1 of 6

Hanford Site Waste Storage Tank Information Notebook

E. I. Husa
R. E. Raymond
R. K. Welty
S. M. Griffith
B. M. Hanlon
R. R. Rios
N. J. Vermeulen

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Prepared by:

E. I. Husa,
Engineer

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Date

Approved by:

R. E. Raymond, Manager
Single-Shell Tank Technology

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Date

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HANFORD SITE WASTE STORAGE TANK INFORMATION NOTEBOOK

ABSTRACT

This report provides summary data on the radioactive waste stored in underground tanks in the 200 East and West Areas at the Hanford Site. The summary data covers each of the existing 161 Series 100 underground waste storage tanks (500,000 gallons and larger). It also contains information on the design and construction of these tanks. The information in this report is derived from existing reports that document the status of the tanks and their materials. This report also contains interior, surface photographs of each of the 54 Watch List tanks, which are those tanks identified as Priority 1 Hanford Site Tank Farm Safety Issues in accordance with Public Law 101-510, Section 3137*.

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*National Defense Authorization Act for Fiscal Year 1991, Public Law 101-510, "Safety Measures for Measures for Waste Tanks at Hanford Nuclear Reservation," Section 3137 (Wyden Amendment).

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CONTENTS

Preface	.vii
Introduction	1
Summary Tank Data Sheets	19
A Farm	25
AN Farm	41
AP Farm	63
AW Farm	81
AX Farm	97
AY Farm	111
AZ Farm	117
B Farm	123
BX Farm	151
BY Farm	185
C Farm	231
S Farm	269
SX Farm	301
SY Farm	347
T Farm	359
TX Farm	391
TY Farm	433
U Farm	453
Glossary	491
References	501

LIST OF FIGURES

1 The Hanford Site	3
2 Hanford Site 200 West Area	4
3 Hanford Site 200 East Area	5
4 Single-Shell Tank	6
5 Double-Shell Tank	7
6 Tank Configuration	8
7 Hanford Tank Farm Facilities	9
8 Watch List Tank Quick Reference	11
9 200 West Single-Shell Tank Contents	13
10 200 East Single-Shell Tank Contents	15
11 Double Shell Tank Contents	17
A Tank Farm (aerial), June 1991	25
Tank 241-A-101, August 1985	29
AN Tank Farm (aerial), June 1991	41
Tank 241-AN-103, October 1987	49
Tank 241-AN-104, August 1988	53
Tank 241-AN-105, January 1988	57
AP Tank Farm (aerial), June 1991	63
AW Tank Farm (aerial), June 1991	81
Tank 241-AW-101, March 1988	85
AX Tank Farm (aerial), June 1991	97

LIST OF FIGURES (continued)

Tank 241-AX-101, August 1987	101
Tank 241-AX-103, August 1987	107
AY Tank Farm (aerial), June 1991	111
AZ Tank Farm (aerial), June 1991	117
B Tank Farm (aerial), June 1991	123
Tank 241-B-103, October 1988	131
BX Tank Farm (aerial), June 1991	151
Tank 241-BX-102, November 1978	157
Tank 241-BX-106, May 1988	167
Tank 241-BX-110, July 1985	177
Tank 241-BX-111, September 1985	181
BY Tank Farm (aerial), June 1991	185
Tank 241-BY-101, September 1981	189
Tank 241-BY-103, September 1981	195
Tank 241-BY-104, February 1981	199
Tank 241-BY-105, July 1986	203
Tank 241-BY-106, November 1982	207
Tank 241-BY-107, October 1986	211
Tank 241-BY-108, October 1986	215
Tank 241-BY-110, July 1984	221
Tank 241-BY-111, October 1986	225

LIST OF FIGURES (continued)

Tank 241-BY-112, April 1988	229
C Tank Farm (aerial), June 1991	231
Tank 241-C-103, July 1987	239
Tank 241-C-106, April 1979	247
Tank 241-C-108, December 1984	253
Tank 241-C-109, August 1986	257
Tank 241-C-111, February 1970	263
Tank 241-C-112, July 1990	267
S Tank Farm (aerial), June 1991	269
Tank 241-S-102, March 1988	275
Tank 241-S-111, August 1989	295
Tank 241-S-112, March 1987	299
SX Tank Farm (aerial), June 1991	301
Tank 241-SX-101, March 1989	305
Tank 241-SX-102, January 1988	309
Tank 241-SX-103, December 1987	313
Tank 241-SX-104, September 1988	317
Tank 241-SX-105, April 1983	321
Tank 241-SX-106, June 1989	325
Tank 241-SX-109, May 1986	333
SY Tank Farm (aerial), June 1991	347

LIST OF FIGURES (continued)

Tank 241-SY-101, April 1989	351
Tank 241-SY-103, October 1985	357
T Tank Farm (aerial), June 1991	359
Tank 241-T-101, July 1984	363
Tank 241-T-107, July 1984	377
Tank 241-T-110, July 1984	385
TX Tank Farm (aerial), June 1991	391
Tank 241-TX-105, October 1989	403
Tank 241-TX-118, December 1979	431
TY Tank Farm (aerial), June 1991	433
Tank 241-TY-101, August 1981	437
Tank 241-TY-103, August 1989	443
Tank 241-TY-104, November 1987	447
U Tank Farm (aerial), June 1991	453
Tank 241-U-103, September 1988	461
Tank 241-U-105, July 1988	467
Tank 241-U-106, July 1988	471
Tank 241-U-107, July 1988	475
Tank 241-U-108, September 1984	479
Tank 241-U-109, July 1988	483

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PREFACE

The *Hanford Waste Storage Tank Information Notebook* was a collaborative effort. The primary authors were E. Ivar Husa, Richard E. Raymond, and Richard K. Welty of the Single-Shell Tank Technology group. Other contributors were S.M. Griffith, B.M. Hanlon, R.R. Rios, and N.J. Vermeulen of the Surveillance and Data Acquisition group.

LIST OF TERMS

ASTM	American Society for Testing and Materials
CAM	continuous air monitoring
CASS	computer automated surveillance system
CC	concentrated complexant
DC	dilute complexed waste
DCRT	double-container receiver tank
DOV	diaphragm-operated valve
DST	double-shell tank
DSS	double-shell slurry
EDTA	ethylenediaminetetra-acetic acid
FIC	Food Instrument Company
HEDTA	hydroxyethylenediaminetriacetic acid
HEPA	high-efficiency particulate air
IDA	iminodiacetate
ILL	interstitial liquid level
LL	liquid level
LOW	liquid observation well
NCAW	neutralized cladding removal waste
PFP	Plutonium Finishing Plant
PUREX	Plutonium Uranium Reduction Extraction (Plant)
SACS	Surveillance Analysis Computer System
SDA	Surveillance and Data Acquisition section
SST	single-shell tank
TC	thermocouple
TRU	transuranic waste
UST	underground storage tank

INTRODUCTION

OBJECTIVE

This draft document consolidates summary data about the Hanford Site's underground waste tanks from several different sources. This document provides general, summary information and is not meant to replace the source documents, which contain detailed information on these tanks. Westinghouse Hanford Company (WHC) developed this report at the request of the U.S. Department of Energy, High-Level Waste Safety Division, Office of Hanford Programs.

DESCRIPTION OF REPORT

This notebook has three parts: introductory text, summary tank data sheets, and a glossary of tank terms. The introductory text provides a brief overview of the Hanford Site waste tanks, including figures that summarize the content and status of the tank farms. Summary data on each tank are located in the tank data sheet section. A detailed description of each data field is found at the beginning of that section. The glossary contains the definitions of many terms used in conjunction with the Hanford Site's waste tanks and also contains the list of source documents.

All 161 of the 100 Series waste tanks (75-foot internal diameter, with a nominal capacity of from 500,000 gallons up to 1,100,000 gallons) are included in the summary tank data sheets in the second section of the report. No information is included on the smaller 200 Series tanks, all 16 of which are 55,000-gallon tanks. Future revisions of this report will include the 200 Series tanks.

Special information has been added for the 54 Watch List tanks. Watch List tanks are those tanks that have been identified as Priority 1 Hanford Site Tank Farm Safety Issues, in accordance with Public Law 101-510, Section 3137, "Safety Measures for Waste Tanks at Hanford Nuclear Reservation." Waste surface photographs are included only for the Watch List tanks.

Many details about construction, operation, stabilization, and current status are reported on all of the data sheets. Some data, such as waste volumes, surface levels, and temperatures change over time and this report is based on the most recent documented data available from the references and sources.

TANK OVERVIEW

The Hanford Site occupies 560 square miles along the Columbia River in Washington State (see Figure 1). The underground waste storage tanks are clustered in rectangular

arrays of 2 to 18 tanks called tank farms; there are currently 18 tank farms on the Hanford Site. The tank farms are located in the 200 West and 200 East Areas near the center of the Hanford Site (see Figures 2 and 3 for the location of tanks within these areas). The facility prefix 241 is part of each farm and tank name, for example: 241-AN Tank Farm and tank 241-AN-101.

Between 1943 and 1964, 149 single-shell tanks (SSTs) were built on the Hanford Site. SSTs are arranged in 12 farms containing 4 to 18 tanks each. Wastes have not been added to any SST since November 1980. However, water is currently added to 2 tanks for evaporative cooling purposes. SSTs are lined with American Society for Testing Materials (ASTM) A283 Grade C or A201 Grade C (only the 241-AX Tank Farm) carbon steel. The liners are encased by a reinforced concrete shell (see Figure 4).

The first double-shell tanks (DSTs), which went into service in May 1971, are arranged in farms of 2 to 8 tanks each. These tanks are comprised of a heat-treated (stress-relieved) primary carbon steel liner (shell) and a non-stress-relieved outer steel liner, both inside the reinforced concrete shell (see Figure 5). An annulus between the two shells traps any waste leaking from the primary shell.

Typical tank configurations for SSTs and DSTs are shown in Figure 6. The top of each tank is at least 6 feet below grade, providing radiological shielding. Tank access for monitoring is provided by risers penetrating the tank dome. Existing risers range from 4 to 42 inches in diameter. A variety of instruments monitor tank contents and the surrounding soil. Typical instrumentation configurations for single- and double-shell tanks are depicted in Figures 4 and 5, respectively.

TANK STATUS SUMMARIES

Figures 7 through 11 offer a quick overview of some aspects of tank farm status. Figure 7, Hanford Tank Farm Facilities, contains many details found in the tank data sheets. However, this figure shows the drywell locations throughout a farm, not just one tank at a time as shown in the tank data sheet section. Figure 8 highlights the distribution of the Watch List tanks across the site. Figures 9 and 10 graphically depict the tank contents for 200 West and 200 East Areas SSTs; Figure 11 does the same for the DSTs.

Figure 1. The Hanford Site.

Figure 2. Hanford Site 200 West Area.

Figure 3. Hanford Site 200 East Area.

Figure 4. Single-Shell Tank.

29111046.2B&WB

Figure 5. Double-Shell Tank.

29111046.1B&WB

Figure 6. Tank Configuration.

29103062.1a

200 EAST

Figure 7. Hanford Tank Farm Facilities, Updated Quarterly, Updated 06/30/92.

NOTE: ALL SINGLE SHELL TANKS REMOVED FROM SERVICE
NOVEMBER 21, 1980.

Figure 8. Watch List Tank Quick Reference.

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750,000 gal. tanks Constructed 1950-51

S						
	101	102 ^H	103	104 ^{AL}	105	106
	PI	PI	PI	IS//	IS//	PI
	107	108	109	110	111 ^H	112 ^H
	PI	PI	PI	PI	PI	PI

1,000,000 gal. tanks Constructed 1953-54

SX						
	101 ^H	102 ^H	103 ^H	104 ^{AL}	105 ^H	106 ^H
	PI	PI	PI	PI	PI	PI
	108 ^{AL}	109 ^{AL}	110 ^{AL}	111 ^{AL}	112 ^{AL}	113 ^{AL}
	IS//	IS//	IS//	IS//	IS//	IS//
	110 ^H	111 ^H	112 ^H	113 ^H	114 ^H	115 ^H
	PI	PI	PI	PI	PI	PI

500,000 gal. tanks Constructed 1943-44

300,000 gal. tanks constructed 1943-44												
T												
	101 ^F	102	103	104	105	106	107 ^F	108 ^{AL}	109 ^{AL}	110 ^H	111 ^{AL}	112
	PI	IS//	IS//	PI	IS//	IS//	PI	IS//	IS//	PI	PI	IS//

55,000 gal. tanks

201	202	203	204
IS//	IS//	IS//	IS//

750,000 gal. tanks Constructed 1947-48

Figure 9. 200 West Single-Shell Tank Status.

1,000,000 gal. tanks Constructed 1954-55

A

1,000,000 gal. tanks Constructed 1963-64

AX					
	10 ^H	102 ^{AL}	103 ^H	104 ^{AL}	
	P1	IS//	IS//	IS//	

500,000 gal. tanks Constructed 1943-44

	101 ^{AL}	102	103 ^{AL}	104	105 ^{AL}	106	107 ^{AL}	108	109	110 ^{AL}	111 ^{AL}	112 ^{AL}
B												

55,000 gal. tanks

29	27	51	50
4	3	6	6
28	27	50	49
201 ^{AL}	202	203 ^{AL}	204 ^{AL}
IS//	IS//	IS//	IS//

500,000 gal. tanks Constructed 1946-47

BX	43 1 42	96 4 96	66 4 62	99 33 96	51 11 43	46 15 31
101 ^{AL}	102 ^{AL}	103	104	105	106 ^F	
IS//	IS//	IS//	IS//	IS//	PI	

[illegible]

Figure 10. 200 East Single-Shell Tank Status.

Figure 11. Double-Shell Tank Contents.

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SUMMARY TANK DATA SHEETS

The summary data sheets cover all 161 of the Series 100 tanks. The data sheets are divided into sections based upon their location in a tank farm. Photographs are included for each tank farm and for the waste surface of each Watch List tank.

SOURCES OF SUMMARY DATA

The information presented in this document was compiled from the following sources:

- *The Tank Farm Surveillance and Waste Status Summary Report for August 1992*, WHC-EP-0182-54 (Hanlon 1992)
- *The Waste Storage Tank Status and Leak Detection Criteria*, "Waste Tank Data Commentaries," WHC-SD-WM-TI-356, Rev. 0, (Welty 1991)
- The surveillance database in the Surveillance Analysis Computer System (SACS), and
- Personal notes and files of the staff of the WHC Surveillance and Data Acquisition group.

WATCH LIST TANKS

A representative photo of the waste surface was chosen for each of the Watch List tanks. The view typically shows a dry waste surface, a steel tank wall, and perhaps dangling appliances, such as Food Instrument Corporation (FIC) tapes (see the photo for tank 241-AN-105). Occasionally, pools of water are visible (see photo for tank 241-AN-104), and weld seams in the steel shell are often discernable. The photo sessions included an array of shots which, when assembled, provide a panoramic view of the waste surface. The selected photo shows just one representative area of the waste surface.

DEFINITION OF DATA FIELDS

Each summary data sheet has a figure that shows riser and drywell locations and written and quantitative data for the tank description, leak detection system, and tank status. Each of these main categories is broken down into subcategories. However, each data sheet may not have information for every possible subsection because certain data may not be applicable to that tank. For example, if a tank has no manual tape surface-level instrument, then the heading for that measurement data is not included. The following paragraphs define the elements within each main heading on the tank data sheets.

RISER AND DRYWELL LOCATIONS

The figure shows the relative positions of only those risers that contain surface-level detection devices (manual tape, radar, or FIC) and liquid observation wells (LOW). Other risers are not shown. These drawings are not to scale. Refer to Figure 7 in the previous section for nearby drywells primarily associated with another tank.

TANK DESCRIPTION

Type. Tank type may be either SST or DST. These types are depicted in Figures 4 and 5 in the previous section.

Constructed. The date construction on the tank was completed.

In-service. The date liquids were first added to the tank.

Out of Service. The date the tank was declared unavailable to receive any additional waste. All single-shell tanks were declared out of service no later than November 21, 1980. If an out-of-service date is not listed, then the November 21, 1980 date applies.

Diameter. This is the measurement in feet of the inside diameter of the liner. All the 100 Series tanks are 75 feet in diameter, resulting in the conversion factor of 2,750 gallons per inch of depth.

