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**ENVIRONMENTAL
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**Environmental Restoration Plan
for the Transfer of Surplus Facilities
to the Facility Transition Program
at Oak Ridge National Laboratory**

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FOR THE UNITED STATES
DEPARTMENT OF ENERGY

ENERGY SYSTEMS

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Energy Systems Environmental Restoration Program
ORNL Environmental Restoration Program

**Environmental Restoration Plan
for the Transfer of Surplus Facilities
to the Facility Transition Program
at Oak Ridge National Laboratory**

Date Issued—August 1995

Prepared by
Science Applications International Corporation
Oak Ridge, Tennessee

Prepared for
U.S. Department of Energy
Office of Environmental Management
under budget and reporting code EW 20

Environmental Restoration and Waste Management Programs
Oak Ridge National Laboratory
Oak Ridge, Tennessee 37831-6285
managed by
LOCKHEED MARTIN ENERGY SYSTEMS, INC.
for the
U.S. DEPARTMENT OF ENERGY
under contract DE-AC05-84OR21400

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CONTENTS

ABBREVIATIONS	vii
PREFACE	ix
EXECUTIVE SUMMARY	xii
1. INTRODUCTION	1
1.1 PURPOSE	1
1.2 BACKGROUND	1
1.3 SCOPE	3
1.4 ROLES AND RESPONSIBILITIES	3
1.4.1 ORNL ER Program Manager	3
1.4.2 ORNL ER Facility Program Manager	4
1.4.3 Transition Working Group	5
2. FACILITY TRANSITION PROCESS	6
2.1 NOTIFICATION	6
2.2 RESOURCE IDENTIFICATION	8
2.3 TRANSFER OF RESPONSIBILITY	8
2.4 FACILITY DEACTIVATION	8
2.5 SURVEILLANCE AND MAINTENANCE	10
2.6 DISPOSITION	10
3. FACILITY TURNOVER AND ACCEPTANCE BY EM-40	12
4. GLOSSARY	15
Appendix A: Secretary of Energy Memorandum	A-1
Appendix B: Surplus Facility Inventory Assessment Project Checklist	B-1
Appendix C: Surface Building/Structure Identification and Grouping Flowchart	C-1
Figure 1. ORNL ER Transition Program organization and implementation	2
Table 1. Schedules transition facilities	7

ABBREVIATIONS

ADS	Activity Data Sheet
CAP	Cost Account Plan
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
D&D	decontamination and decommissioning
DOE	Department of Energy
DP	Office of Defense Programs
EM	DOE Office of Environmental Restoration and Waste Management
EM-1	Assistant Secretary for the Office of Environmental Restoration and Waste Management
EM-40	Office of Environmental Restoration
EM-60	Office of Facility Transition and Management
ER	environmental restoration
ES&H	environmental safety and health
FTE	full-time equivalent
FY	fiscal year
HSE	health, safety, and environmental
MOA	Memorandum of Agreement
NEPA	National Environmental Policy Act
ORNL	Oak Ridge National Laboratory
OSR	Operational Safety Report
RCRA	Resource Conservation and Recovery Act
S&M	surveillance and maintenance
SFIA	Surplus Facility Inventory and Assessment
TSR	Technical Safety Requirement
TWG	Transition Working Group

PREFACE

This document is being written in response to the Federal Facility Agreement (FFA) signed by the U.S. Department of Energy, the U.S. Environmental Protection Agency, and the Tennessee Department of Environment and Conservation in November 1991. The FFA was required by the Superfund Amendments and Reauthorization portion of the Comprehensive Environmental Response, Compensation, and Liability Act for all federal facilities placed on the remediation of the liquid low-level waste system tanks that have been removed from service at Oak Ridge National Laboratory, Oak Ridge, Tennessee.

EXECUTIVE SUMMARY

This report will provide guidance on management, coordination, and integration of plans to transition facilities to the Facility Transition Program and activities as related to the Oak Ridge National Laboratory (ORNL) Environmental Restoration Program facilities. This report gives (1) guidance on the steps necessary for identifying ORNL surplus facilities, (2) interfaces of Surveillance and Maintenance (S&M) and Isotope Facility Deactivation program managers, (3) roles and responsibilities of the facility managers, and (4) initial S&M requirements upon acceptance into the Facility Transition Program.

1. INTRODUCTION

1.1 PURPOSE

The purpose of this document is to provide guidance on management, coordination, and integration of plans to transition facilities to the Facility Transition Program and activities as related to the Oak Ridge National Laboratory (ORNL) Environmental Restoration (ER) Program facilities. This document provides guidance on the steps necessary for identifying ORNL surplus facilities, interfaces of Surveillance and Maintenance (S&M) and Isotope Facility Deactivation Program Managers, roles and responsibilities of the facility managers, and initial S&M requirements upon acceptance into the Facility Transition Program.

Implementation of the Surplus Facility Inventory and Assessment (SFIA) project will anticipate transfer landlord responsibilities from the Office of Defense Programs (DP) to the Department of Energy (DOE) Office of Environmental Restoration and Waste Management (EM). As shown in Fig. 1, management of this implementation plan is the responsibility of the ORNL ER Program Manager and the ORNL ER Facility Program Manager. A team of technical staff will be formed to compose a Transition Working Group (TWG) that will provide (1) management support and liaison interface between functional organizations; (2) technical support for managing, planning, organizing, scheduling, and implementing subtask activities; (3) assessments to identify compliance issues and perform health and safety risk analysis; (4) cost estimating, scheduling, budgeting, funding, and full-time equivalent (FTE) requirements in addition to provisions for S&M and ancillary activities; (5) database management and integration; and (6) conduct of operations and regulatory compliance support.

1.2 BACKGROUND

The SFIA project was initiated by Secretary of Energy, Hazel R. O'Leary, in 1993 to identify DOE facilities and assets, assess hazardous and/or radiological contamination that pose a liability to DOE, and to develop a defensible process for managing and dispositioning these facilities (see Appendix A: Hazel R. O'Leary to Thomas Grumbly, *Surplus Facility Inventory and Assessment Project*, Memorandum to Heads of Departmental Elements, October 4, 1993). The major objectives of the SFIA were to define the number and condition of process-contaminated surplus assets and those ancillary assets that have been in direct support of the process-contaminated asset. The first step in this project was to develop an accurate inventory of contaminated surplus facilities and to categorize facilities into one of five groups (Groups I-V). Those facilities categorized in Groups I-III, which are either currently surplus facilities or are planned to be surplus facilities over the next 5 years, were included in Phase II. In Phase II, additional information was obtained to (1) assess and/or characterize the physical condition and contamination of Group I-III facilities; (2) rank the facilities for transfer to EM using a threat-based ranking system; and (3) develop cost estimates for managing those high ranking facilities expected to transfer to EM in FY 1996. Phase II assessments involved a physical walk down and completion of a 22-page checklist for approximately 100 facilities at ORNL, risk-ranking surplus facilities in terms of potential environmental, safety, and health (ES&H) risk using the Surplus Facility Threat-Based Priority Model matrix. As a result of this ranking, facilities were grouped

Fig. 1. ORNL ER Transition Program organization and implementation.

in a high-, medium-, or low-risk ranking group as appropriate. Additionally, initial cost estimates for risk-ranked facilities were prepared in Phase III to develop estimated costs for anticipated S&M, characterization, and corrective actions for immediate problems for those facilities scheduled to be transferred to EM. All information obtained during each phase of the SFIA was managed and maintained in the SFIA database.

1.3 SCOPE

The scope of this plan encompasses a description of programmatic considerations for management of activities related to the transition of surplus facilities from DP or other programs to EM. This plan provides guidance on organizational structure, basic roles, responsibilities, and interfaces for ORNL ER Facility Program Manager and ORNL facility managers, and it indicates major areas of implementation to ensure consistency among participants. This plan provides a format for the following:

- implementation of site-specific plans including S&M activities necessary to reduce the potential ES&H risk posed by facility contaminants and conditions, to ensure worker and public safety, and to protect the environment;
- S&M planning, coordination, and oversight of all S&M activities, deactivation/compliance actions to deactivate, assess, and characterize facilities to reduce existing ES&H vulnerabilities and minimize required S&M activities while protecting health and safety of personnel and the environment;
- program integration, management oversight, and interface with ORNL management; and
- inspections, characterization, ES&H related issues, risk analysis, and regulatory issues needed to ensure safe transition.

1.4 ROLES AND RESPONSIBILITIES

This section defines the key Martin Marietta Energy Systems, Inc. (Energy Systems), interfaces and responsibilities for the management and transition of ORNL facilities. Careful planning, organizing, and coordination of transition activities are essential to ensure compliance with regulatory agencies and protection of health, safety, and environment (HSE).

1.4.1 ORNL ER Program Manager

The ER Program Manager is responsible for the overall management, implementation, and coordination of programmatic and policy issues. Additionally, the ER Program Manager interfaces with appropriate DOE and regulatory authorities.

1.4.2 ORNL ER Facility Program Manager

The ORNL ER Facility Program Manager is responsible for the overall management of orphan/surplus facilities and the implementation and integration of these facilities into a transition management program. This requires designated components of the organization to

- review activities of orphan/surplus facilities and ensure compliance with DOE orders, federal regulations, and state and local requirements and regulations;
- implement engineering studies to identify compliance issues and perform health and safety risk analysis to minimize costs and health related concerns;
- interface directly with Transition project managers and the ES Program Manager to translate engineering estimates into Activity Data Sheets (ADSs), current-year work plans, and work authorization to facilitate identification of ER Program funding requirements;
- recommend actions/alternatives for facility maintenance, funding, and risk reduction;
- interface with ORNL ER Program functional managers and site managers to ensure that applicable ER Program requirements are integrated;
- communicate with project managers to develop cost account plans (CAPs) and monitor project activities; and
- provide information management systems to collect, compile, compute, and report ER facility related information.

