NA
241-SY-A	Contamination in Pit or Box	Valve Pits 241-SY-A	Residual	4413 gal	NA	Residue	Unknown	No	1 pit	NA
241-SY-B	Contamination in Pit or Box	Valve Pits 241-SY-B	Residual	4413 gal	NA	Residue	Unknown	No	1 pit	NA
COB-SY-1-6	Contamination in Pit or Box	Clean out boxes COB-SY-1 through SY-6	Residual	181 gal	NA	Residue	Unknown	No	6 boxes	NA
241-SY-1	Contamination in Pit or Box	Clean out box COB-SY-1	Residual	181 gal	NA	Residue	Unknown	No	1 box	NA
241-SY-2	Contamination in Pit or Box	Clean out box COB-SY-2	Residual	181 gal	NA	Residue	Unknown	No	1 box	NA
241-SY-3	Contamination in Pit or Box	Clean out box COB-SY-3	Residual	181 gal	NA	Residue	Unknown	No	1 box	NA
241-SY-4	Contamination in Pit or Box	Clean out box COB-SY-4	Residual	181 gal	NA	Residue	Unknown	No	1 box	NA
241-SY-5	Contamination in Pit or Box	Clean out box COB-SY-5	Residual	181 gal	NA	Residue	Unknown	No	1 box	NA
241-SY-6	Contamination in Pit or Box	Clean out box COB-SY-6	Residual	181 gal	NA	Residue	Unknown	No	1 box	NA

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Transient	Quantity	Comments
241-SY	SARA 313 Materials	PCMB Gas bottles	90% Argon/ 10% Methane	480 cubic feet	MA	Gas	480 cubic feet	Yes	2 bottles	NA
241-SY	Other	Liquid nitrogen	Nitrogen	~1500 gal	MA	Gas	Unknown	No	1 large tank	North side of SY Farm
241-SY	Other	Diesel generator	Diesel fuel	NA	MA	Liquid	Unknown	Yes	1 generator	North side of 241-SY-221 instrument building
241-SY	Other	Hydrogen bottles	O15H2, 99.99 % or 5.0% H2, 95.0% or	480 cubic feet	MA	Gas	480 cubic feet	Yes	2 bottles per SHMS cabinet*	* 2 SHMS on tank 101-SY and 1 on tank 103-SY Calibration bottles for instrument calibration
241-T-101	Tank Contents	241-T-101	NOPLX	630 Kgal	Supernate Sludge	Liquid Solid	1 Kgal 101 Kgal	No	NA	Assumed Leaker Interim stabilized 4/93
241-T-102	Tank Contents	241-T-102	NOPLX	630 Kgal	Supernate Sludge	Liquid Solid	13 Kgal 19 Kgal	No	NA	Interim stabilized 3/81 under old criteria, final meet new criteria
241-T-103	Tank Contents	241-T-103	NOPLX	630 Kgal	Supernate Sludge	Liquid Solid	4 Kgal 23 Kgal	No	NA	Assumed Leaker Interim stabilized 1/83
241-T-104	Tank Contents	241-T-104	NOPLX	630 Kgal	Supernate Sludge	Liquid Solid	3 Kgal 442 Kgal	No	NA	Scheduled completion of interim stabilization 7/31/95
241-T-105	Tank Contents	241-T-105	NOPLX	630 Kgal	Sludge	Solid	95 Kgal	No	NA	Interim stabilized 8/87
241-T-106	Tank Contents	241-T-106	NOPLX	630 Kgal	Supernate Sludge	Liquid Solid	2 Kgal 19 Kgal	No	NA	Assumed Leaker Interim stabilized 8/81
241-T-107	Tank Contents	241-T-107	NOPLX	630 Kgal	Sludge	Solid	173 Kgal	No	NA	Assumed Leaker Scheduled completion of interim stabilization 4/30/95
241-T-108	Tank Contents	241-T-108	NOPLX	630 Kgal	Sludge	Solid	44 Kgal	No	NA	Assumed Leaker Interim stabilized 11/78
241-T-109	Tank Contents	241-T-109	NOPLX	630 Kgal	Sludge	Solid	65 Kgal	No	NA	Assumed Leaker Interim stabilized 12/84

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Characterization	Capacity	Material Type	Physical Form	Volume or Activity	Transient	Quantity	Comments
241-T-110	Tank Contents	241-T-110	NCPLX	530 Kgal	Supernate Sludge	Liquid Solid	3 Kgal 378 Kgal	No	NA	Scheduled completion of interim stabilization 2/25/97
241-T-111	Tank Contents	241-T-111	NCPLX	530 Kgal	Sludge	Solid	445 Kgal	No	NA	Assumed Leachate Inflow stabilized 12/94
241-T-112	Tank Contents	241-T-112	NCPLX	530 Kgal	Supernate Sludge	Liquid Solid	7 Kgal 60 Kgal	No	NA	Interim stabilized 3/91 under old criteria, must meet new criteria
241-T-201	Tank Contents	241-T-201	NCPLX	55 Kgal	Supernate Sludge	Liquid Solid	1 Kgal 28 Kgal	No	NA	NA
241-T-202	Tank Contents	241-T-202	NCPLX	55 Kgal	Sludge	Solid	21 Kgal	No	NA	NA
241-T-203	Tank Contents	241-T-203	NCPLX	55 Kgal	Sludge	Solid	25 Kgal	No	NA	NA
241-T-204	Tank Contents	241-T-204	NCPLX	55 Kgal	Sludge	Solid	35 Kgal	No	NA	NA
241-T-301	Tank Contents	INDUST 241-T-301	Supernate 6 EBE-67 g/gal Pu 1800 μCi/gal Co137 304 μCi/gal 5-90 Solids 3040 μCi/gal B-90	38000 gal	NA	Solid Supernate	21653 gal 538 gal	No	NA	NA
242-T-135	Tank Contents	INDUST 242-T-135	No data	Unknown	No data	NA	NA	NA	NA	NA
241-T-101	Tank Headspace	241-T-101	NA	NA	NA	Vapor	2653 m3 No NHS present	No	NA	NA
241-T-102	Tank Headspace	241-T-102	NA	NA	NA	Vapor	3118 m3 No NHS present	No	NA	NA

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Transient	Quantity	Comments
241-T-103	Tank Headspace	241-T-103	NA	NA	NA	Vapor	3137 m3. No NH3 present.	No	NA	NA
241-T-104	Tank Headspace	241-T-104	NA	NA	NA	Vapor	1655 m3. No NH3 present.	No	NA	NA
241-T-105	Tank Headspace	241-T-105	NA	NA	NA	Vapor	2659 m3. No NH3 present.	No	NA	NA
241-T-106	Tank Headspace	241-T-106	NA	NA	NA	Vapor	3160 m3. No NH3 present.	No	NA	NA
241-T-107	Tank Headspace	241-T-107	NA	NA	NA	Vapor	2585 m3 250160 g	No	NA	NA
241-T-108	Tank Headspace	241-T-108	NA	NA	NA	Vapor	3073 m3. No NH3 present.	No	NA	NA
241-T-109	Tank Headspace	241-T-109	NA	NA	NA	Vapor	3020 m3. No NH3 present.	No	NA	NA
241-T-110	Tank Headspace	241-T-110	NA	NA	NA	Vapor	1805 m3. 69 g NH3	No	NA	NA
241-T-111	Tank Headspace	241-T-111	NA	NA	NA	Vapor	1551 m3 200 g NH3	No	NA	NA
241-T-112	Tank Headspace	241-T-112	NA	NA	NA	Vapor	2485 m3 120 g NH3	No	NA	NA
241-T-201	Tank Headspace	241-T-201	NA	NA	NA	Vapor	124 m3. No NH3 present.	No	NA	NA

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Transited	Quantity	Comments
241-T-202	Tank Headspace	241-T-202	NA	NA	NA	Vapor	154 m3 No PHE3 present	No	NA	NA
241-T-203	Tank Headspace	241-T-203	NA	NA	NA	Vapor	101 m3 No PHE3 present	No	NA	NA
241-T-204	Tank Headspace	241-T-204	NA	NA	NA	Vapor	90 m3 No PHE3 present	No	NA	NA
241-T-301	Tank Headspace	IMJST 241-T-301	NA	NA	NA	Vapor	13754 gal	No	NA	No data on tank headspace composition available
241-T-135	Tank Headspace	IMJST 241-T-135	NA	No data	NA	NA	NA	NA	NA	NA
241-T	Rail or Truck Tanker Contents	None	NA	NA	NA	NA	NA	NA	NA	NA
241-T	Contamination on Vehicle	None	NA	NA	NA	NA	NA	NA	NA	NA
241-T	Contamination on Equipment or Tools	Hand Tools	NA	NA	NA	NA	NA	Yes	NA	Hand tools stored next to Soluble Accumulation Area for to-be-use image
241-T	Ventilation Filter Contents	Primary	NA	NA	NA	NA	NA	NA	NA	NA
241-T	Ventilation Filter Contents	Annular	NA	NA	NA	NA	NA	NA	NA	NA
241-T	Ventilation Filter Contents	Breather	NA	1 PHE3 & 6 Inches	NA	Particulate	NA	Yes - disposed in accordance with HCS 6P-0053-4	NA	Filter efficiency is tested annually and replaced if they fail (procedure 6TF157-T)

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Transport	Quantity	Comments
241-T	Contamination in Ventilation System	De-entrainers	NA	NA	NA	NA	NA	NA	NA	NA
241-T	Contamination in Ventilation System	Seal loop	Oil and condensate	1 cup	NA	Liquid	NA	NA	NA	Seal loops associated with breather filters on all tanks
241-T	Contents of Pipeline and/or Source Tank During Transfer	NA	NA	NA	NA	NA	NA	NA	NA	See transfer line table 7
241-T	Contents of Pump or Encasement	NA	NA	NA	NA	NA	NA	NA	NA	No known sample with material inventory in T Farm
241-T-04A	Contamination in Pit or Box	Pump pit 241-T-104	Residue	1057 gal	NA	Residue	Unknown	No	1 pit	NA
241-T-05A	Contamination in Pit or Box	Pump pit 241-T-105	Residue	1057 gal	NA	Residue	Unknown	No	1 pit	NA
241-T-07A	Contamination in Pit or Box	Pump pit 241-T-107	Residue	1057 gal	NA	Residue	Unknown	No	1 pit	NA
241-T-09A	Contamination in Pit or Box	Pump pit 241-T-109	Residue	1057 gal	NA	Residue	Unknown	No	1 pit	NA
241-T-10A	Contamination in Pit or Box	Pump pit 241-T-110	Residue	1057 gal	NA	Residue	Unknown	No	1 pit	NA
241-T-11A	Contamination in Pit or Box	Pump pit 241-T-111	Residue	1057 gal	NA	Residue	Unknown	No	1 pit	NA
241-T-01B	Contamination in Pit or Box	Heat pit 241-T-01B	Residue	6550 gal	NA	Residue	Unknown	No	1 pit	NA

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Description	Capacity	Material Type	Physical Form	Volume or Activity	Transient	Quantity	Comments
241-T-DIV	Contamination in Pit or Box	Diverson box 240-T-181,182,183,282, TR-152,153	Residue	NA	HA	Residue	Unknown	No	8 boxes	All are weather covered
240-T-181	Contamination in Pit or Box	Diverson box 240-T-181	Residue	NA	HA	Residue	Unknown	No	1 box	All are weather covered
240-T-152	Contamination in Pit or Box	Diverson box 240-T-152	Residue	NA	HA	Residue	Unknown	No	1 box	All are weather covered
240-T-183	Contamination in Pit or Box	Diverson box 240-T-183	Residue	NA	HA	Residue	Unknown	No	1 box	All are weather covered
240-T-252	Contamination in Pit or Box	Diverson box 240-T-252	Residue	NA	HA	Residue	Unknown	No	1 box	All are weather covered
240-TR-152	Contamination in Pit or Box	Diverson box 240-TR-152	Residue	NA	HA	Residue	Unknown	No	1 box	All are weather covered
240-TR-153	Contamination in Pit or Box	Diverson box 240-TR-153	Residue	NA	HA	Residue	Unknown	No	1 box	All are weather covered
241-T	SARA 313 Materials	Gas bottles for PCM18	80% oxygen 10% methane	480 cubic feet	HA	Vapor	480 cubic feet per bottle	Yes	2 bottles	Located outside change trailer
241-T	Other	Conex Storage	HA	HA	HA	HA	HA	HA	1 conex box	* Temporary storage (covered) located southwest of T-112
T Satellite Accumulation Area	Other	Satellite Accumulation Area	RCRA mixed waste	5 - 65 gal drums maximum storage	HA	HA	HA	HA	None	* Located south of conex storage
241-T	Other	Gas generator	HA	HA	HA	HA	HA	HA	1 generator	* Gasoline powered generator located southwest of T-112 along the south fence

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAR-Subtype	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Transport	Quantity	Comments
241-T	Other	Tool storage	NA	NA	NA	NA	NA	NA	1 tool storage box	* Located next to SAA
241-T	Other	Contaminated burial boxes	NA	NA	NA	NA	NA	NA	2 boxes	* Located south of hazard storage
241-T	Other	Building	NA	NA	NA	NA	NA	NA	NA	* Small pit building Northwest of tank T-102. Assumed asbestos
216-T-1	Other	Ditch 216-T-1	NA	NA	NA	NA	NA	NA	NA	This ditch received 178,000,000 liters of cooling water waste, decon waste, and sodium hydroxide wash water solution from 221-T, 271-T, and Sodium-Air Waste Reaction Emergency Air Clean-up Development (HEOL)
216-T-4-2	Other	Ditch 216-T-4-2	NA	NA	NA	NA	NA	NA	NA	This ditch received steam condensate and condenser cooling water from 242-T and 221-T
216-T-7	Other	Crib 216-T-7	NA	NA	NA	NA	NA	NA	NA	Received waste from 221-T, and 224-T buildings. The waste is high salt and neutral/basic
216-T-32	Other	Crib 216-T-32	NA	NA	NA	NA	NA	NA	NA	Received waste from the 224-T building via the 201-T tank. The waste is high salt and neutral/basic
241-TX-101	Tank Contents	241-TX-101	NCPLX	758 K gal	Supernate Sludge	Liquid Solid	3 Kgal B4 Kgal	No	NA	Interim stabilized 284
241-TX-102	Tank Contents	241-TX-102	NCPLX	758 K gal	Solids	Solid	217 Kgal	No	NA	Interim stabilized 483
241-TX-103	Tank Contents	241-TX-103	NCPLX	758 K gal	Sludge	Solid	157 Kgal	No	NA	Interim stabilized 483

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAR-Subplot	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Transport	Quantity	Comments
241-TX-104	Tank Contents	241-TX-104	NCPLX	758 Kgal	Supernova Saltcake	Liquid Solid	1 Kgal 64 Kgal	No	NA	Interim stabilized 9/79
241-TX-105	Tank Contents	241-TX-105	NCPLX	758 Kgal	Saltcake	Solid	609 Kgal	No	NA	Assumed leaker Interim stabilized 4/83
241-TX-106	Tank Contents	241-TX-106	NCPLX	758 Kgal	Saltcake	Solid	453 Kgal	No	NA	Interim stabilized 8/83
241-TX-107	Tank Contents	241-TX-107	NCPLX	758 Kgal	Supernova Saltcake	Liquid Solid	1 Kgal 56 Kgal	No	NA	Assumed leaker Interim stabilized 10/79
241-TX-108	Tank Contents	241-TX-108	NCPLX	758 Kgal	Saltcake	Solid	134 Kgal	No	NA	Interim stabilized 3/83
241-TX-109	Tank Contents	241-TX-109	NCPLX	758 Kgal	Saltcake	Solid	384 Kgal	No	NA	Interim stabilized 4/83
241-TX-110	Tank Contents	241-TX-110	NCPLX	758 Kgal	Saltcake	Solid	462 Kgal	No	NA	Assumed leaker Interim stabilized 4/83
241-TX-111	Tank Contents	241-TX-111	NCPLX	758 Kgal	Saltcake	Solid	370 Kgal	No	NA	Interim stabilized 4/83
241-TX-112	Tank Contents	241-TX-112	NCPLX	758 Kgal	Saltcake	Solid	640 Kgal	No	NA	Interim stabilized 4/83
241-TX-113	Tank Contents	241-TX-113	NCPLX	758 Kgal	Saltcake	Solid	907 Kgal	No	NA	Assumed leaker Interim stabilized 4/83
241-TX-114	Tank Contents	241-TX-114	NCPLX	758 Kgal	Saltcake	Solid	535 Kgal	No	NA	Assumed leaker Interim stabilized 4/83
241-TX-115	Tank Contents	241-TX-115	NCPLX	758 Kgal	Saltcake	Solid	640 Kgal	No	NA	Assumed leaker Interim stabilized 9/83
241-TX-116	Tank Contents	241-TX-116	NCPLX	758 Kgal	Saltcake	Solid	631 Kgal	No	NA	Assumed leaker Interim stabilized 4/83
241-TX-117	Tank Contents	241-TX-117	NCPLX	758 Kgal	Saltcake	Solid	625 Kgal	No	NA	Assumed leaker Interim stabilized 3/83

Table B-3. Material at Risk Data. (151 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Transferent	Quantity	Comments
241-TX-118	Tank Contents	241-TX-118	NCPLX	755 K gal	Bulkpack	Solid	347 Kgal	No	NA	Interim stabilized 4/83
241-TX-302A	Tank Contents	241-TX-302A IMUST	Ce 137 Supernate 48.6C/gal	17554	NA	Solids Supernate	2453 gal 30 gal	No	NA	NA
241-TX-302B(R)	Tank Contents	241-TX-302B(R) IMUST	NA	12000	NA	No data	0 gal	No	NA	NA
241-TX-302B	Tank Contents	241-TX-302B IMUST	NA	17554	NA	No data	1329 gal	No	NA	NA
241-TX-302X	Tank Contents	241-TX-302X IMUST	NA	14314	NA	Solids Supernate	108 gal 248 gal	No	NA	NA
241-TX-001	Tank Contents	244-TX-001 IMUST	Ce 137 Supernate 18025.4C/gal	50000	NA	Solids Supernate	2281 gal 48 gal	No	NA	NA
241-TX-002	Tank Contents	244-TX-002 IMUST	Ce 137 Supernate 53270.4C/gal Pu Supernate 0.72 µg/L	15000	NA	Solids	2045 gal	No	NA	NA
241-TX-003	Tank Contents	244-TX-003 IMUST	NA	15000	NA	Solids	5493 gal	No	NA	NA
241-TX-R1	Tank Contents	242-TX-R1 IMUST	No data *	No data	NA	No data	No data	No	NA	* Waste is noted as being very hot radiologically
241-TX-302C	Tank Contents	241-TX-302C Catch Tank	No data *	14855 gal	NA	No data	6040 gal	No	NA	* Waste from 241-TX-104 diversion box
241-TX-101	Tank Headspace	241-TX-101	NA	NA	NA	Vapor	3452 m3	No	NA	NA
241-TX-102	Tank Headspace	241-TX-102	NA	NA	NA	Vapor	3180 m3	No	NA	NA

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Transient	Quantity	Comments
241-TX-103	Tank Headspace	241-TX-103	NA	NA	NA	Vapor	3397 m3	No	NA	NA
241-TX-104	Tank Headspace	241-TX-104	NA	NA	NA	Vapor	3735 m3	No	NA	NA
241-TX-105	Tank Headspace	241-TX-105	NA	NA	NA	Vapor	1878 m3 25 g NH3	No	NA	NA
241-TX-106	Tank Headspace	241-TX-106	NA	NA	NA	Vapor	2267 m3	No	NA	NA
241-TX-107	Tank Headspace	241-TX-107	NA	NA	NA	Vapor	3845 m3 560 g NH3	No	NA	NA
241-TX-108	Tank Headspace	241-TX-108	NA	NA	NA	Vapor	3474 m3	No	NA	NA
241-TX-109	Tank Headspace	241-TX-109	NA	NA	NA	Vapor	2526 m3 1090 g NH3	No	NA	NA
241-TX-110	Tank Headspace	241-TX-110	NA	NA	NA	Vapor	2233 m3	No	NA	NA
241-TX-111	Tank Headspace	241-TX-111	NA	NA	NA	Vapor	2881 m3 72 g NH3	No	NA	NA
241-TX-112	Tank Headspace	241-TX-112	NA	NA	NA	Vapor	1825 m3	No	NA	NA
241-TX-113	Tank Headspace	241-TX-113	NA	NA	NA	Vapor	1884 m3	No	NA	NA
241-TX-114	Tank Headspace	241-TX-114	NA	NA	NA	Vapor	1896 m3	No	NA	NA
241-TX-115	Tank Headspace	241-TX-115	NA	NA	NA	Vapor	1989 m3	No	NA	NA
241-TX-116	Tank Headspace	241-TX-116	NA	NA	NA	Vapor	1993 m3	No	NA	NA