Usable Depth. This is simply the rated capacity divided by the number of gallons per foot. This is not the maximum operating height, nor is it derated for any change in condition of the tank (such as an assumed leak).

Capacity. Rated capacity at construction. This is not derated for any condition of the tank (such as an assumed leak).

Bottom Shape. This can be dish or flat. The dished bottom tank has a slope that leads down toward the center of the tank. The dish typically occupies a volume of 12,500 gallons.

Hanford Coordinates. This is the tank's location on the site and is measured in feet (offsets) from a reference point on the site. This method of location was chosen (in lieu of latitude and longitude) as a security measure during World War II.

Air Lift Circulators. These devices were once used to agitate tank contents by bubbling air up through them. Most tanks do not have these devices.

Ventilation. Active ventilation indicates that a powered exhaustor draws air from the space over a tank through a high-efficiency particulate air (HEPA) filter and vents it out to the environment. This puts the space above a tank at a negative pressure (relative to ambient),

minimizing the potential for release of airborne contaminants to the environment. Passive ventilation means that a breather tube connects the spaces above the tank with the environment through a HEPA filter. Winds and barometric (weather) changes will cause air to move in and out of the tank, primarily through the filters.

LEAK DETECTION SYSTEM

FIC Riser. This entry lists the riser number through which the FIC (if any) is lowered. If this information is missing from a tank data sheet, the tank does not currently contain an FIC device. FIC, a vendor who supplied the automated level-measuring device. A plummet is lowered under machine control until electrical conductivity is established with the waste surface.

Manual Tape Riser. This entry lists the riser through which the manual tape is lowered. If this entry is missing on a data sheet, the tank does not currently contain a manual tape device. A manual tape is a surface-level sensing device that requires an operator to manipulate it. A plummet is lowered by hand crank until electrical conductivity is established with the waste surface.

LOW Riser(s). The riser numbers for the LOWs are listed under this entry. The LOW is a sealed tube that extends down into the waste. Sensors are lowered into the tube to detect radiation level or moisture. This is an especially important technique when a tank has been pumped and thus has a dry surface. This method of water detection gives a glimpse beneath the surface.

Number of External Drywells. This entry reports the number of wells present. Drywells are cased holes drilled adjacent to a waste tank. Instruments are lowered to detect radiation level or moisture. The figure on each tank data sheet depicts the drywell's relative position around the tank. Drywells are numbered by "clock position" with 12 o'clock referring to true north.

A drywell identified as 06 (6 o'clock) would be due south of the center of the tank. There are no drywells adjacent to any DSTs.

TANK STATUS

Watch List. This entry indicates the reason why this tank is on the Watch List. If this entry is not listed for a tank, then the tank is not on the Watch List. The four Watch List categories are: ferrocyanide, hydrogen/flammable gas potential, high-heat, and organic salt. These are identified as Priority 1 Hanford Site Tank Farm Safety Issues in Public Law 101-510, Section 3137, "Safety Measures for Waste Tanks at Hanford Nuclear Reservation."

Contents

Type. The source of the waste, such as Plutonium-Uranium Extraction (PUREX) decladding, or its content, such as dilute complexed waste, is described here. More complete definitions of these terms are found in the Glossary.

Total Waste. This is the sum of the solids volume and the supernatant liquid reported in WHC-EP-0182 (Hanlon 1992). This is a somewhat peculiar number, because its definition leads to apparent discrepancies with an estimated volume based on the reported surface level. The number reported as total waste is not updated, except as the result of a tank investigation or a pumping campaign. Evaporation and other processes may lead to apparent discrepancies as well.

Supernatant Volume. This is the amount of liquid found in standing pool(s) on top of solids. This figure is derived from numbers found in WHC-EP-0182 (drainable liquid remaining minus drainable interstitial). Supernate is usually calculated by subtracting the solids-level measurement from the liquid-level measurement and multiplying by the appropriate conversion factor to get gallons (2,750 gallons/inch for the 75-foot diameter tanks).

Drainable Interstitial. This figure represents liquid believed to be held in pores in the solid waste, but which is expected to be free to drain, if pumped. This is usually calculated based on salt cake and sludge volumes, using average porosity values or actual porosity data for a tank, when available.

Isolation Status

Some isolation dates were not easily accessible. If a tank was known to be isolated, but no date was immediately available, then only the isolation date was omitted. If a tank was not isolated, the entire reference to an isolation date was excluded from the data sheet.

Date Interim Stabilized. If this entry is not present for a tank, it has not been interim stabilized. Interim stabilized means that the tank has been pumped and meets certain stabilization criteria, such as having less than 50,000 gallons of drainable interstitial liquid and less than 5,000 gallons of supernatant. If the tank was jet pumped to achieve stabilization, then the jet pump flow must have been at or below 0.5 gal/m before interim stabilization criteria were met.

Date Partially Interim Isolated. If this entry is not present for a tank, it has not been partially interim isolated. This is the administrative designation reflecting the completion of the physical effort required for interim isolation, except that all isolation of risers and piping required for jet pumping may not be completed.

Date Interim Isolated. If this entry is not present for a tank, it has not been interim isolated. This is the administrative designation reflecting the completion of the physical effort required to minimize the addition of liquids into an inactive storage tank.

Surface Level/Leak Status

Integrity Category. This may be sound or an assumed leaker. Sound indicates no loss of liquid attributed to a breach of integrity.

Date Declared Confirmed or Assumed Leaker. If this entry is not present for a tank, it has not been declared an assumed leaker. In many cases, a leak was suspected long before it was identified or confirmed. In 1984, the criteria designations of "suspected leaker," "questionable integrity," and "confirmed leaker" were merged into one category, now reported as an "assumed leaker."

Leak Volume Estimate. If this entry is not present for a tank, it has not been declared an assumed leaker. For more complete information, refer to WHC-EP-0182, Appendix H, Leak Volume Estimates (Hanlon 1993).

Manual Tape Surface Level. The level is reported in inches, along with the date of measurement. If this entry is not present, the tank does not have a manual tape device installed. This is an electrical conductivity-based device for determining the surface level of a tank. On some tanks, these measurements are taken as often as daily.

FIC Surface Level. The level is reported in inches, along with the date of measurement. If this entry is not present, it does not have an FIC device installed. This is an electrical conductivity-based device for determining the surface level of a tank. These measurements are taken daily.

Surface Level Comments. These comments may indicate if an FIC is in intrusion mode or is out of service.

Last Photographed. The date the tank was last photographed. If this field is not present, the tank interior has not been photographed.

Photo Interpretation Comments. Comments on those photos will be included in a future document release.

Temperature Status

Highest Temperature during 1992. This figure is reported in degrees Fahrenheit. Some tanks were not measured in 1992. In those cases we attempted to find the most current

reading. Some temperature data were not easily accesible. The temperature reading field was left blank when useful data were not found in time for inclusion with this issue.

Comments. This includes any special information about temperature status.

Drywell Status

Comments. If this field is not listed on a data sheet, the tank does not have any drywells to monitor (most likely a DST). Drywell profiles are compared with established baselines to determine if changes have taken place, which may indicate a tank may be leaking. Drywell profiles are plots of radioactivity versus depth. Low levels of activity indicate only background radiation is present. Elevated counts mean that radioactive materials have leaked into the ground and spread near the drywell being monitored. Most single-shell tanks have at least four drywells near their periphery. No DST's have drywells.

241-A Tank Farm

June 1991

9106049 11CN

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Tank 241-A-101

Riser and Drywell Locations
Tank 241-A-101

Tank Description

Type: Single Shell
 Constructed: 1955
 In-service: 01/24/56
 Out of Service: 11/21/80
 Diameter: 75'
 Usable Depth: 30.3'
 Capacity: 1,000K gallons
 Bottom shape: Flat
 Hanford Coordinates:
     41,205' North
     47,804' West
 Air Lift Circulators: Yes (4)
 Ventilation: Passive

Leak Detection System

Surface Level: FIC Riser- None
                   Manual Tape Riser- R-05
                   LOW Riser(s)- R-19
 Number of External Drywells: 10
 Number of Lateral Wells: 3

Tank Status

Watch List: **Hydrogen**
 Contents

Type: Double Shell Slurry Feed
 Total Waste: 953K gallons
 Supernate Volume: 0K gallons
 Drainable Interstitial Liquid: 413K gallons

Isolation Status

Date Partially Interim Isolated: 12/15/82

Surface Level/Leak Status

Integrity Category: Sound
 Manual Tape Surface Level: 345.25 Inches (12/28/92)
 Last Photographed: 08/21/85
 Photo Interpretation Comments: See attached photo.

Temperature Status

Highest temperature during 1992: 162 °F (08/06/92)
 Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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WHC-EP-0625

Tank: 241-A-101

August 1985

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Tank 241-A-102

Riser and Drywell Locations
Tank 241-A-102

Tank Description

Type: Single Shell
Constructed: 1955
In-service: 03/22/56
Out of Service: 11/21/80
Diameter: 75'
Usable Depth: 30.3'
Capacity: 1,000K gallons
Bottom shape: Flat
Hanford Coordinates:
41,205' North
47,702' West
Air Lift Circulators: Yes (4)
Ventilation: Passive

Leak Detection System

Surface Level: FIC Riser- R-06
Manual Tape Riser- None
LOW Riser(s)- None

Number of External Drywells: 7
Number of Lateral Wells: 3

Tank Status

Contents

Type: Double Shell Slurry Feed
Total Waste: 41K gallons
Supernate Volume: 4K gallons
Drainable Interstitial Liquid: 2K gallons

Isolation Status

Date Interim Stabilized: 08/89
Date Interim Isolated: 12/15/82

Surface Level/Leak Status

Integrity Category: Sound
FIC Surface Level: Intrusion level set at 14.00 Inches (12/28/92)
Surface Level Comments: Intrusion Mode
Last Photographed: 07/20/89
Photo Interpretation Comments:
Photos reveal a surface of clear liquid and large areas of what appear to be a relatively thin layer of floating solids. The FIC plummet is not readily visible, but appears to be contacting solids.

Temperature Status

Highest temperature during 1992: 91.9 °F (01/01/92)
Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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Tank 241-A-103

Riser and Drywell Locations
Tank 241-A-103

Tank Description

Type: Single Shell
Constructed: 1955
In-service: 05/17/56
Out of Service: 08/14/80
Diameter: 75'
Usable Depth: 30.3'
Capacity: 1,000K gallons
Bottom shape: Flat
Hanford Coordinates:
41,205' North
47,600' West
Air Lift Circulators: Yes (4)
Ventilation: Passive

Leak Detection System

Surface Level: FIC Riser- R-06
Manual Tape Riser- None
LOW Riser(s)- R-19

Number of External Drywells: 7
Number of Lateral Wells: 3

Tank Status

Contents

Type: Double Shell Slurry Feed
Total Waste: 370K gallons
Supernate Volume: 4K gallons
Drainable Interstitial Liquid: 13K gallons

Isolation Status

Date Interim Stabilized: 08/88
Date Partially Interim Isolated: 12/15/82

Surface Level/Leak Status

Integrity Category: Assumed Leaker
Date Declared Confirmed or Assumed Leaker: 1987
Leak Volume Estimate: 5,500 Gallons (1987)
FIC Surface Level: Intrusion level set at 137.40 Inches (12/28/92)
Surface Level Comments: Intrusion Mode
Last Photographed: 12/28/88
Photo Interpretation Comments:
Photos reveal a liquid surface with exposed solids (some floating) in many areas.
The FIC plummet is contacting liquid with exposed solids near the plummet.

Temperature Status

Highest temperature during 1992: 118 °F (04/09/92)
Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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Tank 241-A-104

Riser and Drywell Locations
Tank 241-A-104

Tank Description

Type: Single Shell
 Constructed: 1955
 In-service: 06/30/59
 Out of Service: 04/75
 Diameter: 75'
 Usable Depth: 30.3'
 Capacity: 1,000K gallons
 Bottom shape: Flat
 Hanford Coordinates:
 41,307' North
 47,804' West
 Air Lift Circulators: Yes (4)
 Ventilation: Operating Exhauster

Leak Detection System

Surface Level: FIC Riser- None
 Manual Tape Riser- R-11
 LOW Riser(s)- None

Number of External Drywells: 7
 Number of Lateral Wells: 3

Tank Status

Contents

Type: Non-Complexed Waste
 Total Waste: 28K gallons
 Supernate Volume: 0K gallons
 Drainable Interstitial Liquid: 0K gallons

Isolation Status

Date Interim Stabilized: 09/78
 Date Interim Isolated: 12/15/82

Surface Level/Leak Status

Integrity Category: Assumed Leaker
 Date Declared Confirmed or Assumed Leaker: 1975
 Leak Volume Estimate: 2,500 Gallons (1983)
 Manual Tape Surface Level: 11.00 Inches (11/04/92)
 Last Photographed: 06/25/86
 Photo Interpretation Comments:

Photos reveal a dry, cracked surface of sludge with no visible liquid.

Temperature Status

Highest temperature during 1992: 198.7 °F (11/30/92)
 Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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Tank 241-A-105

Riser and Drywell Locations
Tank 241-A-105

Tank Description

Type: Single Shell
Constructed: 1955
In-service: 1962
Out of Service: 11/63
Diameter: 75'
Usable Depth: 30.3'
Capacity: 1,000K gallons
Bottom shape: Flat
Hanford Coordinates:
41,307' North
47,702' West
Air Lift Circulators: Yes (4)
Ventilation: Operating Exhauster

Leak Detection System

Surface Level: FIC Riser- None
Manual Tape Riser- R-05
LOW Riser(s)- None

Number of External Drywells: 7
Number of Lateral Wells: 3

Tank Status

Contents

Type: Non-Complexed Waste
Total Waste: 19K gallons
Supernate Volume: 0K gallons
Drainable Interstitial Liquid: 4K gallons

Isolation Status

Date Interim Stabilized: 07/79
Date Interim Isolated: 10/03/85

Surface Level/Leak Status

Integrity Category: Assumed Leaker
Date Declared Confirmed or Assumed Leaker: 1963
Leak Volume Estimate: 10,000 to 277,000 Gallons (1991)
Manual Tape Surface Level: 14.75 Inches (11/30/92)
Last Photographed: 08/20/86
Photo Interpretation Comments:
Photos reveal bare metal, damage to steel liner from bulge, and dry, cracked sludge, primarily around the tank perimeter. There is no visible liquid, and measurement anomalies should be expected as discarded tapes are directly beneath the manual tape.

Temperature Status

Highest temperature during 1992: 156 °F (08/13/92)
Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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Tank 241-A-106

Riser and Drywell Locations
Tank 241-A-106

Tank Description

Type: Single Shell
 Constructed: 1955
 In-service: 1957
 Out of Service: 1980
 Diameter: 75'
 Usable Depth: 30.3'
 Capacity: 1,000K gallons
 Bottom shape: Flat
 Hanford Coordinates:
     41,307' North
     47,600' West
 Air Lift Circulators: Yes (4)
 Ventilation: Operating Exhauster

Leak Detection System

Surface Level: FIC Riser- R-06
                     Manual Tape Riser- None
                     LOW Riser(s)- None
 Number of External Drywells: 7
 Number of Lateral Wells: 3

Tank Status

Contents

Type: Double Shell Slurry Feed
 Total Waste: 125K gallons
 Supernate Volume: 0K gallons
 Drainable Interstitial Liquid: 7K gallons

Isolation Status

Date Interim Stabilized: 08/82
 Date Interim Isolated: 12/15/82

Surface Level/Leak Status

Integrity Category: Sound
 FIC Surface Level: Intrusion level set at 46.50 Inches (12/21/92)
 Surface Level Comments: Intrusion Mode
 Last Photographed: 08/17/86
 Photo Interpretation Comments:
     Photos reveal an uneven surface of sludge and a few small, isolated pockets of
     what appear to be damp solids or very small puddles of liquid.

Temperature Status

Highest temperature during 1992: 140 °F (11/05/92)
 Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established
 baseline profiles.