Additionally, the ORNL ER Facility Program Manager (or designee) is responsible for transfer of orphan/surplus contaminated facilities into the ORNL ER Program (Transition Management). The ORNL ER Facility Program Manager is responsible for long-range planning, compliance assessments, risk analysis, development of transfer schedules and cost estimates, identifying policy issues, and coordinating ORNL ER Program activities with ORNL management and with ORNL organizations. The ORNL ER Facility Program Manager will perform the following actions:

- assess condition and potential risk of releases of contamination from orphan/surplus facilities and regulatory compliance issues;
- determine funding requirements;
- identify activities to reduce cost, risks, and noncompliances with regulatory issues;
- acquire funding for necessary actions;
- identify actions necessary for transition of facilities to Facility Transition Management Program; and
- identify schedule for transition of orphan/surplus facilities to a transition management program.

1.4.3 Transition Working Group

The TWG for the orphan/surplus facilities will address project integration, management, funding, and FTE requirements in addition to provisions for S&M ancillary activities. Program integration and management includes program-level management, program oversight, budget preparation and cost accounting, and coordination of any and all activities related to facility

preparation and continuing S&M. Assess orphan/surplus facilities for regulatory noncompliance and risk analysis and reduction. Program integration activities include, but are not limited to, reviewing, editing, and approving weekly highlights, and monthly progress reports. This function also serves as a formal point of contact and program interface with ORNL management, Energy Systems Central Environmental Restoration and Waste Management, DOE, and its other prime contractors. The TWG will comprise support staff to provide (1) management support and liaison interface between functional organizations (e.g., D&D, ER, etc.), (2) technical support for organizing, scheduling, and implementing subtask activities, (3) in-depth assessments to identify compliance issues and perform health and safety risk analysis, (4) cost estimating, scheduling, budgeting, funding, and FTE requirements in addition to provisions for S&M and ancillary activities, (5) database management and integration, and (6) conduct of operations and regulatory compliance support.

2. FACILITY TRANSITION PROCESS

The specific activities involved with facility transition include notification (by the DP facility manager to EM) requesting transfer of a surplus facility (or facilities), identification of work scope and budget/personnel resources to be transferred, transfer of the facility, facility deactivation, and establishment of S&M plans to be used prior to final disposition. Table 1 provides a list of facilities currently scheduled for transition. Isotopes facilities which include approximately 19 facilities will be transitioned in FY 1995. In FY 1996 and 1997, 31 additional facilities are scheduled for transition. Facilities scheduled to be shut down within the next 5 years will be identified using the SFIA database and placed on schedule for transition into EM.

2.1 NOTIFICATION

The ORNL ER Facility Program Manager will be responsible for management of the SFIA database and for maintaining accurate updates to the SFIA database for ORNL facilities. The SFIA database will be the means by which potential candidate facilities for transfer into EM will be identified. The database includes a complete listing of all ORNL facilities and contains information such as facility condition (contaminated or decontaminated), status (operational, abandoned, etc.), program owner/funder (e.g., DP, EM), and responsible organization contacts (building manager). Information required for the SFIA database is contained in the "SFIA Database/Checklist." The overall checklist is designed to be completed by the responsible facility manager with assistance from various HSE organizations; Finance; and other support organizations. ORNL facility management organizations will be asked to provide data input for SFIA updates. Updates will be conducted biannually or when deemed necessary (i.e., mission change).

The ORNL ER Facility Program Manager, the ORNL Facility Transition Project Manager, and the ES Facility Transition Program Manager will evaluate revisions to determine whether or not transitioning would be appropriate. Updates of the SFIA database will be the mechanism used to initially notify the Office of Facility Transition and Management (EM-60) of the intent to transfer a surplus, contaminated facility. Agreement must be obtained between the ORNL ER Facility Program Manager, The Facility Transition Project Manager, and the Facility Transition Manager, and the Site DOE DP before any revisions are made to the SFIA database.

Following receipt of notification, an on-site screening review and risk ranking will be performed by EM-60 to determine whether or not a facility is an appropriate candidate for transfer. A screening review summary with recommendations will be prepared by DOE-Oak Ridge Operations EM-60 and forwarded to DOE Headquarters EM-60 for final determination. Any additional assessment activities required will also be identified in the summary. EM will formally notify DP of its determination. The decision will flow down through the designated channels to the appropriate ORNL Plant EM/DP organizations.

2.2 RESOURCE IDENTIFICATION

Following the determination by EM-1 that a facility is a candidate for transfer, the transition resource identification phase begins. A TWG composed of representatives from the ORNL

Table 1. Schedules transition facilities

Year	Facility name or number	Total number of facilities
FY95	Isotopes	19
FY96-97	3010 BSR with 16 ancillaries 7700 TSF with 11 ancillaries 3019B analytical lab 7602 integrated process	31
FY98	9201-3E 9201-3A 3034 3093 7819 3531 3597 9201-3J 9204-3 3121 9201-2A 2017 9201-3D	13
FY99	9207 2061 3542 9201-3B 2654 3036 7811 9201-3C 9201-3H 3032 3517 BUP 7860	12
FY00-01	2000 2001 2024 2087 3110 3505T1 3505T2 3503A 7833 9204-1K 9201-3G	11
		Total = 86

Transition Program, ORNL ER site management, and facility owner(s) and subcontractor organizations will define the scope of the transition effort. Support organizations such as Health, Safety, Environment, and Accountability and Facility Management will provide input. The TWG will address funding and FTE requirements in addition to provisions for S&M and ancillary activities.

The ORNL ER Facility Program Manager with assistance from the TWG and support organizations, will develop a facility-specific transition plan that will identify the goals, activities, and organizational responsibilities.

2.3 TRANSFER OF RESPONSIBILITY (FORMAL TRANSFER)

Formal transfer of a facility occurs at the time specified in a Memorandum of Agreement (MOA) between the responsible program (e.g., DP) and EM-1. At that time, EM officially accepts line management and budgetary responsibility for the facility consistent with the MOA. In turn, the ORNL ER Transition Program will accept full responsibility prior to turnover to D&D for S&M and decommissioning of a facility. A site-level MOA will be generated by the facility owner with concurrence from the new owner (ORNL ER Transition Program). The MOA will document any conditions or stipulations agreed upon for transfer to occur. Upon agreement of the content, the document will be signed by both parties.

2.4 FACILITY DEACTIVATION

Actual deactivation activities are the responsibility of the operation(s) that occupies or has landlord responsibilities for a facility. The TWG will evaluate the deactivation scope by:

- interviewing process/knowledge personnel;
- evaluating data from the SFIA check sheets;
- involving support organizations to perform walk throughs, make recommendations, identify regulatory compliance concerns, provide existing data, and provide subject-matter expertise;
- estimating cost/FTEs/scheduling; and
- developing “control envelopes” that incorporate applicable environmental [e.g., National Environment Policy Act (NEPA)/Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)-like/Resource Conservation and Recovery Act (RCRA)] requirements; health, safety, and safeguards; and security requirements commensurate with the activities and materials involved with deactivating a facility.

The goal is to place a facility in a safe, environmentally sound, and “as-low-as-economically achievable” S&M mode while the facility awaits final disposition. Facility-specific deactivation goals shall be developed as part of the legal compliance, safe shutdown, and transitional planning. Deactivation and compliance actions include all activities necessary to ensure regulatory compliance and deactivate, assess, and characterize facilities to reduce existing ES&H vulnerabilities and minimize required S&M activities while protecting the health and safety of

personnel and the environment. The following activities are listed to illustrate those actions typical of a deactivation scope (list is not all-inclusive):

- remove or stabilize radioactive or chemical contamination source terms to reduce risk to a low-hazard level in accordance with DOE Order 5480.23, Nuclear Safety Analysis Reports;
- remove Special Nuclear Material to meet less-than-level Category IV in accordance with DOE Order 5633.3, Control and Accountability of Nuclear Materials, and comply with any guidance given by Nuclear Material Control and Accountability organization;
- remove (unless otherwise agreed) radiological, hazardous, and dangerous chemical inventories that are stored at the facility;
- ensure that confinement structures are structurally sound and in good repair to contain radionuclides or chemical contamination present in materials and preclude rain or snow melt water from intrusion;
- deactivate, consolidate, or cascade the facility heating, ventilation, and air conditioning systems so that only the necessary exhaust systems (fans, filters, monitoring, and sampling systems) will remain operational;
- control facility access to preclude personnel entry other than that required for periodic (e.g., quarterly) radiation and other surveys;
- prevent personnel from using the building and deactivate/clean all personnel support systems (e.g., offices bathrooms, lunchrooms, and ventilation systems);
- remove, to the extent possible, all combustible materials;
- deactivate loss prevention systems and all other electrical systems, retaining only those fire protection systems needed to ensure the integrity of the confinement structures;
- install and monitor systems needed for surveillance until D&D activities begin;
- monitor systems at stations outside the contaminated facility, where possible;
- decontaminate/clean external surfaces of canyon vessels and internal surfaces of cells to remove significant radioactive or chemical residues;
- paint, as required, cell floors that have significant radionuclide retention to coat and fix contamination and minimize migration;
- leave in place, as a general rule, process and utility tanks, piping and deactivated electrical systems;
- remove for other use, as desired, separable capital equipment not in radiologically controlled zones unless equipment can be decontaminated and used elsewhere;
- remove all classified items (e.g., documents materials, and tools) and downgrade security requirements;

- comply with Criticality Safety requirements;
- comply with RCRA and Toxic Substance Control Act requirements for hazardous materials; and
- establish and archive records necessary to reactivate systems/equipment to be used for D&D including previous characterization efforts that can support D&D.