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Transient	Quantity	Comments
241-TX-117	Tank Headspace	241-TX-117	NA	NA	NA	Vapor	1612 m3	No	NA	NA
241-TX-118	Tank Headspace	241-TX-118	NA	NA	NA	Vapor	2608 and 67 g RPE3	No	NA	NA
241-TX-302A	Tank Headspace	241-TX-302A MUST	NA	NA	NA	Vapor	15204 gal *	No	NA	* No data on tank headspace composition available
241-TX-302B(R)	Tank Headspace	241-TX-302B(R) MUST	NA	NA	NA	Vapor	12000 gal *	No	NA	* No data on tank headspace composition available
241-TX-302B	Tank Headspace	241-TX-302B MUST	NA	NA	NA	Vapor	17984 gal *	No	NA	* No data on tank headspace composition available
241-TX-302C	Tank Headspace	241-TX-302C MUST	NA	NA	NA	Vapor	13661 gal	No	NA	* No data on tank headspace composition available
241-TX-001	Tank Headspace	241-TX-001 MUST	NA	NA	NA	Vapor	47660 gal *	No	NA	* No data on tank headspace composition available
241-TX-002	Tank Headspace	241-TX-002 MUST	NA	NA	NA	Vapor	12055 gal *	No	NA	* No data on tank headspace composition available
241-TX-003	Tank Headspace	241-TX-003 MUST	NA	NA	NA	Vapor	8540 gal *	No	NA	* No data on tank headspace composition available
241-TA-R1	Tank Headspace	241-TA-R1 MUST	NA	NA	NA	Vapor	Unknown	No	NA	* No data on tank headspace composition available
241-TX-302D	Tank Headspace	241-TX-302D Catch Tank	NA	NA	NA	Vapor	Unknown	No	NA	* No data on tank headspace composition available
241-TX	Rail or Truck Tanker Contents	None	NA	NA	NA	NA	NA	NA	NA	NA
241-TX	Contamination on Vehicle	Garbage Truck	NA	NA	NA	NA	NA	Yes	NA	Garbage truck located south of storage trailer outside of fence in contaminated vehicle parking area

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Transient	Quantity	Comments
241-TX	Contamination on Equipment or Tools	None	NA	NA	NA	NA	NA	NA	NA	Tool crib located in TX turn contained evacs - small tools. No contamination detected on rad survey.
241-TX	Ventilation Filter Contents	Primary	NA	NA	NA	NA	NA	NA	NA	NA
241-TX	Ventilation Filter Contents	Ambulab	NA	NA	NA	NA	NA	NA	NA	NA
241-TX	Ventilation Filter Contents	Breather	NA	1 Rth at 6 inches	NA	Particulate	NA	Yes - disposal in accordance with WYVAC-EP-0083-4	NA	Filter efficiency is tested annually and replaced if they fail (procedure 6TF187-TX)
241-TX	Ventilation Filter Contents	Filter on Vent system for DCRT 244-TX	NA	1 Rth at 6 inches	NA	Particulate	NA	Yes - disposal in accordance with WYVAC-EP-0083-4	NA	Filter efficiency is tested annually and are replaced if they fail
241-TX	Contamination in Ventilation System	De-aerators	NA	NA	NA	NA	NA	NA	NA	NA
241-TX	Contamination in Ventilation System	Seal top	Oil and condensate	1 Cup	NA	Liquid	Residual	NA	NA	Seal tops associated with breather filters on tanks
241-TX	Contents of Pipeline and/or Source Tank During Transfer	NA	NA	NA	NA	NA	NA	NA	NA	See transfer line table 7
244-TX	Contents of Pump or Encasement	244-TX DCRT Vent	NA	54,000 gal *	NA	NA	NA	NA	NA	* Volume of tank = 60,000 gal - tank volume (31,000 gal)

Table E-3. Material at Risk Data. (13) Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Treatment	Quantity	Comments
241-TX	Contamination in Ptl or Box	Pump pits	Residue	NA	NA	Residue	NA	No	NA	All pump pits in TX Farm are weather covered and inactive
241-TX	Contamination in Ptl or Box	Sludge pits	Residue	NA	NA	Residue	NA	No	NA	All sludge pits in TX Farm are weather covered and inactive
241-TX	Contamination in Ptl or Box	Med pit	Residue	NA	NA	Residue	NA	No	NA	241-TX-112 Med pit is weather covered and inactive
241-TXR-151-3	Contamination in Ptl or Box	Diversion Bores * 241-TXR-151 241-TXR-152 241-TXR-153 241-TX-153 241-TX-155 242-T-151	Residue	NA	NA	Residue	NA	No	NA	* All listed diversion bores are weather covered
241-TXR-151	Contamination in Ptl or Box	Diversion Box 241-TXR-151	Residue	NA	NA	Residue	NA	No	NA	* All listed diversion bores are weather covered
241-TXR-152	Contamination in Ptl or Box	Diversion Box 241-TXR-152	Residue	NA	NA	Residue	NA	No	NA	* All listed diversion bores are weather covered
241-TXR-153	Contamination in Ptl or Box	Diversion Box 241-TXR-153	Residue	NA	NA	Residue	NA	No	NA	* All listed diversion bores are weather covered
241-TX-153	Contamination in Ptl or Box	Diversion Box 241-TX-153	Residue	NA	NA	Residue	NA	No	NA	* All listed diversion bores are weather covered
241-TX-155	Contamination in Ptl or Box	Diversion Box 241-TX-155	Residue	NA	NA	Residue	NA	No	NA	* All listed diversion bores are weather covered
241-T-151	Contamination in Ptl or Box	Diversion Box 241-T-151	Residue	NA	NA	Residue	NA	No	NA	* All listed diversion bores are weather covered
241-TX-152	Contamination in Ptl or Box	241-TX-152	Residue	2082 gal	NA	Residue	NA	No	NA	NA
241-TX-154	Contamination in Ptl or Box	241-TX-154	Residue	24,532 gal *	NA	Residue	NA	No	NA	* Includes diversion box, pipe pit, and jumper storage

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAU-Subject	MAU-Description	MAU-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Transferal	Quantity	Comments
241-TX	SARA 313 herbicide	Gas bottles for PCH18 *	90% Argon/ 10% Methane	460 cubic feet	NA	Gas	460 cubic feet	Yes	2 bottles	* Outside the TX-Farm change trailer
241-TX	Other	Water tanks, w/ign powered pump	Water	~2500 gal	NA	Liquid	Unknown	Yes	2 tanks	* Stored on outside of steel fence, south of change trailer
241-TX	Other	Herbicide	Herbicide	~25 bags	NA	Solid	Unknown	Yes	~ 25 bags	* Herbicide oil pellet wrapped in plastic
TX Satellite Accumulation Area	Other	Satellite Accumulation Area	RCRA listed Wastes	5-55 gal mixed waste drums (maximum)	NA	Solid	Low level (less than class C)	Yes	6 - 55 gal drums max capacity for each satellite enclosure	Inventories removed when filled, transported to 208-E 90 day storage facility
241-TX	Other	Liquid Nitrogen	Liquid nitrogen	2 bottles	NA	Vapor	NA	Yes	2 bottles	Stored outside west fence labeled "Rust Geolach"
241-TY-101	Tank Contents	241-TY-101	MCPLX	756 Kgal	Sludge	Solid	118 Kgal	No	NA	Assumed leaked: Interim stabilized 4/84
241-TY-102	Tank Contents	241-TY-102	MCPLX	756 Kgal	Solids	Solid	64 Kgal	No	NA	Tank sound: Interim stabilized 8/79
241-TY-103	Tank Contents	241-TY-103	MCPLX	756 Kgal	Sludge	Solid	162 Kgal	No	NA	Assumed leaked: Interim stabilized 2/83
241-TY-104	Tank Contents	241-TY-104	MCPLX	756 Kgal	Separate Sludge	Liquid Solid	43 Kgal	No	NA	Assumed leaked: Interim stabilized 11/83
241-TY-105	Tank Contents	241-TY-105	MCPLX	756 Kgal	Sludge	Solid	231 Kgal	No	NA	Assumed leaked: Interim stabilized 2/83
241-TY-106	Tank Contents	241-TY-106	MCPLX	756 Kgal	Sludge	Solid	17 Kgal	No	NA	Assumed leaked: Interim stabilized 11/79
241-TY-302A	Tank Contents	241-TY-302A (MUST)	NA	17,864 gal	Sludge	Solid	430 gal	No	NA	No data available for material permeation

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Transport	Quantity	Comments
241-TY-302B	Tank Contents	241-TY-302B (NUST)	NA	14,314 gal	NA	NA	0 gal	No	NA	No data available for material composition
216-TY-201	Tank Contents	216-TY-201 (NUST)	NA	19,200 gal	No data	No data	No data	No data	NA	Concrete tank received waste from TY-49mm and transferred it to the 216-T units
241-TY-101	Tank Headspace	241-TY-101	NA	NA	NA	Vapor	3535 m3. 12 mg/m3 NH3 present	No	NA	Tank TY-101 has tank vapor space sampling probe installed (temporary)
241-TY-102	Tank Headspace	241-TY-102	NA	NA	NA	Vapor	3739 m3. No NH3 present	No	NA	Tank TY-102 scheduled to have tank vapor space sampling probe installed
241-TY-103	Tank Headspace	241-TY-103	NA	NA	NA	Vapor	3888 m3. 37 mg/m3 NH3 present	No	NA	Tank TY-103 has tank vapor space sampling probe installed (temporary)
241-TY-104	Tank Headspace	241-TY-104	NA	NA	NA	Vapor	3607 m3. 66 mg/m3 NH3 present	No	NA	Tank TY-104 has tank vapor space sampling probe installed (temporary)
241-TY-105	Tank Headspace	241-TY-105	NA	NA	NA	Vapor	3107 m3. No NH3 present	No	NA	NA
241-TY-106	Tank Headspace	241-TY-106	NA	NA	NA	Vapor	3917 m3. No NH3 present	No	NA	NA
241-TY-302A	Tank Headspace	241-TY-302A (NUST)	NA	NA	NA	Vapor	17,234 gal	No	NA	NA
241-TY-306B	Tank Headspace	241-TY-306B (NUST)	NA	NA	NA	Vapor	14,314 gal	No	NA	NA
216-TY-201	Tank Headspace	216-TY-201 (NUST)	NA	NA	NA	Vapor	19,200 gal	No	NA	NA

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Transient	Quantity	Comments
241-TY	Rail or Truck Tanker Contents	None	NA	NA	NA	NA	NA	NA	NA	No rail or truck tankers in TY firm
241-TY	Contamination on Vehicle	None	NA	NA	NA	NA	NA	NA	NA	NA
241-TY	Contamination on Equipment or Tools	None	NA	NA	NA	NA	NA	NA	NA	No stored equipment in TY firm
241-TY	Ventilation Filter Contents	Primary	NA	NA	NA	NA	NA	NA	NA	TY firm has only SST's with passive ventilation
241-TY	Ventilation Filter Contents	Accessory	NA	NA	NA	NA	NA	NA	NA	TY firm has only SST's, No accessory
241-TY	Ventilation Filter Contents	Breather	Residual	1 Rtn at 8 inches	NA	Particulate	NA	Yes, disposed in accordance with WHC-EP-0083-4 (8953)	1 per tank	HEPA together filters located on each tank
241-TY	Contamination in Ventilation System	De-aerators	NA	NA	NA	NA	NA	No	NA	No de-aerators in TY firm
241-TY	Contamination in Ventilation System	Seal loop	Residual	~1 cup (breather after loop)	NA	Liquid (oil)	NA	No	~1 cup of oil in breather after seal loop	Same for all TY tanks 101-108
241-TY	Contents of Pipeline and/or Source Tank During Transfer	None	NA	NA	NA	NA	NA	No	NA	Refer to transfer line Table 2

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Transport	Quantity	Comments
241-TY	Contents of Sump or Encasement	None	NA	NA	NA	NA	NA	No	NA	No pump/circulation in TY farm
241-TY	Contamination in Pit or Box	All pits	NA	NA	NA	NA	Residual	No	NA	All pits in TY-Farm are weather covered
241-TY	Contamination in Pit or Box	Valve box	NA	NA	NA	NA	Residual	No	NA	Valve box located between 241-TY-105/106, used for waste routing within TY farm. Below grade
241-TY	SARA 313 Materials	None	NA	NA	NA	NA	NA	NA	NA	No SARA 313 materials listed for the TY farm
241-TY	Other	None	NA	NA	NA	NA	NA	NA	NA	NA
241-U-101	Tank Contents	241-U-101	NCPLX	530 K gal	Supernate Sludge	Liquid Solid	3 Kgal 22 Kgal	No	NA	Assumed better. Interim stabilized 8/79
241-U-102	Tank Contents	241-U-102	NCPLX	530 Kgal	Supernate Sludge Solids	Liquid Solid Solid	18 Kgal 43 Kgal 313 Kgal	No	NA	Scheduled completion of interim stabilization 10/31/88
241-U-103	Tank Contents	241-U-103	NCPLX	530 Kgal	Supernate Sludge Solids	Liquid Solid Solid	13 Kgal 32 Kgal 423 Kgal	No	NA	Scheduled completion of interim stabilization 5/31/88
241-U-104	Tank Contents	241-U-104	NCPLX	530 Kgal	Sludge	Solid	122 Kgal	No	NA	Assumed better. Interim stabilized 10/79
241-U-105	Tank Contents	241-U-105	NCPEX	530 K gal	Supernate Sludge Solids	Liquid Solid Solid	37 Kgal 32 Kgal 346 Kgal	No	NA	Scheduled completion of interim stabilization 12/30/91
241-U-106	Tank Contents	241-U-106	NCPEX	530 K gal	Supernate Sludge Solids	Liquid Solid Solid	16 Kgal 28 Kgal 185 Kgal	No	NA	Scheduled completion of interim stabilization 6/30/96

Table E-3. Material at Risk Data. (134 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Threats	Quantity	Comments
241-U-107	Tank Contents	241-U-107	DSSF	530 Kgal	Supernate Sludge Saltcake	Liquid Solid Solid	31 Kgal 15 Kgal 390 Kgal	No	NA	Scheduled completion of interim stabilization 1/31/99
241-U-108	Tank Contents	241-U-108	MCPLX	530 Kgal	Supernate Sludge Saltcake	Liquid Solid Solid	24 Kgal 29 Kgal 416 Kgal	No	NA	Scheduled completion of interim stabilization 12/31/98
241-U-109	Tank Contents	241-U-109	MCPLX	530 Kgal	Supernate Sludge Saltcake	Liquid Solid Solid	19 Kgal 43 Kgal 398 Kgal	No	NA	Scheduled completion of interim stabilization 12/31/98
241-U-110	Tank Contents	241-U-110	MCPLX	530 Kgal	Sludge	Solid	188 Kgal	No	NA	Assumed better. Interim stabilized 12/84 under old criteria. must meet new criteria
241-U-111	Tank Contents	241-U-111	DSSF	530 Kgal	Sludge Saltcake	Solid Solid	26 Kgal 303 Kgal	No	NA	Scheduled completion of interim stabilization 8/31/98
241-U-112	Tank Contents	241-U-112	MCPLX	530 Kgal	Supernate Sludge	Liquid Solid	4 Kgal 45 Kgal	No	NA	Assumed better. Interim stabilized 9/79 under old criteria. must meet new criteria
241-U-201	Tank Contents	241-U-201	MCPLX	55 Kgal	Supernate Sludge	Liquid Solid	1 Kgal 4 Kgal	No	NA	NA
241-U-202	Tank Contents	241-U-202	MCPLX	55 Kgal	Supernate Sludge	Liquid Solid	1 Kgal 4 Kgal	No	NA	NA
241-U-203	Tank Contents	241-U-203	MCPLX	55 Kgal	Supernate Sludge	Liquid Solid	1 Kgal 2 Kgal	No	NA	NA
241-U-204	Tank Contents	241-U-204	MCPLX	55 Kgal	Supernate Sludge	Liquid Solid	1 Kgal 2 Kgal	No	NA	NA
244-U	Tank Contents	244-U DCRIT	NA	28000 gal	NA	NA	NA	NA	NA	244-U DCRIT has Not been used
241-U-301B	Tank Contents	Catch tank 241-U-301-B	Residual	35400 gal	No data	No data	7530 gal	No	NA	Waste from diversion across U-181 and U-182

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	HAIR-Subject	HAIR-Description	HAIR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Transient	Quantity	Comments
241-U0-302A	Tank Contents	Catch tank 241-U0-302-A	Residual	1700 gal	No data	No data	2432 gal	No	NA	Waste from elevation bar U0-154
241-U-101	Tank Headspace	241-U-101	NA	NA	NA	Vapor	3145 m3 220 g NH3	No	NA	NA
241-U-102	Tank Headspace	241-U-102	NA	NA	NA	Vapor	1824m3 No NH3 present	No	NA	NA
241-U-103	Tank Headspace	241-U-103	NA	NA	NA	Vapor	1468 m3 690 g NH3	No	NA	NA
241-U-104	Tank Headspace	241-U-104	NA	NA	NA	Vapor	2778 m3 No NH3 present	No	NA	NA
241-U-105	Tank Headspace	241-U-105	NA	NA	NA	Vapor	1857 m3 490630 g NH3	No	NA	NA
241-U-106	Tank Headspace	241-U-106	NA	NA	NA	Vapor	2384 m3 1800420 g NH3	No	NA	NA
241-U-107	Tank Headspace	241-U-107	NA	NA	NA	Vapor	1703 m3 580080 g NH3	No	NA	NA
241-U-108	Tank Headspace	241-U-108	NA	NA	NA	Vapor	1469 m3 No NH3 present	No	NA	NA
241-U-109	Tank Headspace	241-U-109	NA	NA	NA	Vapor	1487 m3 440 g NH3	No	NA	NA
241-U-110	Tank Headspace	241-U-110	NA	NA	NA	Vapor	2535 m3 No NH3 present	No	NA	NA

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAU-Subject	MAU-Description	MAU-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Transport	Quantity	Comments
241-U-111	Tank Headspace	241-U-111	NA	NA	NA	Vapor	1994 m3 1000100 g NH3	No	NA	NA
241-U-112	Tank Headspace	241-U-112	NA	NA	NA	Vapor	3054 m3 No NH3 present	No	NA	NA
241-U-201	Tank Headspace	241-U-201	NA	NA	NA	Vapor	215 m3 No NH3 present	No	NA	NA
241-U-202	Tank Headspace	241-U-202	NA	NA	NA	Vapor	215 m3 No NH3 present	No	NA	NA
241-U-203	Tank Headspace	241-U-203	NA	NA	NA	Vapor	222 m3 15 g NH3	No	NA	NA
241-U-204	Tank Headspace	241-U-204	NA	NA	NA	Vapor	222 m3 6 004 g NH3	No	NA	NA
241-U	Tank Headspace	241-U DCRT	NA	NA	NA	NA	26300 gal	No	NA	241-U DCRT has Not been used
241-U-301B	Tank Headspace	Catch tank 241-U-301-B	NA	No data	NA	Vapor	No data available	No	NA	NA
241-U-302A	Tank Headspace	Catch tank 241-U-302-A	NA	NA	NA	Vapor	18268 gal	No	NA	NA
241-U	Rail or Tanker Trailer Contents	None	NA	NA	NA	NA	NA	NA	NA	NA
241-U	Contamination on Vehicle	None	NA	NA	NA	NA	NA	NA	NA	NA
241-U	Contamination on Equipment or Tools	Tools abandoned in vertical storage units	Contaminated tools	NA	NA	Solids	Unknown	No *	NA	* Tools to be disposed of

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Threats	Quantity	Comments
241-U	Contamination on Equipment or Tools	Hand tool	Tools	NA	NA	Solids	Unknown	Yes *	NA	* Hand tools stored next to Spillable Accumulation Area for in-term usage
241-U	Ventilation Filter Contents	Primary	NA	NA	NA	NA	NA	NA	NA	NA
241-U	Ventilation Filter Contents	Annulus	NA	NA	NA	NA	NA	NA	NA	NA
241-U	Ventilation Filter Contents	Breather	NA	1 R/h of 8 inches	NA	Particulate	NA	Yes - disposed in accordance with WHC-EP-0063-4	NA	Filter efficiency is tested annually and replaced if they fail (procedure 6T157-U)
241-U	Contamination in Ventilation System	De-enfrainers	NA	NA	NA	NA	NA	NA	NA	NA
241-U	Contamination in Ventilation System	Seal loop	Oil and condensate	1 cup	NA	Liquid	Residual	NA	NA	Seal loops associated with breather filters on tanks
241-U	Contents of Pipeline and/or Source Tank During Transfer	NA	NA	NA	NA	NA	NA	NA	NA	See transfer log table 7
241-U	Contents of Pump or Subassembly	NA	NA	NA	NA	NA	NA	NA	NA	NA
241-U-01A-00A	Contamination in Pit or Box	Pump pits U 01A-00A	Residual	6520 gal	NA	Residue	Unknown	No	0 pits	NA
241-U-01A	Contamination on Pit or Box	Pump pit U 01A	Residual	6520 gal	NA	Residue	Unknown	No	1 pit	NA
241-U-02A	Contamination in Pit or Box	Pump pit U 02A	Residual	6520 gal	NA	Residue	Unknown	No	1 pit	NA

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Transient	Quantity	Comments
241-U-03A	Contamination in Pit or Box	Pump pit U 03A	Residual	6820 gal	NA	Residue	Unknown	No	1 pt	NA
241-U-04A	Contamination in Pit or Box	Pump pit U 04A	Residual	6820 gal	NA	Residue	Unknown	No	1 pt	NA
241-U-05A	Contamination in Pit or Box	Pump pit U 05A	Residual	6820 gal	NA	Residue	Unknown	No	1 pt	NA
241-U-06A	Contamination in Pit or Box	Pump pit U 06A	Residual	6820 gal	NA	Residue	Unknown	No	1 pt	NA
241-U-07A	Contamination in Pit or Box	Pump pit U 07A	Residual	6820 gal	NA	Residue	Unknown	No	1 pt	NA
241-U-08A	Contamination in Pit or Box	Pump pit U 08A	Residual	6820 gal	NA	Residue	Unknown	No	1 pt	NA
241-U-09A	Contamination in Pit or Box	Pump pit U 09A	Residual	6820 gal	NA	Residue	Unknown	No	1 pt	NA
241-U-10A	Contamination in Pit or Box	Pump pit U 10A	Residual	2020 gal	NA	Residue	Unknown	No	1 pt	NA
241-U-11A	Contamination in Pit or Box	Pump pit U 11A	Residual	2020 gal	NA	Residue	Unknown	No	1 pt	NA
241-UR-02B-06B	Contamination in Pit or Box	Distributor pit UR 02B-06B	Residual	224 gal	NA	Residue	Unknown	No	1 pt *	* Tank U-101 distributor pit is weather covered. Cover plate in place, volume were calculated with Normal cover blocks.
241-UR-02B	Contamination in Pit or Box	Distributor pit UR 02B	Residual	224 gal	NA	Residue	Unknown	No	1 pt *	* Cover plate in place, volume were calculated with Normal cover blocks.
241-UR-03B	Contamination in Pit or Box	Distributor pit UR 03B	Residual	224 gal	NA	Residue	Unknown	No	1 pt *	* Cover plate in place, volume were calculated with Normal cover blocks.