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241-AN Tank Farm
June 1991 91060449 41C.N

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Tank 241-AN-101

Riser and Drywell Locations
Tank 241-AN-101

Tank Description

Type: Double Shell
Constructed: 1981
In-service: 09/81
Diameter: 75'
Usable Depth: 35.2'
Capacity: 1,160.5K gallons
Bottom shape: Flat
Hanford Coordinates:
42,339.5' North
47,506' West
Ventilation: Operating Exhauster

Leak Detection System

Surface Level:
FIC Riser- R-02A
Manual Tape Riser- None
LOW Riser(s)- None

Number of External Drywells: None
Number of Lateral Wells: None

Tank Status

Contents

Type: Dilute Non-Complexed Waste
Total Waste: 638K gallons
Supernate Volume: 638K gallons
Drainable Interstitial Liquid: 0K gallons

Surface Level/Leak Status

Integrity Category: Sound
FIC Surface Level: 232.00 Inches (12/29/92)

Temperature Status

Highest temperature during 1992: 83 °F (08/17/92)
Comments: Temperatures are stable.

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Tank 241-AN-102

Riser and Drywell Locations
Tank 241-AN-102

Tank Description

Type: Double Shell
Constructed: 1981
In-service: 09/81
Diameter: 75'
Usable Depth: 35.2'
Capacity: 1,160.5K gallons
Bottom shape: Flat
Hanford Coordinates:
42,339.5' North
47,613' West
Ventilation: Operating Exhauster

Leak Detection System

Surface Level:
FIC Riser- R-02A
Manual Tape Riser- None
LOW Riser(s)- None

Number of External Drywells: None
Number of Lateral Wells: None

Tank Status

Contents

Type: Complexant Concentrate Waste
Total Waste: 1,107K gallons
Supernate Volume: 1,018K gallons
Drainable Interstitial Liquid: 3K gallons

Surface Level/Leak Status

Integrity Category: Sound
FIC Surface Level: 401.80 Inches (12/29/92)

Temperature Status

Highest temperature during 1992: 100 °F (09/28/92)
Comments: Temperatures are stable.

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Tank 241-AN-103

Riser and Drywell Locations
Tank 241-AN-103

Tank Description

Type: Double Shell
Constructed: 1981
In-service: 09/81
Diameter: 75'
Usable Depth: 35.2'
Capacity: 1,160.5K gallons
Bottom shape: Flat
Hanford Coordinates:
42,339.5' North
47,720' West
Ventilation: Operating Exhauster

Leak Detection System

Surface Level:
FIC Riser- R-02A
Manual Tape Riser- None
LOW Riser(s)- None

Number of External Drywells: None
Number of Lateral Wells: None

Tank Status

Watch List: *Hydrogen*

Contents

Type: Double Shell Slurry
Total Waste: 953K gallons
Supernate Volume: 16K gallons
Drainable Interstitial Liquid: 0K gallons

Surface Level/Leak Status

Integrity Category: Sound
FIC Surface Level: 346.80 Inches (12/29/92)
Last Photographed: 10/29/87
Photo Interpretation Comments: See attached photo.

Temperature Status

Highest temperature during 1992: 115 °F (09/28/92)
Comments: Temperatures are stable.

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Tank 241-AN-104

Riser and Drywell Locations
Tank 241-AN-104

Tank Description

Type: Double Shell
Constructed: 1981
In-service: 09/81
Diameter: 75'
Usable Depth: 35.2'
Capacity: 1,160.5K gallons
Bottom shape: Flat
Hanford Coordinates:
42,446.5' North
47,506' West
Ventilation: Operating Exhauster

Leak Detection System

Surface Level:
FIC Riser- R-02A
Manual Tape Riser- None
LOW Riser(s)- None

Number of External Drywells: None
Number of Lateral Wells: None

Tank Status

Watch List: *Hydrogen*

Contents

Type: Double Shell Slurry Feed
Total Waste: 1,059K gallons
Supernate Volume: 795K gallons
Drainable Interstitial Liquid: 25K gallons

Surface Level/Leak Status

Integrity Category: Sound
FIC Surface Level: 388.70 Inches (12/29/92)
Last Photographed: 08/19/88
Photo Interpretation Comments: See attached photo.

Temperature Status

Highest temperature during 1992: 118 °F (09/28/92)
Comments: Temperatures are stable.

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WHC EP 0625

Tank: 241-AN-104

August 1988

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Tank 241-AN-105

Riser and Drywell Locations
Tank 241-AN-105

Tank Description

Type: Double Shell
Constructed: 1981
In-service: 09/81
Diameter: 75'
Usable Depth: 35.2'
Capacity: 1,160.5K gallons
Bottom shape: Flat
Hanford Coordinates:
42,446.5' North
47,613' West
Ventilation: Operating Exhauster

Leak Detection System

Surface Level:
FIC Riser- R-02A
Manual Tape Riser- None
LOW Riser(s)- None

Number of External Drywells: None
Number of Lateral Wells: None

Tank Status

Watch List: *Hydrogen*

Contents

Type: Double Shell Slurry Feed
Total Waste: 1,126K gallons
Supernate Volume: 1,126K gallons
Drainable Interstitial Liquid: OK gallons

Surface Level/Leak Status

Integrity Category: Sound
FIC Surface Level: 411.50 Inches (12/29/92)
Last Photographed: 01/26/88
Photo Interpretation Comments: See attached photo.

Temperature Status

Highest temperature during 1992: 110 °F (06/29/92)
Comments: Temperatures are stable.

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Tank: 241-AN-105

January 1988

ADDITIONAL

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Tank 241-AN-106

Riser and Drywell Locations
Tank 241-AN-106

Tank Description

Type: Double Shell
Constructed: 1981
In-service: 09/81
Diameter: 75'
Usable Depth: 35.2'
Capacity: 1,160.5K gallons
Bottom shape: Flat
Hanford Coordinates:
42,446.5' North
47,720' West
Ventilation: Operating Exhauster

Leak Detection System

Surface Level:
FIC Riser- R-02A
Manual Tape Riser- None
LOW Riser(s)- None

Number of External Drywells: None
Number of Lateral Wells: None

Tank Status

Contents

Type: Concentrated Phosphate Waste
Total Waste: 1,013K gallons
Supernate Volume: 996K gallons
Drainable Interstitial Liquid: 0K gallons

Surface Level/Leak Status

Integrity Category: Sound
FIC Surface Level: 8.50 Inches (12/29/92)

Temperature Status

Highest temperature during 1992: 80 °F (09/28/92)
Comments: Temperatures are stable.

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Tank 241-AN-107

Riser and Drywell Locations
Tank 241-AN-107

Tank Description

Type: Double Shell
Constructed: 1981
In-service: 09/81
Diameter: 75'
Usable Depth: 35.2'
Capacity: 1,160.5K gallons
Bottom shape: Flat
Hanford Coordinates:
42,553.5' North
47,720' West
Ventilation: Operating Exhauster

Leak Detection System

Surface Level:
FIC Riser- R-02A
Manual Tape Riser- None
LOW Riser(s)- None

Number of External Drywells: None
Number of Lateral Wells: None

Tank Status

Contents

Type: Complexant Concentrate Waste
Total Waste: 1,071K gallons
Supernate Volume: 937K gallons
Drainable Interstitial Liquid: 9K gallons

Surface Level/Leak Status

Integrity Category: Sound
FIC Surface Level: 388.80 Inches (12/29/92)
Last Photographed: 09/01/88

Temperature Status

Highest temperature during 1992: 100 °F (09/28/92)
Comments: Temperatures are stable.

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241-AP Tank Farm
June 1991 91060449 12CN

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Tank 241-AP-101

Riser and Drywell Locations
Tank 241-AP-101

Tank Description

Type: Double Shell
Constructed: 1986
In-service: 1986
Diameter: 75'
Usable Depth: 35'
Capacity: 1,160K gallons
Bottom shape: Flat
Hanford Coordinates:
40,666' North
47,100' West
Ventilation: Operating Exhauster

Leak Detection System

Surface Level:
FIC Riser- R-02
Manual Tape Riser- R-26
LOW Riser(s)- None

Number of External Drywells: None
Number of Lateral Wells: None

Tank Status

Contents

Type: Dilute Non-Complexed Waste
Total Waste: 1,062K gallons
Supernate Volume: 1,062K gallons
Drainable Interstitial Liquid: OK gallons

Surface Level/Leak Status

Integrity Category: Sound
Manual Tape Surface Level: 385.75 Inches (12/29/92)
FIC Surface Level: 385.90 Inches (12/29/92)

Temperature Status

Highest temperature during 1992: 73 °F (09/28/92)
Comments: Temperatures are stable.

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Tank 241-AP-102

**Riser and Drywell Locations
Tank 241-AP-102**

Tank Description

Type: Double Shell
Constructed: 1986
In-service: 1986
Diameter: 75'
Usable Depth: 35'
Capacity: 1,160K gallons
Bottom shape: Flat
Hanford Coordinates:
40,666' North
46,968' West
Ventilation: Operating Exhauster

Leak Detection System

Surface Level:
FIC Riser- R-02
Manual Tape Riser- R-26
LOW Riser(s)- None

Number of External Drywells: None
Number of Lateral Wells: None

Tank Status

Contents

Type: Dilute Non-Complexed Waste
Total Waste: 137K gallons
Supernate Volume: 137K gallons
Drainable Interstitial Liquid: 0K gallons

Surface Level/Leak Status

Integrity Category: Sound
Manual Tape Surface Level: 402.25 Inches (12/29/92)
FIC Surface Level: 401.90 Inches (12/29/92)

Temperature Status

Highest temperature during 1992: 77 °F (12/28/92)
Comments: Temperatures are stable.

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Tank 241-AP-103

Riser and Drywell Locations
Tank 241-AP-103

Tank Description

Type: Double Shell
Constructed: 1986
In-service: 1986
Diameter: 75'
Usable Depth: 35'
Capacity: 1,160K gallons
Bottom shape: Flat
Hanford Coordinates:
40,559' North
47,100' West
Ventilation: Operating Exhauster

Leak Detection System

Surface Level:
FIC Riser- R-02
Manual Tape Riser- R-26
LOW Riser(s)- None

Number of External Drywells: None
Number of Lateral Wells: None

Tank Status

Contents

Type: Dilute Non-Complexed Waste
Total Waste: 1,134K gallons
Supernate Volume: 1,134K gallons
Drainable Interstitial Liquid: OK gallons

Surface Level/Leak Status

Integrity Category: Sound
Manual Tape Surface Level: 412.00 Inches (12/29/92)

Temperature Status

Highest temperature during 1992: 65 °F (11/09/92)
Comments: Temperatures are stable.

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Tank 241-AP-104

Riser and Drywell Locations
Tank 241-AP-104

Tank Description

Type: Double Shell
Constructed: 1986
In-service: 1986
Diameter: 75'
Usable Depth: 35'
Capacity: 1,160K gallons
Bottom shape: Flat
Hanford Coordinates:
40,559' North
46,968' West
Ventilation: Operating Exhauster

Leak Detection System

Surface Level:
FIC Riser- R-02
Manual Tape Riser- R-26
LOW Riser(s)- None

Number of External Drywells: None
Number of Lateral Wells: None

Tank Status

Contents

Type: Dilute Non-Complexed Waste
Total Waste: 20K gallons
Supernate Volume: 20K gallons
Drainable Interstitial Liquid: 0K gallons

Surface Level/Leak Status

Integrity Category: Sound
FIC Surface Level: 7.10 Inches (12/29/92)

Temperature Status

Highest temperature during 1992: 92 °F (12/14/92)
Comments: Temperatures are stable.

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Tank 241-AP-105

Riser and Drywell Locations
Tank 241-AP-105

Tank Description

Type: Double Shell
Constructed: 1986
In-service: 1986
Diameter: 75'
Usable Depth: 35'
Capacity: 1,160K gallons
Bottom shape: Flat
Hanford Coordinates:
40,393' North
47,100' West
Ventilation: Operating Exhauster

Leak Detection System

Surface Level:
FIC Riser- R-02
Manual Tape Riser- R-26
LOW Riser(s)- None

Number of External Drywells: None
Number of Lateral Wells: None

Tank Status

Contents

Type: Double Shell Slurry Feed
Total Waste: 824K gallons
Supernate Volume: 824K gallons
Drainable Interstitial Liquid: 0K gallons

Surface Level/Leak Status

Integrity Category: Sound
Manual Tape Surface Level: 298.50 (12/29/92)
FIC Surface Level: 299.20 Inches (12/29/92)

Temperature Status

Highest temperature during 1992: 87 °F (08/23/92)
Comments: Temperatures are stable.

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Tank 241-AP-106

Riser and Drywell Locations
Tank 241-AP-106

Tank Description

Type: Double Shell
Constructed: 1986
In-service: 1986
Diameter: 75'
Usable Depth: 35'
Capacity: 1,160K gallons
Bottom shape: Flat
Hanford Coordinates:
40,393' North
46,968' West
Ventilation: Operating Exhauster

Leak Detection System

Surface Level:
FIC Riser- R-02
Manual Tape Riser- R-26
LOW Riser(s)- None

Number of External Drywells: None
Number of Lateral Wells: None

Tank Status

Contents

Type: Dilute Non-Complexed Waste
Total Waste: 1,131K gallons
Supernate Volume: 1,131K gallons
Drainable Interstitial Liquid: 0K gallons

Surface Level/Leak Status

Integrity Category: Sound
Manual Tape Surface Level: 411.00 Inches (12/29/92)
FIC Surface Level: 411.00 Inches (12/29/92)

Temperature Status

Highest temperature during 1992: 80 °F (08/23/92)
Comments: Temperatures are stable.

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Tank 241-AP-107

Riser and Drywell Locations
Tank 241-AP-107

Tank Description

Type: Double Shell
Constructed: 1986
In-service: 1986
Diameter: 75'
Usable Depth: 35'
Capacity: 1,160K gallons
Bottom shape: Flat
Hanford Coordinates:
40,286' North
47,100' West
Ventilation: Operating Exhauster

Leak Detection System

Surface Level:
FIC Riser- R-02
Manual Tape Riser- R-26
LOW Riser(s)- None

Number of External Drywells: None
Number of Lateral Wells: None

Tank Status

Contents

Type: Dilute Non-Complexed Waste
Total Waste: 1,122K gallons
Supernate Volume: 1,122K gallons
Drainable Interstitial Liquid: 0K gallons

Surface Level/Leak Status

Integrity Category: Sound
Manual Tape Surface Level: 405.25 Inches (12/29/92)
FIC Surface Level: 406.40 Inches (12/29/92)

Temperature Status

Highest temperature during 1992: 71 °F (08/23/92)
Comments: Temperatures are stable.

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Tank 241-AP-108

Riser and Drywell Locations
Tank 241-AP-108

Tank Description

Type: Double Shell
Constructed: 1986
In-service: 1986
Diameter: 75'
Usable Depth: 35'
Capacity: 1,160K gallons
Bottom shape: Flat
Hanford Coordinates:
40,286' North
46,968' West
Ventilation: Operating Exhauster

Leak Detection System

Surface Level:
FIC Riser- R-02
Manual Tape Riser- R-26
LOW Riser(s)- None

Number of External Drywells: None
Number of Lateral Wells: None

Tank Status

Contents

Type: Dilute Non-Complexed Waste
Total Waste: 903K gallons
Supernate Volume: 903K gallons
Drainable Interstitial Liquid: 0K gallons

Surface Level/Leak Status

Integrity Category: Sound
Manual Tape Surface Level: 327.50 Inches (12/30/92)
FIC Surface Level: 327.30 Inches (12/30/92)

Temperature Status

Highest temperature during 1992: 69 °F (11/02/92)
Comments: Temperatures are stable.

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241-AW Tank Farm
June 1991 91060449-45CN

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2 of 6

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Tank 241-AW-101

Riser and Drywell Locations
Tank 241-AW-101

Tank Description

Type: Double Shell
Constructed: 1980
In-service: 07/31/80
Diameter: 75'
Usable Depth: 35.2'
Capacity: 1,160.5K gallons
Bottom shape: Flat
Hanford Coordinates:
40,704' North
47,752' West
Ventilation: Operating Exhauster

Leak Detection System

Surface Level:
FIC Riser- R-02A
Manual Tape Riser- Yes
LOW Riser(s)- None

Number of External Drywells: None
Number of Lateral Wells: None

Tank Status

Contents

Type: Double Shell Slurry Feed
Total Waste: 1,126K gallons
Supernate Volume: 1,042K gallons
Drainable Interstitial Liquid: 2K gallons

Surface Level/Leak Status

Integrity Category: Sound
Manual Tape Surface Level: 416.25 Inches (12/29/92)
FIC Surface Level: 408.50 Inches (12/29/92)
Last Photographed: 03/17/88

Temperature Status

Highest temperature during 1992: 100 °F (07/20/92)
Comments: Temperatures are stable.