A few select, critical drawings (e.g., ventilation, drains, piping, electrical) will be identified and used to document equipment/building/structure status and modifications. Any revised critical drawings will be used to create accurate as-built drawings of the final shutdown state.

2.5 SURVEILLANCE AND MAINTENANCE

S&M activities will ensure that facilities are maintained in a safe, environmentally sound mode until disposition. Facility-specific S&M plans including comprehensive planning, coordination, and oversight of all routine S&M activities will be developed for transitioning facilities. The following items are listed to illustrate typical S&M considerations; this list is not all inclusive.

- physical activities required to maintain the facilities in a safe condition and in compliance with all DOE orders and state, federal, and local regulations.
- facilities maintenance and surveillance as required by existing safety documentation which may include periodic surveillance of safety instrumentation, health physics monitoring, instrument calibration, and general maintenance essential to maintaining safety
- comprehensive planning, coordination, and oversight of all S&M activities including direct and indirect supervision of personnel supporting the S&M effort and tracking of cost and schedule performance against planned progress.

2.6 DISPOSITION

EM-60 will work to identify alternate uses for surplus facilities. If an alternate use for a facility (on an as-is basis) is identified, EM-60 will coordinate the formal transfer of the EM site for alternate government or public use. However, if no use for a facility is identified, the facility will be transferred to the Office of Environmental Restoration (EM-40) for decontamination and decommissioning.

The ORNL Transition Program will no longer be responsible for a facility upon transfer to the ORNL D&D Program for final disposition. The transfer will be documented by an MOA. EM-60 does not do cleanup work and then return the facility to the original landlord.

3. FACILITY TURNOVER AND ACCEPTANCE BY EM-40

EM-60 will coordinate the turnover of inactive contaminated facilities to EM-40 through formal notification, stating whether the facilities have satisfied the EM-40 turnover criteria and identifying the proposed turnover date. EM-40 will respond formally, by either accepting, rejecting, or modifying the proposal following resolution and acceptance of formal notification form EM-60 for the facility.

While the EM-60 to EM-40 turnover protocol transpires, the ORNL Transition Program and ORNL D&D Program will be working together to coordinate and ensure proper transfer of information so the facility turnover occurs smoothly at the site level.

By meeting the requirements listed below, facilities to be turned over to the ORNL D&D Program for remedial action or D&D will be put into an acceptable condition. Exceptions to the following requirements are possible and will be considered by EM-40 on a case-by-case basis.

1. Complete and document the final deactivation/shutdown of the facility. Provide current documentation (including drawings) of the deactivation/safe shutdown (if applicable) status of each facility. The documentation should address systems, such as the water, sewer, air, electric, gas, process (mechanical and chemical), and fire protection systems.

For a surplus facility, including its ancillary facilities, to be considered finally deactivated/shut down, the following conditions must be met by the proposing organization:

- Terminate programmatic facility operations and document that no future use of the facility is planned. This documentation (MOA) requires Operations Office and Headquarters Program Office signature.
- Document operational history of the facility (e.g., describe what processes, activities, chemicals, radionuclides, etc., were used in the facility.) Provide a report on the status/compliance of all regulatory commitments; for example, status of compliance with applicable regulations promulgated pursuant to statutes, such as Occupational Safety and Health Administration, RCRA, CERCLA-like, and NEPA.
- Provide a status of existing permits, including National Pollutant Discharge Elimination System, air permits, RCRA, and others.
- Provide a status of Interagency Agreements that identifies the terms and milestones of agreements pending and entered into by DOE with federal, state, and local agencies and the status of compliance. This includes settlement agreements, administrative or consent orders, and compliance plans to settle outstanding notices of violation.
- Provide a status of Corrective Actions by providing a list of corrective actions completed and outstanding from previous audits, inspections, and other similar activities (e.g., Tiger Team, Technical Safety Appraisal, Defense Nuclear Facility Safety Board, regulatory agencies, self-assessments, and business systems review), including identification of those items that need to be evaluated and reviewed with respect to the facility's surplus condition. Evaluate occurrence reports for trends or root causes.

- For structures at the facility, provide the final radiological/hazardous materials survey records, final configuration and surveillance and maintenance requirements, drawings, specifications, procedures, manuals, and unplanned occurrences records applicable to the facility.
 - For soil, surface water, and groundwater conditions at the facility, provide all existing data and reports that describe those conditions and the nature and extent of contamination therein. Also identify any known assessment requirements.
 - Prepare or update a surveillance and maintenance plan or monitoring plan, including a cost estimate, consistent with final condition of facility at turnover.
 - Make funding arrangements for up to 3 years until EM-40 funding is provided through the normal budgeting process.
2. Provide documentation demonstrating that structures at the facility are in a safe, secure condition, removing any immediate threats to human health and safety and the environment. Provide updated safety documentation for each facility, such as a description of the safety envelope in place. Provide the status of planned actions related to Safety Analysis Reports, Operational Safety Reports (OSRs), Technical Safety Requirements (TSRs), and implementing procedures covering the current status of the facility. Supply a copy of TSR surveillance program description and statement of compliance with TSRs. Provide the definition of the scope and estimate of the costs to bring the facility into compliance with OSRs in force, or recommended to be in force, and work packages to accomplish such compliance.

The following conditions must be met by the proposing organization (EM-60) for a facility to be acceptable to EM-40 with respect to radioactive and hazardous/toxic materials.

- Structure(s) and existing radiation monitoring systems as required, shall be in a physical condition adequate to contain and monitor potential release of any radioactive contamination, in accordance with DOE Order 5400.1, General Environmental Protection Program. The most current radiation contamination/hazardous and toxic materials survey of the facility and surrounding areas shall be provided.
 - Security systems and procedures shall be adequate to prevent unauthorized entry to any structures at the facility.
 - Special nuclear materials, reactor fuels, high-level waste, RCRA hazardous/mixed contaminated liquid wastes, and hazardous chemicals/materials that are stored at the facility shall be removed from the facility, unless otherwise agreed.
3. Provide an assessment of the compliance of the facility with respect to ES&H regulatory requirements.

4. Ensure that any structures at the facility and their required systems are structurally sound so as to permit deferred final decommissioning of such structures for up to 5 years after turnover. During this deferred period, EM-60 will be the responsible facility "holder" until EM-40 is ready for the transfer of responsibility. Exceptions will be made to this requirement in cases where adequate funding to cover needed repairs can be provided by EM-40.

4. GLOSSARY

Contaminated Facility—any building, structure, equipment, pipe, pipeline, or storage container within or on which a radioactive and/or hazardous substance has been deposited, stored, disposed of, placed, or otherwise come to be located. Includes buildings, structures, etc., that supported operating program missions.

Contamination—unwanted radioactive and/or hazardous material that is dispersed (often in particulate form) on or in equipment, structures, objects, or soil. Contamination may be either surface or volumetric (i.e., radioactivity incorporated within a solid material); surface contamination may be either removable or fixed.

Deactivation—the process of permanently ceasing active operation at a DOE facility in a planned and controlled manner to support follow on decontamination and decommissioning activities. A process whereby legal compliance issues are resolved and nonessential systems and/or equipment in a shut down facility are de-energized, drained and flushed, isolated, or removed to minimize the long-term costs of maintaining the facility in a physically safe and environmentally secure condition. Includes the removal of fuel and stored radioactive and/or hazardous waste from the facility and implementation of appropriate facility safety requirements.

Decontamination—the process of removing or reducing the level of radioactive or hazardous material contamination from facilities, equipment, or soils by washing, heating, mechanical cleaning, chemical or electrochemical action, or other techniques.

Decommissioning—the process of safely removing from operation a facility contaminated with radioactive and/or hazardous materials so as to provide adequate personnel protection from exposure and to reduce the likelihood of contamination migration into soil, water, or air. Includes actions taken to stabilize, reduce, or remove radioactive and/or hazardous materials, or to demolish the facility. Decommissioning implies that no further use of the facility for its original or present purpose is intended.

Environmental Restoration—encompasses both the remediation of contaminated sites and the D&D of contaminated facilities. Facility D&D can involve structural decontamination for reuse, entombment, or decontamination and dismantlement.

Facility Owner—the organization(s) identified as being responsible for overseeing legal compliance and shutdown activities. The facility owner will identify resources such as a building manager, facility engineers, chemical operators, and other personnel knowledgeable of the facility to assist in the deactivation.

Landlord—the organizational element with responsibility for the overall capital improvement and common support activities at a DOE installation.

Surplus Facility—any facility (including installed equipment) that has no identified or planned programmatic use by the DOE operating program.

Surveillance and Maintenance—those activities conducted to ensure that a site or facility remains in a physically safe and environmentally secure condition, including periodic inspection

and monitoring of the property, safety envelope, and required maintenance of barriers controlling access.

Turnover—the formal transfer of responsibility for a surplus facility within EM for either D&D or alternate use.

Transition—the range of activities associated with the transfer of responsibility for a surplus facility from a DOE operating program to EM.

Transition Plan—a program management document that defines the goals, activities, and organizational responsibilities associated with the transfer of a surplus facility from a DOE operating program to EM.

Appendix A

SECRETARY OF ENERGY MEMORANDUM

A-3

The Secretary of Energy

Washington, DC 20585

October 4, 1993

MEMORANDUM FOR HEADS OF DEPARTMENTAL ELEMENTS

FROM: HAZEL R. O'LEARY

A handwritten signature in dark ink, appearing to read "Hazel R. O'Leary", is written over the printed name.