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAU-Subject	MAU-Description	MAU-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Transfer	Quantity	Comments
241-UR-04B	Contamination in Pit or Box	Distributor pit UR 04B	Residue	224 gal	NA	Residue	Unknown	No	1 pt *	* Cover plate in place, volumes were calculated with Normal cover blocks
241-UR-05B	Contamination in Pit or Box	Distributor pit UR 05B	Residue	224 gal	NA	Residue	Unknown	No	1 pt *	* Cover plate in place, volumes were calculated with Normal cover blocks
241-UR-06B	Contamination in Pit or Box	Distributor pit UR 06B	Residue	224 gal	NA	Residue	Unknown	No	1 pt *	* Cover plate in place, volumes were calculated with Normal cover blocks
241-UR-07B	Contamination in Pit or Box	Distributor pit UR 07B	Residue	224 gal	NA	Residue	Unknown	No	1 pt *	* Cover plate in place, volumes were calculated with Normal cover blocks
241-UR-08B	Contamination in Pit or Box	Distributor pit UR 08B	Residue	224 gal	NA	Residue	Unknown	No	1 pt *	* Cover plate in place, volumes were calculated with Normal cover blocks
241-UR-09B	Contamination in Pit or Box	Distributor pit UR 09B	Residue	224 gal	NA	Residue	Unknown	No	1 pt *	* Cover plate in place, volumes were calculated with Normal cover blocks
241-UR-10B	Contamination in Pit or Box	Distributor pit UR 10B	Residue	175 gal	NA	Residue	Unknown	NA	1 pt	NA
241-UR-11B	Contamination in Pit or Box	Distributor pit UR 11B	Residue	175 gal	NA	Residue	Unknown	NA	1 pt	NA
241-UJ	Contamination in Pit or Box	Sluice pits	Residue	NA	NA	Residue	Unknown	NA	9 pits	All distributor pits in U-Form are weather covered
241-UJ	Contamination in Pit or Box	Condenser pits	Residue	NA	NA	Residue	Unknown	NA	14 pits	All condenser pits in U-Form are weather covered
241-UJ	Contamination in Pit or Box	Salvage pit	Residue	NA	NA	Residue	Unknown	NA	1 pit	Tank U-112 only, weather covered
241-UJ-PIT	Contamination in Pit or Box	Valve pit 241-U-A, B, C, D	Residue	3142 gal	NA	Residue	Unknown	NA	4 pits	NA

Table E-3. Material at Risk Data. (134 Sheets)

Field Name	MAIR-Subsidiary	MAIR-Description	MAIR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Transient	Quantity	Comments
241-U-A	Contamination in Pit or Box	Valve pit 241-U-A	Residual	3142 gal	NA	Residue	Unknown	NA	1 pit	NA
241-U-B	Contamination in Pit or Box	Valve pit 241-U-B	Residual	3142 gal	NA	Residue	Unknown	NA	1 pit	NA
241-U-C	Contamination in Pit or Box	Valve pit 241-U-C	Residual	3142 gal	NA	Residue	Unknown	NA	1 pit	NA
241-U-D	Contamination in Pit or Box	Valve pit 241-U-D	Residual	3142 gal	NA	Residue	Unknown	NA	1 pit	NA
241-U-151	Contamination in Pit or Box	Diversion box 241-U-151	Residual	2554 gal	NA	Residue	Unknown	NA	1 box	NA
241-U-152	Contamination in Pit or Box	Diversion box 241-U-152	Residual	11331 gal	NA	Residue	Unknown	NA	1 box	NA
241-U-154	Contamination in Pit or Box	Diversion box 241-U-154	Residual	31236 gal	NA	Residue	Unknown	NA	1 box *	* Includes jumper storage, Nozzle pit, and pipe pit
241-U-OTV	Contamination in Pit or Box	Diversion boxes 241-U-153 241-U-252 241-UR-151 241-UR-152 241-UR-153 241-UR-154	Residual	NA	NA	Residue	Unknown	NA	6 boxes	All are weather covered
241-U-153	Contamination in Pit or Box	Diversion box 241-U-153	Residual	NA	NA	Residue	Unknown	NA	1 box	All are weather covered
241-U-252	Contamination in Pit or Box	Diversion box 241-U-252	Residual	NA	NA	Residue	Unknown	NA	1 box	All are weather covered
241-UR-151	Contamination in Pit or Box	Diversion box 241-UR-151	Residual	NA	NA	Residue	Unknown	NA	1 box	All are weather covered
241-UR-152	Contamination in Pit or Box	Diversion box 241-UR-152	Residual	NA	NA	Residue	Unknown	NA	1 box	All are weather covered

Table G-3. Material at Risk Data. (131 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Transient	Quantity	Comments
241-UR-153	Contamination in Piter Box	Diverson box 241-UR-153	Residual	NA	NA	Residue	Unknown	NA	1 box	All are weather covered
241-UR-154	Contamination in Piter Box	Diverson box 241-UR-154	Residual	NA	NA	Residue	Unknown	NA	1 box	All are weather covered
COB U25	Contamination in Piter Box	Clean out boxes COB U25-U34	Residual	25 gal	NA	Residue	Unknown	NA	7 boxes	NA
COB U26	Contamination in Piter Box	Clean out box COB U26	Residual	25 gal	NA	Residue	Unknown	NA	1 box	NA
COB U27	Contamination in Piter Box	Clean out box COB U27	Residual	25 gal	NA	Residue	Unknown	NA	1 box	NA
COB U28	Contamination in Piter Box	Clean out box COB U28	Residual	25 gal	NA	Residue	Unknown	NA	1 box	NA
COB U29	Contamination in Piter Box	Clean out box COB U29	Residual	25 gal	NA	Residue	Unknown	NA	1 box	NA
241-U	SARA 313 Materials	Gas bottles for PCH19	90% Argon/ 10% Methane	480 cubic feet	NA	Gas	480 cubic feet	Yes	2 bottles	NA
241-U	SARA 313 Materials	Flammable Storage Cabinet	Spray paint	NA	NA	Aerosol	NA	Yes	Mezzelan room spray paint	NA
241-U	Other	Liquid Nitrogen for sampling activities	Liquid nitrogen	Large Trailer mounted tank	NA	Gas	Unknown	Yes	1 Tank	Tank and trailer located outside the south fence of U-Farm
241-U	Other	Propane tank	Propane	3 ft dia X 6 ft tank on trailer	NA	Gas	Unknown	Yes	1 Tank	Located on same trailer as Liquid nitrogen
241-U	Other	Propane tank	Propane	4 ft dia X 6 ft tank on ground	NA	Gas	Unknown	Yes	1 Tank	Located on ground next to nitrogen trailer

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Transient	Quantity	Comments
218-U-12	Other	Crib 218-U-12	NA	NA	NA	NA	NA	NA	NA	This crib received 150,000,000 liters of stack drainage, Process condensate, and contaminated water from the 201-U-1 stack, 224-U, 244-WVR Vault, and 244-U
218-U-17	Other	Crib 218-U-17	NA	NA	NA	NA	NA	NA	NA	The crib received 2,110,000 liters of neutralized Process condensate from the UO3 plant
218-U-14	Other	Ditch 218-U-14	NA	NA	NA	NA	NA	NA	NA	The ditch received waste from 284-W powerhouse, 2723-U, 2724-W laundry building, 221-U chemical sewer, 224-U cooling water, 241-U-110 condenser tank cooling water, 242-E evaporator condensate and cooling water, 207-U basin, and additional waste from 221-
U Satellite Accumulation Area	Other	Satellite Accumulation Area	RCRA Mixed Wastes	6 - 55 gal mixed waste drums (Whoseum)	NA	Solid	Low level (less than class C)	Yes	6 - 55 gal drums max capacity for each satellite enclosure	Inventories removed when filed, transferred to 200-E 50 day storage facility
241-EW-151	Contamination in Pit or Box	access pit	Residual contamination	1800 gal (5' x 7'-10' x 5'-9")	NA	Residue	NA	No	NA	NA
241-EW-151	Contamination in Pit or Box	exch tank pit	Residual contamination	4240 gal (8'6" x 6' x 8'4")	NA	Residue	NA	No	NA	NA
241-EW-151	Contamination in Pit or Box	Nozzle/pump pit	Residual contamination	1300 gal (8' x 8' x 3'6")	NA	Residue	NA	No	NA	NA
241-EW-181	Contamination in Ventilation System	De-entrainers	NA	NA	NA	NA	NA	NA	NA	No de-entrainers, passive ventilation only

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	HAZ-Subtype	HAZ-Description	HAZ-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Transient	Quantity	Comments
241-EWH-151	Contamination in Ventilation Systems	Seal loop	Process condensate	NA	NA	Liquid	Residual	No	one	Seal loop associated with catch tank breather filter assembly
241-EWH-151	Contamination on Equipment or Tools	None	NA	NA	NA	NA	NA	NA	NA	No contaminated tools stored near vent station
241-EWH-151	Contamination on Vehicle	None	NA	NA	NA	NA	NA	NA	NA	No contaminated vehicles stored with catch station
241-EWH-151	Contents of Pipeline and/or source tank during transfer	NA	NA	NA	NA	NA	NA	NA	NA	See transfer pipeline table 7
241-EWH-151	Contents of Sump or Encasement	None	NA	NA	NA	NA	NA	NA	NA	See catch tank pit below
241-EWH-151	Other	None	NA	NA	NA	NA	NA	NA	NA	NA
241-EWH-151	Rail or Truck Tanker Contents	None	NA	NA	NA	NA	NA	NA	NA	No rail or truck tankers associated with vent station
241-EWH-151	SARA 313 Materials	None	NA	NA	NA	NA	NA	NA	NA	NA
241-EWH-151	Tank Contents	241-EWH-151 Catch Tank within Vent Station	rawwater	500 gal	NA	Liquid	351 gal	No	NA	Catch tank serves the vent station for the off-to-ade transfer line. Tank was about to be pumped during walkdown
241-EWH-151	Tank Headspace	241-EWH-151 catch tank	NA	440 gal (Capacity-contents)	NA	NA	NA	NA	NA	No data available. Tank was about to be pumped

Table B-3. Material at Risk Data. (131 Sheets)

Field Name	MAR-Subject	MAR-Description	MAR-Classification	Capacity	Material Type	Physical Form	Volume or Activity	Transport	Quantity	Comments
244-EVY-151	Verification Filter Contents	Breather Filter	Residual contamination	1 R/Ts of six inches**	NA	Residue	Unknown	Yes	NA	*Breather filter for catch tank Catch tank currently thought to contain rainwater

The information in this table was taken from WWC-SD-WM-MHE-007, (2001), Tank Waste Remediation System FSAR Maxrad Identification Facility Configuration Verification Report, Rev 0, Westinghouse Hanford Company, Richland, WA

* Refer to comment items in the same data row

** Refer to comment items in the same data row

COB = clean out boxes

DOT = U.S. Department of Transportation

PFTF = Fast Flux Test Facility

HEPA = high-efficiency particulate air (filter)

UUST = nuclear waste/contaminated underground storage tank

MAR = material at risk

NA = not applicable

NCAW = neutralized current acid waste

NHW = neutralized high-level waste

RAW = radioactive mixed waste

SARA = Superfund Amendments and Reauthorization Act of 1986

SWP = special work procedure (refers to protective clothing worn in radiation zone)

TWRS = Tank Waste Remediation System

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Table B-4. Unique Phenomena Data - Part 1. (30 Sheets)

Field Name	Flammable Gas	Type	Pericapside	Organics Separable Phase	TOC in Liquids	TOC in Solids
241-A-101	Facility Group 2 GRE - Yes Small Spontaneous Large Induced Steady State - Yes HNF-SO-WM-SAR-067, App K	Single shell tank	No, Meacham, 1996, WHC-SO-WM-SARR- 038, Rev 1	No, PNNL Letter, from Huckaby to Meacham DT 073096	Unknown or currently undocumented	No, Webb, 1996, WHC-SO-WM-SARR- 033, Rev 1
241-A-102	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HNF-SO-WM-SAR-067, App K	Single shell tank	No, Meacham, 1996, WHC-SO-WM-SARR- 038, Rev 1	No, PNNL Letter, from Huckaby to Meacham DT 073096	No, Jo, 1995 WHC- SD-WM-DP-138, Rev 0	No, Webb, 1996, WHC-SO-WM-SARR- 033, Rev 1
241-A-103	Facility Group 2 GRE - Yes Small Spontaneous Large Induced Steady State - Yes HNF-SO-WM-SAR-067, App K	Single shell tank	No, Meacham, 1996, WHC-SO-WM-SARR- 038, Rev 1	No, PNNL Letter, from Huckaby to Meacham DT 073096	Unknown or currently undocumented	No, Webb, 1996, WHC-SO-WM-SARR- 033, Rev 1
241-A-104	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HNF-SO-WM-SAR-067, App K	Single shell tank	No, Meacham, 1996, WHC-SO-WM-SARR- 038, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham DT 073096	Unknown or currently undocumented	Unknown or currently undocumented
241-A-105	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HNF-SO-WM-SAR-067, App K	Single shell tank	No, Meacham, 1996, WHC-SO-WM-SARR- 038, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham DT 073096	No, Hodgson 1995 74430-86-018	Unknown or currently undocumented
241-A-106	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HNF-SO-WM-SAR-067, App K	Single shell tank	No, Meacham, 1996, WHC-SO-WM-SARR- 038, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham DT 073096	Unknown or currently undocumented	No, Webb, 1996, WHC-SO-WM-SARR- 033, Rev 1

Table B-4. Unique Phenomena Data - Part 1. (30 Sheets)

Field Name	Flammable Gas	Type	Paracyclics	Organics Separable Phase	TOC in Liquids	TOC in Solids
241-AN-101	Facility Group 2 GRE - Yes Small Spontaneous Large Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Double shell tank	No, Meacham, 1996, WHC-SD-WM-SARR- 038, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham OT 073095	No, SAIC, 1996, WHC-SD-WM-HIE- 007, Rev 0	Unknown or currently undocumented
241-AN-102	Facility Group 2 GRE - Yes Small Spontaneous Large Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Double shell tank	No, Meacham, 1996, WHC-SD-WM-SARR- 038, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham OT 073096	Yes, Ecol, 1996, WHC-SD-WM-OP- 103, Rev 0	Yes, Ecol, 1995, WHC-SD-WM-OP- 105, Rev 0
241-AN-103	Facility Group 1 GRE - Yes Large Spontaneous Large Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Double shell tank	No, Meacham, 1996, WHC-SD-WM-SARR- 038, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham OT 073096	No, SAIC, 1996, WHC-SD-WM-HIE- 007, Rev 0	No, SAIC, 1996, WHC-SD-WM-HIE- 007, Rev 0
241-AN-104	Facility Group 1 GRE - Yes Large Spontaneous Large Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Double shell tank	No, Meacham, 1996, WHC-SD-WM-SARR- 038, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham OT 073096	Unknown or currently undocumented	Yes, (Bumy) SAIC, 1996, WHC-SD-WM- HIE-007, Rev 0
241-AN-105	Facility Group 1 GRE - Yes Large Spontaneous Large Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Double shell tank	No, Meacham, 1996, WHC-SD-WM-SARR- 038, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham OT 073096	Unknown or currently undocumented	Yes, (Bumy) SAIC, 1996, WHC-SD-WM- HIE-007, Rev 0
241-AN-106	Facility Group 2 GRE - Yes Small Spontaneous Large Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Double shell tank	No, Meacham, 1996, WHC-SD-WM-SARR- 038, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham OT 073096	No, SAIC, 1996, WHC-SD-WM-HIE- 007, Rev 0	Unknown or currently undocumented

Table B-4. Unique Phenomena Data - Part 1. (30 Sheets)

Field Name	Flammable Gas	Type	Ferrocyanide	Organics Separable Phase	TOC in Liquids	TOC in Solids
241-AP-107	Facility Group 2 GRE - Yes Small Spontaneous Large Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Double shell tank	No, Meacham, 1996, WHC-SD-WM-SAR- 036, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham OT 073096	Yes, SARC, 1996, WHC-SD-WM-HIE- 007, Rev 0	Yes, SARC, 1996, WHC-SD-WM-HIE- 007, Rev 0
241-AP-101	Facility Group 2 GRE - Yes Small Spontaneous Large Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Double shell tank	No, Meacham, 1996, WHC-SD-WM-SAR- 036, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham OT 073096	No, SARC, 1996, WHC-SD-WM-HIE- 007, Rev 0	Data not available
241-AP-102	Facility Group 2 GRE - Yes Small Spontaneous Large Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Double shell tank	No, Meacham, 1996, WHC-SD-WM-SAR- 036, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham OT 073096	No, SARC, 1996, WHC-SD-WM-HIE- 007, Rev 0	Data not available
241-AP-103	Facility Group 2 GRE - Yes Small Spontaneous Large Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Double shell tank	No, Meacham, 1996, WHC-SD-WM-SAR- 036, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham OT 073096	No, SARC, 1996, WHC-SD-WM-HIE- 007, Rev 0	Data not available
241-AP-104	Facility Group 2 GRE - Yes Small Spontaneous Large Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Double shell tank	No, Meacham, 1996, WHC-SD-WM-SAR- 036, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham OT 073096	No, SARC, 1996, WHC-SD-WM-HIE- 007, Rev 0	Data not available
241-AP-105	Facility Group 2 GRE - Yes Small Spontaneous Large Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Double shell tank	No, Meacham, 1996, WHC-SD-WM-SAR- 036, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham OT 073096	No, SARC, 1996, WHC-SD-WM-HIE- 007, Rev 0	Unknown or currently undocumented

Table B-4. Unique Phenomena Data - Part 1. (33 Sheets)

Field Name	Flammable Gas	Type	Ferrocenols	Organics Separable Phase	TOC in Liquids	TOC in Solids
241-AP-106	Facility Group 2 GRE - Yes Small Spontaneous Large Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Double shell tank	No, Meacham, 1996, WHC-SD-WM-SAR- 038, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham OT 073096	No, SAIC, 1996, WHC-SD-WM-HIE- 007, Rev 0	Data not available
241-AP-107	Facility Group 2 GRE - Yes Small Spontaneous Large Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Double shell tank	No, Meacham, 1996, WHC-SD-WM-SAR- 038, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham OT 073096	No, SAIC, 1996, WHC-SD-WM-HIE- 007, Rev 0	Data not available
241-AP-108	Facility Group 2 GRE - Yes Small Spontaneous Large Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Double shell tank	No, Meacham, 1996, WHC-SD-WM-SAR- 038, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham OT 073096	No, SAIC, 1996, WHC-SD-WM-HIE- 007, Rev 0	Data not available
241-AW-101	Facility Group 1 GRE - Yes Large Spontaneous Large Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Double shell tank	No, Meacham, 1996, WHC-SD-WM-SAR- 038, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham OT 073096	No, SAIC, 1996, WHC-SD-WM-HIE- 007, Rev 0	Unknown or currently undocumented
241-AW-102	Facility Group 2 GRE - Yes Small Spontaneous Large Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Double shell tank	No, Meacham, 1996, WHC-SD-WM-SAR- 038, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham OT 073096	No, SAIC, 1996, WHC-SD-WM-HIE- 007, Rev 0	Unknown or currently undocumented
241-AW-103	Facility Group 2 GRE - Yes Small Spontaneous Large Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Double shell tank	No, Meacham, 1996, WHC-SD-WM-SAR- 038, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham OT 073096	No, SAIC, 1996, WHC-SD-WM-HIE- 007, Rev 0	Unknown or currently undocumented