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WHC EP 0625

Tank: 241-AW-101

March 1988

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Tank 241-AW-102

Riser and Drywell Locations
Tank 241-AW-102

Tank Description

Type: Double Shell
Constructed: 1980
In-service: 1980
Diameter: 75'
Usable Depth: 35.2'
Capacity: 1,160.5K gallons
Bottom shape: Flat
Hanford Coordinates:
40,704' North
47,645' West
Ventilation: Operating Exhauster

Leak Detection System

Surface Level:
FIC Riser- R-02A
Manual Tape Riser- Yes
LOW Riser(s)- None

Number of External Drywells: None
Number of Lateral Wells: None

Tank Status

Contents

Type: Dilute Non-Complexed Waste
Total Waste: 679K gallons
Supernate Volume: 678K gallons
Drainable Interstitial Liquid: 0K gallons

Surface Level/Leak Status

Integrity Category: Sound
Manual Tape Surface Level: 272.50 Inches (12/29/92)
FIC Surface Level: 273.40 Inches (12/29/92)
Last Photographed: 02/02/83

Temperature Status

Highest temperature during 1992: 89 °F (04/27/92)
Comments: Temperatures are stable.

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Tank 241-AW-103

Riser and Drywell Locations
Tank 241-AW-103

Tank Description

Type: Double Shell
Constructed: 1980
In-service: 1980
Diameter: 75'
Usable Depth: 35.2'
Capacity: 1,160.5K gallons
Bottom shape: Flat
Hanford Coordinates:
40,597' North
47,752' West
Ventilation: Operating Exhauster

Leak Detection System

Surface Level:
FIC Riser- R-02A
Manual Tape Riser- Yes
LOW Riser(s)- None

Number of External Drywells: None
Number of Lateral Wells: None

Tank Status

Contents

Type: PUREX Neutralized Cladding Removal Waste (TRU)
Total Waste: 646K gallons
Supernate Volume: 283K gallons
Drainable Interstitial Liquid: 37K gallons

Surface Level/Leak Status

Integrity Category: Sound
Manual Tape Surface Level: 234.50 Inches (12/29/92)

Temperature Status

Highest temperature during 1992: 88 °F (04/27/92)
Comments: Temperatures are stable.

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Tank 241-AW-104

Riser and Drywell Locations
Tank 241-AW-104

Tank Description

Type: Double Shell
Constructed: 1980
In-service: 1980
Diameter: 75'
Usable Depth: 35.2'
Capacity: 1,160.5K gallons
Bottom shape: Flat
Hanford Coordinates:
40,597' North
47,645' West
Ventilation: Operating Exhauster

Leak Detection System

Surface Level:
FIC Riser- R-02A
Manual Tape Riser- Yes
LOW Riser(s)- None

Number of External Drywells: None
Number of Lateral Wells: None

Tank Status

Contents

Type: Dilute Non-Complexed Waste
Total Waste: 1,125K gallons
Supernate Volume: .835K gallons
Drainable Interstitial Liquid: 49K gallons

Surface Level/Leak Status

Integrity Category: Sound
Manual Tape Surface Level: 408.00 Inches (12/29/92)
FIC Surface Level: 408.70 Inches (12/29/92)
Last Photographed: 02/02/83

Temperature Status

Highest temperature during 1992: 86 °F (01/06/92)
Comments: Temperatures are stable.

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Tank 241-AW-105

Riser and Drywell Locations
Tank 241-AW-105

Tank Description

Type: Double Shell
Constructed: 1980
In-service: 1980
Diameter: 75'
Usable Depth: 35.2'
Capacity: 1,160.5K gallons
Bottom shape: Flat
Hanford Coordinates:
40,490' North
47,752' West
Ventilation: Operating Exhauster

Leak Detection System

Surface Level:
FIC Riser- R-02A
Manual Tape Riser- Yes
LOW Riser(s)- None

Number of External Drywells: None
Number of Lateral Wells: None

Tank Status

Contents

Type: DN/PD
Total Waste: 911K gallons
Supernate Volume: 614K gallons
Drainable Interstitial Liquid: 29K gallons

Surface Level/Leak Status

Integrity Category: Sound
Manual Tape Surface Level: 345.50 Inches (12/29/92)
FIC Surface Level: 346.50 Inches (12/29/92)

Temperature Status

Highest temperature during 1992: 85 °F (05/25/92)
Comments: Temperatures are stable.

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Tank 241-AW-106

Riser and Drywell Locations
Tank 241-AW-106

Tank Description

Type: Double Shell
Constructed: 1980
In-service: 1980
Diameter: 75'
Usable Depth: 35.2'
Capacity: 1,160.5K gallons
Bottom shape: Flat
Hanford Coordinates:
40,490' North
47,645' West
Ventilation: Operating Exhauster

Leak Detection System

Surface Level:
FIC Riser- R-02A
Manual Tape Riser- Yes
LOW Riser(s)- None

Number of External Drywells: None
Number of Lateral Wells: None

Tank Status

Contents

Type: Dilute Non-Complexed Waste
Total Waste: 888K gallons
Supernate Volume: 592K gallons
Drainable Interstitial Liquid: 42K gallons

Surface Level/Leak Status

Integrity Category: Sound
Manual Tape Surface Level: 347.00 Inches (12/29/92)
FIC Surface Level: 347.90 Inches (12/29/92)
Last Photographed: 02/02/83

Temperature Status

Highest temperature during 1992: 92 °F (03/23/92)
Comments: Temperatures are stable.

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241-AX Tank Farm
June 1991 91060449 44CN

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Tank 241-AX-101

Tank Description

Type: Single Shell
 Constructed: 1964
 In-service: 1965
 Out of Service: 11/12/80
 Diameter: 75'
 Usable Depth: 30.3'
 Capacity: 1,000K gallons
 Bottom shape: Flat
 Hanford Coordinates:
     41,731' North
     47,475' West
 Ventilation: Passive

Leak Detection System

Surface Level:
     FIC Riser- R-09C
     Manual Tape Riser- None
     LOW Riser(s)- R-09A

Number of External Drywells: 8
 Number of Lateral Wells: None

Tank Status

Watch List: *Hydrogen*

Contents

Type: Double Shell Slurry Feed
 Total Waste: 748K gallons
 Supernate Volume: 0K gallons
 Drainable Interstitial Liquid: 320K gallons

Isolation Status

Date Partially Interim Isolated: 12/15/82

Surface Level/Leak Status

Integrity Category: Sound
 FIC Surface Level: Intrusion level set at 278.20 Inches (12/28/92)
 Surface Level Comments: Intrusion Mode
 Last Photographed: 08/18/87
 Photo Interpretation Comments: See attached photo.

Temperature Status

Highest temperature during 1992: 141 °F (01/24/92)
 Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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Tank: 241-AX-101

August 1987

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Tank 241-AX-102

Riser and Drywell Locations
Tank 241-AX-102

Tank Description

Type: Single Shell
 Constructed: 1964
 In-service: 1966
 Out of Service: 09/08/80
 Diameter: 75'
 Usable Depth: 30.3'
 Capacity: 1,000K gallons
 Bottom shape: Flat
 Hanford Coordinates:
     41,629' North
     47,475' West
 Ventilation: Passive

Leak Detection System

Surface Level:
     FIC Riser- None
     Manual Tape Riser- R-09B
     LOW Riser(s)- None

Number of External Drywells: 10
 Number of Lateral Wells: None

Tank Status

Contents

Type: Complexant Concentrate Waste
 Total Waste: 39K gallons
 Supernate Volume: 3K gallons
 Drainable Interstitial Liquid: 14K gallons

Isolation Status

Date Interim Stabilized: 9/88
 Date Interim Isolated: 12/15/82

Surface Level/Leak Status

Integrity Category: Assumed Leaker
 Date Declared Confirmed or Assumed Leaker: 1988
 Leak Volume Estimate: 3,000 Gallons (1989)
 Manual Tape Surface Level: 12.00 Inches (11/10/92)
 Last Photographed: 06/05/89
 Photo Interpretation Comments:
     Photographs reveal a liquid surface and what appears to be a very thin film on the surface.

Temperature Status

Highest recent temperature: 77 °F (11/20/91)
 Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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Tank 241-AX-103

Tank Description

Type: Single Shell
 Constructed: 1964
 In-service: 1965
 Diameter: 75'
 Usable Depth: 30.3'
 Capacity: 1,000K gallons
 Bottom shape: Flat
 Hanford Coordinates:
     41,731' North
     47,565' West
 Ventilation: Passive

Leak Detection System

Surface Level:
 FIC Riser- R-08C
 Manual Tape Riser- None
 LOW Riser(s)- None

Number of External Drywells: 6
 Number of Lateral Wells: None

Tank Status

Watch List: *Hydrogen*

Contents

Type: Complexant Concentrate Waste
 Total Waste: 112K gallons
 Supernate Volume: 0K gallons
 Drainable Interstitial Liquid: 36K gallons

Isolation Status

Date Interim Stabilized: 8/87
 Date Partially Interim Isolated: 12/15/82

Surface Level/Leak Status

Integrity Category: Sound
 FIC Surface Level: Intrusion level set at 44.50 Inches (12/28/92)
 Surface Level Comments: Intrusion Mode
 Last Photographed: 08/13/87
 Photo Interpretation Comments: See attached photo.

Temperature Status

Highest temperature during 1992: 119.7 °F (10/15/92)
 Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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WHC-EP-0625

Tank: 241-AX-103

August 1987

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Tank 241-AX-104

Tank Description

Type: Single Shell
 Constructed: 1964
 In-service: 1966
 Diameter: 75'
 Usable Depth: 30.3'
 Capacity: 1,000K gallons
 Bottom shape: Flat
 Hanford Coordinates:
     41,629' North
     47,565' West
 Air Lift Circulators: Yes (22)
 Ventilation: Passive

Leak Detection System

Surface Level:
     FIC Riser- None
     Manual Tape Riser- R-09A
     LOW Riser(s)- None

Number of External Drywells: 7
 Number of Lateral Wells: None

Tank Status

Contents

Type: Non-Complexed Waste
 Total Waste: 7K gallons
 Supernate Volume: 0K gallons
 Drainable Interstitial Liquid: 0K gallons

Isolation Status

Date Interim Stabilized: 08/10/81
 Date Interim Isolated: 12/15/82

Surface Level/Leak Status

Integrity Category: Assumed Leaker
 Date Declared Confirmed or Assumed Leaker: 1977
 Leak Volume Estimate: 7.8 Gallons = 1/19th of 150K gallons
 Manual Tape Surface Level: 2.75 Inches (11/19/92)
 Last Photographed: 08/18/87
 Photo Interpretation Comments: Photographs reveal a dry, empty tank.

Temperature Status

Highest temperature during 1992: 101.8 °F (10/15/92)
 Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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241-AY Tank Farm
June 1991 91060449 43CN

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Tank 241-AY-101

Riser and Drywell Locations
Tank 241-AY-101

Tank Description

Type: Double Shell
Constructed: 1970
In-service: 1971
Diameter: 75'
Usable Depth: 30.4'
Capacity: 1,000K gallons
Bottom shape: Flat
Hanford Coordinates:
41,733.11' North
47,836.54' West
Air Lift Circulators: Yes (22)
Ventilation: Operating Exhauster

Leak Detection System

Surface Level:
FIC Riser- R-22A
Manual Tape Riser- R-15A
LOW Riser(s)- None

Number of External Drywells: None
Number of Lateral Wells: None

Tank Status

Contents

Type: Dilute Complexed Waste
Total Waste: 928K gallons
Supernate Volume: 845K gallons
Drainable Interstitial Liquid: 2K gallons

Surface Level/Leak Status

Integrity Category: Sound
Manual Tape Surface Level: 334.50 Inches (12/29/92)
Last Photographed: 12/28/82
Photo Interpretation Comments: No current photographs.

Temperature Status

Highest temperature during 1992:

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Tank 241-AY-102

Riser and Drywell Locations
Tank 241-AY-102

Tank Description

Type: Double Shell
Constructed: 1970
In-service: 1976
Diameter: 75'
Usable Depth: 30.4'
Capacity: 1,000K gallons
Bottom shape: Flat
Hanford Coordinates:
41,626.06' North
47,836.54' West
Air Lift Circulators: Yes (22)
Ventilation: Operating Exhauster

Leak Detection System

Surface Level:
FIC Riser- R-22A
Manual Tape Riser- R-15A
LOW Riser(s)- None

Number of External Drywells: None
Number of Lateral Wells: None

Tank Status

Contents

Type: Dilute Non-Complexed Waste
Total Waste: 574K gallons
Supernate Volume: 542K gallons
Drainable Interstitial Liquid: OK gallons

Surface Level/Leak Status

Integrity Category: Sound
Manual Tape Surface Level: 237.50 Inches (12/29/92)
FIC Surface Level: 234.40 Inches (12/29/92)
Last Photographed: 04/28/81
Photo Interpretation Comments: No current photographs.

Temperature Status

Highest temperature during 1992:

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241-AZ Tank Farm
June 1991 91060449 42CN

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Tank 241-AZ-101

Riser and Drywell Locations
Tank 241-AZ-101

Tank Description

Type: Double Shell
Constructed: 1977
In-service: 11/30/76
Diameter: 75'
Usable Depth: 30.4'
Capacity: 1,000K gallons
Bottom shape: Flat
Hanford Coordinates:
    42,080' North
    47,506' West
Air Lift Circulators: Yes (22)
Ventilation: Operating Exhauster

Leak Detection System

Surface Level:
    FIC Riser- R-22A
    Manual Tape Riser- R-23A
    LOW Riser(s)- None

Number of External Drywells: None
Number of Lateral Wells: None

Tank Status

Contents

Type: Aging
Total Waste: 938K gallons
Supernate Volume: 903K gallons
Drainable Interstitial Liquid: 0K gallons

Surface Level/Leak Status

Integrity Category: Sound
Manual Tape Surface Level: 348.25 Inches (12/29/92)
Last Photographed: 08/18/83
Photo Interpretation Comments: No current photographs

Temperature Status

Highest temperature during 1992:

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Tank 241-AZ-102

Riser and Drywell Locations
Tank 241-AZ-102

Tank Description

Type: Double Shell
Constructed: 1977
In-service: 1975
Diameter: 75'
Usable Depth: 30.4'
Capacity: 1,000K gallons
Bottom shape: Flat
Norford Coordinates:
42,080' North
47,613' West
Air Lift Circulators: Yes (22)
Ventilation: Operating Exhauster

Leak Detection System

Surface Level:
FIC Riser- R-22A
Manual Tape Riser- R-23A
LOW Riser(s)- None

Number of External Drywells: None
Number of Lateral Wells: None

Tank Status

Contents

Type: Aging
Total Waste: 945K gallons
Supernate Volume: 850K gallons
Drainable Interstitial Liquid: 4K gallons

Surface Level/Leak Status

Integrity Category: Sound
Manual Tape Surface Level: 337.25 Inches (12/29/92)
Last Photographed: 12/24/84
Photo Interpretation Comments: Photographs are not current because of transfers.