SUBJECT: SURPLUS FACILITY INVENTORY AND ASSESSMENT PROJECT

The Department of Energy is undergoing a major transformation as we shift priorities to reflect the end of the Cold War and beginning of new initiatives. This shift in mission priorities, combined with existing fiscal constraints, is resulting in a dramatic increase in the number of facilities that are becoming surplus to the Department's ongoing mission.

Some surplus facilities offer the potential for commercialization. These are valuable assets that should be identified and quickly transferred to the private sector to help minimize the economics impact of right-sizing on the communities surrounding our facilities. The remaining surplus facilities, many of which contain hazardous and/or radiological contamination, pose a liability to the Department. These contaminated facilities must be identified and properly managed by the responsible program office until they can be transferred to Environmental Management for deactivation, decontamination, and final disposition, including possible reuse.

I have asked Tom Grumbly to quickly define the magnitude of this problem and develop a rational process for managing and making long-term plans for these facilities. The first step in this project is to develop an accurate inventory of contaminated surplus facilities by December 1993, consisting of those contaminated facilities that have been or should be declared surplus or are anticipated to become surplus over the next five years. In addition, we will need to assess the condition of these facilities to determine the order in which they should be transferred to Environmental Management and the resources needed to manage these facilities. This information is needed by March 31, 1994, to allow completion of budget planning for those facilities expected to transfer to Environmental Management in fiscal year 1996. Information on those facilities that are projected to transfer to Environmental Management after fiscal year 1996 will be needed by December 1994.

The information generated by this project will facilitate the timely transfer of contaminated surplus facilities from the "donor" programs to Environmental Management and enable us to properly plan and budget for this new work scope. Until a formal transfer can be accomplished, the "donor" program remains responsible and accountable for managing its contaminated surplus facilities.

The Surplus Facility Inventory and Assessment Project is an important first step in identifying assets that can be reused and liabilities that require long-term management and cleanup. Please provide your full support to this high-priority initiative.

Appendix B

SURPLUS BUILDING/STRUCTURE IDENTIFICATION AND GROUPING FLOWCHART

Surplus Facility Inventory and Assessment Project

Surplus Building/Structure Identification and Grouping Guidance

The Surplus Facility Inventory and Assessment (SFIA) Project is designed to provide information on numbers, condition, and threats associated with contaminated surplus facilities. This information will be used to define the magnitude of the surplus facility management and cleanup task and to make decisions on planning, budgeting, and management of contaminated surplus facilities, including ranking the facilities (using an adaptation of the Department's Safety and Health Five Year Plan threat-based priority model) for transition into the Environmental Restoration and Waste Management (EM) program. For the purpose of the SFIA, "surplus facilities" are the buildings/structures that are or will be no longer needed to support the Department's ongoing mission.

The terms "facility", "surplus", "process contaminated", and "non-process contaminated" have specific connotations within the context of the SFIA project and are discussed briefly here. A complete list of terms and definitions is contained in Tab 4 of this notebook. The term "facility" is defined as a stand-alone building/structure or a group of related buildings, structures, utilities, and other assets associated with an operation or service. The term "surplus" is defined as those facilities that are or will be no longer needed to support the Department's ongoing missions. The term "process contaminated" is defined as contamination resulting from operational activities, (e.g., chemical separations, research activities, and product or waste storage activities). The term "non-process contaminated" is defined as contamination resulting from building/construction material, (e.g., asbestos tiles or insulation, lead paint) and PCB transformers/capacitors.

The difference between process and non-process contaminated facilities is source of contamination. The source of contamination is important because it will determine which office has programmatic responsibility for decontamination and disposition. Decontamination and disposition of process contaminated surplus facilities, will as a rule, become Environmental Management's responsibility. Decontamination and disposition of non-process contaminated surplus facilities, will in most cases, remain the responsibility of the current program sponsor or the site landlord, (i.e., these facilities will not transfer to EM for decontamination and disposition unless EM is the landlord). It is expected that non-process contaminated facilities will be addressed by ongoing asbestos/PCB/lead paint abatement or removal programs funded by the sponsoring program and/or the site landlord. Disposition of these facilities is expected to occur via the existing requirements in DOE Order 4300.1C, Real Property Management, June 28, 1992.

The scope of the inventory phase (Phase 1) of the project includes identification of all buildings and structures, surplus or not and contaminated or not, for which the Department is responsible. The only sites excluded from the inventory are those of the Power Marketing Administrations. Certain types of structures are also excluded, (e.g., utility poles, roads, bridges, and water tanks). A complete listing of exclusions is contained in the Project Exclusions section (Tab 3) of the notebook. Unless specifically excluded, all other Departmental facilities are included in the inventory identification phase of this project.

A comprehensive inventory is needed to ensure that all surplus facilities will be identified and accounted for. This will require that each site undertake an initial effort to prepare a complete listing of all buildings and structures not specifically excluded from the project. Using the process described herein each building/structure will be assigned to one of the five groups described below. This can be achieved by going through the process depicted in the Surplus Facility Identification and Grouping Flowchart. All group designations must be coordinated with and concurred upon by the cognizant Secretarial Office. This will ensure that each building/structure is subject to a disciplined review of its status relative to the Department's ongoing missions. In addition, this process should help identify and resolve any

SURPLUS BUILDING/STRUCTURE IDENTIFICATION AND GROUPING FLOWCHART

Surplus Facility Inventory and Assessment Project

programmatic ownership issues, (e.g., no program owner identified, the wrong program owner identified, and multiple program owners identified). The end result will be a valid comprehensive inventory of facilities, subdivided into the following five building/structure groups:

Group I

This group is for process contaminated buildings/structures that are now surplus and have been officially designated as surplus by the cognizant Secretarial Officer (SO). A memorandum from the SO to the Assistant Secretary for Environmental Restoration and Waste Management (EM-1) designating a building/structure as surplus constitutes an official designation. EM-60 has prepared a list of process contaminated buildings/structures officially designated as surplus by the cognizant SO and will provide it to you for validation. Your office, in coordination with (and with the concurrence of) the appropriate SO, can place additional buildings/structures in Group I via Phase I of the SFIA process. Putting a building/structure in Group I will constitute an official designation of surplus for EM's purposes, and will make the building/structure eligible for transfer to EM. EM will not consider a building/structure for transfer unless it is placed in Group I, however, such designation does not guarantee transfer will occur in all cases. This will necessitate an annual review of the other groups to identify building/structures that should be moved to Group I.

Group II

This Group will capture process contaminated buildings/structures that should be declared surplus based on one, but more likely a combination of the following characteristics:

- No mission;
- No funding;
- No identified program/owner and not formally accepted by the site landlord, (i.e., orphaned building/structures); and
- Program owner identified but building/structure left unattended, with little or no surveillance and maintenance, (i.e., abandoned).

Group II is intended to be a temporary "holding area" for buildings/structures that have not been declared surplus but based on the criteria above, probably should be. Consequently, buildings/structures in Group II will need to be reevaluated as soon as possible (preferably prior to ranking) to determine if they should be placed in another Group, (i.e., Group I or III). This is particularly important for orphaned or abandoned buildings. During the validation process, buildings/structures that should be on the Group II list will be identified and placed on this list, as appropriate. Orphaned buildings/structures will, by default, become the responsibility of the site landlord if no program owner can be identified. Group II buildings/structures must be moved to Group I if they are to be considered for transfer to EM.

Group III

This Group captures those process contaminated buildings/structures that will be declared surplus prior to FY 99. This group will define the magnitude of the future contaminated surplus building/structure problem and will be used for future planning and budgeting.

EM-60 will provide you with a preliminary list of buildings/structures that are projected to be declared surplus. This list, developed from information previously provided by Headquarters Secretarial Offices should be validated during Phase I. Using this list as a start, evaluate your process contaminated

Surplus Facility Inventory and Assessment Project

buildings/structures to determine if they will be surplus prior to FY 99. Evaluation criteria should include current mission and funding status, future mission and funding status, and replacement/demolition schedule. It is important that the evaluation for Group III buildings/structures be unbiased and objective. (i.e., a decision to place or not to place a building/structure in Group III should be based on facts and realistic projections versus proprietary and/or individual interests).

Group IV

This Group captures process contaminated buildings/structures that have one or more of the following attributes indicating they may become surplus:

- No mission projected beyond five years, (i.e., beyond FY 98);
- Declining budget, defined as, a greater than 50% reduction over a five year period, (i.e., FY 90 through FY 95); and
- Current funding is solely dedicated to Surveillance and Maintenance activities.

Group IV is intended to provide a "watch list" of process contaminated buildings/structures that, although not yet a candidate for surplus, appears to be heading that way. Group IV buildings/structures need to be reevaluated annually for any change in status.

Group V

All remaining buildings/structures identified in the site building inventory that have not been designated Groups I, II, III, or IV will be placed in Group V. Included will be buildings/structures that fall in the following categories:

- Non-contaminated (surplus or not);
- Non-process contaminated (surplus or not);
- Process-contaminated (not surplus); and
- Owned by EM-40/60.

Operation Offices will specifically identify those buildings/structures in Group V (except those buildings/structures that EM-40 or EM-60 is the owner) that are surplus and non-process contaminated or surplus and non-contaminated.

Process:

The process description presented below should be used by each Site Coordination Team to guide the team through the identification and grouping phase of the Surplus Facility Inventory and Assessment Process. Only buildings/structures identified as Groups I, II, III, will be subject to the assessment and ranking phase at this time.