Table B-4. Unique Phenomena Data - Part 1. (38 Sheets)

Field Name	Flammable Gas	Type	Fire/Explosive	Organics Separable Phase	TOC in Liquids	TOC in Solids
241-AW-104	Facility Group 2 GRE - Yes Small Spontaneous Large Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Double shell tank	No, Meacham, 1995, WHC-SD-WM-SARR- 038, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham OT 073035	No, SAIC, 1996, WHC-SD-WM-HIE- 007, Rev 0	Unknown or currently undocumented
241-AW-105	Facility Group 2 GRE - Yes Small Spontaneous Large Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Double shell tank	No, Meacham, 1995, WHC-SD-WM-SARR- 038, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham OT 073036	Data not available	No, SAIC, 1996, WHC-SD-WM-HIE- 007, Rev 0
241-AW-106	Facility Group 2 GRE - Yes Small Spontaneous Large Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Double shell tank	No, Meacham, 1995, WHC-SD-WM-SARR- 038, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham OT 073036	No, SAIC, 1996, WHC-SD-WM-HIE- 007, Rev 0	Unknown or currently undocumented
241-AX-101	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1995, WHC-SD-WM-SARR- 038, Rev 1	No, PNNL Letter, from Huckaby to Meacham OT 073036	Unknown or currently undocumented	Unknown or currently undocumented
241-AX-102	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1995, WHC-SD-WM-SARR- 038, Rev 1	No, PNNL Letter, from Huckaby to Meacham OT 073036	Unknown or currently undocumented	Yes Webb, 1995, WHC-SD-WM-SARR- 038, Rev 1
241-AX-103	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1995, WHC-SD-WM-SARR- 038, Rev 1	No, PNNL Letter, from Huckaby to Meacham OT 073036	Unknown or currently undocumented	Unknown or currently undocumented

Table B-4. Unique Phenomena Data - Part 1. (30 Sheets)

Facid Name	Flammable Gas	Type	Forcycyanide	Organics Separable Phases	TOC in Liquids	TOC in Solids
241-AI-104	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HMF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1996, WHC-SD-WM-SARR- 038, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham OT 073088	Unknown or currently undocumented	Unknown or currently undocumented
241-AI-101	Facility Group 2 GRE - Yes Small Spontaneous Large Induced Steady State - Yes HMF-SD-WM-SAR-067, App K	Double shell tank	No, Meacham, 1996, WHC-SD-WM-SARR- 038, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham OT 073088	No, SAIC, 1996, WHC-SD-WM-HIE- 007, Rev 0	No, SAIC, 1996, WHC-SD-WM-HIE- 007, Rev 0
241-AI-102	Facility Group 2 GRE - Yes Small Spontaneous Large Induced Steady State - Yes HMF-SD-WM-SAR-067, App K	Double shell tank	No, Meacham, 1996, WHC-SD-WM-SARR- 038, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham OT 073088	No, SAIC, 1996, WHC-SD-WM-HIE- 007, Rev 0	No, SAIC, 1996, WHC-SD-WM-HIE- 007, Rev 0
241-AZ-101	Facility Group 2 GRE - Yes Small Spontaneous Large Induced Steady State - Yes HMF-SD-WM-SAR-067, App K	Double shell tank	No, Meacham, 1996, WHC-SD-WM-SARR- 038, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham OT 073088	No, SAIC, 1996, WHC-SD-WM-HIE- 007, Rev 0	Unknown or currently undocumented
241-AZ-102	Facility Group 2 GRE - Yes Small Spontaneous Large Induced Steady State - Yes HMF-SD-WM-SAR-067, App K	Double shell tank	No, Meacham, 1996, WHC-SD-WM-SARR- 038, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham OT 073088	No, SAIC, 1996, WHC-SD-WM-HIE- 007, Rev 0	Unknown or currently undocumented
241-B-101	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HMF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1996, WHC-SD-WM-SARR- 038, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham OT 073088	No, Schreiber, 1996, WHC-SD-WM-CP-139 Rev 0	Unknown or currently undocumented

Table B-4. Unique Phenomena Data - Part 1. (30 Sheets)

Field Name	Flammable Gas	Type	Ferrocyanide	Organics Separable Phase	TOC in Liquids	TOC in Solids
241-B-102	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HMF-SD-WM-SAR-057, App K	Single shell tank	No, Meacham, 1995, WHC-SD-WM-SARR- 038, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham OT 073095	No, Winters, 1995, WHC-SD-WM-SARR- 033, Rev 1	Unknown or currently undocumented
241-B-103	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HMF-SD-WM-SAR-057, App K	Single shell tank	No, Meacham, 1995, WHC-SD-WM-SARR- 038, Rev 1	No, PNNL Letter, from Huckaby to Meacham OT 073095	N/A	No, Webb, 1995, WHC-SD-WM-SARR- 033, Rev 1
241-B-104	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HMF-SD-WM-SAR-057, App K	Single shell tank	No, Meacham, 1995, WHC-SD-WM-SARR- 038, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham OT 073095	No, Jo, 1995 WHC- SD-WM-OP-137	No, Webb, 1995, WHC-SD-WM-SARR- 033, Rev 1
241-B-105	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HMF-SD-WM-SAR-057, App K	Single shell tank	No, Meacham, 1995, WHC-SD-WM-SARR- 038, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham OT 073095	Unknown or currently undocumented	Unknown or currently undocumented
241-B-106	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HMF-SD-WM-SAR-057, App K	Single shell tank	No, Meacham, 1995, WHC-SD-WM-SARR- 038, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham OT 073095	No, Corwin, 1995, WHC-SD-WM-OP-140	No, Webb, 1995, WHC-SD-WM-SARR- 033, Rev 1
241-B-107	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HMF-SD-WM-SAR-057, App K	Single shell tank	No, Meacham, 1995, WHC-SD-WM-SARR- 038, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham OT 073095	Unknown or currently undocumented	Unknown or currently undocumented
241-B-108	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HMF-SD-WM-SAR-057, App K	Single shell tank	No, Meacham, 1995, WHC-SD-WM-SARR- 038, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham OT 073095	Unknown or currently undocumented	Unknown or currently undocumented

Table B-4. Unique Phenomena Data - Part 1. (36 Sheets)

Field Name	Flammable Gas	Type	Peroxyacids	Organics Separable Phase	TOC in Liquids	TOC in Solids
241-B-108	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1996, WHC-SD-WM-SARR- 038, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham DT 073096	Unknown or currently undocumented	Unknown or currently undocumented
241-B-110	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1996, WHC-SD-WM-SARR- 038, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham DT 073096	Data not available	No, Webb, 1996, WHC-SD-WM-SARR- 033, Rev 1
241-B-111	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1996, WHC-SD-WM-SARR- 038, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham DT 073096	No, Restud et al PNL-10029	No, Webb, 1996, WHC-SD-WM-SARR- 033, Rev 1
241-B-112	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1996, WHC-SD-WM-SARR- 038, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham DT 073096	No, Dougherty 1995 WHC-SD-WM-SAR-366	Unknown or currently undocumented
241-B-201	Facility Group 2 GRE - Yes Small Spontaneous Large Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1996, WHC-SD-WM-SARR- 038, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham DT 073096	Unknown or currently undocumented	No, Webb, 1996, WHC-SD-WM-SARR- 033, Rev 1
241-B-202	Facility Group 2 GRE - Yes Small Spontaneous Large Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1996, WHC-SD-WM-SARR- 038, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham DT 073096	Data not available	Unknown or currently undocumented

HNF-SD-WM-TT-754, Rev 1

Table B-4. Unique Phenomena Data - Part 1. (38 Sheets)

Facid Name	Flammable Gas	Type	Farragynado	Digence Separable Phase	TOC in Liquids	TOC in Solids
241-B-203	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1995, WHC-SD-WM-SARR-036, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham DT 073095	No, Jo, 1995 WHC- SD-WM-OP-169 Rev 0	Unknown or currently undocumented
241-B-204	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1995, WHC-SD-WM-SARR-036, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham DT 073095	No, Sosafo 1995, WHC-SD-WM-OP-180	No, Webb, 1995, WHC-SD-WM-SARR-033, Rev 1
241-BX-101	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1995, WHC-SD-WM-SARR-036, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham DT 073095	No, Schaefer 1995, WHC-SD-WM-ER-406	No, Webb, 1995, WHC-SD-WM-SARR-033, Rev 1
241-BX-102	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1995, WHC-SD-WM-SARR-036, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham DT 073095	Unknown or currently undocumented	Unknown or currently undocumented
241-BX-103	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1995, WHC-SD-WM-SARR-036, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham DT 073095	No, Bell 1995 WHC- SD-WM-OP-135	Unknown or currently undocumented
241-BX-104	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1995, WHC-SD-WM-SARR-036, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham DT 073095	No, Hu 1995 WHC- SD-WM-OP-171	No, Webb, 1995, WHC-SD-WM-SARR-033, Rev 1
241-BX-105	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1995, WHC-SD-WM-SARR-036, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham DT 073095	No, Hall 1995 WHC- SD-WM-ER-406	No, Webb, 1995, WHC-SD-WM-SARR-033, Rev 1

Table B-4. Unique Phenomena Data - Part 1. (30 Sheets)

Field Name	Flammable Gas	Type	Ferrocyanide	Organics Separable Phase	TOC in Liquids	TOC in Solids
241-BX-106	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1986, WHC-SD-WM-SARR- 033, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham DT 073096	No, Rodson 1985 95-490-95-018 R 1	No, Webb, 1998, WHC-SD-WM-SARR- 033, Rev 1
241-BX-107	Facility Group 2 GRE - Yes Small Spontaneous Large Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1986, WHC-SD-WM-SARR- 033, Rev 1	No, PNNL Letter, from Huckaby to Meacham DT 073096	No, Raphael 1994 WHC-EP-0736	No, Webb, 1998, WHC-SD-WM-SARR- 033, Rev 1
241-BX-108	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1986, WHC-SD-WM-SARR- 033, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham DT 073096	N/A	No, Webb, 1998, WHC-SD-WM-SARR- 033, Rev 1
241-BX-109	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1986, WHC-SD-WM-SARR- 033, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham DT 073096	Unknown or currently undocumented	No, Webb, 1998, WHC-SD-WM-SARR- 033, Rev 1
241-BX-110	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1986, WHC-SD-WM-SARR- 033, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham DT 073096	No, Guley 1993 7C242-63-029	No, Webb, 1998, WHC-SD-WM-SARR- 033, Rev 1
241-BX-111	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1986, WHC-SD-WM-SARR- 033, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham DT 073096	No, Guley 1993 7C242-63-029	No, Webb, 1998, WHC-SD-WM-SARR- 033, Rev 1

Table B-4. Unique Phenomena Data - Part 1. (30 Sheets)

Field Name	Flammable Gas	Type	Ferrocyanide	Organic Separable Phase	TDC in Liquids	TDC in Solids
241-BY-112	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1996, WHC-SD-WM-SARR- 036, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham OT 073096	Unknown or currently undocumented	No, Webb, 1996, WHC-SD-WM-SARR- 033, Rev 1
241-BY-101	Facility Group 2 GRE - Yes Small Spontaneous Large Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1996, WHC-SD-WM-SARR- 036, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham OT 073096	Unknown or currently undocumented	Unknown or currently undocumented
241-BY-102	Facility Group 2 GRE - Yes Small Spontaneous Large Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1996, WHC-SD-WM-SARR- 036, Rev 1	No, PNNL Letter, from Huckaby to Meacham OT 073096	No, Edington 1301 28110-PCL91-048	Unknown or currently undocumented
241-BY-103	Facility Group 2 GRE - Yes Small Spontaneous Large Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1996, WHC-SD-WM-SARR- 036, Rev 1	No, PNNL Letter, from Huckaby to Meacham OT 073096	No, Kelly 1995 WHC- SD-WM-OP-104 R 1	Unknown or currently undocumented
241-BY-104	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1996, WHC-SD-WM-SARR- 036, Rev 1	No, PNNL Letter, from Huckaby to Meacham OT 073096	Unknown or currently undocumented	Unknown or currently undocumented
241-BY-105	Facility Group 2 GRE - Yes Small Spontaneous Large Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1996, WHC-SD-WM-SARR- 036, Rev 1	No, PNNL Letter, from Huckaby to Meacham OT 073096	No, Esch 1995 SE-490 95-020	Unknown or currently undocumented

Table B-4. Unique Phenomena Data - Part 1. (38 Sheets)

Field Name	Flammable Gas	Type	Ferrocyanide	Organic Separable Phase	TOC in Liquids	TOC in Solids
241-BY-106	Facility Group 2 GRE - Yes Small Spontaneous Large Induced Steady State - Yes HMF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1996, WHC-SD-WM-SAR-038, Rev 1	No, PNNL Letter, from Huckaby to Meacham DT 073096	No, Bell 1996 WHC- SD-WM-OP-103 R 0A	No, Webb, 1996, WHC-SD-WM-SAR-033, Rev 1
241-BY-107	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HMF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1996, WHC-SD-WM-SAR-038, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham DT 073096	Unknown or currently undocumented	Unknown or currently undocumented
241-BY-108	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HMF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1996, WHC-SD-WM-SAR-038, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham DT 073096	No, Baldwin 1995 WHC-SD-WM-SAR-533	Unknown or currently undocumented
241-BY-109	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HMF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1996, WHC-SD-WM-SAR-038, Rev 1	No, PNNL Letter, from Huckaby to Meacham DT 073096	Unknown or currently undocumented	Unknown or currently undocumented
241-BY-110	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HMF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1996, WHC-SD-WM-SAR-038, Rev 1	No, PNNL Letter, from Huckaby to Meacham DT 073096	No, Schreiber 1995 WHC-SD-WM-OP-153	Unknown or currently undocumented
241-BY-111	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HMF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1996, WHC-SD-WM-SAR-038, Rev 1	No, PNNL Letter, from Huckaby to Meacham DT 073096	Unknown or currently undocumented	Unknown or currently undocumented

Table B-4. Unique Phenomena Data - Part 1. (30 Sheets)

Field Name	Flammable Gas	Type	Ferrocyanide	Organics Separable Phase	TOC in Liquids	TOC in Solids
241-BY-112	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HNF-SD-WM-SAR-057, App K	Single shell tank	No, Meacham, 1996, WHC-SD-WM-SARR- 033, Rev 1	No, PNNL Letter, from Huckaby to Meacham OT 073096	Unknown or currently undocumented	Unknown or currently undocumented
241-C-101	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HNF-SD-WM-SAR-057, App K	Single shell tank	No, Meacham, 1996, WHC-SD-WM-SARR- 033, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham OT 073096	Not available	No, Webb, 1996, WHC-SD-WM-SARR- 033, Rev 1
241-C-102	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HNF-SD-WM-SAR-057, App K	Single shell tank	No, Meacham, 1996, WHC-SD-WM-SARR- 033, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham OT 073096	No, SAR, 1996, WHC-SD-WM-SARR- 007, Rev 0	Unknown or currently undocumented
241-C-103	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HNF-SD-WM-SAR-057, App K	Single shell tank	No, Meacham, 1996, WHC-SD-WM-SARR- 033, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham OT 073096	No, Ball 1995 WHC- SD-WM-OP-009	No, Webb, 1996, WHC-SD-WM-SARR- 033, Rev 1
241-C-104	Facility Group 2 GRE - Yes Small Spontaneous Large Induced Steady State - Yes HNF-SD-WM-SAR-057, App K	Single shell tank	No, Meacham, 1996, WHC-SD-WM-SARR- 033, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham OT 073096	Unknown or currently undocumented	No, Webb, 1996, WHC-SD-WM-SARR- 033, Rev 1
241-C-105	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HNF-SD-WM-SAR-057, App K	Single shell tank	No, Meacham, 1996, WHC-SD-WM-SARR- 033, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham OT 073096	No, SAR, 1996, WHC-SD-WM-SARR- 007, Rev 0	No, Webb, 1996, WHC-SD-WM-SARR- 033, Rev 1

Table B-4. Unique Phenomena Data - Part 1. (30 Sheets)

Field Name	Flammable Gas	Type	Ferrocyanide	Organics Separable Phase	TOC in Liquids	TOC in Solids
241-C-106	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1996, WHC-SD-WM-SAR-033, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham DT 073096	No, SAJC, 1996, WHC-SD-WM-HR-067, Rev 4	No, Webb, 1996, WHC-SD-WM-SAR-033, Rev 1
241-C-107	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1996, WHC-SD-WM-SAR-033, Rev 1	No, PNNL Letter, from Huckaby to Meacham DT 073096	No, Bell 1995 WHC- SD-WM-ER-474	Unknown or currently undocumented
241-C-108	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1996, WHC-SD-WM-SAR-033, Rev 1	No, PNNL Letter, from Huckaby to Meacham DT 073096	Data not available	No, Webb, 1996, WHC-SD-WM-SAR-033, Rev 1
241-C-109	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1996, WHC-SD-WM-SAR-033, Rev 1	No, PNNL Letter, from Huckaby to Meacham DT 073096	No, Esselle 1995 WHC-SD-WM-ER-402	No, Webb, 1996, WHC-SD-WM-SAR-033, Rev 1
241-C-110	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1996, WHC-SD-WM-SAR-033, Rev 1	No, PNNL Letter, from Huckaby to Meacham DT 073096	No, Simpson 1994 WHC-SD-WM-ER-387	No, Webb, 1996, WHC-SD-WM-SAR-033, Rev 1
241-C-111	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1996, WHC-SD-WM-SAR-033, Rev 1	No, PNNL Letter, from Huckaby to Meacham DT 073096	No, Simpson 1995 WHC-SD-WM-ER-475	No, Webb, 1996, WHC-SD-WM-SAR-033, Rev 1
241-C-112	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1996, WHC-SD-WM-SAR-033, Rev 1	No, PNNL Letter, from Huckaby to Meacham DT 073096	Data not available	No, Webb, 1996, WHC-SD-WM-SAR-033, Rev 1

Table G-4. Unique Phenomena Data - Part 1. (30 Sheets)

Field Name	Flammable Gas	Type	Ferrocyanide	Organic Soluble Phase	TOC in Liquids	TOC in Solids
241-C-201	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1996, WHC-SD-WM-SARR- 033, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham DT 073099	Data not available	Yes, Webb, 1996, WHC-SD-WM-SARR- 033, Rev 1
241-C-202	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1996, WHC-SD-WM-SARR- 033, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham DT 073099	Data not available	Yes, Webb, 1996, WHC-SD-WM-SARR- 033, Rev 1
241-C-203	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1996, WHC-SD-WM-SARR- 033, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham DT 073099	Data not available	Unknown or currently undocumented
241-C-204	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1996, WHC-SD-WM-SARR- 033, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham DT 073099	Data not available	No, Webb, 1996, WHC-SD-WM-SARR- 033, Rev 1
241-S-101	Facility Group 2 GRE - Yes Small Spontaneous Large Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1996, WHC-SD-WM-SARR- 033, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham DT 073099	No, SAIC, 1996, WHC-SD-WM-HIE- 007, Rev 0	Unknown or currently undocumented
241-S-102	Facility Group 2 GRE - Yes Small Spontaneous Large Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1996, WHC-SD-WM-SARR- 033, Rev 1	No, PNNL Letter, from Huckaby to Meacham DT 073099	Unknown or currently undocumented	Unknown or currently undocumented

Table B-4. Unique Phenomena Data - Part 1. (30 Sheets)

Field Name	Flammable Gas	Type	Ferrocyanide	Organics Separable Phase	TOC in Liquids	TOC in Solids
241-S-103	Facility Group 2 GRE - Yes Small Spontaneous Large Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Mescham, 1995, WHC-SD-WM-SARR- 038, Rev 1	Yes, PNNL Letter, from Huckaby to Mescham DT 073096	Unknown or currently undocumented	Unknown or currently undocumented
241-S-104	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Mescham, 1995, WHC-SD-WM-SARR- 038, Rev 1	Yes, PNNL Letter, from Huckaby to Mescham DT 073096	No, Simpson 1994 WHC-SD-WM-ER-370	No, White, 1995, WHC-SD-WM-SARR- 033, Rev 1
241-S-105	Facility Group 2 GRE - Yes Small Spontaneous Large Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Mescham, 1995, WHC-SD-WM-SARR- 038, Rev 1	No, PNNL Letter, from Huckaby to Mescham DT 073096	Unknown or currently undocumented	Unknown or currently undocumented
241-S-106	Facility Group 2 GRE - Yes Small Spontaneous Large Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Mescham, 1995, WHC-SD-WM-SARR- 038, Rev 1	Yes, PNNL Letter, from Huckaby to Mescham DT 073096	Unknown or currently undocumented	Unknown or currently undocumented
241-S-107	Facility Group 2 GRE - Yes Small Spontaneous Large Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Mescham, 1995, WHC-SD-WM-SARR- 038, Rev 1	Yes, PNNL Letter, from Huckaby to Mescham DT 073096	No, Raphael 1995 WHC-SD-WM-OP-158	Unknown or currently undocumented
241-S-108	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Mescham, 1995, WHC-SD-WM-SARR- 038, Rev 1	No, PNNL Letter, from Huckaby to Mescham DT 073096	No, SAIC, 1995, WHC-SD-WM-HIE- 007, Rev 0	Unknown or currently undocumented