Temperature Status

Highest temperature during 1992:

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241-B Tank Farm
June 1991 91060449-39CN

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Tank 241-B-101

Tank Description

Type: Single Shell
 Constructed: 1944
 In-service: 05/45
 Diameter: 75'
 Usable Depth: 16'
 Capacity: 530K gallons
 Bottom shape: Dish
 Hanford Coordinates:
 45,327' North
 52,552' West
 Ventilation: Passive

Leak Detection System

Surface Level:
 FIC Riser- R-08
 Manual Tape Riser- None
 LOW Riser(s)- None

Number of External Drywells: 6
 Number of Lateral Wells: None

Tank Status

Contents

Type: Non-Complexed Waste
 Total Waste: 113K gallons
 Supernate Volume: 0K gallons
 Drainable Interstitial Liquid: 6K gallons

Isolation Status

Date Interim Stabilized: 03/81
 Date Interim Isolated: 05/81

Surface Level/Leak Status

Integrity Category: Assumed Leaker
 Date Declared Confirmed or Assumed Leaker: 1974
 Leak Volume Estimate: 7.8K gallons = 1/19th of 150K gallons
 FIC Surface Level: Intrusion level set at 36.70 Inches (12/21/92)
 Surface Level Comments: Intrusion Mode
 Last Photographed: 05/19/83
 Photo Interpretation Comments:
 Although some of the 05/19/83 photographs are hazy, the visible surface is sludge with no surface liquid. The FIC plummet is not in view and there appears to be little change from photographs taken 9/22/77.

Temperature Status

Highest temperature during 1992: 111.3 °F (01/04/92)
 Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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Tank 241-B-102

Tank Description

Type: Single Shell
 Constructed: 1944
 In-service: 10/45
 Diameter: 75'
 Usable Depth: 16'
 Capacity: 530K gallons
 Bottom shape: Dish
 Hanford Coordinates:
     45,337' North
     52,552' West
 Ventilation: Passive

Leak Detection System

Surface Level:
     FIC Riser- R-01
     Manual Tape Riser- None
     LOW Riser(s)- None

Number of External Drywells: 5
 Number of Lateral Wells: None

Tank Status

Contents

Type: Non-Complexed Waste
 Total Waste: 32K gallons
 Supernate Volume: 4K gallons
 Drainable Interstitial Liquid: 0K gallons

Isolation Status

Date Interim Stabilized: 08/23/85
 Date Interim Isolated: 09/25/85

Surface Level/Leak Status

Integrity Category: Sound
 FIC Surface Level: 7.10 Inches (12/21/92)
 Last Photographed: 08/22/85
 Photo Interpretation Comments:

Photographs from 05/20/83 show that the FIC plummet is contacting liquid. There appears to be more liquid than in previous photographs. Photographs from 8/22/85 taken after pumping show a very shallow liquid surface and exposed solids around the perimeter of the tank. The FIC plummet is contacting solids.

Temperature Status

Highest temperature during 1992: 75.6 °F (01/04/92)
 Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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Tank 241-B-103

Tank Description

Type: Single Shell
 Constructed: 1944
 In-service: 12/45
 Diameter: 75'
 Usable Depth: 16'
 Capacity: 530K gallons
 Bottom shape: Dish
 Hanford Coordinates:
     45,437' North
     52,552' West
 Ventilation: Passive

Leak Detection System

Surface Level:
     FIC Riser- R-01
     Manual Tape Riser- None
     LOW Riser(s)- None

Number of External Drywells: 5
 Number of Lateral Wells: None

Tank Status

Watch List: **Organic Salts**

Contents

Type: Non-Complexed Waste
 Total Waste: 59K gallons
 Supernate Volume: 0K gallons
 Drainable Interstitial Liquid: 0K gallons

Isolation Status

Date Interim Stabilized: 02/26/85
 Date Interim Isolated: 09/25/85

Surface Level/Leak Status

Integrity Category: Assumed Leaker
 Date Declared Confirmed or Assumed Leaker: 1978
 Leak Volume Estimate: 7.8K gallons = 1/19th of 150K gallons
 FIC Surface Level: Intrusion level set at 17.40 Inches (12/21/92)
 Surface Level Comments: Intrusion Mode
 Last Photographed: 02/05/85
 Photo Interpretation Comments: See attached photo.

Temperature Status

Highest temperature during 1992: 198.6 °F (03/06/92)
 Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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WHC-EP-0625

Tank: 241-B-103

October 1988

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Tank 241-B-104

Tank Description

Type: Single Shell
 Constructed: 1944
 In-service: 08/46
 Diameter: 75'
 Usable Depth: 16'
 Capacity: 530K gallons
 Bottom shape: Dish
 Hanford Coordinates:
     45,237' North
     52,562' West
 Ventilation: Passive

Leak Detection System

Surface Level:
 FIC Riser- None
 Manual Tape Riser- R-08
 LOW Riser(s)- R-06

Number of External Drywells: 2
 Number of Lateral Wells: None

Tank Status

Contents

Type: Non-Complexed Waste
 Total Waste: 371K gallons
 Supernate Volume: 1K gallons
 Drainable Interstitial Liquid: 46K gallons

Isolation Status

Date Interim Stabilized: 06/28/85
 Date Interim Isolated: 09/25/85

Surface Level/Leak Status

Integrity Category: Sound
 Manual Tape Surface Level: 132.00 Inches (11/23/92)
 Last Photographed: 10/13/88
 Photo Interpretation Comments:

Photographs taken after pumping to a minimum heel show a shallow liquid surface with exposed solids, many of which are islands. Crystal growth is evident on most of the solids. Measurement anomalies should be expected from discarded tapes and liquid and crystal growth in the immediate area of the manual tape doughnut plummet.

Temperature Status

Highest temperature during 1992: 65.7 °F (01/04/92)
 Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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Tank 241-B-105

Tank Description

Type: Single Shell
 Constructed: 1944
 In-service: 01/47
 Diameter: 75'
 Usable Depth: 16'
 Capacity: 530K gallons
 Bottom shape: Dish
 Hanford Coordinates:
 45,337' North
 52,562' West
 Ventilation: Passive

Leak Detection System

Surface Level:
 FIC Riser- None
 Manual Tape Riser- R-14
 LOW Riser(s)- R-05

Number of External Drywells: 1
 Number of Lateral Wells: None

Tank Status

Contents

Type: Non-Complexed Waste
 Total Waste: 306K gallons
 Supernate Volume: 0K gallons
 Drainable Interstitial Liquid: 23K gallons

Isolation Status

Date Interim Stabilized: 12/27/84
 Date Interim Isolated: 10/30/85

Surface Level/Leak Status

Integrity Category: Assumed Leaker
 Date Declared Confirmed or Assumed Leaker: 1978
 Leak Volume Estimate: 7.8K gallons = 1/19th of 150K gallons
 Manual Tape Surface Level: 41.50 Inches (12/18/92)
 Last Photographed: 05/19/88
 Photo Interpretation Comments:

Photographs from 02/12/82 show heavy rust patterns on the side wall. The salt cake is collapsed and heavy salt formations and crystal growth are visible. A hole around the salt well contains liquid. Photographs from 12/18/84 show no change from previous photos.

Temperature Status

Highest temperature during 1992: 70.40 °F (11/06/92)
 Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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Tank 241-B-106

Tank Description

Type: Single Shell
 Constructed: 1944
 In-service: 09/47
 Diameter: 75'
 Usable Depth: 16'
 Capacity: 530K gallons
 Bottom shape: Dish
 Hanford Coordinates:
 45,357' North
 52,562' West
 Ventilation: Passive

Leak Detection System

Surface Level:
 FIC Riser- R-01
 Manual Tape Riser- None
 LOW Riser(s)- None

Number of External Drywells: 4
 Number of Lateral Wells: None

Tank Status

Contents

Type: Non-Complexed Waste
 Total Waste: 117K gallons
 Supernate Volume: 1K gallons
 Drainable Interstitial Liquid: 6K gallons

Isolation Status

Date Interim Stabilized: 03/20/85
 Date Interim Isolated: 10/30/85

Surface Level/Leak Status

Integrity Category: Sound
 FIC Surface Level: 39.10 Inches (12/21/92)
 Last Photographed: 02/28/85
 Photo Interpretation Comments:

Photographs show a smooth surface of solids with some shallow liquid visible.
 The FIC plummet is contacting liquid near the edge of a very shallow pool. Some measurement anomalies may be experienced.

Temperature Status

Highest temperature during 1992: 64.3 °F (01/01/92)
 Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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Tank 241-B-107

Riser and Drywell Locations
Tank 241-B-107

Tank Description

Type: Single Shell
Constructed: 1944
In-service: 05/45
Out of Service: 1969
Diameter: 75'
Usable Depth: 16'
Capacity: 530K gallons
Bottom shape: Dish
Hanford Coordinates:
45,237' North
52,752' West
Ventilation: Passive

Leak Detection System

Surface Level:
FIC Riser- None
Manual Tape Riser- R-08
LOW Riser(s)- None

Number of External Drywells: 4
Number of Lateral Wells: None

Tank Status

Contents

Type: Non-Complexed Waste
Total Waste: 165K gallons
Supernate Volume: 1K gallons
Drainable Interstitial Liquid: 12K gallons

Isolation Status

Date Partially Interim Isolated: 12/15/82
Date Interim Stabilized: 03/20/85
Date Interim Isolated: 10/30/85

Surface Level/Leak Status

Integrity Category: Assumed Leaker
Date Declared Confirmed or Assumed Leaker: 1980
Leak Volume Estimate: 8,000 Gallons (1986)
Manual Tape Surface Level: 54.50 Inches (11/23/92)
Last Photographed: 02/28/85
Photo Interpretation Comments:

Photographs show a solid surface and several areas with crystal growth. There are some small pockets of shallow liquid visible. The manual tape pencil plummet is contacting sludge and a discarded tape is in the immediate area.

Temperature Status

Highest temperature during 1992: 68.70 °F (11/06/92)
Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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Tank 241-B-108

Riser and Drywell Locations
Tank 241-B-108

Tank Description

Type: Single Shell
Constructed: 1944
In-service: 1945
Diameter: 75'
Usable Depth: 16'
Capacity: 530K gallons
Bottom shape: Dish
Hanford Coordinates:
45,337' North
52,752' West
Ventilation: Passive

Leak Detection System

Surface Level:
FIC Riser- R-08
Manual Tape Riser- None
LOW Riser(s)- None

Number of External Drywells: 5
Number of Lateral Wells: None

Tank Status

Contents

Type: Non-Complexed Waste
Total Waste: 94K gallons
Supernate Volume: 0K gallons
Drainable Interstitial Liquid: 4K gallons

Isolation Status

Date Interim Stabilized: 05/22/85
Date Interim Isolated: 10/28/85

Surface Level/Leak Status

Integrity Category: Sound
FIC Surface Level: Intrusion level set at 30.30 Inches (12/21/92)
Surface Level Comments: Intrusion Mode
Last Photographed: 05/10/85
Photo Interpretation Comments:
Photographs show a surface of sludge. The FIC plummet is contacting solids and a discarded tape is in the immediate area of the plummet.

Temperature Status

Highest temperature during 1992: 65.4 °F (01/01/92)
Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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Tank 241-B-109

Riser and Drywell Locations
Tank 241-B-109

Tank Description

Type: Single Shell
Constructed: 1944
In-service: 01/46
Diameter: 75'
Usable Depth: 16'
Capacity: 530K gallons
Bottom shape: Dish
Hanford Coordinates:
45,437' North
52,752' West
Ventilation: Passive

Leak Detection System

Surface Level:
FIC Riser- None
Manual Tape Riser- R-03
LOW Riser(s)- None

Number of External Drywells: 3
Number of Lateral Wells: None

Tank Status

Contents

Type: Non-Complexed Waste
Total Waste: 127K gallons
Supernate Volume: 0K gallons
Drainable Interstitial Liquid: 8K gallons

Isolation Status

Date Interim Stabilized: 04/09/85
Date Interim Isolated: 10/30/85

Surface Level/Leak Status

Integrity Category: Sound
Manual Tape Surface Level: 41.00 Inches (11/23/92)
Last Photographed: 04/02/85
Photo Interpretation Comments:
Photographs reveal a surface of damp sludge and dry exposed solids along the outer edge. The manual tape doughnut plummet is contacting dry solids in a hole several feet deep.

Temperature Status

Highest temperature during 1992: 65 °F (01/01/92)
Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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Tank 241-B-110

Riser and Drywell Locations
Tank 241-B-110

Tank Description

Type: Single Shell
 Constructed: 1944
 In-service: 05/45
 Out of Service: 1970
 Diameter: 75'
 Usable Depth: 16'
 Capacity: 530K gallons
 Bottom shape: Dish
 Hanford Coordinates:
     45,327' North
     52,852' West
 Ventilation: Passive

Leak Detection System

Surface Level:
 FIC Riser- None
 Manual Tape Riser- R-05
 LOW Riser(s)- None

Number of External Drywells: 4
 Number of Lateral Wells: None

Tank Status

Contents

Type: Non-Complexed Waste
 Total Waste: 246K gallons
 Supernate Volume: 1K gallons
 Drainable Interstitial Liquid: 22K gallons

Isolation Status

Date Interim Stabilized: 12/20/84
 Date Interim Isolated: 10/30/85

Surface Level/Leak Status

Integrity Category: Assumed Leaker
 Date Declared Confirmed or Assumed Leaker: 1981
 Leak Volume Estimate: 10,000 Gallons (1986)
 Manual Tape Surface Level: 86.00 Inches (11/23/92)
 Last Photographed: 03/17/88
 Photo Interpretation Comments:

Photographs from 01/09/81 and 12/13/84 show a caked, cracked, level surface of solids with a large pool of liquid in the center of the tank. The manual tape plummet is contacting solids.

Temperature Status

Highest temperature during 1992: 70.5 °F (02/07/92)
 Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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Tank 241-B-111

Riser and Drywell Locations
Tank 241-B-111

Tank Description

Type: Single Shell
Constructed: 1944
In-service: 11/45
Diameter: 75'
Usable Depth: 16'
Capacity: 530K gallons
Bottom shape: Dish
Hanford Coordinates:
45,337' North
52,852' West
Ventilation: Passive

Leak Detection System

Surface Level:
FIC Riser- R-01
Manual Tape Riser- None
LOW Riser(s)- None

Number of External Drywells: 1
Number of Lateral Wells: None

Tank Status

Contents

Type: Non-Complexed Waste
Total Waste: 237K gallons
Supernate Volume: 1K gallons
Drainable Interstitial Liquid: 21K gallons

Isolation Status

Date Interim Stabilized: 06/28/85
Date Interim Isolated: 10/30/85

Surface Level/Leak Status

Integrity Category: Assumed Leaker
Date Declared Confirmed or Assumed Leaker: 1978
Leak Volume Estimate: 7.8K gallons = 1/19th of 150K gallons
FIC Surface Level: Intrusion level set at 84.40 Inches (12/29/92)
Surface Level Comments: Intrusion Mode
Last Photographed: 06/26/85
Photo Interpretation Comments:
Photographs show a very shallow liquid surface toward one side of tank and exposed sludge on the other side where the FIC is located. The FIC plummet is contacting sludge.

Temperature Status

Highest temperature during 1992: 86 °F (07/02/92)
Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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Tank 241-B-112

Tank Description

Type: Single Shell
 Constructed: 1944
 In-service: 04/46
 Diameter: 75'
 Usable Depth: 16'
 Capacity: 530K gallons
 Bottom shape: Dish
 Hanford Coordinates:
 45,437' North
 52,852' West
 Ventilation: Passive

Leak Detection System

Surface Level:
 FIC Riser- R-04
 Manual Tape Riser- Yes
 LOW Riser(s)- None

Number of External Drywells: 5
 Number of Lateral Wells: None

Tank Status

Contents

Type: Non-Complexed Waste
 Total Waste: 33K gallons
 Supernate Volume: 3K gallons
 Drainable Interstitial Liquid: 0K gallons

Isolation Status

Date Interim Stabilized: 05/31/85
 Date Interim Isolated: 06/07/85

Surface Level/Leak Status

Integrity Category: Assumed Leaker
 Date Declared Confirmed or Assumed Leaker: 1978
 Leak Volume Estimate: 2,000 Gallons (1989)
 FIC Surface Level: 7.60 Inches (12/21/92)
 Last Photographed: 05/29/85
 Photo Interpretation Comments:

Photographs show a shallow clear liquid surface with patches of light, filmy material floating in some areas and exposed solids around the tank perimeter. The FIC plummet is contacting solids near the edge of the liquid.