Surplus Facility Inventory and Assessment Project

TO DETERMINE GROUP I AND GROUP III FACILITIES

Step A. SITE BUILDING INVENTORY

Task: Identify and validate all buildings/structures at the site. (See Exclusion List at Tab 3)

Output: List of all buildings/structures associated with the site.

Step B. EM-40/60 FACILITIES

Task: From the list of buildings/structures identified in Step A, identify all buildings/structures that are owned by EM-40/60.

Output: Two lists of buildings/structures: One list includes the buildings/structures that are owned by EM-40/60. These will be placed in Group V, and will not be subject to the assessment and ranking phase. The other list includes the remaining buildings/structures and is input into Step C.

Step C. PROCESS CONTAMINATED OR ANCILLARY BUILDINGS/STRUCTURES

Task: From the list of facilities identified in Step B, identify all buildings and structures that are process contaminated and any ancillary buildings/structures, whether or not contaminated, that support them.

Output: Two lists of buildings/structures: A list of process contaminated buildings/structures and their ancillary and support buildings/structures contaminated or not (input to Step D). A list of buildings/structures that are not process contaminated (Group V), will remain the responsibility of the Secretarial Officer (SO) and/or the landlord, and will not be subject to the assessment and ranking phase.

Step D. SURPLUS BUILDING/STRUCTURE PRIOR TO FY 99

Task: From the list of building/structures that are process contaminated or ancillary to process contaminated buildings/structures as identified in step C, identify those buildings/structures which will be surplus prior to FY 99.

Output: Two lists: A list of buildings/structures which will be surplus prior to FY 99 (input to step E). A list of buildings/structures that will not be surplus prior to FY 99 (input to Step F).

Step E. SURPLUS NOW

Task: From the list of buildings/structures that will be surplus prior to FY 99, identify those that are surplus now.

Output: Two lists: A list of buildings/structures that are surplus now (Group I). A list of buildings/structures that are not surplus now but will be within five years, (i.e., prior to FY 99) (Group III).

Surplus Facility Inventory and Assessment Project

TO DETERMINE GROUP II FACILITIES

Step F. MISSION

Task: From the list of buildings/structures that will not be surplus prior to FY 99, as identified in step D, identify those with a mission and those that do not have a mission.

Output: Two lists: A list of buildings/structures that have a mission (input to Step J). A list of buildings/structures that do not have a mission (input for Step G).

Step G. PROGRAM FUNDING

Task: From the list of buildings/structures that have no mission, as identified in step F, identify those buildings/structures that currently have program funding, and those that do not.

Output: Two lists: A list of buildings/structures that have program funding (input for Step I). A list of buildings/structures that do not have program funding (input to Step H).

Step H. LANDLORD FUNDING

Task: From the list of buildings/structures that have no program funding, as identified in step G, identify those building/structures that currently have landlord funding, and those that do not.

Output: Two lists: A list of building/structures that have landlord funding (input to Step I). A list of buildings/structures that do not have landlord funding. The list of buildings/structures that have no mission, program funding, and/or landlord funding are Group II buildings/structures.

Step I. ABANDONED

Task: From the list of buildings/structures that have program funding (Step G) and landlord funding (Step H), identify which buildings/structures are abandoned. (Use definition provided)

Output: Two lists: A list of buildings/structures that are abandoned (Group II). A list of buildings/structures that are not abandoned (input to Step K).

TO DETERMINE GROUP IV BUILDINGS/STRUCTURES

Step J. FIVE YEAR CONTINUED MISSION

Task: From the list of buildings/structures having a mission, as identified in Step F, identify those buildings/structures which are expected to have their mission continued for five years, and those that are not.

Output: Two lists: A list of buildings/structures that are expected to have a mission for the next five years (input to Step K). A list of buildings/structures that are not expected to have a five year continued mission (Group IV). Group IV buildings/structures will not be subject to the assessment and ranking phase at this time.

Appendix C

SURPLUS FACILITY INVENTORY ASSESSMENT PROJECT CHECKLIST

Surplus Facility Inventory and Assessment Project

Site: _____
RPTS Number: _____
Rev. 10

Date: _____
Prepared by: _____

Surplus Facility Inventory and Assessment Checklist

Outline

- I. Identification and Grouping Information**
- II. General Information**
- III. Radiological Information**
- IV. Hazardous Non-radiological Contamination Information**
- V. Waste and Hazardous Material Inventory Information**
- VI. Tank Information**
- VII. Safeguards and Security Information**
- VIII. System Condition Information**
- IX. Stand-Alone Tank Information**

Surplus Facility Inventory and Assessment Project

Step K. FUNDING TREND

- Task:** From the lists of buildings/structures having a five year continued mission (Step J) and those that are not abandoned (Step I), identify the funding trend for each building/structure.
- Output:** Two lists: A list of building/structures with an expected funding reduction greater than 50% (Group IV). Group IV buildings/structures will not be subject to the assessment and ranking phase at this time. A list of buildings/structures with an expected funding reduction less than 50% (input for Step L).

Step L. IS FUNDING ONLY FOR SURVEILLANCE AND MAINTENANCE ACTIVITIES

- Task:** From the list of building/structures with a less than 50% reduction in funding, identified in step K, identify which buildings/structures only have S&M funding, and those that have funding for other activities as well.
- Output:** Two lists: A list of buildings/structures that are being funded solely for S&M activities (Group IV). Group IV buildings/structures will not be subject to the assessment and ranking phase at this time. A list of buildings/structures receiving funding for S&M and additional mission related activities (Group V). Group V buildings/structures will not be subject to the assessment and ranking phase at this time.

Surplus Facility Inventory and Assessment Project

Site: _____
 RPIS Number: _____
 Rev. 11

Date: _____
 Prepared by: _____
 Page 1

SECTION I. IDENTIFICATION AND GROUPING INFORMATION

PURPOSE: Provide identification information on assets (buildings/structures and tanks), including grouping the assets into Groups I through V. Identify ancillary buildings/structures that are in direct support of process-contaminated buildings/structures.

USE: To establish a complete listing with pertinent basic identification information on assets.

Is the asset:

☐ Building/structure

☐ Stand-alone tank

If the asset is a building/structure, complete Sections I through V and VII through VIII of this checklist.

If the asset is a stand-alone tank, complete Sections I and IX of this checklist.

I-1. Identification:

Area (if applicable): _____ Sub-area (if applicable): _____

Asset Name: _____

Asset Manager: _____

Tel. No.: _____

RPIS Class: _____

RPIS Use Code: _____

CAS Identification Number: _____

RPIS Property Number: _____

Owner - Secretarial Office: _____

Owner - Operations Office Program/Organizational Element: _____

Responsible Contractor Organization: _____

Specify the Group (See EM-60 Group definitions) of this asset:

☐ Group I

☐ Group II

☐ Group III

☐ Group IV

☐ Group V

If the asset is in Groups I-IV, skip to question I-5.

If the asset is in Group V, only answer questions I-2, I-3, I-4, I-5, I-6, I-7 of this checklist.

I-2. Is the Group V asset owned by either EM-40 or EM-60?

☐ Yes

☐ No

If yes, skip to question I-5.

I-3. Is the Group V asset:

☐ Surplus Now

☐ Not Surplus Now

I-4. Is the Group V asset non-process contaminated?

☐ Yes

☐ No

☐ Unknown

I-5. Identify the Headquarters Secretarial Office providing primary program funding.

☐ DP Defense Programs

☐ EM-40 Env Res/D&D

☐ ER Energy Research

☐ EE Energy Efficiency

☐ EM-50 Tech Dev/Trans

☐ FE Fossil Energy

☐ EM-30 Waste Mgt

☐ EM-60 Fac Transition

☐ NE Nuclear Energy

☐ RW Civ Rad Waste Mgt

☐ Unknown

☐ None

☐ Other -Specify: _____

Source of Information (Include details.)

☐ Interview/personal knowledge

☐ Document

Site: _____
RPIS Number: _____
Rev. 11

Date: _____
Prepared by: _____

Page 2

☐ Operating	☐ Stand by	☐ Shutdown
☐ Deactivated	☐ Abandoned	☐ Unknown
☐ Decon & Decomm	☐ Other -Specify:	

☐ Interview/personal knowledge ☐ Document

Calendar Year Built	
Fiscal Year Operation Ended or is Projected to End	

☐ Interview/personal knowledge ☐ Document ☐ Walkdown

I-8. List any other assets for which this asset provides direct support.

[illegible][illegible][illegible]

Surplus Facility Inventory and Assessment Project

Site: _____
 RPIS Number: _____
 Rev. 11

Date: _____
 Prepared by: _____
 Page 3

SECTION II. GENERAL INFORMATION

PURPOSE: Provide basic information on process contaminated buildings/structures and associated cost for surveillance and maintenance.

USE: To establish an up-to-date listing with pertinent basic data on process-contaminated buildings/structures.

II-1. Is the entire building/structure or only a portion of it surplus now (or within five years)?

	Surplus Now	Surplus within Five Years
Portion of Building/Structure	☐	☐
Entire Building/Structure	☐	☐

II-2. Type of Construction:

- ☐ Reinforced Concrete ☐ Concrete/Masonry Block ☐ Brick
☐ Steel Frame ☐ Wood ☐ Other (specify) _____

Source of Information (Include details.)

- ☐ Interview/personal knowledge ☐ Document

II-3. Asset Dimensions:

Footprint (square feet) _____ Total no. of floors _____

Total square feet _____

Source of Information (Include details.)