Table B-4. Unique Phenomena Data - Part 1. (30 Sheets)

Field Name	Flammable Gas	Type	Ferrocyanide	Organics Separable Phase	TOC in Liquids	TOC in Solids
241-S-109	Facility Group 2 GRE - Yes Small Spontaneous Large Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1995, WHC-SD-WM-SARR- 033, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham OT 073095	No, SAIC, 1995, WHC-SD-WM-HIE- 007, Rev 2	No, Webb, 1995, WHC-SD-WM-SARR- 033, Rev 1
241-S-110	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1995, WHC-SD-WM-SARR- 033, Rev 1	No, PNNL Letter, from Huckaby to Meacham OT 073095	Unknown or currently undocumented	Unknown or currently undocumented
241-S-111	Facility Group 2 GRE - Yes Small Spontaneous Large Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1995, WHC-SD-WM-SARR- 033, Rev 1	No, PNNL Letter, from Huckaby to Meacham OT 073095	Unknown or currently undocumented	No, Webb, 1995, WHC-SD-WM-SARR- 033, Rev 1
241-S-112	Facility Group 2 GRE - Yes Small Spontaneous Large Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1995, WHC-SD-WM-SARR- 033, Rev 1	No, PNNL Letter, from Huckaby to Meacham OT 073095	Unknown or currently undocumented	Unknown or currently undocumented
241-SX-101	Facility Group 2 GRE - Yes Small Spontaneous Large Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1995, WHC-SD-WM-SARR- 033, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham OT 073095	No, Webb 1995 12712-PCLSD-043	Unknown or currently undocumented
241-SX-102	Facility Group 2 GRE - Yes Small Spontaneous Large Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1995, WHC-SD-WM-SARR- 033, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham OT 073095	Unknown or currently undocumented	No, Webb, 1995, WHC-SD-WM-SARR- 033, Rev 1

Table B-4. Unique Phenomena Data - Part 1. (30 Sheets)

Field Name	Flammable Gas	Type	Fluorocycle	Organics Separable Phase	TOC in Liquids	TOC in Solids
241-SX-103	Facility Group 2 GRE - Yes Small Spontaneous Large Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1996, WHC-SD-WM-SARR- 038, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham DT 073066	Unknown or currently undocumented	Unknown or currently undocumented
241-SX-104	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1996, WHC-SD-WM-SARR- 038, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham DT 073066	No, Weiss 1998 12221-PCL88-147 R 1	Unknown or currently undocumented
241-SX-105	Facility Group 2 GRE - Yes Small Spontaneous Large Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1996, WHC-SD-WM-SARR- 038, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham DT 073066	Unknown or currently undocumented	Unknown or currently undocumented
241-SX-106	Facility Group 2 GRE - Yes Small Spontaneous Large Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1996, WHC-SD-WM-SARR- 038, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham DT 073066	Unknown or currently undocumented	Unknown or currently undocumented
241-SX-107	Facility Group 2 GRE - Yes Small Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1996, WHC-SD-WM-SARR- 038, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham DT 073066	Unknown or currently undocumented	Unknown or currently undocumented
241-SX-108	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1996, WHC-SD-WM-SARR- 038, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham DT 073066	N/A	No, Webb, 1995, WHC-SD-WM-SARR- 033, Rev 1

Table B-4. Unique Phenomena Data - Part 1. (38 Sheets)

Field Name	Flammable Gas	Type	Ferrocyanide	Organics Separable Phase	TOC in Liquids	TOC in Solids
241-SX-108	Facility Group 2 GRE - Yes Small Spontaneous Large Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1996, WHC-SD-WM-SARR- 038, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham DT 073096	Unknown or currently undocumented	Unknown or currently undocumented
241-SX-110	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1996, WHC-SD-WM-SARR- 038, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham DT 073096	N/A	Unknown or currently undocumented
241-SX-111	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1996, WHC-SD-WM-SARR- 038, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham DT 073096	Unknown or currently undocumented	Unknown or currently undocumented
241-SX-112	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1996, WHC-SD-WM-SARR- 038, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham DT 073096	Unknown or currently undocumented	Unknown or currently undocumented
241-SX-113	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1996, WHC-SD-WM-SARR- 038, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham DT 073096	N/A	No, Webb, 1996, WHC-SD-WM-SARR- 038, Rev 1
241-SX-114	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1996, WHC-SD-WM-SARR- 038, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham DT 073096	Unknown or currently undocumented	Unknown or currently undocumented

HNF-SD-WM-TT-784, Rev. 1

Table B-4. Unique Phenomena Data - Part 1. (30 Sheets)

Field Name	Flammable Gas	Type	Ferrocyanide	Organics Separable Phase	TOC in Liquids	TOC in Solids
241-SX-115	Facility Group B GRE - Yes Small Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1996, WHC-SD-WM-SARR- 038, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham OT 073086	N/A	Unknown or currently undocumented
241-SY-101	GRE - Yes Large Spontaneous Large Induced Steady State - Yes LA-UR-92-3198, Rev 14	Double shell tank	No, Meacham, 1996, WHC-SD-WM-SARR- 038, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham OT 073086	Unknown or currently undocumented	No, (Batt) SAIC, 1996, WHC-SD-WM-HIE- 007, Rev 0
241-SY-102	Facility Group 2 GRE - Yes Small Spontaneous Large Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Double shell tank	No, Meacham, 1996, WHC-SD-WM-SARR- 038, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham OT 073086	No, SAIC, 1996, WHC-SD-WM-HIE- 007, Rev 0	No, SAIC, 1996, WHC-SD-WM-HIE- 007, Rev 0
241-SY-103	Facility Group 1 GRE - Yes Large Spontaneous Large Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Double shell tank	No, Meacham, 1996, WHC-SD-WM-SARR- 038, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham OT 073086	No, SAIC, 1996, WHC-SD-WM-HIE- 007, Rev 0	No, SAIC, 1996, WHC-SD-WM-HIE- 007, Rev 0
241-T-101	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1996, WHC-SD-WM-SARR- 038, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham OT 073086	No evidence in non- Wastwater tank, assumed to be No	Unknown or currently undocumented
241-T-102	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1996, WHC-SD-WM-SARR- 038, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham OT 073086	No, PNL-10101	No, Webb, 1996, WHC-SD-WM-SARR- 038, Rev 1

Table B-4. Unique Phenomena Data - Part 1. (30 Sheets)

Field Name	Flammable Gas	Type	Ferrocyanide	Organics Separable Phase	TOC in Liquids	TOC in Solids
241-T-103	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1998, WHC-SD-WM-SARR- 038, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham DT 073095	No evidence in non- Watchlist tank, assumed to be No	Unknown or possibly undocumented
241-T-104	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1998, WHC-SD-WM-SARR- 038, Rev 1	No, PNNL Letter, from Huckaby to Meacham DT 073095	No, WHC-SD-WM- ER-372	No, Webb, 1998, WHC-SD-WM-SARR- 033, Rev 1
241-T-105	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1998, WHC-SD-WM-SARR- 038, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham DT 073095	No, WHC-SD-WM- ER-389	No, Webb, 1998, WHC-SD-WM-SARR- 033, Rev 1
241-T-106	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1998, WHC-SD-WM-SARR- 038, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham DT 073095	No, WHC-SD-WM- DP-143	No, Webb, 1998, WHC-SD-WM-SARR- 033, Rev 1
241-T-107	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1998, WHC-SD-WM-SARR- 038, Rev 1	No, PNNL Letter, from Huckaby to Meacham DT 073095	No, WHC-SD-WM- ER-382	No, Webb, 1998, WHC-SD-WM-SARR- 033, Rev 1
241-T-108	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1998, WHC-SD-WM-SARR- 038, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham DT 073095	No, WHC-SD-WM- DP-141	No, Webb, 1998, WHC-SD-WM-SARR- 033, Rev 1
241-T-109	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1998, WHC-SD-WM-SARR- 038, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham DT 073095	No evidence in non- Watchlist tank, assumed to be No	No, Webb, 1998, WHC-SD-WM-SARR- 033, Rev 1

Table B-4. Unique Phenomena Data - Part 1, (38 Sheets)

Field Name	Flammable Gas	Type	Ferrocyanide	Organic Soluble Phase	TOC in Liquids	TOC in Solids
241-T-110	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HMF-SD-WM-SAR-057, App K	Single shell tank	No, Meacham, 1995, WHC-SD-WM-SARR- 035, Rev 1	No, PNNL Letter, from Huckaby to Meacham DT 073095	No evidence in non- Watchlist tank; assumed to be No	Unknown or currently undocumented
241-T-111	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HMF-SD-WM-SAR-057, App K	Single shell tank	No, Meacham, 1995, WHC-SD-WM-SARR- 035, Rev 1	No, PNNL Letter, from Huckaby to Meacham DT 073095	Yes, WHC-SD-WM- ER-540 VIL 254	No, Webb, 1995, WHC-SD-WM-SARR- 035, Rev 1
241-T-112	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HMF-SD-WM-SAR-057, App K	Single shell tank	No, Meacham, 1995, WHC-SD-WM-SARR- 035, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham DT 073095	No evidence in non- Watchlist tank; assumed to be No	Unknown or currently undocumented
241-T-201	Facility Group 2 GRE - Yes Small Spontaneous Large Induced Steady State - Yes HMF-SD-WM-SAR-057, App K	Single shell tank	No, Meacham, 1995, WHC-SD-WM-SARR- 035, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham DT 073095	No evidence in non- Watchlist tank; assumed to be No	Unknown or currently undocumented
241-T-202	Facility Group 2 GRE - Yes Small Spontaneous Large Induced Steady State - Yes HMF-SD-WM-SAR-057, App K	Single shell tank	No, Meacham, 1995, WHC-SD-WM-SARR- 035, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham DT 073095	No evidence in non- Watchlist tank; assumed to be No	Unknown or currently undocumented
241-T-203	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HMF-SD-WM-SAR-057, App K	Single shell tank	No, Meacham, 1995, WHC-SD-WM-SARR- 035, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham DT 073095	No evidence in non- Watchlist tank; assumed to be No	Unknown or currently undocumented

Table B-4. Unique Phenomena Data - Part 1. (30 Sheets)

Field Name	Flammable Gas	Type	Petrocycle	Organics Separable Phase	TOC in Liquids	TOC in Solids
241-T-304	Facility Group 2 GRE - Yes Small Spontaneous Large Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1996, WM-C-SD-WM-SARR- 038, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham OT 073096	No evidence in non- Wastohist tank, assumed to be No	Unknown or currently undocumented
241-TX-101	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1996, WM-C-SD-WM-SARR- 038, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham OT 073096	No evidence in non- Wastohist tank, assumed to be No	Unknown or currently undocumented
241-TX-102	Facility Group 2 GRE - Yes Small Spontaneous Large Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1996, WM-C-SD-WM-SARR- 038, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham OT 073096	No evidence in non- Wastohist tank, assumed to be No	No, Webb, 1996, WM-C-SD-WM-SARR- 033, Rev 1
241-TX-103	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1996, WM-C-SD-WM-SARR- 038, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham OT 073096	No evidence in non- Wastohist tank, assumed to be No	Unknown or currently undocumented
241-TX-104	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1996, WM-C-SD-WM-SARR- 038, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham OT 073096	No evidence in non- Wastohist tank, assumed to be No	Unknown or currently undocumented
241-TX-105	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1996, WM-C-SD-WM-SARR- 038, Rev 1	No, PNNL Letter, from Huckaby to Meacham OT 073096	No Analysis W/L 1/91	Unknown or currently undocumented

Table B-4. Unique Phenomena Data - Part 1. (30 Sheets)

Field Name	Flammable Gas	Type	Ferrocyanide	Organics Separable Phase	TOC in Liquids	TOC in Solids
241-TX-106	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1996, WHC-SD-WM-SARR- 036, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham DT 073086	No evidence in non- Watchlist tank, assumed to be No	Unknown or currently undocumented
241-TX-107	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1996, WHC-SD-WM-SARR- 036, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham DT 073086	No evidence in non- Watchlist tank, assumed to be No	No, Webb, 1996, WHC-SD-WM-SARR- 036, Rev 1
241-TX-108	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1996, WHC-SD-WM-SARR- 036, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham DT 073086	No evidence in non- Watchlist tank, assumed to be No	Unknown or currently undocumented
241-TX-109	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1996, WHC-SD-WM-SARR- 036, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham DT 073086	No evidence in non- Watchlist tank, assumed to be No	Unknown or currently undocumented
241-TX-110	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1996, WHC-SD-WM-SARR- 036, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham DT 073086	No evidence in non- Watchlist tank, assumed to be No	Unknown or currently undocumented
241-TX-111	Facility Group 2 GRE - Yes Small Spontaneous Large Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1996, WHC-SD-WM-SARR- 036, Rev 1	No, PNNL Letter, from Huckaby to Meacham DT 073086	No evidence in non- Watchlist tank, assumed to be No	Unknown or currently undocumented

Table B-4. Unique Phenomena Data - Part 1. (30 Sheets)

Field Name	Flammable Gas	Type	Flammability	Organics Separable Phase	TOC in Liquids	TOC in Solids
241-TX-112	Facility Group 2 GRE - Yes Small Spontaneous Large Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1996, WHC-SD-WM-SARR- 036, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham OT 073056	No evidence in non- Watchlist tank, assumed to be No	Unknown or currently undocumented
241-TX-113	Facility Group 2 GRE - Yes Small Spontaneous Large Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1996, WHC-SD-WM-SARR- 036, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham OT 073056	No evidence in non- Watchlist tank, assumed to be No	Unknown or currently undocumented
241-TX-114	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1996, WHC-SD-WM-SARR- 036, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham OT 073056	No evidence in non- Watchlist tank, assumed to be No	Unknown or currently undocumented
241-TX-115	Facility Group 2 GRE - Yes Small Spontaneous Large Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1996, WHC-SD-WM-SARR- 036, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham OT 073056	No evidence in non- Watchlist tank, assumed to be No	Unknown or currently undocumented
241-TX-116	Facility Group 2 GRE - Yes Small Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1996, WHC-SD-WM-SARR- 036, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham OT 073056	No evidence in non- Watchlist tank, assumed to be No	Unknown or currently undocumented
241-TX-117	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1996, WHC-SD-WM-SARR- 036, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham OT 073056	No evidence in non- Watchlist tank, assumed to be No	Unknown or currently undocumented

Table B-4. Unique Phenomena Data - Part 1, (30 Sheets)

Field Name	Flammable Gas	Type	Ferrocyanide	Organic Separable Phase	TOC in Liquids	TOC in Solids
241-TX-108	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HMF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1996, WHC-SD-WM-SARR- 033, Rev 1	No, PNNL Letter, from Huckaby to Meacham DT 073086	No Analysis WL 1/91	No, Webb, 1996, WHC-SD-WM-SARR- 033, Rev 1
241-TY-101	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HMF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1996, WHC-SD-WM-SARR- 033, Rev 1	No, PNNL Letter, from Huckaby to Meacham DT 073086	No evidence in non- Witchel tank, assumed to be No	No, Webb, 1996, WHC-SD-WM-SARR- 033, Rev 1
241-TY-102	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HMF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1996, WHC-SD-WM-SARR- 033, Rev 1	No, PNNL Letter, from Huckaby to Meacham DT 073086	No evidence in non- Witchel tank, assumed to be No	No, Webb, 1996, WHC-SD-WM-SARR- 033, Rev 1
241-TY-103	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HMF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1996, WHC-SD-WM-SARR- 033, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham DT 073086	No evidence in non- Witchel tank, assumed to be No	No, Webb, 1996, WHC-SD-WM-SARR- 033, Rev 1
241-TY-104	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HMF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1996, WHC-SD-WM-SARR- 033, Rev 1	No, PNNL Letter, from Huckaby to Meacham DT 073086	In WHC-SD-WM-OP- 101 WL 6/94	No, Webb, 1996, WHC-SD-WM-SARR- 033, Rev 1
241-TY-105	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HMF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1996, WHC-SD-WM-SARR- 033, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham DT 073086	No evidence in non- Witchel tank, assumed to be No	No, Webb, 1996, WHC-SD-WM-SARR- 033, Rev 1
241-TY-106	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HMF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1996, WHC-SD-WM-SARR- 033, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham DT 073086	In WHC-SD-WM-OP- 482	No, Webb, 1996, WHC-SD-WM-SARR- 033, Rev 1

HMF-SD-WM-T764, Rev 1

Table B-4. Unique Phenomena Data - Part 1. (39 Sheets)

Field Name	Flammable Gas	Type	Permeaprobe	Organics Separable Phase	TOC in Liquids	TOC in Solids
241-U-101	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HMF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1996, WHC-SD-WM-SARR- 036, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham OT 073096	No evidence in non- Watchlist tank, assumed to be No	Unknown or currently undocumented
241-U-102	Facility Group 2 GRE - Yes Small Spontaneous Large Induced Steady State - Yes HMF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1996, WHC-SD-WM-SARR- 036, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham OT 073096	No evidence in non- Watchlist tank, assumed to be No	Unknown or currently undocumented
241-U-103	Facility Group 2 GRE - Yes Small Spontaneous Large Induced Steady State - Yes HMF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1996, WHC-SD-WM-SARR- 036, Rev 1	No, PNNL Letter, from Huckaby to Meacham OT 073096	No Analysis WL 6/94	No, Webb, 1996 WHC-SD-WM-SARR- 033, Rev 1
241-U-104	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HMF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1996, WHC-SD-WM-SARR- 036, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham OT 073096	No evidence in non- Watchlist tank, assumed to be No	Unknown or currently undocumented
241-U-105	Facility Group 2 GRE - Yes Small Spontaneous Large Induced Steady State - Yes HMF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1996, WHC-SD-WM-SARR- 036, Rev 1	No, PNNL Letter, from Huckaby to Meacham OT 073096	No Analysis WL 6/94	Yes, Webb, 1996, WHC-SD-WM-SARR- 033, Rev 1
241-U-106	Facility Group 2 GRE - Yes Small Spontaneous Large Induced Steady State - Yes HMF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1996, WHC-SD-WM-SARR- 036, Rev 1	No, PNNL Letter, from Huckaby to Meacham OT 073096	No Analysis WL 1/91	Unknown or currently undocumented

Table B-4. Unique Phenomena Data - Part 1. (30 Sheets)

Field Name	Flammable Gas	Type	Ferrocyanide	Organics Separable Phase	TOC in Liquids	TOC in Solids
241-U-107	Facility Group 2 GRE - Yes Small Spontaneous Large Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1996, WHC-SD-WM-SARR- 036, Rev 1	No, PHNL Letter, from Huckaby to Meacham DT 073096	No Analysis WL 1/91	Unknown or currently undocumented
241-U-108	Facility Group 2 GRE - Yes Small Spontaneous Large Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1996, WHC-SD-WM-SARR- 036, Rev 1	No, PHNL Letter, from Huckaby to Meacham DT 073096	No evidence in non- Watchlist tank assumed to be No	Unknown or currently undocumented
241-U-109	Facility Group 2 GRE - Yes Small Spontaneous Large Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1996, WHC-SD-WM-SARR- 036, Rev 1	No, PHNL Letter, from Huckaby to Meacham DT 073096	No evidence in non- Watchlist tank, assumed to be No	Unknown or currently undocumented
241-U-110	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1996, WHC-SD-WM-SARR- 036, Rev 1	Yes, PHNL Letter, from Huckaby to Meacham DT 073096	No, WHC-EP-0643	No, Webb, 1995, WHC-SD-WM-SARR- 033, Rev 1
241-U-111	Facility Group 2 GRE - Yes Small Spontaneous Large Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1996, WHC-SD-WM-SARR- 036, Rev 1	No, PHNL Letter, from Huckaby to Meacham DT 073096	No, Anal WL 3/93	No, Webb, 1995, WHC-SD-WM-SARR- 033, Rev 1
241-U-112	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1996, WHC-SD-WM-SARR- 036, Rev 1	Yes, PHNL Letter, from Huckaby to Meacham DT 073096	No evidence in non- Watchlist tank, assumed to be No	Unknown or currently undocumented

Table B-4. Unique Phenomena Data - Part 1. (30 Sheets)