Temperature Status

Highest temperature during 1992: 63.20 °F (07/02/92)
 Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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241 - BX Tank Farm
June 1991 91080632 PCN

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Tank 241-BX-101

Riser and Drywell Locations
Tank 241-BX-101

Tank Description

Type: Single Shell
Constructed: 1947
In-service: 01/17/48
Out of Service: 1972
Diameter: 75'
Usable Depth: 16'
Capacity: 530K gallons
Bottom shape: Dish
Hanford Coordinates:
45,400' North
53,250' West
Ventilation: Passive

Leak Detection System

Surface Level:
FIC Riser- None
Manual Tape Riser- R-01
LOW Riser(s)- None

Number of External Drywells: 2
Number of Lateral Wells: None

Tank Status

Contents

Type: Non-Complexed Waste
Total Waste: 43K gallons
Supernate Volume: 1K gallons
Drainable Interstitial Liquid: 0K gallons

Isolation Status

Date Interim Stabilized: 09/78
Date Interim Isolated: 05/01/81

Surface Level/Leak Status

Integrity Category: Assumed Leaker
Date Declared Confirmed or Assumed Leaker: 1972
Leak Volume Estimate: 7.8K gallons = 1/19th of 150K gallons
Manual Tape Surface Level: 10.00 Inches (10/05/92)
Last Photographed: 11/24/88
Photo Interpretation Comments:

Photographs from 08/21/86 and 10/28/86 show exposed sludge around the perimeter of the tank and more surface liquid toward the center of the tank than previous photographs. The manual tape plummet now has a small pool of liquid beneath it that is not connected to the larger center pool. Discarded tapes are near the plummet.

Temperature Status

Highest temperature during 1992: 75.50 °F (11/06/92)
Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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Tank 241-BX-102

Riser and Drywell Locations
Tank 241-BX-102

Tank Description

Type: Single Shell
 Constructed: 1947
 In-service: 06/10/48
 Out of Service: 05/70
 Diameter: 75'
 Usable Depth: 16'
 Capacity: 530K gallons
 Bottom shape: Dish
 Hanford Coordinates:
 45,500' North
 53,250' West
 Ventilation: Passive

Leak Detection System

Surface Level:
 FIC Riser- None
 Manual Tape Riser- R-07
 LOW Riser(s)- None

Number of External Drywells: 6
 Number of Lateral Wells: None

Tank Status

Watch List: *Ferrocyanide*

Contents

Type: Non-Complexed Waste
 Total Waste: 96K gallons
 Supernate Volume: 0K gallons
 Drainable Interstitial Liquid: 4K gallons

Isolation Status

Date Interim Stabilized: 11/78
 Date Interim Isolated: 10/80

Surface Level/Leak Status

Integrity Category: Assumed Leaker
 Date Declared Confirmed or Assumed Leaker: 1971
 Leak Volume Estimate: 70,000 Gallons (1986)
 Manual Tape Surface Level: 28.25 Inches (10/05/92)
 Last Photographed: 09/18/85
 Photo Interpretation Comments: See attached photo.

Temperature Status

Highest temperature during 1992: 71 °F (09/27/92)
 Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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WHC-EP-0625

Tank: 241-BX-102

November 1978

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Tank 241-BX-103

Tank Description

Type: Single Shell
 Constructed: 1947
 In-service: 09/30/48
 Diameter: 75'
 Usable Depth: 16'
 Capacity: 530K gallons
 Bottom shape: Dish
 Hanford Coordinates:
 45,600' North
 53,250' West
 Ventilation: Passive

Leak Detection System

Surface Level:
 FIC Riser- R-08
 Manual Tape Riser- None
 LOW Riser(s)- None

Number of External Drywells: 5
 Number of Lateral Wells: None

Tank Status

Contents

Type: Non-Complexed Waste
 Total Waste: 66K gallons
 Supernate Volume: 4K gallons
 Drainable Interstitial Liquid: 0K gallons

Isolation Status

Date Interim Stabilized: 11/29/83
 Date Interim Isolated: 10/30/85

Surface Level/Leak Status

Integrity Category: Sound
 FIC Surface Level: 20.00 Inches (12/21/92)
 Last Photographed: 10/31/86
 Photo Interpretation Comments:

Photograph comparisons continue to show more surface liquid and less exposed sludge around the tank perimeter. The FIC plummet near the edge of the tank is contacting a clear liquid surface.

Temperature Status

Highest temperature during 1992:

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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Tank 241-BX-104

Tank Description

Type: Single Shell
 Constructed: 1947
 In-service: 1949
 Out of Service: 1980
 Diameter: 75'
 Usable Depth: 16'
 Capacity: 530K gallons
 Bottom shape: Dish
 Hanford Coordinates:
     45,400' North
     53,350' West
 Ventilation: Passive

Leak Detection System

Surface Level:
     FIC Riser- R-08
     Manual Tape Riser- None
     LOW Riser(s)- None

Number of External Drywells: 6
 Number of Lateral Wells: None

Tank Status

Contents

Type: Non-Complexed Waste
 Total Waste: 99K gallons
 Supernate Volume: 3K gallons
 Drainable Interstitial Liquid: 30K gallons

Surface Level/Leak Status

Interim Isolated:
 Interim Stabilized: 09/89

Surface Level/Leak Status

Integrity Category: Sound
 FIC Surface Level: 32.00 Inches (12/28/92)
 Last Photographed: 09/21/89
 Photo Interpretation Comments:

Photograph comparisons show more surface liquid and less exposed sludge around the perimeter of the tank. The FIC plummet is contacting liquid.

Temperature Status

Highest temperature during 1992:

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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Tank 241-BX-105

Tank Description

Type: Single Shell
 Constructed: 1947
 In-service: 1949
 Diameter: 75'
 Usable Depth: 16'
 Capacity: 530K gallons
 Bottom shape: Dish
 Hanford Coordinates:
     45,500' North
     53,350' West
 Ventilation: Passive

Leak Detection System

Surface Level:
 FIC Riser- R-01
 Manual Tape Riser- None
 LOW Riser(s)- None

Number of External Drywells: 6
 Number of Lateral Wells: None

Tank Status

Contents

Type: Non-Complexed Waste
 Total Waste: 51K gallons
 Supernate Volume: 5K gallons
 Drainable Interstitial Liquid: 6K gallons

Isolation Status

Date Interim Stabilized: 03/81
 Date Interim Isolated: 09/25/86

Surface Level/Leak Status

Integrity Category: Sound
 FIC Surface Level: 25.80 Inches (12/21/92)
 Surface Level Comments: Intrusion Mode
 Last Photographed: 10/23/86
 Photo Interpretation Comments:

Photographs from 03/24/82 show a slightly larger clear liquid surface and exposed solids around the perimeter of the tank. Photographs from 10/20/86 (taken on completion of pumping) show some liquid toward the tank center. The FIC plummet is contacting a piece of pipe protruding from the solids directly beneath it and also discarded tapes.

Temperature Status

Highest temperature during 1992: 71 °F (01/02/92)
 Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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Tank 241-BX-106

Riser and Drywell Locations
Tank 241-BX-106

Tank Description

Type: Single Shell
Constructed: 1947
In-service: 1949
Diameter: 75'
Usable Depth: 16'
Capacity: 530K gallons
Bottom shape: Dish
Hanford Coordinates:
45,600' North
53,350' West
Ventilation: Passive

Leak Detection System

Surface Level:
FIC Riser- R-08
Manual Tape Riser- None
LOW Riser(s)- None

Number of External Drywells: 4
Number of Lateral Wells: None

Tank Status

Watch List: **Ferrocyanide**

Contents

Type: Non-Complexed Waste
Total Waste: 46K gallons
Supernate Volume: 15K gallons
Drainable Interstitial Liquid: 0K gallons

Surface Level/Leak Status

Integrity Category: Sound
FIC Surface Level: 12.30 Inches (12/28/92)
Last Photographed: 05/19/88
Photo Interpretation Comments: See attached photo.

Temperature Status

Highest temperature during 1992: 69.9 °F (10/18/92)
Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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WHC-EP-0625

Tank: 241-BX-106

May 1988

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Tank 241-BX-107

Tank Description

Type: Single Shell
 Constructed: 1947
 In-service: 09/48
 Diameter: 75'
 Usable Depth: 16'
 Capacity: 530K gallons
 Bottom shape: Dish
 Hanford Coordinates:
     45,400' North
     53,450' West
 Ventilation: Passive

Leak Detection System

Surface Level:
 FIC Riser- R-08
 Manual Tape Riser- None
 LOW Riser(s)- None

Number of External Drywells: 2
 Number of Lateral Wells: None

Tank Status

Contents

Type: Non-Complexed Waste
 Total Waste: 345K gallons
 Supernate Volume: 1K gallons
 Drainable Interstitial Liquid: 29K gallons

Isolation Status

Date Interim Isolated:
 Date Interim Stabilized: 09/90

Surface Level/Leak Status

Integrity Category: Sound
 FIC Surface Level: 121.00 Inches (12/28/92)
 Last Photographed: 09/11/90
 Photo Interpretation Comments:

Photographs show exposed solids and a slightly larger area of liquid than previous photographs. The surface liquid is partially covered with a film containing trapped gas bubbles in what appears to be organic. The FIC plummet is contacting liquid.

Temperature Status

Highest temperature during 1992:

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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Tank 241-BX-108

Tank Description

Type: Single Shell
 Constructed: 1947
 In-service: 1949
 Out of Service: 1974
 Diameter: 75'
 Usable Depth: 16'
 Capacity: 530K gallons
 Bottom shape: Dish
 Hanford Coordinates:
     45,500' North
     53,450' West
 Ventilation: Passive

Leak Detection System

Surface Level:
     FIC Riser- None
     Manual Tape Riser- R-02
     LOW Riser(s)- None

Number of External Drywells: 7
 Number of Lateral Wells: None

Tank Status

Contents

Type: Non-Complexed Waste
 Total Waste: 26K gallons
 Supernate Volume: 0K gallons
 Drainable Interstitial Liquid: 1K gallons

Isolation Status

Date Interim Stabilized: 07/79
 Date Interim Isolated: 06/81

Surface Level/Leak Status

Integrity Category: Assumed Leaker
 Date Declared Confirmed or Assumed Leaker: 1974
 Leak Volume Estimate: 2,500 Gallons (1986)
 Manual Tape Surface Level: 4.50 Inches (10/05/92)
 Last Photographed: 10/23/86

Photo Interpretation Comments:

Photographs from 11/09/82 show a dry sludge surface and a small pool of liquid where a pump was removed. The manual tape plummet is contacting solids in a small depression. Photographs from 10/23/86 show little change. The small liquid pool in previous photographs is no longer visible.

Temperature Status

Highest temperature during 1992: 61.30 °F (07/03/92)
 Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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Tank 241-BX-109

Riser and Drywell Locations
Tank 241-BX-109

Tank Description

Type: Single Shell
Constructed: 1947
In-service: 1950
Diameter: 75'
Usable Depth: 16'
Capacity: 530K gallons
Bottom shape: Dish
Hanford Coordinates:
45,600' North
53,450' West
Ventilation: Passive

Leak Detection System

Surface Level:
FIC Riser- R-08
Manual Tape Riser- None
LOW Riser(s)- None

Number of External Drywells: 4
Number of Lateral Wells: None

Tank Status

Contents

Type: Non-Complexed Waste
Total Waste: 193K gallons
Supernate Volume: 0K gallons
Drainable Interstitial Liquid: 13K gallons

Isolation Status

Date Interim Isolated:
Date Interim Stabilized: 09/90

Surface Level/Leak Status

Integrity Category: Sound
FIC Surface Level: 65.30 Inches (12/21/92)
Surface Level Comments: Intrusion Mode
Last Photographed: 09/11/90
Photo Interpretation Comments:

Photographs taken on completion of supernatant pumping show a pock-marked surface of sludge with puddles and rivulets of liquid. The FIC piummet is contacting a small puddle and discarded tapes.

Temperature Status

Highest temperature during 1992:

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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Tank 241-BX-110

Tank Description

Type: Single Shell
 Constructed: 1947
 In-service: 1949
 Diameter: 75'
 Usable Depth: 16'
 Capacity: 530K gallons
 Bottom shape: Dish
 Hanford Coordinates:
 45,400' North
 53,550' West
 Ventilation: Passive

Leak Detection System

Surface Level:
 FIC Riser- None
 Manual Tape Riser- R-07
 LOW Riser(s)- None

Number of External Drywells: 5
 Number of Lateral Wells: None

Tank Status

Watch List: **Ferrocyanide**

Contents

Type: Non-Complexed Waste
 Total Waste: 199K gallons
 Supernate Volume: 1K gallons
 Drainable Interstitial Liquid: 15K gallons

Isolation Status

Date Partially Interim Isolated: 12/15/82
 Date Interim Stabilized: 08/22/85

Surface Level/Leak Status

Integrity Category: Assumed Leaker
 Date Declared Confirmed or Assumed Leaker: 1976
 Leak Volume Estimate: 7.8K gallons = 1/19th of 150K gallons
 Manual Tape Surface Level: 68.50 Inches (12/01/92)
 Last Photographed: 07/31/85
 Photo Interpretation Comments: See attached photo.

Temperature Status

Highest temperature during 1992: 71.2 °F (05/16/92)
 Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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3 of 6

Tank: 241-BX-110

July 1985

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Tank 241-BX-111

Tank Description

Type: Single Shell
 Constructed: 1947
 In-service: 1950
 Diameter: 75'
 Usable Depth: 16'
 Capacity: 530K gallons
 Bottom shape: Dish
 Hanford Coordinates:
     45,500' North
     53,550' West
 Ventilation: Passive

Leak Detection System

Surface Level:
     FIC Riser- None
     Manual Tape Riser- R-07
     LOW Riser(s)- R-05

Number of External Drywells: 6
 Number of Lateral Wells: None

Tank Status

Watch List: **Ferrocyanide**

Contents

Type: Non-Complexed Waste
 Total Waste: 230K gallons
 Supernate Volume: 19K gallons
 Drainable Interstitial Liquid: 50K gallons

Isolation Status

Date Partially Interim Isolated: 12/15/82

Surface Level/Leak Status

Integrity Category: Assumed Leaker
 Date Declared Confirmed or Assumed Leaker: 1984
 Leak Volume Estimate: 7.8K gallons = 1/19th of 150K gallons
 Manual Tape Surface Level: 79.50 Inches (12/28/92)
 Last Photographed: 09/18/85
 Photo Interpretation Comments: See attached photo.

Temperature Status

Highest temperature during 1992: 71.7 °F (11/27/92)
 Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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WHC-EP-0625

Tank: 241-BX-111

September 1985

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Tank 241-BX-112

Riser and Drywell Locations
Tank 241-BX-112

Tank Description

Type: Single Shell
Constructed: 1947
In-service: 1950
Diameter: 75'
Usable Depth: 16'
Capacity: 530K gallons
Bottom shape: Dish
Hanford Coordinates:
45,600' North
53,550' West
Ventilation: Passive

Leak Detection System

Surface Level:
FIC Riser- R-08
Manual Tape Riser- None
LOW Riser(s)- None

Number of External Drywells: 5
Number of Lateral Wells: None

Tank Status

Contents

Type: Non-Complexed Waste
Total Waste: 165K gallons
Supernate Volume: 1K gallons
Drainable Interstitial Liquid: 7K gallons

Isolation Status

Date Interim Isolated:
Date Interim Stabilized: 09/90

Surface Level/Leak Status

Integrity Category: Sound
FIC Surface Level: 55.40 Inches (12/21/92)
Surface Level Comments: Out of service on 12/28/92.
Last Photographed: 09/11/90
Photo Interpretation Comments:

Photographs from 5/3/83 reveal a very uneven surface of exposed solids and shallow liquid in many areas of the tank. The FIC plummet is contacting a very small, shallow liquid surface near the tank perimeter. There appears to be slightly more liquid than in previous photographs. Photographs from 07/16/85 show little change from previous photographs.

Temperature Status

Highest recent temperature: 69 °F (04/14/91)
Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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241-BY Tank Farm
June 1991 91061349 39 74

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Tank 241-BY-101

Riser and Drywell Locations
Tank 241-BY-101

Tank Description

Type: Single Shell
Constructed: 1949
In-service: 01/50
Diameter: 75'
Usable Depth: 23'
Capacity: 758K gallons
Bottom shape: Dish
Hanford Coordinates:
45,898' North
53,247' West
Ventilation: Passive

Leak Detection System

Surface Level:
FIC Riser- None
Manual Tape Riser- R-05
LOW Riser(s)- R-09A

Number of External Drywells: 5
Number of Lateral Wells: None

Tank Status

Watch List: **Ferrocyanide**

Contents

Type: Non-Complexed Waste
Total Waste: 387K gallons
Supernate Volume: 0K gallons
Drainable Interstitial Liquid: 5K gallons

Isolation Status

Date Interim Stabilized: 05/22/84

Surface Level/Leak Status

Integrity Category: Sound
Manual Tape Surface Level: 142.25 Inches (12/01/92)
Last Photographed: 09/19/89
Photo Interpretation Comments: See attached photo.