- ☐ Interview/personal knowledge ☐ Document ☐ Walkdown

Surplus Facility Inventory and Assessment Project

Site: _____
 RPIS Number: _____
 Rev. 11

Date: _____
 Prepared by: _____
 Page 4

- II-4. What is the FY93 actual and unfunded direct and indirect Surveillance and Maintenance (S&M) cost for this building/structure? If available, provide a cost estimate for each of the elements in the shaded blocks below. Otherwise, provide the totals for Direct and Indirect costs. If S&M cost estimates cannot be obtained on a building/structure level, provide S&M cost estimates on a facility level, specifying (in the remarks section) the group of buildings/structures included in the total.

	Actual		Unfunded	
	Direct (\$000)	Indirect (\$000)	Direct (\$000)	Indirect (\$000)
Surveillance				
Safeguards and Security				
Environment, Safety and Health				
Custodial Fees				
Backlog of Maintenance and Repair				
Maintenance				
Emergency Preparation				
Utilities				
Leases				
Property Taxes or fees				
Other (specify) _____				
Other (specify) _____				
Other (specify) _____				

Direct (\$000):	Actual:		Unfunded:	
Indirect (\$000):	Actual:		Unfunded:	

What is the basis for this S&M cost estimate?

- ☐ Actual ☐ Percent of operating budget ☐ Percent of replacement value
☐ \$ per sq foot ☐ Other - Specify: _____

How much of this cost is for the Backlog of Maintenance and Repair (BMR) (in \$000)?

\$ _____

Source of Information (Include details.)

- ☐ Interview/personal knowledge ☐ Document ☐ Walkdown

Surplus Facility Inventory and Assessment Project

Site: _____
 RPIS Number: _____
 Rev. 11

Date: _____
 Prepared by: _____
 Page 5

II-5. **Assuming** the building/structure will cease mission-related operations within the next five years, are there additional annual and one-time activities (not addressed in the preceding two questions) that would be necessary to prevent the building/structure from further deterioration and to maintain it in an environmentally acceptable manner? If yes, please provide cost (*do not include one-time costs associated with characterization requirements and/or correction of immediate and serious problems identified in subsequent sections of this checklist*):

☐ Yes ☐ No

Additional annual cost: \$ _____ Additional one-time cost: \$ _____

Briefly describe one-time cost activities:

Source of Information (Include details.)

☐ Interview/personal knowledge ☐ Document ☐ Walkdown

II-6. What is the most significant regulatory compliance status of this building/structure?

- ☐ Major non-compliance with Federal, State, Local laws
☐ Major non-compliance with interagency agreements
☐ Marginal or isolated non-compliance with law
☐ Marginal or isolated non-compliance with interagency agreements
☐ Deviation from documented but not law-based requirements (e.g., DOE Orders, Best Management Practices)
☐ None of the above

Briefly describe noted non-compliance: _____

Source of Information (Include details.)

☐ Interview/personal knowledge ☐ Document ☐ Walkdown

II-7. Is there current RCRA/CERCLA activity ongoing at the building/structure?

☐ Yes ☐ No ☐ Unknown

Briefly describe RCRA/CERCLA activity: _____

Source of Information (Include details.)

☐ Interview/personal knowledge ☐ Document ☐ Walkdown

Site: _____
RPIS Number: _____
Rev. 11

Date: _____
Prepared by: _____

Page 6

Negligible Injury/Illness - Temporary reversible illness requiring minor supportive treatment, exposure less than 20 percent of limits.

Hazard	Catastrophic Injury/Illness	Critical Injury/Illness	Marginal Injury/Illness	Negligible Injury/Illness
☐ Confined Spaces	☐	☐	☐	☐
☐ PhysControls (Noise, visual, climate, etc.)	☐	☐	☐	☐
☐ Electrical power systems	☐	☐	☐	☐
☐ Hoisting/rigging Operations	☐	☐	☐	☐
☐ Rotating Machine Operations	☐	☐	☐	☐
☐ High Pressure Systems	☐	☐	☐	☐
☐ Welding, Cutting, Brazing Operations	☐	☐	☐	☐
☐ Walking and Working Surfaces	☐	☐	☐	☐
☐ Non-ionizing Radiation Operations	☐	☐	☐	☐
☐ Chemical Exposure	☐	☐	☐	☐
☐ Ionizing Radiation Exposure	☐	☐	☐	☐
☐ Other - see remarks	☐	☐	☐	☐
☐ None				

Describe the hazards listed above and provide an assessment of the likelihood of their occurrence, i.e., low, medium, high (once in 100 years, once in ten years, once in one year):

low, medium, high (once in 100 years, once in ten years, once in one year).

☐ Walkdown

Surplus Facility Inventory and Assessment Project

Site: _____
 RPIS Number: _____
 Rev. 11

Date: _____
 Prepared by: _____

Page 7

SECTION III. RADIOLOGICAL INFORMATION

PURPOSE: Provide a basic radiological profile of the building/structure.

USE: To characterize the radiological conditions of the building/structure.
 To use in the assessment of basic radiological hazards and risks.

NOTE: THIS SECTION OF THE CHECKLIST SHOULD BE COMPLETED IN CONJUNCTION WITH SITE RADIOLOGICAL SPECIALISTS.

III-1. Identify the major radionuclides processed, stored, or used in the building/structure now or in the past:

☐ H-3	☐ Co-60	☐ Sr-90/Y-90	☐ I-126	☐ I-131
☐ I-133	☐ Cs-134	☐ Cs-137	☐ Eu-152	☐ Eu-154
☐ Eu-155	☐ Ra-223	☐ Ra-224	☐ U-235	☐ Np-237
☐ U-238	☐ Pu-238	☒ Pu-239	☐ Am-241	☐ Am-243
☐ Unknown	☐ Other - specify: _____			

Source of Information (Include details.)

- ☐ Interview/personal knowledge ☐ Document ☐ Walkdown

III-2. Does the building/structure have radiological contamination?

- ☐ Yes ☐ No ☐ Unknown

Source of Information (Include details.)

- ☐ Interview/personal knowledge ☐ Document ☐ Walkdown

If 'Unknown', provide the preliminary cost estimates for characterizing unknown radiological contamination:

\$ _____ ☐ Not available

Source of Information (Include details.)

- ☐ Interview/personal knowledge ☐ Document ☐ Walkdown

III-3. Mark the appropriate box for each item below to provide a summary of the radiological status of the building/structure. Use definitions in the DOE Radiological Control Manual.

Postings	% of Building/structure Posted				
	None	Less than 10%	Betw 10% and 40%	Betw 40% and 75%	Greater than 75%
Radiation Areas	☐	☐	☐	☐	☐
High Radiation Areas	☐	☐	☐	☐	☐
Very High Radiation Areas	☐	☐	☐	☐	☐
Radioactive Storage Areas	☐	☐	☐	☐	☐
Contamination Area	☐	☐	☐	☐	☐
High Contamination Area	☐	☐	☐	☐	☐
Fixed Contamination Area	☐	☐	☐	☐	☐
Airborne Radioactivity Area	☐	☐	☐	☐	☐

Source of Information (Include details.)

- ☐ Interview/personal knowledge ☐ Document ☐ Walkdown

Surplus Facility Inventory and Assessment Project

Site: _____
 RPIS Number: _____
 Rev. 11

Date: _____
 Prepared by: _____
 Page 8

III-4. Where is the majority of contamination located, is it fixed and/or removable, and how is it controlled?

Location	Type			Control		
	Fixed	Removable	Unknown	Physical Barrier	Admin Control	Unknown
☐ Walls/ceilings	☐	☐	☐	☐	☐	☐
☐ Floors	☐	☐	☐	☐	☐	☐
☐ Equipment	☐	☐	☐	☐	☐	☐
☐ Piping	☐	☐	☐	☐	☐	☐
☐ Tanks	☐	☐	☐	☐	☐	☐
☐ Drums	☐	☐	☐	☐	☐	☐
☐ Ducts/hoods	☐	☐	☐	☐	☐	☐
☐ Drains	☐	☐	☐	☐	☐	☐
☐ Other - specify: _____	☐	☐	☐	☐	☐	☐
☐ Unknown	☐			☐		
☐ None						

Source of Information (Include details.)

☐ Interview/personal knowledge ☐ Document ☐ Walkdown

III-5. Did the building/structure have any planned/unplanned radiological releases resulting in contamination of:

Soil	☐ Yes	☐ No	☐ Unknown
Ground water	☐ Yes	☐ No	☐ Unknown
Surface water	☐ Yes	☐ No	☐ Unknown
Air	☐ Yes	☐ No	☐ Unknown

If "Yes", describe:

Source of Information (Include details.)

☐ Interview/personal knowledge ☐ Document ☐ Walkdown

III-6. Does any radiological contamination or radiological source present an immediate and serious problem for (describe condition in remarks).

	Worker	Public	Environment	Building/Struct.
Yes	☐	☐	☐	☐
No	☐	☐	☐	☐

If yes, does an Action Plan exist (describe actions in remarks)?

☐ Yes ☐ No

If available, provide preliminary cost estimate for correcting all immediate and serious problems identified (\$000): _____ ☐ Not available

Source of Information (Include details.)

☐ Interview/personal knowledge ☐ Document ☐ Walkdown

Surplus Facility Inventory and Assessment Project

Site: _____
 RPIS Number: _____
 Rev. 11

Date: _____
 Prepared by: _____

Page 9

SECTION IV. HAZARDOUS NON-RADIOLOGICAL CONTAMINATION INFORMATION

PURPOSE: Provide a basic non-radiological profile of the building/structure.

USE: To characterize the non-radiological conditions of the building/structure.
 To use in the assessment of basic non-radiological hazards and risks.

NOTE: THIS SECTION OF THE CHECKLIST SHOULD BE COMPLETED IN CONJUNCTION WITH SITE ENVIRONMENTAL SPECIALISTS.