Field Name	Flammable Gas	Type	Forerystoxide	Deposits Separable Phase	TOC in Liquids	TOC in Solids
241-U-201	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1996, WHC-SD-WM-SARR- 036, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham DT 073086	No, WHC-SD-WM- ER-483	No, Webb, 1996, WHC-SD-WM-SARR- 033, Rev 1
241-U-202	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1996, WHC-SD-WM-SARR- 036, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham DT 073086	No, WHC-SD-WM- ER-484	No, Webb, 1996, WHC-SD-WM-SARR- 033, Rev 1
241-U-203	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1996, WHC-SD-WM-SARR- 036, Rev 1	No, PNNL Letter, from Huckaby to Meacham DT 073086	No, WHC-SD-WM- ER-485	No, Webb, 1996, WHC-SD-WM-SARR- 033, Rev 1
241-U-204	Facility Group 3 GRE - Yes Small Induced Steady State - Yes HNF-SD-WM-SAR-067, App K	Single shell tank	No, Meacham, 1996, WHC-SD-WM-SARR- 036, Rev 1	No, PNNL Letter, from Huckaby to Meacham DT 073086	No, WHC-SD-WM- ER-486	No, Webb, 1996, WHC-SD-WM-SARR- 033, Rev 1
244-A	Facility Group Non-GRE GRE - No Steady State - Yes HNF-SD-WM-SAR-067, App K	DCRT	No, Meacham, 1996, WHC-SD-WM-SARR- 036, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham DT 073086	Unknown or currently undocumented	Unknown or currently undocumented
244-BX	Facility Group Non-GRE GRE - No Steady State - Yes HNF-SD-WM-SAR-067, App K	DCRT	No, Meacham, 1996, WHC-SD-WM-SARR- 036, Rev 1	Yes, PNNL Letter, from Huckaby to Meacham DT 073086	Unknown or currently undocumented	Unknown or currently undocumented

Table B-4. Unique Phenomena Data - Part 1. (50 Sheets)

Field Name	Flammable Gas	Type	Peroxyanide	Organics Separable Phase	TOC in Liquids	TOC in Solids
244-CR	TK-CR-001, 002, 003 FG - Yes GRE - Yes Small Induced SS - Yes TK-011 GRE - No SS - Yes HNF-SD-WM-SAR-067, App K	Vault	No, Meacham, 1995, WHC-SD-WM-SARR- 036, Rev 1.	Yes, PNNL Letter, from Huckaby to Meacham DT: 073095.	Unknown or currently undocumented	Unknown or currently undocumented
244-S	Facility Group Non-GRE GRE - No Steady State - Yes HNF-SD-WM-SAR-067, App K	DCRT	No, Meacham, 1995, WHC-SD-WM-SARR- 036, Rev 1.	Yes, PNNL Letter, from Huckaby to Meacham DT: 073095	Unknown or currently undocumented	Unknown or currently undocumented
244-TX	Facility Group Non-GRE GRE - No Steady State - Yes HNF-SD-WM-SAR-067, App K	DCRT	No, Meacham, 1995, WHC-SD-WM-SARR- 036, Rev 1.	Yes, PNNL Letter, from Huckaby to Meacham DT: 073095.	Unknown or currently undocumented	Unknown or currently undocumented
244-U	Facility Group Non-GRE GRE - No Steady State - Yes HNF-SD-WM-SAR-067, App K	DCRT	No, Meacham, 1995, WHC-SD-WM-SARR- 036, Rev 1.	Yes, PNNL Letter, from Huckaby to Meacham DT: 073095.	NA	NA

Table B-5. Unique Phenomena Data - Part 2. (14 Sheets)

Field Name	High Heat	Pyrophoric	Syphoning	Crackonly	Corrosivity
241-A-101	No, Kummer, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1995, WHC-SD-WM-TI-725	No, Anaschimale 1994 WHC-EP-0772
241-A-102	No, Kummer, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1995, WHC-SD-WM-TI-725	No, Anaschimale 1994 WHC-EP-0772
241-A-103	No, Kummer, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1995, WHC-SD-WM-TI-725	No, Anaschimale 1994 WHC-EP-0772
241-A-104	Yes, Kummer, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1995, WHC-SD-WM-TI-725	No, Anaschimale 1994 WHC-EP-0772
241-A-105	Yes, Kummer, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1995, WHC-SD-WM-TI-725	No, Anaschimale 1994 WHC-EP-0772
241-A-106	No, Kummer, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1995, WHC-SD-WM-TI-725	No, Anaschimale 1994 WHC-EP-0772
241-AH-101	No (but potential for Tank Bump), Kummer, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1995, WHC-SD-WM-TI-725	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0
241-AH-102	Yes, Kummer, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1995, WHC-SD-WM-TI-725	Yes, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0
241-AH-103	Yes, Kummer, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1995, WHC-SD-WM-TI-725	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0
241-AH-104	Yes, Kummer, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1995, WHC-SD-WM-TI-725	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0
241-AH-105	Yes, Kummer, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1995, WHC-SD-WM-TI-725	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0
241-AH-106	No (but potential for Tank Bump), Kummer, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1995, WHC-SD-WM-TI-725	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0
241-AH-107	Yes, Kummer, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1995, WHC-SD-WM-TI-725	Yes, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0

HNF-SD-WM-TI-754, Rev 1

Table B-5. Unique Phenomena Data - Part 2. (14 Sheets)

Field Name	High Heat	Pyrophoresis	Siphoning	Catabolism	Corrosion
241-AP-101	No (but potential for Tank Bump), Kummerow, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Synchronizing PHA, 1999, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1996, WHC-SD-WM-TI-725	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0
241-AP-102	No (but potential for Tank Bump), Kummerow, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Synchronizing PHA, 1999, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1996, WHC-SD-WM-TI-725	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0
241-AP-103	No (but potential for Tank Bump), Kummerow, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Synchronizing PHA, 1999, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1996, WHC-SD-WM-TI-725	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0
241-AP-104	No (but potential for Tank Bump), Kummerow, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Synchronizing PHA, 1999, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1996, WHC-SD-WM-TI-725	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0
241-AP-105	No (but potential for Tank Bump), Kummerow, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Synchronizing PHA, 1999, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1996, WHC-SD-WM-TI-725	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0
241-AP-106	No (but potential for Tank Bump), Kummerow, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Synchronizing PHA, 1999, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1996, WHC-SD-WM-TI-725	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0
241-AP-107	No (but potential for Tank Bump), Kummerow, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Synchronizing PHA, 1999, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1996, WHC-SD-WM-TI-725	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0
241-AP-108	No (but potential for Tank Bump), Kummerow, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Synchronizing PHA, 1999, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1996, WHC-SD-WM-TI-725	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0
241-AW-101	Yes, Kummerow, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Synchronizing PHA, 1999, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1996, WHC-SD-WM-TI-725	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0

Table B-8. Unique Phenomena Data - Part 2. (14 Sheets)

Field Name	High Heat	Pyrophorance	Syphonage	Catabolism	Corrosivity
241-AW-102	No (but potential for Tank Bump), Kummener, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1995, WHC-SD-WM-HIE-007, Rev 0	No, Syphonage PHA, 1995, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1995, WHC-SD-WM-TI-725	No, SAIC, 1995, WHC-SD-WM-HIE-007, Rev 0
241-AW-103	No (but potential for Tank Bump), Kummener, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1995, WHC-SD-WM-HIE-007, Rev 0	No, Syphonage PHA, 1995, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1995, WHC-SD-WM-TI-725	No, SAIC, 1995, WHC-SD-WM-HIE-007, Rev 0
241-AW-104	Yes, Kummener, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1995, WHC-SD-WM-HIE-007, Rev 0	No, Syphonage PHA, 1995, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1995, WHC-SD-WM-TI-725	No, SAIC, 1995, WHC-SD-WM-HIE-007, Rev 0
241-AW-105	No (but potential for Tank Bump), Kummener, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1995, WHC-SD-WM-HIE-007, Rev 0	No, Syphonage PHA, 1995, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1995, WHC-SD-WM-TI-725	No, SAIC, 1995, WHC-SD-WM-HIE-007, Rev 0
241-AW-106	No (but potential for Tank Bump), Kummener, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1995, WHC-SD-WM-HIE-007, Rev 0	No, Syphonage PHA, 1995, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1995, WHC-SD-WM-TI-725	No, SAIC, 1995, WHC-SD-WM-HIE-007, Rev 0
241-AX-101	No (but potential for Tank Bump), Kummener, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1995, WHC-SD-WM-HIE-007, Rev 0	No, Syphonage PHA, 1995, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1995, WHC-SD-WM-TI-725	No, Anasimula 1994 WHC-EP-0772
241-AX-102	No (but potential for Tank Bump), Kummener, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1995, WHC-SD-WM-HIE-007, Rev 0	No, Syphonage PHA, 1995, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1995, WHC-SD-WM-TI-725	No, Anasimula 1994 WHC-EP-0772
241-AX-103	No (but potential for Tank Bump), Kummener, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1995, WHC-SD-WM-HIE-007, Rev 0	No, Syphonage PHA, 1995, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1995, WHC-SD-WM-TI-725	No, Anasimula 1994 WHC-EP-0772
241-AX-104	No (but potential for Tank Bump), Kummener, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1995, WHC-SD-WM-HIE-007, Rev 0	No, Syphonage PHA, 1995, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1995, WHC-SD-WM-TI-725	No, Anasimula 1994 WHC-EP-0772

WHC-SD-WM-TI-754, Rev 1

Table B-5. Unique Phenomena Data - Part 2. (14 Sheets)

Field Name	High Heat	Pyrophoric	Syphoning	Criticality	Corrosivity
241-A7-101	Yes, Benzack, 1995, WHC-SD-ER-350, Rev 0	No, SAIC, 1995, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1995, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1995, WHC-SD-WM-TI-725	Yes, SAIC, 1995, WHC-SD-WM-HIE-007, Rev 0
241-A7-102	Yes, Benzack, 1995, WHC-SD-ER-350, Rev 0	No, SAIC, 1995, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1995, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1995, WHC-SD-WM-TI-725	No, SAIC, 1995, WHC-SD-WM-HIE-007, Rev 0
241-AZ-101	Yes, Benzack, 1995, WHC-SD-ER-350, Rev 0	No, SAIC, 1995, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1995, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1995, WHC-SD-WM-TI-725	No, SAIC, 1995, WHC-SD-WM-HIE-007, Rev 0
241-AZ-102	Yes, Benzack, 1995, WHC-SD-ER-350, Rev 0	No, SAIC, 1995, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1995, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1995, WHC-SD-WM-TI-725	No, SAIC, 1995, WHC-SD-WM-HIE-007, Rev 0
241-B-101	No, Kummener, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1995, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1995, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1995, WHC-SD-WM-TI-725	No, Anandakrishna 1994 WHC-EP-0772
241-B-102	No, Kummener, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1995, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1995, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1995, WHC-SD-WM-TI-725	No, Anandakrishna 1994 WHC-EP-0772
241-B-103	No, Kummener, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1995, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1995, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1995, WHC-SD-WM-TI-725	No, Anandakrishna 1994 WHC-EP-0772
241-B-104	No, Kummener, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1995, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1995, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1995, WHC-SD-WM-TI-725	No, Anandakrishna 1994 WHC-EP-0772
241-B-105	No, Kummener, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1995, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1995, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1995, WHC-SD-WM-TI-725	No, Anandakrishna 1994 WHC-EP-0772
241-B-106	No, Kummener, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1995, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1995, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1995, WHC-SD-WM-TI-725	No, Anandakrishna 1994 WHC-EP-0772
241-B-107	No, Kummener, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1995, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1995, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1995, WHC-SD-WM-TI-725	No, Anandakrishna 1994 WHC-EP-0772
241-B-108	No, Kummener, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1995, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1995, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1995, WHC-SD-WM-TI-725	No, Anandakrishna 1994 WHC-EP-0772
241-B-109	No, Kummener, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1995, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1995, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1995, WHC-SD-WM-TI-725	No, Anandakrishna 1994 WHC-EP-0772
241-B-110	No, Kummener, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1995, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1995, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1995, WHC-SD-WM-TI-725	No, Anandakrishna 1994 WHC-EP-0772

HNF-SD-WM-TI-759, Rev 1

Table B-5. Unique Phenomena Data - Part 2. (14 Sheets)

Field Name	High Heat	Pyrophoric	Syphoning	Criticality	Corrosivity
241-B-111	No, Karmierer, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-750, Rev 0	No, Batzel 1996, WHC-SD-WM-TI-725	No, Anagnostou 1994 WHC-EP-0772
241-B-112	No, Karmierer, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-750, Rev 0	No, Batzel 1996, WHC-SD-WM-TI-725	No, Anagnostou 1994 WHC-EP-0772
241-B-201	No, Karmierer, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-750, Rev 0	No, Batzel 1996, WHC-SD-WM-TI-725	No, Anagnostou 1994 WHC-EP-0772
241-B-202	No, Karmierer, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-750, Rev 0	No, Batzel 1996, WHC-SD-WM-TI-725	No, Anagnostou 1994 WHC-EP-0772
241-B-203	No, Karmierer, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-750, Rev 0	No, Batzel 1996, WHC-SD-WM-TI-725	No, Anagnostou 1994 WHC-EP-0772
241-B-204	No, Karmierer, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-750, Rev 0	No, Batzel 1996, WHC-SD-WM-TI-725	No, Anagnostou 1994 WHC-EP-0772
241-BX-101	No, Karmierer, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-750, Rev 0	No, Batzel 1996, WHC-SD-WM-TI-725	No, Anagnostou 1994 WHC-EP-0772
241-BX-102	No, Karmierer, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-750, Rev 0	No, Batzel 1996, WHC-SD-WM-TI-725	No, Anagnostou 1994 WHC-EP-0772
241-BX-103	No, Karmierer, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-750, Rev 0	No, Batzel 1996, WHC-SD-WM-TI-725	No, Anagnostou 1994 WHC-EP-0772
241-BX-104	No, Karmierer, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-750, Rev 0	No, Batzel 1996, WHC-SD-WM-TI-725	No, Anagnostou 1994 WHC-EP-0772
241-BX-105	No, Karmierer, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-750, Rev 0	No, Batzel 1996, WHC-SD-WM-TI-725	No, Anagnostou 1994 WHC-EP-0772
241-BX-106	No, Karmierer, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-750, Rev 0	No, Batzel 1996, WHC-SD-WM-TI-725	Yes, Anagnostou 1994 WHC-EP-0772
241-BX-107	No, Karmierer, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-750, Rev 0	No, Batzel 1996, WHC-SD-WM-TI-725	No, Anagnostou 1994 WHC-EP-0772
241-BX-108	No, Karmierer, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-750, Rev 0	No, Batzel 1996, WHC-SD-WM-TI-725	No, Anagnostou 1994 WHC-EP-0772

Table B-5. Unique Phenomena Data - Part 2. (14 Sheets)

Field Name	High Heat	Pyrophorance	Syphoning	Criticality	Corrosivity
241-BX-108	No, Kummerow, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1996, WHC-SD-WM-TI-725	No, Anandakrishna 1994 WHC-EP-0772
241-BX-110	No, Kummerow, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1996, WHC-SD-WM-TI-725	No, Anandakrishna 1994 WHC-EP-0772
241-BX-111	No, Kummerow, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1996, WHC-SD-WM-TI-725	No, Anandakrishna 1994 WHC-EP-0772
241-BX-112	No, Kummerow, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1996, WHC-SD-WM-TI-725	No, Anandakrishna 1994 WHC-EP-0772
241-BY-101	No, Kummerow, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1996, WHC-SD-WM-TI-725	No, Anandakrishna 1994 WHC-EP-0772
241-BY-102	No, Kummerow, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1996, WHC-SD-WM-TI-725	No, Anandakrishna 1994 WHC-EP-0772
241-BY-103	No, Kummerow, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1996, WHC-SD-WM-TI-725	No, Anandakrishna 1994 WHC-EP-0772
241-BY-104	No, Kummerow, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1996, WHC-SD-WM-TI-725	No, Anandakrishna 1994 WHC-EP-0772
241-BY-105	No, Kummerow, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1996, WHC-SD-WM-TI-725	No, Anandakrishna 1994 WHC-EP-0772
241-BY-106	No, Kummerow, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1996, WHC-SD-WM-TI-725	No, Anandakrishna 1994 WHC-EP-0772
241-BY-107	No, Kummerow, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1996, WHC-SD-WM-TI-725	No, Anandakrishna 1994 WHC-EP-0772
241-BY-108	No, Kummerow, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1996, WHC-SD-WM-TI-725	No, Anandakrishna 1994 WHC-EP-0772
241-BY-109	No, Kummerow, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1996, WHC-SD-WM-TI-725	No, Anandakrishna 1994 WHC-EP-0772
241-BY-110	No, Kummerow, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1996, WHC-SD-WM-TI-725	No, Anandakrishna 1994 WHC-EP-0772

Table B-5. Unique Phenomena Data - Part 2. (14 Sheets)

Field Name	High Host	Phenomena	Syphoning	Circuity	Connectivity
241-BY-111	No, Kummener, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1998, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1998, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1998, WHC-SD-WM-TI-725	No, Anantakumula 1994 WHC-EP-0772
241-BY-112	No, Kummener, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1998, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1998, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1998, WHC-SD-WM-TI-725	No, Anantakumula 1994 WHC-EP-0772
241-C-101	No, Kummener, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1998, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1998, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1998, WHC-SD-WM-TI-725	No, Anantakumula 1994 WHC-EP-0772
241-C-102	No, Kummener, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1998, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1998, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1998, WHC-SD-WM-TI-725	Yes, Anantakumula 1994 WHC-EP-0772
241-C-103	No, Kummener, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1998, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1998, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1998, WHC-SD-WM-TI-725	Yes, Anantakumula 1994 WHC-EP-0772
241-C-104	No, Kummener, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1998, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1998, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1998, WHC-SD-WM-TI-725	No, Anantakumula 1994 WHC-EP-0772
241-C-105	No, Kummener, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1998, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1998, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1998, WHC-SD-WM-TI-725	Yes, Anantakumula 1994 WHC-EP-0772
241-C-106	Yes, Kummener, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1998, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1998, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1998, WHC-SD-WM-TI-725	Yes, Anantakumula 1994 WHC-EP-0772
241-C-107	No, Kummener, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1998, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1998, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1998, WHC-SD-WM-TI-725	No, Anantakumula 1994 WHC-EP-0772
241-C-108	No, Kummener, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1998, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1998, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1998, WHC-SD-WM-TI-725	No, Anantakumula 1994 WHC-EP-0772
241-C-109	No, Kummener, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1998, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1998, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1998, WHC-SD-WM-TI-725	No, Anantakumula 1994 WHC-EP-0772
241-C-110	No, Kummener, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1998, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1998, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1998, WHC-SD-WM-TI-725	No, Anantakumula 1994 WHC-EP-0772
241-C-111	No, Kummener, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1998, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1998, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1998, WHC-SD-WM-TI-725	No, Anantakumula 1994 WHC-EP-0772
241-C-112	No, Kummener, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1998, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1998, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1998, WHC-SD-WM-TI-725	No, Anantakumula 1994 WHC-EP-0772

Table B-6. Unique Phenomena Data - Part 2. (14 Sheets)

Field Name	High Heat	Pyrophores	Syphoning	Catalysis	Corrosivity
241-C-201	No, Kummener, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1996, WHC-SD-WM-TI-725	No, Anantakrishna 1994 WHC-EP-0772
241-C-202	No, Kummener, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1996, WHC-SD-WM-TI-725	No, Anantakrishna 1994 WHC-EP-0772
241-C-203	No, Kummener, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1996, WHC-SD-WM-TI-725	No, Anantakrishna 1994 WHC-EP-0772
241-C-204	No, Kummener, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1996, WHC-SD-WM-TI-725	No, Anantakrishna 1994 WHC-EP-0772
241-S-101	No, Kummener, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1996, WHC-SD-WM-TI-725	Yes, Anantakrishna 1994 WHC-EP-0772
241-S-102	No, Kummener, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1996, WHC-SD-WM-TI-725	Yes, Anantakrishna 1994 WHC-EP-0772
241-S-103	No, Kummener, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1996, WHC-SD-WM-TI-725	Yes, Anantakrishna 1994 WHC-EP-0772
241-S-104	No, Kummener, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1996, WHC-SD-WM-TI-725	No, Anantakrishna 1994 WHC-EP-0772
241-S-105	No, Kummener, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1996, WHC-SD-WM-TI-725	No, Anantakrishna 1994 WHC-EP-0772
241-S-106	No, Kummener, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1996, WHC-SD-WM-TI-725	Yes, Anantakrishna 1994 WHC-EP-0772
241-S-107	No, Kummener, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1996, WHC-SD-WM-TI-725	Yes, Anantakrishna 1994 WHC-EP-0772
241-S-108	No, Kummener, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1996, WHC-SD-WM-TI-725	Yes, Anantakrishna 1994 WHC-EP-0772
241-S-109	No, Kummener, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1996, WHC-SD-WM-TI-725	Yes, Anantakrishna 1994 WHC-EP-0772
241-S-110	No, Kummener, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1996, WHC-SD-WM-TI-725	Yes, Anantakrishna 1994 WHC-EP-0772

Table B-5. Unique Phenomena Data - Part 2. (14 Sheets)