Temperature Status

Highest temperature during 1992: 73 °F (08/30/92)
Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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WHC-EP-0625

Tank: 241-BY-101

September 1989

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Tank 241-BY-102

Riser and Drywell Locations
Tank 241-BY-102

Tank Description

Type: Single Shell
Constructed: 1949
In-service: 07/50
Diameter: 75'
Usable Depth: 23'
Capacity: 758K gallons
Bottom shape: Dish
Hanford Coordinates:
46,000' North
53,247' West
Ventilation: Passive

Leak Detection System

Surface Level:
FIC Riser- None
Manual Tape Riser- R-05
LOW Riser(s)- R-01

Number of External Drywells: 5
Number of Lateral Wells: None

Tank Status

Contents

Type: Non-Complexed Waste
Total Waste: 341K gallons
Supernate Volume: OK gallons
Drainable Interstitial Liquid: 41K gallons

Isolation Status

Date Partially Interim Isolated: 12/15/82

Surface Level/Leak Status

Integrity Category: Sound
Manual Tape Surface Level: 78.50 Inches (12/28/92)
Last Photographed: 09/11/87
Photo Interpretation Comments:

Photographs show a wide band of exposed salt cake around the tank perimeter and a large, deep liquid pool in the center of the tank. The manual tape doughnut plummet is contacting a clear liquid surface. Photographs are not current.

Temperature Status

Highest recent temperature: 88 °F (11/02/91)
Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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Tank 241-BY-103

Tank Description

Type: Single Shell
 Constructed: 1949
 In-service: 11/50
 Diameter: 75'
 Usable Depth: 23'
 Capacity: 758K gallons
 Bottom shape: Dish
 Hanford Coordinates:
 46,102' North
 53,247' West
 Ventilation: Passive

Leak Detection System

Surface Level:
 FIC Riser- None
 Manual Tape Riser- R-05
 LOW Riser(s)- R-10A

Number of External Drywells: 8
 Number of Lateral Wells: None

Tank Status

Watch List: **Ferrocyanide**

Contents

Type: Non-Complexed Waste
 Total Waste: 400K gallons
 Supernate Volume: 0K gallons
 Drainable Interstitial Liquid: 160K gallons

Isolation Status

Date Interim Stabilized: 09/19/79
 Date Partially Interim Isolated: 12/15/82

Surface Level/Leak Status

Integrity Category: Assumed Leaker
 Date Declared Confirmed or Assumed Leaker: 1973
 Leak Volume Estimate: < 5,000 Gallons (1983)
 Manual Tape Surface Level: 150.25 Inches (12/28/92)
 Last Photographed: 09/07/89
 Photo Interpretation Comments: See attached photo.

Temperature Status

Highest temperature during 1992: 86.5 °F (04/11/92)
 Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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Tank: 241-BY-103

September 1989

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Tank 241-BY-104

Tank Description

Type: Single Shell
 Constructed: 1949
 In-service: 02/51
 Diameter: 75'
 Usable Depth: 23'
 Capacity: 758K gallons
 Bottom shape: Dish
 Hanford Coordinates:
     45,898' North
     53,349' West
 Ventilation: Passive

Leak Detection System

Surface Level:
 FIC Riser- None
 Manual Tape Riser- R-05
 LOW Riser(s)- R-10C

Number of External Drywells: 5
 Number of Lateral Wells: None

Tank Status

Watch List: *Ferrocyanide*

Contents

Type: Non-Complexed Waste
 Total Waste: 406K gallons
 Supernate Volume: 0K gallons
 Drainable Interstitial Liquid: 18K gallons

Isolation Status

Date Interim Stabilized: 01/25/85

Surface Level/Leak Status

Integrity Category: Sound
 Manual Tape Surface Level: 128.25 Inches (12/21/92)
 Last Photographed: 04/27/83
 Photo Interpretation Comments: See attached photo.

Temperature Status

Highest temperature during 1992: 130.9 °F (04/25/92)
 Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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WHC-EP-0625

Tank: 241-BY-104

February 1981

WHC-EP-0625

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Tank 241-BY-105

Riser and Drywell Locations
Tank 241-BY-105

Tank Description

Type: Single Shell
Constructed: 1949
In-service: 06/51
Diameter: 75'
Usable Depth: 23'
Capacity: 758K gallons
Bottom shape: Dish
Hanford Coordinates:
46,000' North
53,349' West
Ventilation: Passive

Leak Detection System

Surface Level:
FIC Riser- None
Manual Tape Riser- R-05
LOW Riser(s)- R-10B

Number of External Drywells: 3
Number of Lateral Wells: None

Tank Status

Watch List: **Ferrocyanide**

Contents

Type: Non-Complexed Waste
Total Waste: 503K gallons
Supernate Volume: 0K gallons
Drainable Interstitial Liquid: 192K gallons

Isolation Status

Date Partially Interim Isolated: 12/15/82

Surface Level/Leak Status

Integrity Category: Assumed Leaker
Date Declared Confirmed or Assumed Leaker: 1984
Leak Volume Estimate: 7.8K gallons = 1/19th of 150K gallons
Manual Tape Surface Level: 176.00 Inches (12/28/92)
Last Photographed: 07/11/86
Photo Interpretation Comments: See attached photo.

Temperature Status

Highest temperature during 1992: 115 °F (08/15/92)
Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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WHC-EP-0625

Tank: 241-BY-105

July 1986

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Tank 241-BY-106

Tank Description

Type: Single Shell
 Constructed: 1949
 In-service: 1950
 Diameter: 75'
 Usable Depth: 23'
 Capacity: 758K gallons
 Bottom shape: Dish
 Hanford Coordinates:
 46,102' North
 53,349' West
 Ventilation: Passive

Leak Detection System

Surface Level:
 FIC Riser- None
 Manual Tape Riser- R-05
 LOW Riser(s)- R-10B

Number of External Drywells: 5
 Number of Lateral Wells: None

Tank Status

Watch List: **Ferrocyanide**

Contents

Type: Non-Complexed Waste
 Total Waste: 642K gallons
 Supernate Volume: 0K gallons
 Drainable Interstitial Liquid: 235K gallons

Isolation Status

Date Partially Interim Isolated: 12/15/82

Surface Level/Leak Status

Integrity Category: Assumed Leaker
 Date Declared Confirmed or Assumed Leaker: 1984
 Leak Volume Estimate: 7.8K gallons = 1/19th of 150K gallons
 Manual Tape Surface Level: 244.25 Inches (12/28/92)
 Last Photographed: 11/04/82
 Photo Interpretation Comments: See attached photo.

Temperature Status

Highest temperature during 1992: 131.3 °F (03/15/92)
 Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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WHC-EP-0625

Tank: 241-BY-106

November 1982

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Tank 241-BY-107

Riser and Drywell Locations
Tank 241-BY-107

Tank Description

Type: Single Shell
Constructed: 1949
In-service: 12/50
Diameter: 75'
Usable Depth: 23'
Capacity: 758K gallons
Bottom shape: Dish
Hanford Coordinates:
45,898' North
53,451' West
Ventilation: Passive

Leak Detection System

Surface Level:
FIC Riser- None
Manual Tape Riser- R-04
LOW Riser(s)- R-07

Number of External Drywells: 6
Number of Lateral Wells: None

Tank Status

Watch List: **Ferrocyanide**

Contents

Type: Non-Complexed Waste
Total Waste: 266K gallons
Supernate Volume: 0K gallons
Drainable Interstitial Liquid: 25K gallons

Isolation Status

Date Interim Stabilized: 07/79
Date Interim Isolated: 12/15/82

Surface Level/Leak Status

Integrity Category: Assumed Leaker
Date Declared Confirmed or Assumed Leaker: 1984
Leak Volume Estimate: 15,100 Gallons (1989)
Manual Tape Surface Level: 104.00 Inches (10/05/92)
Last Photographed: 10/15/86
Photo Interpretation Comments: See attached photo.

Temperature Status

Highest temperature during 1992: 98.5 °F (04/25/92)
Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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WHC EP 628

Tank: 241-BY-107

October 1986

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Tank 241-BY-108

Tank Description

Type: Single Shell
 Constructed: 1949
 In-service: 04/51
 Diameter: 75'
 Usable Depth: 23'
 Capacity: 758K gallons
 Bottom shape: Dish
 Hanford Coordinates:
     46,000' North
     53,451' West
 Ventilation: Passive

Leak Detection System

Surface Level:
 FIC Riser- None
 Manual Tape Riser- R-04
 LOW Riser(s)- None

Number of External Drywells: 7
 Number of Lateral Wells: None

Tank Status

Watch List: **Ferrocyanide**

Contents

Type: Non-Complexed Waste
 Total Waste: 228K gallons
 Supernate Volume: 0K gallons
 Drainable Interstitial Liquid: 9K gallons

Isolation Status

Date Interim Stabilized: 02/06/85
 Date Partially Interim Isolated: 12/15/82

Surface Level/Leak Status

Integrity Category: Assumed Leaker
 Date Declared Confirmed or Assumed Leaker: 1972
 Leak Volume Estimate: < 5,000 Gallons (1983)
 Manual Tape Surface Level: 87.50 Inches (12/01/92)
 Last Photographed: 10/15/86
 Photo Interpretation Comments: See attached photo.

Temperature Status

Highest temperature during 1992: 108 °F (08/15/92)
 Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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Tank: 241-BY-108

October 1986

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Tank 241-BY-109

Tank Description

Type: Single Shell
 Constructed: 1949
 In-service: 1950
 Out of Service: 08/09/79
 Diameter: 75'
 Usable Depth: 23'
 Capacity: 758K gallons
 Bottom shape: Dish
 Hanford Coordinates:
 46,102' North
 53,451' West
 Ventilation: Passive

Leak Detection System

Surface Level:
 FIC Riser- None
 Manual Tape Riser- R-04
 LOW Riser(s)- R-12B

Number of External Drywells: 6
 Number of Lateral Wells: None

Tank Status

Contents

Type: Non-Complexed Waste
 Total Waste: 423K gallons
 Supernate Volume: 0K gallons
 Drainable Interstitial Liquid: 78K gallons

Surface Level/Leak Status

Integrity Category: Sound
 Last Photographed: 10/15/86
 Photo Interpretation Comments:

Photographs from 04/27/83 show more surface liquid than previous photographs with several patches of floating salt cake or scum-like material. The FIC plummet is contacting liquid. Photographs from 10/15/86 continue to show more surface liquid.

Temperature Status

Highest temperature during 1992: 102 °F (08/30/92)
 Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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Tank 241-BY-110

Tank Description

Type: Single Shell
 Constructed: 1949
 In-service: 1951
 Diameter: 75'
 Usable Depth: 23'
 Capacity: 758K gallons
 Bottom shape: Dish
 Hanford Coordinates:
     45,898' North
     53,553' West
 Ventilation: Passive

Leak Detection System

Surface Level:
     FIC Riser- None
     Manual Tape Riser- R-04
     LOW Riser(s)- R-03

Number of External Drywells: 4
 Number of Lateral Wells: None

Tank Status

Watch List: *Ferrocyanide*

Contents

Type: Non-Complexed Waste
 Total Waste: 398K gallons
 Supernate Volume: 0K gallons
 Drainable Interstitial Liquid: 9K gallons

Isolation Status

Date Interim Stabilized: 01/25/85

Surface Level/Leak Status

Integrity Category: Sound
 Surface Level Comments: Out of Service on 12/30/92.
 Last Photographed: 07/26/84
 Photo Interpretation Comments: See attached photo.

Temperature Status

Highest temperature during 1992: 120 °F (08/30/92)
 Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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WHC TP 0628

Tank: 241-BY-110

July 1984

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Tank 241-BY-111

Riser and Drywell Locations
Tank 241-BY-111

Tank Description

Type: Single Shell
Constructed: 1949
In-service: 1951
Diameter: 75'
Usable Depth: 23'
Capacity: 758K gallons
Bottom shape: Dish
Hanford Coordinates:
46,000' North
53,553' West
Ventilation: Passive

Leak Detection System

Surface Level:
FIC Riser- None
Manual Tape Riser- R-05
LOW Riser(s)- R-01

Number of External Drywells: 4
Number of Lateral Wells: None

Tank Status

Watch List: *Ferrocyanide*

Contents

Type: Non-Complexed Waste
Total Waste: 459K gallons
Supernate Volume: 0K gallons
Drainable Interstitial Liquid: 0K gallons

Isolation Status

Date Interim Stabilized: 01/25/85

Surface Level/Leak Status

Integrity Category: Sound
Last Photographed: 10/31/86
Photo Interpretation Comments: See attached photo.

Temperature Status

Highest temperature during 1992: 89 °F (08/01/92)
Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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WHC EP 0625

Tank: 241-BY-111

October 1986

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Tank 241-BY-112

Tank Description

Type: Single Shell
 Constructed: 1949
 In-service: 1951
 Diameter: 75'
 Usable Depth: 23'
 Capacity: 758K gallons
 Bottom shape: Dish
 Hanford Coordinates:
 46,102' North
 53,553' West
 Ventilation: Passive

Leak Detection System

Surface Level:
 FIC Riser- None
 Manual Tape Riser- R-02
 LOW Riser(s)- R-15

Number of External Drywells: 7
 Number of Lateral Wells: None

Tank Status

Watch List: **Ferrocyanide**

Contents

Type: Non-Complexed Waste
 Total Waste: 291K gallons
 Supernate Volume: 0K gallons
 Drainable Interstitial Liquid: 8K gallons

Isolation Status

Date Interim Stabilized: 06/13/84

Surface Level/Leak Status

Integrity Category: Sound
 Manual Tape Surface Level: 113.00 Inches (12/01/92)
 Last Photographed: 04/14/88
 Photo Interpretation Comments: See attached photo.

Temperature Status

Highest temperature during 1992: 85 °F (08/30/92)
 Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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WHC EP 0625

Tank: 241-BY-112

April 1988

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241-C Tank Farm
June 1991 9106049-40CN

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Tank 241-C-101

Tank Description

Type: Single Shell
 Constructed: 1944
 In-service: 03/46
 Out of Service: 12/69
 Diameter: 75'
 Usable Depth: 16'
 Capacity: 530K gallons
 Bottom shape: Dish
 Hanford Coordinates:
     42,719' North
     48,327' West
 Ventilation: Passive

Leak Detection System

Surface Level:
 FIC Riser- None
 Manual Tape Riser- R-02
 LOW Riser(s)- None

Number of External Drywells: 4
 Number of Lateral Wells: None

Tank Status

Contents

Type: Non-Complexed Waste
 Total Waste: 88K gallons
 Supernate Volume: 0K gallons
 Drainable Interstitial Liquid: 3K gallons

Isolation Status

Date Interim Stabilized: 11/29/83
 Date Interim Isolated: 12/15/82

Surface Level/Leak Status

Integrity Category: Assumed Leaker
 Date Declared Confirmed or Assumed Leaker: 1980
 Leak Volume Estimate: 20,000 Gallons (1986)
 Manual Tape Surface Level: 26.00 Inches (11/23/92)
 Last Photographed: 11/17/87
 Photo Interpretation Comments:
     Photographs reveal a sludge surface with a very small area of shallow liquid visible.