IV-1. Identify the major hazardous non-radiological substances processed, stored or used in the building/structure now or in the past:

	Yes	No	Suspected
PCBs	☐	☐	☐
CFCs	☐	☐	☐
Asbestos/ACMs	☐	☐	☐
Hexavalent Chromium	☐	☐	☐
Metals	☐	☐	☐
Fuels/lubricants, e.g., gasoline, diesel fuel	☐	☐	☐
Volatiles, e.g., solvents, paint thinners, hydrocarbons	☐	☐	☐
Semi-volatiles, e.g., PAHs	☐	☐	☐
Pesticides	☐	☐	☐
Chemicals, e.g., acids, bases, other lab reagents	☐	☐	☐
Dioxins/dibenzofurans	☐	☐	☐
Lead-based Paints	☐	☐	☐
Explosives	☐	☐	☐
Peroxides/oxidizers	☐	☐	☐
Pyrophorics	☐	☐	☐
Hydrazine	☐	☐	☐
Flammables (liquid/solid/gas)	☐	☐	☐
Asphyxiants	☐	☐	☐
Carcinogens	☐	☐	☐
Silica	☐	☐	☐
Adhesives/sealants	☐	☐	☐
Other _____	☐	☐	☐
Other _____	☐	☐	☐
Other _____	☐	☐	☐

Source of Information (Include details.)

☐ Interview/personal knowledge ☐ Document ☐ Walkdown

IV-2. Does the building/structure have any hazardous non-radiological contamination?

☐ Yes ☐ No ☐ Unknown

If 'Unknown', provide the preliminary cost estimates for characterizing unknowns (in \$Q00):

\$ _____ ☐ Not Available

Source of Information (Include details.)

☐ Interview/personal knowledge ☐ Document ☐ Walkdown

Surplus Facility Inventory and Assessment Project

Site: _____
 RPIS Number: _____
 Rev. 11

Date: _____
 Prepared by: _____

Page 10

IV-3. Identify the areas of the building/structure with known hazardous non-radiological substance contamination and how it is currently controlled:

	Location									Control		
	walls	floors	equipment	piping	tanks/drum	drains	ducts/hoods	other	unit	phys. barrier	adm. ctrl.	unit
☐ PCBs	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
☐ CFCs	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
☐ Asbestos/ACM	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
☐ Hexavalent Chromium	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
☐ Metals	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
☐ Fuels/lubricants, e.g., gasoline, diesel fuel	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
☐ Volatiles, e.g., solvents, paint thinners, hydrocarbons	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
☐ Semi-volatiles, e.g., PAHs	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
☐ Pesticides	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
☐ Chemicals, e.g., acids, bases, other lab reagents	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
☐ Dioxins/dibenzofurans	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
☐ Lead-based Paints	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
☐ Explosives	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
☐ Peroxides/oxidizers	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
☐ Pyrophorics	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
☐ Hydrazine	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
☐ Flammables (liquid/solid/gas)	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
☐ Asphyxiants	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
☐ Carcinogens	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
☐ Silica	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
☐ Adhesives/sealants	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
☐ None	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
☐ Other	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
☐ Other	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
☐ Other	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
☐ Other	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Source of information (include details.)

☐ Interview/personal knowledge ☐ Document ☐ Walkdown

Surplus Facility Inventory and Assessment Project

Site: _____
 RPIS Number: _____
 Rev. 11

Date: _____
 Prepared by: _____
 Page 11

IV-4. Did the building/structure have any planned/unplanned hazardous, non-radiological releases that resulted in contamination to:

Soil	☐ Yes	☐ No	☐ Unknown
Ground water	☐ Yes	☐ No	☐ Unknown
Surface water	☐ Yes	☐ No	☐ Unknown
Air	☐ Yes	☐ No	☐ Unknown

Describe "Yes" responses:

Source of Information (Include details.)

☐ Interview/personal knowledge ☐ Document ☐ Walkdown

IV-5. Does any hazardous non-radiological contamination present an immediate and serious problem for (describe condition in remarks).

	Worker	Public	Environment	Building/Struct.
Yes	☐	☐	☐	☐
No	☐	☐	☐	☐

If yes, does an Action Plan exist (describe actions in remarks)?

☐ Yes ☐ No

If available, provide preliminary cost estimate for correcting all immediate and serious problems identified (\$000): _____ ☐ Not available

Source of Information (Include details.)

☐ Interview/personal knowledge ☐ Document ☐ Walkdown

Surplus Facility Inventory and Assessment Project

Site: _____
 RPIS Number: _____
 Rev. 11

Date: _____
 Prepared by: _____

Page 12

SECTION V. WASTE AND HAZARDOUS MATERIAL INVENTORY INFORMATION

PURPOSE: Provide a basic waste and hazardous material profile for the building/structure.

USE: To identify radioactive, chemical and mixed hazardous wastes.
 To identify potentially excess chemical materials.
 To assess the risk posed by waste and hazardous material inventory.

NOTE: THIS SECTION OF THE CHECKLIST SHOULD BE COMPLETED IN CONJUNCTION WITH SITE ENVIRONMENTAL SPECIALISTS.

V-1. Is there radiological and hazardous material/waste stored in the building/structure?

☐ Yes ☐ No ☐ Unknown

IF NO, SKIP TO SECTION VII OF THIS CHECKLIST. IF 'UNKNOWN', PROVIDE THE PRELIMINARY COST ESTIMATES FOR CHARACTERIZING UNKNOWNNS (In \$000); THEN SKIP TO SECTION VII OF THE CHECKLIST.:

\$ _____

☐ Not available

Source of information (Include details.)

☐ Interview/personal knowledge

☐ Document

☐ Walkdown

Surplus Facility Inventory and Assessment Project

Site: _____
 RPIS Number: _____
 Rev. 11

Date: _____
 Prepared by: _____

Page 13

V-2. Describe inventory by type DO NOT INCLUDE CLASSIFIED INFORMATION:

Type	Quantity			Stored in Compliance?		
	No.	Unit	Unk	Yes	No	Unk
Nuclear						
Transuranic			☐	☐	☐	☐
Transuranic Mixed			☐	☐	☐	☐
Low Level			☐	☐	☐	☐
Low Level Mixed			☐	☐	☐	☐
Residue			☐	☐	☐	☐
Residue Mixed			☐	☐	☐	☐
High Level			☐	☐	☐	☐
Fuel			☐	☐	☐	☐
Laboratory			☐	☐	☐	☐
Other Nuclear Material			☐	☐	☐	☐
Non-nuclear						
PCBs			☐	☐	☐	☐
CFCs			☐	☐	☐	☐
Asbestos/ACM			☐	☐	☐	☐
Laboratory Chemicals			☐	☐	☐	☐
Peroxides/oxidizers			☐	☐	☐	☐
Fuel/Lubricants			☐	☐	☐	☐
Volatiles/semi-volatiles			☐	☐	☐	☐
Pesticides			☐	☐	☐	☐
Paints			☐	☐	☐	☐
Explosives			☐	☐	☐	☐
Pyrophorics			☐	☐	☐	☐
Hydrazine			☐	☐	☐	☐
Compressed Gas			☐	☐	☐	☐
Flammables			☐	☐	☐	☐
Adhesives/sealants			☐	☐	☐	☐
Other Hazardous Materials			☐	☐	☐	☐
			☐	☐	☐	☐
			☐	☐	☐	☐
Hazardous Waste			☐	☐	☐	☐
			☐	☐	☐	☐
			☐	☐	☐	☐
Metals			☐	☐	☐	☐
			☐	☐	☐	☐
Other _____			☐	☐	☐	☐
Other _____			☐	☐	☐	☐
Other _____			☐	☐	☐	☐
Other _____			☐	☐	☐	☐

Source of Information (Include details.)

☐ Interview/personal knowledge

☐ Document

☐ Walkdown

Surplus Facility Inventory and Assessment Project

Site: _____
 RPIS Number: _____
 Rev. 11

Date: _____
 Prepared by: _____
 Page 14

V-3. Are there plans to consolidate and/or relocate any of the waste or materials to or from this building/structure?

☐ Yes (To) ☐ Yes (From) ☐ No ☐ Unknown

Source of Information (Include details.)

☐ Interview/personal knowledge ☐ Document ☐ Walkdown

V-4. Does the material and waste inventory or storage condition present an immediate and serious problem for (describe condition in remarks).

	Worker	Public	Environment	Building/Struct.
Yes	☐	☐	☐	☐
No	☐	☐	☐	☐

If yes, does an Action Plan exist (describe actions in remarks)?

☐ Yes ☐ No

If available, provide preliminary cost estimate for correcting all immediate and serious problems identified (\$000): _____ ☐ Not available

Source of Information (Include details.)

☐ Interview/personal knowledge ☐ Document ☐ Walkdown

Surplus Facility Inventory and Assessment Project

Site: _____
RPIS Number: _____
Rev. 11

Date: _____
Prepared by: _____
Page 15

SECTION VI. TANK INFORMATION

Reserved

Surplus Facility Inventory and Assessment Project

Site: _____
 RPIS Number: _____
 Rev. 11

Date: _____
 Prepared by: _____
 Page 16

SECTION VII. SAFEGUARDS AND SECURITY INFORMATION

PURPOSE: Provide basic information on building/structure safeguards and security.

USE: To determine the need for and magnitude of safeguards and security measures.

DO NOT INCLUDE CLASSIFIED INFORMATION.

VII-1. Are Safeguards and Security measures in place to maintain the necessary level of protection?

☐ Yes ☐ No ☐ None Necessary

[IF RESPONSE IS 'NONE NECESSARY', EXPLAIN IN REMARKS BLOCK AND PROCEED TO SECTION VIII OF THIS CHECKLIST.]