Field Name	High Heat	Pyrophorize	Syphoning	Catabolism	Corrosion
241-S-111	No, Kummerow, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1996, WHC-SD-WM-TI-725	Yes, Anantashvili 1994 WHC-EP-0772
241-S-112	No, Kummerow, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1996, WHC-SD-WM-TI-725	Yes, Anantashvili 1994 WHC-EP-0772
241-SX-101	No, Kummerow, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1996, WHC-SD-WM-TI-725	Yes, Anantashvili 1994 WHC-EP-0772
241-SX-102	No, Kummerow, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1996, WHC-SD-WM-TI-725	Yes, Anantashvili 1994 WHC-EP-0772
241-SX-103	Yes, Kummerow, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1996, WHC-SD-WM-TI-725	Yes, Anantashvili 1994 WHC-EP-0772
241-SX-104	No, Kummerow, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1996, WHC-SD-WM-TI-725	No, Anantashvili 1994 WHC-EP-0772
241-SX-105	No, Kummerow, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1996, WHC-SD-WM-TI-725	Yes, Anantashvili 1994 WHC-EP-0772
241-SX-106	No, Kummerow, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1996, WHC-SD-WM-TI-725	Yes, Anantashvili 1994 WHC-EP-0772
241-SX-107	Yes, Kummerow, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1996, WHC-SD-WM-TI-725	No, Anantashvili 1994 WHC-EP-0772
241-SX-108	Yes, Kummerow, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1996, WHC-SD-WM-TI-725	No, Anantashvili 1994 WHC-EP-0772
241-SX-109	Yes, Kummerow, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1996, WHC-SD-WM-TI-725	No, Anantashvili 1994 WHC-EP-0772
241-SX-110	Yes, Kummerow, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1996, WHC-SD-WM-TI-725	No, Anantashvili 1994 WHC-EP-0772
241-SX-111	Yes, Kummerow, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1996, WHC-SD-WM-TI-725	No, Anantashvili 1994 WHC-EP-0772
241-SX-112	Yes, Kummerow, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-759, Rev 0	No, Bratzel 1996, WHC-SD-WM-TI-725	No, Anantashvili 1994 WHC-EP-0772

WHC-SD-WM-TI-759, Rev 1

Table B-5. Unique Phenomena Data - Part 2. (14 Sheets)

Field Name	High Heat	Pyrophores	Syphoning	Closely	Conceal
241-SX-113	No, Kummener, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-750, Rev 0	No, Bratzi 1996, WHC-SD-WM-TI-725	No, Anashtamule 1994 WHC-EP-0772
241-SX-114	Yes, Kummener, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-750, Rev 0	No, Bratzi 1996, WHC-SD-WM-TI-725	No, Anashtamule 1994 WHC-EP-0772
241-SX-115	No, Kummener, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-750, Rev 0	No, Bratzi 1996, WHC-SD-WM-TI-725	No, Anashtamule 1994 WHC-EP-0772
241-SY-101	Yes, Kummener, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	Y ** to 244-S (Warren Brown) (1)	No, Bratzi 1996, WHC-SD-WM-TI-725	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0
241-SY-102	No (but potential for Tank Bump), Kummener, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	Y ** to 244-S (Warren Brown) (1)	No, Bratzi 1996, WHC-SD-WM-TI-725	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0
241-SY-103	No (but potential for Tank Bump), Kummener, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	Y ** to 244-S (Warren Brown) (1)	No, Bratzi 1996, WHC-SD-WM-TI-725	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0
241-T-101	No, Kummener, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-750, Rev 0	No, Bratzi 1996, WHC-SD-WM-TI-725	Assumed Leader
241-T-102	No, Kummener, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-750, Rev 0	No, Bratzi 1996, WHC-SD-WM-TI-725	No, Anashtamule 1994 WHC-EP-0772
241-T-103	No, Kummener, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-750, Rev 0	No, Bratzi 1996, WHC-SD-WM-TI-725	Assumed Leader
241-T-104	No, Kummener, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-750, Rev 0	No, Bratzi 1996, WHC-SD-WM-TI-725	Yes, Anashtamule 1994 WHC-EP-0772
241-T-105	No, Kummener, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-750, Rev 0	No, Bratzi 1996, WHC-SD-WM-TI-725	No, Anashtamule 1994 WHC-EP-0772
241-T-106	No, Kummener, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-750, Rev 0	No, Bratzi 1996, WHC-SD-WM-TI-725	Assumed Leader
241-T-107	No, Kummener, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-750, Rev 0	No, Bratzi 1996, WHC-SD-WM-TI-725	Assumed Leader

WHC-SD-WM-TI-750, Rev 1

Table B-5. Unique Phenomena Data - Part 2. (14 Sheets)

Field Name	High Heat	Pyrophoric	Syphoning	Criticality	Corrosivity
241-T-108	No, Kummener, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1998, WHC-SD-WM-HSE-007, Rev 0	No, Syphoning PHA, 1999, WHC-SD-WM-TI-758, Rev 0	No, Batzel 1998, WHC-SD-WM-TI-725	Assumed Leaker
241-T-109	No, Kummener, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1998, WHC-SD-WM-HSE-007, Rev 0	No, Syphoning PHA, 1999, WHC-SD-WM-TI-758, Rev 0	No, Batzel 1998, WHC-SD-WM-TI-725	Assumed Leaker
241-T-110	No, Kummener, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1998, WHC-SD-WM-HSE-007, Rev 0	No, Syphoning PHA, 1999, WHC-SD-WM-TI-758, Rev 0	No, Batzel 1998, WHC-SD-WM-TI-725	Yes, Anomalous 1994 WHC-EP-0772
241-T-111	No, Kummener, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1998, WHC-SD-WM-HSE-007, Rev 0	No, Syphoning PHA, 1999, WHC-SD-WM-TI-758, Rev 0	No, Batzel 1998, WHC-SD-WM-TI-725	Assumed Leaker
241-T-112	No, Kummener, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1998, WHC-SD-WM-HSE-007, Rev 0	No, Syphoning PHA, 1999, WHC-SD-WM-TI-758, Rev 0	No, Batzel 1998, WHC-SD-WM-TI-725	No, Anomalous 1994 WHC-EP-0772
241-T-201	No, Kummener, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1998, WHC-SD-WM-HSE-007, Rev 0	No, Syphoning PHA, 1999, WHC-SD-WM-TI-758, Rev 0	No, Batzel 1998, WHC-SD-WM-TI-725	No, Anomalous 1994 WHC-EP-0772
241-T-202	No, Kummener, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1998, WHC-SD-WM-HSE-007, Rev 0	No, Syphoning PHA, 1999, WHC-SD-WM-TI-758, Rev 0	No, Batzel 1998, WHC-SD-WM-TI-725	No, Anomalous 1994 WHC-EP-0772
241-T-203	No, Kummener, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1998, WHC-SD-WM-HSE-007, Rev 0	No, Syphoning PHA, 1999, WHC-SD-WM-TI-758, Rev 0	No, Batzel 1998, WHC-SD-WM-TI-725	No, Anomalous 1994 WHC-EP-0772
241-T-204	No, Kummener, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1998, WHC-SD-WM-HSE-007, Rev 0	No, Syphoning PHA, 1999, WHC-SD-WM-TI-758, Rev 0	No, Batzel 1998, WHC-SD-WM-TI-725	No, Anomalous 1994 WHC-EP-0772
241-TX-101	No, Kummener, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1998, WHC-SD-WM-HSE-007, Rev 0	No, Syphoning PHA, 1999, WHC-SD-WM-TI-758, Rev 0	No, Batzel 1998, WHC-SD-WM-TI-725	No, Anomalous 1994 WHC-EP-0772
241-TX-102	No, Kummener, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1998, WHC-SD-WM-HSE-007, Rev 0	No, Syphoning PHA, 1999, WHC-SD-WM-TI-758, Rev 0	No, Batzel 1998, WHC-SD-WM-TI-725	No, Anomalous 1994 WHC-EP-0772
241-TX-103	No, Kummener, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1998, WHC-SD-WM-HSE-007, Rev 0	No, Syphoning PHA, 1999, WHC-SD-WM-TI-758, Rev 0	No, Batzel 1998, WHC-SD-WM-TI-725	No, Anomalous 1994 WHC-EP-0772
241-TX-104	No, Kummener, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1998, WHC-SD-WM-HSE-007, Rev 0	No, Syphoning PHA, 1999, WHC-SD-WM-TI-758, Rev 0	No, Batzel 1998, WHC-SD-WM-TI-725	No, Anomalous 1994 WHC-EP-0772
241-TX-105	No, Kummener, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1998, WHC-SD-WM-HSE-007, Rev 0	No, Syphoning PHA, 1999, WHC-SD-WM-TI-758, Rev 0	No, Batzel 1998, WHC-SD-WM-TI-725	Assumed Leaker

Table B-5. Unique Phenomena Data - Part 2. (14 Sheets)

Field Name	High Heat	Pyrophages	Syphoning	Circuity	Corrosivity
241-TX-106	No, Kummener, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-725, Rev 0	No, Bratzel 1996, WHC-SD-WM-TI-725	No, Ananthakrishna 1994 WHC-EP-0772
241-TX-107	No, Kummener, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-725, Rev 0	No, Bratzel 1996, WHC-SD-WM-TI-725	Assumed Leaker
241-TX-108	No, Kummener, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-725, Rev 0	No, Bratzel 1996, WHC-SD-WM-TI-725	No, Ananthakrishna 1994 WHC-EP-0772
241-TX-109	No, Kummener, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-725, Rev 0	No, Bratzel 1996, WHC-SD-WM-TI-725	No, Ananthakrishna 1994 WHC-EP-0772
241-TX-110	No, Kummener, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-725, Rev 0	No, Bratzel 1996, WHC-SD-WM-TI-725	Assumed Leaker
241-TX-111	No, Kummener, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-725, Rev 0	No, Bratzel 1996, WHC-SD-WM-TI-725	No, Ananthakrishna 1994 WHC-EP-0772
241-TX-112	No, Kummener, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-725, Rev 0	No, Bratzel 1996, WHC-SD-WM-TI-725	No, Ananthakrishna 1994 WHC-EP-0772
241-TX-113	No, Kummener, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-725, Rev 0	No, Bratzel 1996, WHC-SD-WM-TI-725	Assumed Leaker
241-TX-114	No, Kummener, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-725, Rev 0	No, Bratzel 1996, WHC-SD-WM-TI-725	Assumed Leaker
241-TX-115	No, Kummener, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-725, Rev 0	No, Bratzel 1996, WHC-SD-WM-TI-725	Assumed Leaker
241-TX-116	No, Kummener, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-725, Rev 0	No, Bratzel 1996, WHC-SD-WM-TI-725	Assumed Leaker
241-TX-117	No, Kummener, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-725, Rev 0	No, Bratzel 1996, WHC-SD-WM-TI-725	Assumed Leaker
241-TX-118	No, Kummener, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-725, Rev 0	No, Bratzel 1996, WHC-SD-WM-TI-725	Assumed Leaker
241-TX-101	No, Kummener, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Per, Interview with Kevin Mull	No, Bratzel 1996, WHC-SD-WM-TI-725	Assumed Leaker

Table B-5. Unique Phenomena Data - Part 2. (14 Sheets)

Field Name	High Heat	Prophesies	Syphoning	Criticality	Company
241-TY-102	No, Kummerow, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Per, Interview with Kevin Hall	No, Bratzel 1996, WHC-SD-WM-TI-725	Yes, Ananthakrishna 1994 WHC-EP-0772
241-TY-103	No, Kummerow, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Per, Interview with Kevin Hall	No, Bratzel 1996, WHC-SD-WM-TI-725	Assumed Leak
241-TY-104	No, Kummerow, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Per, Interview with Kevin Hall	No, Bratzel 1996, WHC-SD-WM-TI-725	Assumed Leak
241-TY-105	No, Kummerow, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Per, Interview with Kevin Hall	No, Bratzel 1996, WHC-SD-WM-TI-725	Assumed Leak
241-TY-106	No, Kummerow, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Per, Interview with Kevin Hall	No, Bratzel 1996, WHC-SD-WM-TI-725	Assumed Leak
241-U-101	No, Kummerow, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-750, Rev 0	No, Bratzel 1996, WHC-SD-WM-TI-725	Assumed Leak
241-U-102	No, Kummerow, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-750, Rev 0	No, Bratzel 1996, WHC-SD-WM-TI-725	Yes, Ananthakrishna 1994 WHC-EP-0772
241-U-103	No, Kummerow, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-750, Rev 0	No, Bratzel 1996, WHC-SD-WM-TI-725	Yes, Ananthakrishna 1994 WHC-EP-0772
241-U-104	No, Kummerow, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-750, Rev 0	No, Bratzel 1996, WHC-SD-WM-TI-725	Assumed Leak
241-U-105	No, Kummerow, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-750, Rev 0	No, Bratzel 1996, WHC-SD-WM-TI-725	Yes, Ananthakrishna 1994 WHC-EP-0772
241-U-106	No, Kummerow, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-750, Rev 0	No, Bratzel 1996, WHC-SD-WM-TI-725	Yes, Ananthakrishna 1994 WHC-EP-0772
241-U-107	No, Kummerow, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-750, Rev 0	No, Bratzel 1996, WHC-SD-WM-TI-725	Yes, Ananthakrishna 1994 WHC-EP-0772
241-U-108	No, Kummerow, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-750, Rev 0	No, Bratzel 1996, WHC-SD-WM-TI-725	Yes, Ananthakrishna 1994 WHC-EP-0772
241-U-109	No, Kummerow, 1995, WHC-SD-WM-SARR-010, Rev 1	No, SAIC, 1996, WHC-SD-WM-HIE-007, Rev 0	No, Syphoning PHA, 1996, WHC-SD-WM-TI-750, Rev 0	No, Bratzel 1996, WHC-SD-WM-TI-725	Yes, Ananthakrishna 1994 WHC-EP-0772

WHC-SD-WM-TI-750, Rev 1

Table B-5. Unique Phenomena Data - Part 2. (14 Sheets)

Field Name	High Heat	Pyrophores	Syphoning	Criticality	Corrosivity
241-U-110	No, Kummener, 1995, WHC-SD-WMA-SARR-010, Rev 1	No, SAIC, 1998, WHC-SD-WMA-HIE-007, Rev 0	No, Syphoning PHA, 1998, WHC-SD-WMA-TI-759, Rev 0	No, Batzel 1998, WHC-SD-WMA-TI-725	Assumed Leaker
241-U-111	No, Kummener, 1995, WHC-SD-WMA-SARR-010, Rev 1	No, SAIC, 1998, WHC-SD-WMA-HIE-007, Rev 0	No, Syphoning PHA, 1998, WHC-SD-WMA-TI-759, Rev 0	No, Batzel 1998, WHC-SD-WMA-TI-725	Yes, Anomalous 1994 WHC-EP-0772
241-U-112	No, Kummener, 1995, WHC-SD-WMA-SARR-010, Rev 1	No, SAIC, 1998, WHC-SD-WMA-HIE-007, Rev 0	No, Syphoning PHA, 1998, WHC-SD-WMA-TI-759, Rev 0	No, Batzel 1998, WHC SD-WMA-TI-725	Assumed Leaker
241-U-201	No, Kummener, 1995, WHC-SD-WMA-SARR-010, Rev 1	No, SAIC, 1998, WHC-SD-WMA-HIE-007, Rev 0	No, Syphoning PHA, 1998, WHC-SD-WMA-TI-759, Rev 0	No, Batzel 1998, WHC-SD-WMA-TI-725	No, Anomalous 1994 WHC-EP-0772
241-U-202	No, Kummener, 1995, WHC-SD-WMA-SARR-010, Rev 1	No, SAIC, 1998, WHC-SD-WMA-HIE-007, Rev 0	No, Syphoning PHA, 1998, WHC-SD-WMA-TI-759, Rev 0	No, Batzel 1998, WHC-SD-WMA-TI-725	No, Anomalous 1994 WHC-EP-0772
241-U-203	No, Kummener, 1995, WHC-SD-WMA-SARR-010, Rev 1	No, SAIC, 1998, WHC-SD-WMA-HIE-007, Rev 0	No, Syphoning PHA, 1998, WHC-SD-WMA-TI-759, Rev 0	No, Batzel 1998, WHC-SD-WMA-TI-725	No, Anomalous 1994 WHC-EP-0772
241-U-204	No, Kummener, 1995, WHC-SD-WMA-SARR-010, Rev 1	No, SAIC, 1998, WHC-SD-WMA-HIE-007, Rev 0	No, Syphoning PHA, 1998, WHC-SD-WMA-TI-759, Rev 0	No, Batzel 1998, WHC-SD-WMA-TI-725	No, Anomalous 1994 WHC-EP-0772
244-A	Unknown or currently undocumented	No, SAIC, 1998, WHC-SD-WMA-HIE-007, Rev 0	No, Syphoning PHA, 1998, WHC-SD-WMA-TI-759, Rev 0	No, Batzel 1998, WHC-SD-WMA-TI-725	Unknown or currently undocumented
244-BX	Unknown or currently undocumented	No, SAIC, 1998, WHC-SD-WMA-HIE-007, Rev 0	No, Syphoning PHA, 1998, WHC-SD-WMA-TI-759, Rev 0	No, Batzel 1998, WHC-SD-WMA-TI-725	Unknown or currently undocumented
244-CR	Unknown or currently undocumented	No, SAIC, 1998, WHC-SD-WMA-HIE-007, Rev 0	No, Syphoning PHA, 1998, WHC-SD-WMA-TI-759, Rev 0	No, Batzel 1998, WHC-SD-WMA-TI-725	Unknown or currently undocumented
244-S	Unknown or currently undocumented	No, SAIC, 1998, WHC-SD-WMA-HIE-007, Rev 0	Yes, Could overflow due to syphoning from 102-3Y, Syphoning PHA, 1998, WHC-SD-WMA-TI-759, Rev 0	No, Batzel 1998, WHC-SD-WMA-TI-725	Unknown or currently undocumented
244-TX	Unknown or currently undocumented	No, SAIC, 1998, WHC-SD-WMA-HIE-007, Rev 0	No, Per, Interview with Kevin Hull	No, Batzel 1998, WHC-SD-WMA-TI-725	Unknown or currently undocumented
244-U	Unknown or currently undocumented	No, SAIC, 1998, WHC-SD-WMA-HIE-007, Rev 0	No, Syphoning PHA, 1998, WHC-SD-WMA-TI-759, Rev 0	No, Batzel 1998, WHC-SD-WMA-TI-725	Unknown or currently undocumented

Table B-5. Facility Configuration Data. (16 Sheets)

Field Name	Type	Ventilation	Comment V	ALC	Comment ALC	Steam Cells	Comment SC	Heater/Transfer/ Feed Pumps	Comments MP
241-A-101	Single shell tank	Passive	One breather filter with one seal loop	No		No		No	
241-A-102	Single shell tank	Passive	One breather filter with one seal loop	No		No		No	
241-A-103	Single shell tank	Passive	One breather filter with one seal loop	No		No		No	
241-A-104	Single shell tank	Passive	One breather filter with one seal loop	No		No		No	
241-A-105	Single shell tank	Passive	One breather filter with one seal loop	No		No		No	
241-A-106	Single shell tank	Passive	One breather filter with one seal loop	No		No		No	
241-AH-101	Double shell tank	Active	Annulus has filtered inlet, K1 primary tank ventilation system, K2 annulus ventilation system	No		No		No	
241-AH-102	Double shell tank	Active	Annulus has filtered inlet, K1 primary tank ventilation system, K2 annulus ventilation system	No		No		No	
241-AH-103	Double shell tank	Active	Annulus has filtered inlet, K1 primary tank ventilation system, K2 annulus ventilation system	No		No		No	

Table E-6. Facility Configuration Data. (16 Sheets)

Field Name	Type	Ventilation	Comment V	ALC	Comment ALC	Steam Cols	Comment SC	Blow/Transfer/ Feed Pumps	Comments M/P
241-AN-104	Double shell tank	Active	Annulus has filtered inlet, K1 primary tank ventilation system, K2 annulus ventilation system	No		No		No	
241-AN-105	Double shell tank	Active	Annulus has filtered inlet, K1 primary tank ventilation system, K2 annulus ventilation system	No		No		No	
241-AN-106	Double shell tank	Active	Annulus has filtered inlet, K1 primary tank ventilation system, K2 annulus ventilation system	No		No		No	
241-AN-107	Double shell tank	Active	Annulus has filtered inlet, K1 primary tank ventilation system, K2 annulus ventilation system	Yes		No		No	
241-AP-101	Double shell tank	Active	K1 primary tank ventilation system, K2 annulus ventilation system	No		No		No	
241-AP-102	Double shell tank	Active	K1 primary tank ventilation system, K2 annulus ventilation system	No		No		No	

Table B-6. Facility Configuration Data. (16 Sheets)