Remarks: _____

Source of Information (Include details.)

☐ Interview/personal knowledge ☐ Document ☐ Walkdown

VII-2. List all security interests in the building/structure:

☐ Classified documents ☐ Classified material ☐ Classified computers
☐ Property protection ☐ Special Nuclear Materials ☐ Other Nuclear Materials
☐ Classified equipment ☐ Unknown ☐ Other -Specify: _____

Source of Information (Include details.)

☐ Interview/personal knowledge ☐ Document ☐ Walkdown

VII-3. If Special Nuclear Material is located in the building/structure, is it stored in vaults or vault-type rooms?

☐ Yes ☐ No ☐ Unknown ☐ Not Applicable

Source of Information (Include details.)

☐ Interview/personal knowledge ☐ Document ☐ Walkdown

VII-4. Are there plans to consolidate or relocate security interests to or from this building/structure?

☐ Yes (To) ☐ Yes (From) ☐ No ☐ Unknown

Source of Information (Include details.)

☐ Interview/personal knowledge ☐ Document ☐ Walkdown

VII-5. Does the Safeguards and Security situation present an immediate and serious problem for (describe in remarks).

	Worker	Public	Environment	Building/Struct.
Yes	☐	☐	☐	☐
No	☐	☐	☐	☐

If yes, does an Action Plan exist (describe actions in remarks)? ☐ Yes ☐ No

If available, provide preliminary cost estimate for correcting all immediate and serious problems identified (\$000): _____ ☐ Not available

Source of Information (Include details.)

☐ Interview/personal knowledge ☐ Document ☐ Walkdown

Surplus Facility Inventory and Assessment Project

Site: _____
 RPIS Number: _____
 Rev. 11

Date: _____
 Prepared by: _____

Page 17

SECTION VIII. SYSTEM CONDITION INFORMATION

PURPOSE: Determine the condition of systems within the building/structure.

USE: To identify system deficiencies and assess risks and hazards associated with such deficiencies.

VIII-1. What is the condition of building systems in the building/structure? Use blank rows for other critical building systems:

Building System or Component	System Present		System Service Status I = In use St = Standby Sh = Shutdown D = Deactivated A = Abandoned U = Unknown O = Other (see remarks)	System Importance P = Primary, needed to maintain safety envelope S = Secondary or redundant system N = Not needed to maintain safety envelope U = Unknown O = Other (see remarks)	System Condition I = Inoperable US = Unable to operate MAJ = Major defect, but operable MIN = Minor M&R needed ICON = Internal contamination ECON = External contamination N = Not accessible U = Unknown O = Other (see remarks)	Repair Urgency (Yrs)	Repair Costs (\$500)
	Yes	No					
HVAC	☐	☐					
Inert Atmosphere	☐	☐					
Emergency Cooling	☐	☐					
Fire Suppression	☐	☐					
Electrical Distribution	☐	☐					
Emergency Power	☐	☐					
Uninterrupted Power	☐	☐					
Fire Detection/Alarm	☐	☐					
Rad Alarm	☐	☐					
Evacuation Alarm	☐	☐					
Leak Detection	☐	☐					
Security Alarm	☐	☐					
Criticality Alarm	☐	☐					
Lighting	☐	☐					
Plumbing	☐	☐					
Roofing	☐	☐					
Exterior Closure	☐	☐					
Secondary Containm.	☐	☐					
Structural	☐	☐					
	☐	☐					
	☐	☐

Surplus Facility Inventory and Assessment Project

Site: _____
 RPIS Number: _____
 Rev. 11

Date: _____
 Prepared by: _____
 Page 18

VIII-2. Does any building/structure physical condition present an immediate and serious problem for (describe condition in remarks).

	Worker	Public	Environment	Building/Struct.
Yes	☐	☐	☐	☐
No	☐	☐	☐	☐

If yes, does an Action Plan exist (describe actions in remarks)?

☐ Yes ☐ No

If available, provide preliminary cost estimate for correcting all immediate and serious problems identified (\$000): _____ ☐ Not available

Source of Information (Include details.)

☐ Interview/personal knowledge ☐ Document ☐ Walkdown

Surplus Facility Inventory and Assessment Project

Site: _____
 RPIS Number: _____
 Rev. 11

Date: _____
 Prepared by: _____

Page 19

SECTION IX.

STAND-ALONE TANK INFORMATION

COMPLETE THIS SECTION FOR STAND-ALONE TANKS NOT ASSOCIATED WITH A SPECIFIC BUILDING/STRUCTURE. FOR TANKS LOCATED IN A TANK FARM, COMPLETE A SEPARATE SECTION FOR EACH TANK.

- IX-1. What is the FY93 actual and unfunded direct and indirect Surveillance and Maintenance (S&M) cost for this tank? If available, provide a cost estimate for each of the elements in the shaded blocks below. Otherwise, provide the totals for Direct and Indirect costs. If S&M cost estimates cannot be obtained on a tank level, provide S&M cost estimates on a tank farm, specifying (in the remarks section) the group of tanks included in the total.

	Actual		Unfunded	
	Direct (\$000)	Indirect (\$000)	Direct (\$000)	Indirect (\$000)
Surveillance				
Safeguards and Security				
Environment, Safety and Health				
Custodial Fees				
Backlog of Maintenance and Repair				
Maintenance				
Emergency Preparation				
Utilities				
Leases				
Property Taxes or fees				
Other (specify) _____				
Other (specify) _____				
Other (specify) _____				

Direct (\$000):	Actual:		Unfunded:	
Indirect (\$000):	Actual:		Unfunded:	

What is the basis for this S&M cost estimate?

- ☐ Actual ☐ Percent of operating budget ☐ \$ per gal
☐ Percent of replacement value ☐ Other - Specify: _____

How much of this cost is for the Backlog of Maintenance and Repair (BMR) (in \$000)?

\$ _____

Source of Information (Include details.)

- ☐ Interview/personal knowledge ☐ Document ☐ Walkdown

Surplus Facility Inventory and Assessment Project

Site: _____
 RPIS Number: _____
 Rev. 11

Date: _____
 Prepared by: _____
 Page 20

IX-2. **Assuming** the tank will cease mission-related operations within the next five years, are there additional annual and one-time activities (not addressed in the preceding two questions) that would be necessary to prevent the tank from further deterioration and to maintain it in an environmentally acceptable manner? If yes, please provide cost (do not include one-time costs associated with characterization requirements and/or correction of immediate and serious problems identified elsewhere in this checklist):

☐ Yes ☐ No

Additional annual cost: \$ _____

Additional one-time cost: \$ _____

Briefly describe one-time cost activities:

Source of Information (Include details.)

☐ Interview/personal knowledge

☐ Document

☐ Walkdown

IX-3. Complete the table below for the tank, identifying the RPIS number, if the RPIS number (or other identification).

	Tank #
Tank Type A = Above Ground B = Under Ground	
Capacity (Gals)	
Underground Pipes (Y = Yes; N = No; U = Unknown)	
Operational (Y, N, U)	
Empty (Y, N, U)	
Contents Current or former, if emptied G = Gasoline; O = Oil; R = Radiological; WW = Waste Water; C = Chemical (specify) W = Water; H = Hazardous Waste; Oth = Other	
Precision/Leak Tested? (Y, N, U)	
Leaking or Leaked in Past? (Y, N, U)	
Lining? (S = Single shell; D = Double shell)	
Type Construction? (CS = carbon steel; CC = coated and cathodically protected steel; FG = fiberglass; C = concrete; SF = steel clad with fiberglass; O = other (expl. in remarks))	
Signs of Overflow? (Y, N)	
Soil Contamination (Y, N, U)	
Ground water Contamination (Y, N, U)	
RCRA Regulated? (Y, N, U)	
Documented Clean Closure (Y, N, U)	

Source of Information (Include details.)

☐ Interview/personal knowledge

☐ Document

☐ Walkdown

Surplus Facility Inventory and Assessment Project

Site: _____
 RPIS Number: _____
 Rev. 11

Date: _____
 Prepared by: _____
 Page 21

IX-4. Are Safeguards and Security measures in place to maintain the necessary level of protection?

☐ Yes ☐ No ☐ None Necessary

Remarks: _____

Source of Information (Include details.)

☐ Interview/personal knowledge ☐ Document ☐ Walkdown

IX-5. Is there current RCRA/CERCLA activity ongoing at this tank or tank farm?

☐ Yes (Describe in Remarks) ☐ No ☐ Unknown

Source of Information (Include details.)

☐ Interview/personal knowledge ☐ Document ☐ Walkdown

IX-6. Does this tank present an immediate and serious problem for (describe condition in remarks).

	Yes	No
Worker	☐	☐
Public	☐	☐
Environment	☐	☐
Building/Struct.	☐	☐

If yes, does an Action Plan exist (describe actions in remarks)?

☐ Yes ☐ No

If available, provide preliminary cost estimate for correcting all immediate and serious problems identified (\$000): _____ ☐ Not Available

Source of Information (Include details.)

☐ Interview/personal knowledge ☐ Document ☐ Walkdown

IX-7. What is the most significant regulatory compliance status of this tank?

- ☐ Major non-compliance with Federal, State, Local laws
☐ Major non-compliance with interagency agreements
☐ Marginal or isolated non-compliance with law
☐ Marginal or isolated non-compliance with interagency agreements
☐ Deviation from documented but not law-based requirements (e.g., DOE Orders, Best Management Practices)
☐ None of the above

Briefly describe noted non-compliance: _____

Source of Information (Include details.)

☐ Interview/personal knowledge ☐ Document ☐ Walkdown

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Report Number (14) ORNL/ER--296

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