Field Name	Type	Ventilation	Comment V	ALC	Comment ALC	Steam Coils	Comment SC	Mixed/Transfer Feed Pumps	Comments MP
241-AP-103	Double shell tank	Active	K1 primary tank ventilation system, K2 annulus ventilation system	No		No		No	
241-AP-104	Double shell tank	Active	K1 primary tank ventilation system, K2 annulus ventilation system	No		No		No	
241-AP-105	Double shell tank	Active	K1 primary tank ventilation system, K2 annulus ventilation system	No		No		No	
241-AP-106	Double shell tank	Active	K1 primary tank ventilation system, K2 annulus ventilation system	No		No		No	
241-AP-107	Double shell tank	Active	K1 primary tank ventilation system, K2 annulus ventilation system	No		No		No	
241-AP-108	Double shell tank	Active	K1 primary tank ventilation system, K2 annulus ventilation system	No		No		No	
241-AW-101	Double shell tank	Active	K1 primary tank ventilation system, K2 annulus ventilation system	No		No		No	
241-AW-102	Double shell tank	Active	K1 primary tank ventilation system, K2 annulus ventilation system	Yes		No		No	

Table B-1. Facility Configuration Data. (16 Sheets)

Field Name	Type	Ventilation	Comment V	ALC	Comment ALC	Steam Cols	Comment SC	Blowdown/Transfer Feed Pumps	Comments MP
241-AW-103	Double shell tank	Active	K1 primary tank ventilation system, K2 annulus ventilation system	No		No		No	
241-AW-104	Double shell tank	Active	K1 primary tank ventilation system, K2 annulus ventilation system	No		No		No	
241-AW-105	Double shell tank	Active	K1 primary tank ventilation system, K2 annulus ventilation system	No		No		No	
241-AW-106	Double shell tank	Active	K1 primary tank ventilation system, K2 annulus ventilation system	No		No		No	
241-AX-101	Single shell tank	Passive	One breather filter with one seal loop	No	The ALC is still in the tank. There are flanged covers on the nozzles.	No		No	
241-AX-102	Single shell tank	Passive	One breather filter with one seal loop	No	The ALC is still in the tank. There are flanged covers on the nozzles.	No		No	
241-AX-103	Single shell tank	Passive	One breather filter with one seal loop	No	The ALC is still in the tank. There are flanged covers on the nozzles.	No		No	

Table B-4. Facility Configuration Data. (16 Sheets)

Field Name	Type	Ventilation	Comment V	ALC	Comment ALC	Steam Coils	Comment BC	Motor/Transfer Feed Pumps	Comments MP
241-AX-104	Single shell tank	Passive	One breather filter with one seal loop	No	The ALC is still in the tank. There are hinged covers on the fibers	No		No	
241-AY-101	Double shell tank	Active	Tank farm A primary ventilation system	Yes		No	Steam coils in tank, steam to facility is blanked off	No	
241-AZ-102	Double shell tank	Active	Tank farm A primary ventilation system	Yes		No	Steam coils in tank, steam to facility is blanked off	No	
241-AZ-101	Double shell tank	Active	Tank farm A primary ventilation system	Yes		No	Steam coils in tank, steam to facility is blanked off	No	Two gear pump pumps are being installed in AZ-101 for storage washing (Project W-151)
241-AZ-102	Double shell tank	Active	Tank farm A primary ventilation system	Yes		No	Steam coils in tank, steam to facility is blanked off	No	
241-B-101	Single shell tank	Passive	One breather filter with one seal loop	No		No	No steam to B Tank Farm	No	
241-B-102	Single shell tank	Passive	One breather filter with one seal loop	No		No	No steam to B Tank Farm	No	
241-B-103	Single shell tank	Passive	One breather filter with one seal loop	No		No	No steam to B Tank Farm	No	
241-B-104	Single shell tank	Passive	One breather filter with one seal loop	No		No	No steam to B Tank Farm	No	

Table B-6. Facility Configuration Data. (16 Sheets)

Field Name	Type	Ventilation	Comment V	ALC	Comment ALC	Steam Cols	Comment SC	Water/Transfer/ Feed Pumps	Comments MP
241-B-105	Single shell tank	Passive	One breather filter with one seal loop	No		No	No steam to B Tank Farm	No	
241-B-106	Single shell tank	Passive	One breather filter with one seal loop	No		No	No steam to B Tank Farm	No	
241-B-107	Single shell tank	Passive	One breather filter with one seal loop	No		No	No steam to B Tank Farm	No	
241-B-108	Single shell tank	Passive	One breather filter with one seal loop	No		No	No steam to B Tank Farm	No	
241-B-109	Single shell tank	Passive	One breather filter with one seal loop	No		No	No steam to B Tank Farm	No	
241-B-110	Single shell tank	Passive	One breather filter with one seal loop	No		No	No steam to B Tank Farm	No	
241-B-111	Single shell tank	Passive	One breather filter with one seal loop	No		No	No steam to B Tank Farm	No	
241-B-112	Single shell tank	Passive	One breather filter with one seal loop	No		No	No steam to B Tank Farm	No	
241-B-201	Single shell tank	Passive	One breather filter with one seal loop	No		No	No steam to B Tank Farm	No	
241-B-202	Single shell tank	Passive	One breather filter with one seal loop	No		No	No steam to B Tank Farm	No	
241-B-203	Single shell tank	Passive	One breather filter with one seal loop	No		No	No steam to B Tank Farm	No	
241-B-204	Single shell tank	Passive	One breather filter with one seal loop	No		No	No steam to B Tank Farm	No	
241-BX-101	Single shell tank	Passive	One breather filter with one seal loop	No		No	No steam to BX Tank Farm	No	
241-BX-102	Single shell tank	Passive	One breather filter with one seal loop	No		No	No steam to BX Tank Farm	No	

Table B-8. Facility Configuration Data. (16 Sheets)

Field Name	Type	Verification	Comment V	ALC	Comment ALC	Steam Code	Comment BC	Alarm/Transfer/ Feed Pumps	Comments MP
241-BX-103	Single shell tank	Passive	One breather filter with one seal loop	No		No	No steam to BX Tank Farm	No	
241-BX-104	Single shell tank	Passive	One breather filter with one seal loop	No		No	No steam to BX Tank Farm	No	
241-BX-105	Single shell tank	Passive	One breather filter with one seal loop	No		No	No steam to BX Tank Farm	No	
241-BX-106	Single shell tank	Passive	One breather filter with one seal loop	No		No	No steam to BX Tank Farm	No	
241-BX-107	Single shell tank	Passive	One breather filter with one seal loop	No		No	No steam to BX Tank Farm	No	
241-BX-108	Single shell tank	Passive	One breather filter with one seal loop	No		No	No steam to BX Tank Farm	No	
241-BX-109	Single shell tank	Passive	One breather filter with one seal loop	No		No	No steam to BX Tank Farm	No	
241-BX-110	Single shell tank	Passive	One breather filter with one seal loop	No		No	No steam to BX Tank Farm	No	
241-BX-111	Single shell tank	Passive	One breather filter with one seal loop	No		No	No steam to BX Tank Farm	No	
241-BX-112	Single shell tank	Passive	One breather filter with one seal loop	No		No	No steam to BX Tank Farm	No	
241-BY-101	Single shell tank	Passive	One breather filter with one seal loop	No	Present, not presently operable	No	No steam to BY Tank Farm	No	
241-BY-102	Single shell tank	Passive	One breather filter with one seal loop	No		No	No steam to BY Tank Farm	No	
241-BY-103	Single shell tank	Passive	One breather filter with one seal loop	No	Present, not presently operable	No	No steam to BY Tank Farm	No	

Table B-8. Facility Configuration Data. (16 Sheets)

Field Name	Type	Verification	Comment V	ALC	Comment ALC	Steam Cols	Comment SC	Steam/Transfer/ Feed Pumps	Comments LSP
241-BY-104	Single shell tank	Passive	One breather filter with one seal loop	No		No	No steam to BY Tank Farm	No	
241-BY-105	Single shell tank	Passive	One breather filter with one seal loop	No	Present, not presently operable	No	No steam to BY Tank Farm	No	
241-BY-106	Single shell tank	Passive	One breather filter with one seal loop	No	Present, not presently operable	No	No steam to BY Tank Farm	No	
241-BY-107	Single shell tank	Passive	One breather filter with one seal loop	No	Present, not presently operable	No	No steam to BY Tank Farm	No	
241-BY-108	Single shell tank	Passive	One breather filter with one seal loop	No	Present, not presently operable	No	No steam to BY Tank Farm	No	
241-BY-109	Single shell tank	Passive	One breather filter with one seal loop	No		No	No steam to BY Tank Farm	No	
241-BY-110	Single shell tank	Passive	One breather filter with one seal loop	No	Present, not presently operable	No	No steam to BY Tank Farm	No	
241-BY-111	Single shell tank	Passive	One breather filter with one seal loop	No	Present, not presently operable	No	No steam to BY Tank Farm	No	
241-BY-112	Single shell tank	Passive	One breather filter with one seal loop	No		No	No steam to BY Tank Farm	No	
241-C-101	Single shell tank	Passive	One breather filter with one seal loop	No		No	No steam to C Tank Farm	No	
241-C-102	Single shell tank	Passive	One breather filter with one seal loop	No		No	No steam to C Tank Farm	No	
241-C-103	Single shell tank	Passive	One breather filter with one seal loop	No		No	No steam to C Tank Farm	No	

Table B-4. Facility Configuration Data. (18 Sheets)

Field Name	Type	Ventilation	Comment V	ALC	Comment ALC	Steam Code	Cement SG	Steam/Transfer Feed Pumps	Comments MP
241-C-104	Single shell tank	Passive	One breather filter with one seal loop	No		No	No steam to C Tank Farm	No	
241-C-105	Single shell tank	Active	Extruder	No		No	No steam to C Tank Farm	No	
241-C-106	Single shell tank	Active	Extruder	No		No	No steam to C Tank Farm	No	
241-C-107	Single shell tank	Passive	One breather filter with one seal loop	No		No	No steam to C Tank Farm	No	
241-C-108	Single shell tank	Passive	One breather filter with one seal loop	No		No	No steam to C Tank Farm	No	
241-C-109	Single shell tank	Passive	One breather filter with one seal loop	No		No	No steam to C Tank Farm	No	
241-C-110	Single shell tank	Passive	One breather filter with one seal loop	No		No	No steam to C Tank Farm	No	
241-C-111	Single shell tank	Passive	One breather filter with one seal loop	No		No	No steam to C Tank Farm	No	
241-C-112	Single shell tank	Passive	One breather filter with one seal loop	No		No	No steam to C Tank Farm	No	
241-C-201	Single shell tank	Passive	One breather filter with one seal loop	No		No	No steam to C Tank Farm	No	
241-C-202	Single shell tank	Passive	One breather filter with one seal loop	No		No	No steam to C Tank Farm	No	
241-C-203	Single shell tank	Passive	One breather filter with one seal loop	No		No	No steam to C Tank Farm	No	
241-C-204	Single shell tank	Passive	One breather filter with one seal loop	No		No	No steam to C Tank Farm	No	
241-S-101	Single shell tank	Passive	One breather filter with one seal loop	No		No	No steam to S Tank Farm	No	

Table B-6. Facility Configuration Data. (16 Sheets)

Field Name	Type	Ventilation	Comment V	ALC	Comment ALC	Steam Code	Comment SQ	Mount/Transfer/ Feed Pumps	Comments MP
241-S-102	Single shell tank	Passive	One breather filter with one seal loop	No		No	No steam to S Tank Farm	No	
241-S-103	Single shell tank	Passive	One breather filter with one seal loop	No		No	No steam to S Tank Farm	No	
241-S-104	Single shell tank	Passive	One breather filter with one seal loop	No		No	No steam to S Tank Farm	No	
241-S-105	Single shell tank	Passive	One breather filter with one seal loop	No		No	No steam to S Tank Farm	No	
241-S-106	Single shell tank	Passive	One breather filter with one seal loop	No		No	No steam to S Tank Farm	No	
241-S-107	Single shell tank	Passive	One breather filter with one seal loop	No		No	No steam to S Tank Farm	No	
241-S-108	Single shell tank	Passive	One breather filter with one seal loop	No		No	No steam to S Tank Farm	No	
241-S-109	Single shell tank	Passive	One breather filter with one seal loop	No		No	No steam to S Tank Farm	No	
241-S-110	Single shell tank	Passive	One breather filter with one seal loop	No		No	No steam to S Tank Farm	No	
241-S-111	Single shell tank	Passive	One breather filter with one seal loop	No		No	No steam to S Tank Farm	No	
241-S-112	Single shell tank	Passive	One breather filter with one seal loop	No		No	No steam to S Tank Farm	No	
241-SX-101	Single shell tank	Active	Vented through a shared underground piping system to SX-109	No		No	No steam to SX Tank Farm	No	
241-SX-102	Single shell tank	Active	Vented through a shared underground piping system to SX-109	No		No	No steam to SX Tank Farm	No	

Table B-6. Facility Configuration Data. (14 Sheets)

Field Name	Type	Verified	Comment V	ALC	Comment ALC	Steam Code	Comment SC	Interlocked Feed Pumps	Comments MP
241-SX-103	Single shell tank	Active	Vented through a shared underground piping system to SX-109	No		No	No steam to SX Tank Farm	No	
241-SX-104	Single shell tank	Active	Vented through a shared underground piping system to SX-109	No		No	No steam to SX Tank Farm	No	
241-SX-105	Single shell tank	Active	Vented through a shared underground piping system to SX-109	No		No	No steam to SX Tank Farm	No	
241-SX-106	Single shell tank	Active	Vented through a shared underground piping system to SX-109	No		No	No steam to SX Tank Farm	No	
241-SX-107	Single shell tank	Active	Vented to an above ground shared system	No		No	No steam to SX Tank Farm	No	
241-SX-108	Single shell tank	Active	Vented to an above ground shared system	No		No	No steam to SX Tank Farm	No	
241-SX-109	Single shell tank	Active	Vented to an above ground shared system	No		No	No steam to SX Tank Farm	No	
241-SX-110	Single shell tank	Active	Vented to an above ground shared system	No		No	No steam to SX Tank Farm	No	
241-SX-111	Single shell tank	Active	Vented to an above ground shared system	No		No	No steam to SX Tank Farm	No	

Table B-6. Facility Configuration Data. (18 Sheets)

Field Name	Type	Ventilation	Equipment V	ALC	Comment ALC	Blow Cots	Comment SC	Inject/Transfer/ Feed Pump	Comments MP
241-SX-112	Single shell tank	Active	Vented to an above ground shared system	No		No	No steam to SX Tank Farm	No	
241-SX-113	Single shell tank	Passive		No		No	No steam to SX Tank Farm	No	
241-SX-114	Single shell tank	Active	Vented to an above ground shared system	No		No	No steam to SX Tank Farm	No	
241-SX-115	Single shell tank	Passive		No		No	No steam to SX Tank Farm	No	
241-SY-101	Double shell tank	Active	Shared ventilation system	No		No	No steam to SY Tank Farm	Yes	
241-SY-102	Double shell tank	Active	Shared ventilation system	No		No	No steam to SY Tank Farm	Yes	
241-SY-103	Double shell tank	Active	Shared ventilation system	No		No	No steam to SY Tank Farm	No	
241-T-101	Single shell tank	Passive	One breather filter with one seal loop	No		No		No	
241-T-102	Single shell tank	Passive	One breather filter with one seal loop	No		No		No	
241-T-103	Single shell tank	Passive	One breather filter with one seal loop	No		No		No	
241-T-104	Single shell tank	Passive	One breather filter with one seal loop	No		No		No	
241-T-105	Single shell tank	Passive	One breather filter with one seal loop	No		No		No	
241-T-106	Single shell tank	Passive	One breather filter with one seal loop	No		No		No	

Table B-6. Facility Configuration Data. (16 Sheets)

Field Name	Type	Ventilation	Comment V	ALC	Comment ALC	Steam Code	Comment BC	Inter/Transfer/ Feed Pumps	Comments MP
241-T-107	Single shell tank	Passive	One breather filter with one seal loop	No		No		No	
241-T-108	Single shell tank	Passive	One breather filter with one seal loop	No		No		No	
241-T-109	Single shell tank	Passive	One breather filter with one seal loop	No		No		No	
241-T-110	Single shell tank	Passive	One breather filter with one seal loop	No		No		No	
241-T-111	Single shell tank	Passive	One breather filter with one seal loop	No		No		No	
241-T-112	Single shell tank	Passive	One breather filter with one seal loop	No		No		No	
241-T-201	Single shell tank	Passive	One breather filter with one seal loop	No		No		No	
241-T-202	Single shell tank	Passive	One breather filter with one seal loop	No		No		No	
241-T-203	Single shell tank	Passive	One breather filter with one seal loop	No		No		No	
241-T-204	Single shell tank	Passive	One breather filter with one seal loop	No		No		No	
241-TX-101	Single shell tank	Passive	One breather filter with one seal loop	No		No		No	
241-TX-102	Single shell tank	Passive	One breather filter with one seal loop	No		No		No	
241-TX-103	Single shell tank	Passive	One breather filter with one seal loop	No		No		No	
241-TX-104	Single shell tank	Passive	One breather filter with one seal loop	No		No		No	

Table B-5. Facility Configuration Data. (16 Sheets)

Field Name	Type	Ventilation	Comment V	ALC	Comment ALC	Steam Coils	Comment SC	Heater/Transfer Feed Pumps	Comments MIP
241-TX-105	Single shell tank	Passive	One breather filter with one seal loop	No		No		No	
241-TX-106	Single shell tank	Passive	One breather filter with one seal loop	No		No		No	
241-TX-107	Single shell tank	Passive	One breather filter with one seal loop	No		No		No	
241-TX-108	Single shell tank	Passive	One breather filter with one seal loop	No		No		No	
241-TX-109	Single shell tank	Passive	One breather filter with one seal loop	No		No		No	
241-TX-110	Single shell tank	Passive	One breather filter with one seal loop	No		No		No	
241-TX-111	Single shell tank	Passive	One breather filter with one seal loop	No		No		No	
241-TX-112	Single shell tank	Passive	One breather filter with one seal loop	No		No		No	
241-TX-113	Single shell tank	Passive	One breather filter with one seal loop	No		No		No	
241-TX-114	Single shell tank	Passive	One breather filter with one seal loop	No		No		No	
241-TX-115	Single shell tank	Passive	One breather filter with one seal loop	No		No		No	
241-TX-116	Single shell tank	Passive	One breather filter with one seal loop	No		No		No	
241-TX-117	Single shell tank	Passive	One breather filter with one seal loop	No		No		No	
241-TX-118	Single shell tank	Passive	One breather filter with one seal loop	No		No		No	

Table B-6. Facility Configuration Data. (16 Sheets)

Field Name	Type	Ventilation	Comments V	ALC	Comments ALC	Steam Cuts	Comments SC	Water/Transfer/Feed Pumps	Comments MP
241-TY-101	Single shell tank	Passive	One breather filter with one seal loop	No		No		No	
241-TY-102	Single shell tank	Passive	One breather filter with one seal loop	No		No		No	
241-TY-103	Single shell tank	Passive	One breather filter with one seal loop	No		No		No	
241-TY-104	Single shell tank	Passive	One breather filter with one seal loop	No		No		No	
241-TY-105	Single shell tank	Passive	One breather filter with one seal loop	No		No		No	
241-TY-106	Single shell tank	Passive	One breather filter with one seal loop	No		No		No	
241-U-101	Single shell tank	Passive	One breather filter with one seal loop	No		No		No	
241-U-102	Single shell tank	Passive	One breather filter with one seal loop	No		No		No	
241-U-103	Single shell tank	Passive	One breather filter with one seal loop	No		No		No	
241-U-104	Single shell tank	Passive	One breather filter with one seal loop	No		No		No	
241-U-105	Single shell tank	Passive	One breather filter with one seal loop	No		No		No	
241-U-106	Single shell tank	Passive	One breather filter with one seal loop	No		No		No	
241-U-107	Single shell tank	Passive	One breather filter with one seal loop	No		No		No	
241-U-108	Single shell tank	Passive	One breather filter with one seal loop	No		No		No	

Table B-6. Facility Configuration Data. (16 Sheets)

Field Name	Type	Verbosity	Comment V	ALC	Comment ALC	Beam Code	Comment BC	Misc/Transfer/ Feed Pumps	Comments MP
241-U-109	Single shell tank	Passive	One breather filler with one seal loop	No		No		No	
241-U-110	Single shell tank	Passive	One breather filler with one seal loop	No		No		No	
241-U-111	Single shell tank	Passive	One breather filler with one seal loop	No		No		No	
241-U-112	Single shell tank	Passive	One breather filler with one seal loop	No		No		No	
241-U-201	Single shell tank	Passive	One breather filler with one seal loop	No		No		No	
241-U-202	Single shell tank	Passive	One breather filler with one seal loop	No		No		No	
241-U-203	Single shell tank	Passive	One breather filler with one seal loop	No		No		No	
241-U-204	Single shell tank	Passive	One breather filler with one seal loop	No		No		No	

DISTRIBUTION SHEET

To	From	Page 1 of 1
Distribution	B.J. Niemi	Date 8/1/97
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Name	MSIN	Text With All Attach.	Text Only	Attach./ Appendix Only	EDT/ECN Only
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