Temperature Status

Highest temperature during 1992: 89 °F (11/05/92)
 Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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Tank 241-C-102

Riser and Drywell Locations
Tank 241-C-102

Tank Description

Type: Single Shell
Constructed: 1944
In-service: 05/46
Out of Service: 1976
Diameter: 75'
Usable Depth: 16'
Capacity: 530K gallons
Bottom shape: Dish
Hanford Coordinates:
42,790' North
48,256' West
Ventilation: Passive

Leak Detection System

Surface Level:
FIC Riser- R-02
Manual Tape Riser- None
LOW Riser(s)- None

Number of External Drywells: None
Number of Lateral Wells: None

Tank Status

Contents

Type: Dilute Complexed Waste
Total Waste: 423K gallons
Supernate Volume: 0K gallons
Drainable Interstitial Liquid: 37K gallons

Isolation Status

Date Partially Interim Isolated: 12/15/82

Surface Level/Leak Status

Integrity Category: Sound
FIC Surface Level: 152.00 Inches (12/28/92)
Surface Level Comments: Intrusion Mode
Last Photographed: 05/18/76
Photo Interpretation Comments:

Photographs reveal a dry, lumpy surface of sludge with very shallow puddles of liquid visible. The FIC plummet is contacting sludge and a discarded tape and teflon™ gasket is in the immediate vicinity of the plummet.

Temperature Status

Highest temperature during 1992: 96 °F (11/05/92)
Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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Tank 241-C-103

Tank Description

Type: Single Shell
 Constructed: 1944
 In-service: 08/46
 Diameter: 75'
 Usable Depth: 16'
 Capacity: 530K gallons
 Bottom shape: Dish
 Hanford Coordinates:
 42,861' North
 48,185' West
 Ventilation: Passive

Leak Detection System

Surface Level:
 FIC Riser- R-08
 Manual Tape Riser- None
 LOW Riser(s)- None

Number of External Drywells: 5
 Number of Lateral Wells: None

Tank Status

Watch List: **Organic Salts**

Contents

Type: Non-Complexed Waste
 Total Waste: 195K gallons
 Supernate Volume: 133K gallons
 Drainable Interstitial Liquid: OK gallons

Isolation Status

Date Partially Interim Isolated: 12/15/82

Surface Level/Leak Status

Integrity Category: Sound
 FIC Surface Level: 66.20 Inches (12/28/92)
 Last Photographed: 07/28/87

Temperature Status

Highest temperature during 1992: 128 °F (10/10/92)
 Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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WHC-EP-0625

Tank: 241-C-103

July 1987

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Tank 241-C-104

Tank Description

Type: Single Shell
 Constructed: 1944
 In-service: 10/46
 Diameter: 75'
 Usable Depth: 16'
 Capacity: 530K gallons
 Bottom shape: Dish
 Hanford Coordinates:
 42,790' North
 48,398' West
 Ventilation: Passive

Leak Detection System

Surface Level:
 FIC Riser- R-08
 Manual Tape Riser- None
 LOW Riser(s)- None

Number of External Drywells: 7
 Number of Lateral Wells: None

Tank Status

Contents

Type: Complexant Concentrate Waste
 Total Waste: 295K gallons
 Supernate Volume: 0K gallons
 Drainable Interstitial Liquid: 11K gallons

Isolation Status

Date Partially Interim Isolated: 12/15/92
 Date Interim Stabilized: 09/89

Surface Level/Leak Status

Integrity Category: Sound
 FIC Surface Level: 87.50 Inches (12/28/92)
 Last Photographed: 07/25/90
 Photo Interpretation Comments: See attached photo.

Temperature Status

Highest temperature during 1992: 92 °F (11/06/92)
 Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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Tank 241-C-105

Tank Description

Type: Single Shell
 Constructed: 1944
 In-service: 02/46
 Diameter: 75'
 Usable Depth: 16'
 Capacity: 530K gallons
 Bottom shape: Dish
 Hanford Coordinates:
     42,861' North
     48,327' West
 Ventilation: Passive

Leak Detection System

Surface Level:
 FIC Riser- R-08
 Manual Tape Riser- None
 LOW Riser(s)- None

Number of External Drywells: 9
 Number of Lateral Wells: None

Tank Status

Contents

Type: Non-Complexed Waste
 Total Waste: 150K gallons
 Supernate Volume: 0K gallons
 Drainable Interstitial Liquid: 11K gallons

Surface Level/Leak Status

Integrity Category: Sound
 Manual Tape Surface Level: Not Available (Not Available)
 FIC Surface Level: 47.90 Inches (12/29/92)
 Last Photographed: 04/01/88
 Photo Interpretation Comments:

Photographs from 06/27/79 show mostly liquid with exposed solids around the tank perimeter and several patches of floating scum or organic. Photographs from 03/28/85 show little change except for slightly more exposed sludge.

Temperature Status

Highest temperature during 1992: 105.90 °F (08/16/92)
 Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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Tank 241-C-106

Riser and Drywell Locations
Tank 241-C-106

Tank Description

Type: Single Shell
Constructed: 1944
In-service: 06/47
Out of Service: 1979
Diameter: 75'
Usable Depth: 16'
Capacity: 530K gallons
Bottom shape: Dish
Hanford Coordinates:
42,932' North
48,256' West
Ventilation: Passive

Leak Detection System

Surface Level:
FIC Riser- R-01
Manual Tape Riser- None
LOW Riser(s)- None

Number of External Drywells: 6
Number of Lateral Wells: None

Tank Status

Watch List: **High Heat**

Contents

Type: Non-Complexed Waste
Total Waste: 229K gallons
Supernate Volume: 32K gallons
Drainable Interstitial Liquid: 16K gallons

Surface Level/Leak Status

Integrity Category: Sound
Manual Tape Surface Level: Not Available (Not Available)
FIC Surface Level: 77.70 Inches (12/29/92)
Last Photographed: 04/05/79
Photo Interpretation Comments: See attached photo.

Temperature Status

Highest temperature during 1992: 198 °F (06/07/92)
Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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WHC-EP-0625

Tank: 241-C-106

April 1979

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Tank 241-C-107

Tank Description

Type: Single Shell
 Constructed: 1944
 In-service: 04/46
 Out of Service: 1976
 Diameter: 75'
 Usable Depth: 16'
 Capacity: 530K gallons
 Bottom shape: Dish
 Hanford Coordinates:
     42,861' North
     48,469' West
 Ventilation: Passive

Leak Detection System

Surface Level:
     FIC Riser- R-08
     Manual Tape Riser- None
     LOW Riser(s)- None

Number of External Drywells: 7
 Number of Lateral Wells: None

Tank Status

Contents

Type: Dilute Complexed Waste
 Total Waste: 275K gallons
 Supernate Volume: 0K gallons
 Drainable Interstitial Liquid: 26K gallons

Isolation Status

Date Partially Interim Isolated: 12/15/82

Surface Level/Leak Status

Integrity Category: Sound
 FIC Surface Level: 95.30 Inches (12/21/92)
 Surface Level Comments: Out of Service on 12/28/92

Temperature Status

Highest recent temperature: 129.8 °F (09/25/93)
 Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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Tank 241-C-108

Riser and Drywell Locations
Tank 241-C-108

Tank Description

Type: Single Shell
 Constructed: 1944
 In-service: 09/47
 Out of Service: 1976
 Diameter: 75'
 Usable Depth: 16'
 Capacity: 530K gallons
 Bottom shape: Dish
 Hanford Coordinates:
 42,932' North
 48,398' West
 Ventilation: Passive

Leak Detection System

Surface Level:
 FIC Riser- None
 Manual Tape Riser- R-01
 LOW Riser(s)- None

Number of External Drywells: 3
 Number of Lateral Wells: None

Tank Status

Watch List: *Ferrocyanide*

Contents

Type: Non-Complexed Waste
 Total Waste: 66K gallons
 Supernate Volume: 0K gallons
 Drainable Interstitial Liquid: 0K gallons

Isolation Status

Date Interim Stabilized: 03/09/84
 Date Interim Isolated: 12/15/82

Surface Level/Leak Status

Integrity Category: Sound
 Manual Tape Surface Level: 20.00 Inches (11/23/92)
 Last Photographed: 12/05/74
 Photo Interpretation Comments: See attached photo.

Temperature Status

Highest temperature during 1992: 79.7 °F (10/23/92)
 Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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WHC-EP-0625

Tank: 241-C-108

December 1974

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Tank 241-C-109

Tank Description

Type: Single Shell
 Constructed: 1944
 In-service: 04/48
 Out of Service: 1976
 Diameter: 75'
 Usable Depth: 16'
 Capacity: 530K gallons
 Bottom shape: Dish
 Hanford Coordinates:
 43,003' North
 48,327' West
 Ventilation: Passive

Leak Detection System

Surface Level:
 FIC Riser- None
 Manual Tape Riser- R-01
 LOW Riser(s)- None

Number of External Drywells: 6
 Number of Lateral Wells: None

Tank Status

Watch List: **Ferrocyanide**

Contents

Type: Non-Complexed Waste
 Total Waste: 66K gallons
 Supernate Volume: 4K gallons
 Drainable Interstitial Liquid: 0K gallons

Isolation Status

Date Interim Stabilized: 11/29/83
 Date Interim Isolated: 12/15/82

Surface Level/Leak Status

Integrity Category: Sound
 Manual Tape Surface Level: 18.00 Inches (11/23/92)
 Last Photographed: 01/30/76
 Photo Interpretation Comments: See attached photo.

Temperature Status

Highest temperature during 1992: 88 °F (09/30/92)
 Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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Tank: 241-C-109

August 1986

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Tank 241-C-110

Riser and Drywell Locations
Tank 241-C-110

Tank Description

Type: Single Shell
Constructed: 1944
In-service: 05/46
Out of Service: 1976
Diameter: 75'
Usable Depth: 16'
Capacity: 530K gallons
Bottom shape: Dish
Hanford Coordinates:
42,932' North
48,540' West
Ventilation: Passive

Leak Detection System

Surface Level:
FIC Riser- None
Manual Tape Riser- R-04
LOW Riser(s)- None

Number of External Drywells: 4
Number of Lateral Wells: None

Tank Status

Contents

Type: Dilute Complexed Waste
Total Waste: 187K gallons
Supernate Volume: 0K gallons
Drainable Interstitial Liquid: 7K gallons

Isolation Status

Date Interim Stabilized: 09/79
Date Partially Interim Isolated: 12/15/82

Surface Level/Leak Status

Integrity Category: Assumed Leaker
Date Declared Confirmed or Assumed Leaker: 1984
Leak Volume Estimate: 2,000 Gallons (1989)
Manual Tape Surface Level: 65.00 Inches (12/28/92)
Last Photographed: 08/12/86
Photo Interpretation Comments:

Photographs continue to show more surface liquid on one side of the tank than previous photographs and large areas of exposed solids in the remaining areas of the tank. The manual tape donought plummet is contacting a shallow clear liquid surface.

Temperature Status

Highest temperature during 1992: 70.5 °F (07/02/92)
Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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Tank 241-C-111

Tank Description

Type: Single Shell
 Constructed: 1944
 In-service: 08/46
 Out of Service: 1968
 Diameter: 75'
 Usable Depth: 16'
 Capacity: 530K gallons
 Bottom shape: Dish
 Hanford Coordinates:
 43,003' North
 48,469' West
 Ventilation: Passive

Leak Detection System

Surface Level:
 FIC Riser- None
 Manual Tape Riser- R-08
 LOW Riser(s)- None

Number of External Drywells: 5
 Number of Lateral Wells: None

Tank Status

Watch List: **Ferrocyanide**

Contents

Type: Non-Complexed Waste
 Total Waste: 57K gallons
 Supernate Volume: 0K gallons
 Drainable Interstitial Liquid: 0K gallons

Isolation Status

Date Interim Stabilized: 03/09/84
 Date Interim Isolated: 12/15/82

Surface Level/Leak Status

Integrity Category: Assumed Leaker
 Date Declared Confirmed or Assumed Leaker: 1968
 Leak Volume Estimate: 5,500 Gallons (1989)
 Manual Tape Surface Level: 16.25 Inches (11/23/92)
 Last Photographed: 02/25/70
 Photo Interpretation Comments: See attached photo.

Temperature Status

Highest temperature during 1992: 82.2 °F (10/02/92)
 Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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WHC-EP-0625

Tank: 241-C-111

February 1970

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Tank 241-C-112

Riser and Drywell Locations
Tank 241-C-112

Tank Description

Type: Single Shell
Constructed: 1944
In-service: 11/46
Out of Service: 1976
Diameter: 75'
Usable Depth: 16'
Capacity: 530K gallons
Bottom shape: Dish
Hanford Coordinates:
43,074' North
48,398' West
Ventilation: Passive

Leak Detection System

Surface Level:
FIC Riser- None
Manual Tape Riser- R-08
LOW Riser(s)- None

Number of External Drywells: 4
Number of Lateral Wells: None

Tank Status

Watch List: *Ferrocyanide*

Contents

Type: Non-Complexed Waste
Total Waste: 104K gallons
Supernate Volume: 0K gallons
Drainable Interstitial Liquid: 32K gallons

Isolation Status

Date Partially Interim Isolated: 12/15/82
Date Interim Stabilized: 09/90

Surface Level/Leak Status

Integrity Category: Sound
Manual Tape Surface Level: 33.50 Inches (12/28/92)
Last Photographed: 09/18/90

Temperature Status

Highest temperature during 1992: 90.50 °F (08/09/92)
Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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WHC LP 0625

Tank: 241-C-112

July 1990

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241-S Tank Farm
June 1991 9106049-20CN

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Tank 241-S-101

Tank Description

Type: Single Shell
 Constructed: 1951
 In-service: 07/17/53
 Diameter: 75'
 Usable Depth: 23'
 Capacity: 758K gallons
 Bottom shape: Dish
 Hanford Coordinates:
 36,226' North
 75,665' West
 Ventilation: Passive

Leak Detection System

Surface Level:
 FIC Riser- R-03
 Manual Tape Riser- None
 LOW Riser(s)- R-02

Number of External Drywells: 5
 Number of Lateral Wells: None

Tank Status

Contents

Type: Non-Complexed Waste
 Total Waste: 427K gallons
 Supernate Volume: 12K gallons
 Drainable Interstitial Liquid: 84K gallons

Isolation Status

Date Partially Interim Isolated: 12/15/82

Surface Level/Leak Status

Integrity Category: Sound
 FIC Surface Level: 161.10 Inches (12/21/92)
 Last Photographed: 03/18/88
 Photo Interpretation Comments: See attached photo.

Temperature Status

Highest temperature during 1992: 123 °F (11/07/92)
 Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

4 of 6

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Tank 241-S-102

Tank Description

Type: Single Shell
 Constructed: 1951
 In-service: 1953
 Diameter: 75'
 Usable Depth: 23'
 Capacity: 758K gallons
 Bottom shape: Dish
 Hanford Coordinates:
     36,226' North
     75,767' West
 Ventilation: Passive

Leak Detection System

Surface Level:
     FIC Riser- R-02
     Manual Tape Riser- None
     LOW Riser(s)- R-05

Number of External Drywells: 8
 Number of Lateral Wells: None

Tank Status

Watch List: **Hydrogen, Organic Salts**

Contents

Type: Double Shell Slurry Feed
 Total Waste: 549K gallons
 Supernate Volume: 0K gallons
 Drainable Interstitial Liquid: 230K gallons

Isolation Status

Date Partially Interim Isolated: 12/15/82

Surface Level/Leak Status

Integrity Category: Sound
 FIC Surface Level: 204.00 Inches (12/28/92)
 Last Photographed: 03/18/88
 Photo Interpretation Comments: See attached photo.

Temperature Status

Highest temperature during 1992: 109.7 °F (01/12/92)
 Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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WFO 19 0625

Tank: 241-S-102

March 1988

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Tank 241-S-103

Riser and Drywell Locations
Tank 241-S-103

Tank Description

Type: Single Shell
Constructed: 1951
In-service: 11/01/53
Diameter: 75'
Usable Depth: 23'
Capacity: 758K gallons
Bottom shape: Dish
Hanford Coordinates:
36,226' North
75,869' West
Ventilation: Passive

Leak Detection System

Surface Level:
FIC Riser- R-03
Manual Tape Riser- None
LOW Riser(s)- R-02

Number of External Drywells: 7
Number of Lateral Wells: None

Tank Status

Contents

Type: Double Shell Slurry Feed
Total Waste: 248K gallons
Supernate Volume: 17K gallons
Drainable Interstitial Liquid: 85K gallons

Isolation Status

Date Partially Interim Isolated: 12/15/82

Surface Level/Leak Status

Integrity Category: Sound
FIC Surface Level: 103.65 Inches (12/28/92)
Last Photographed: 06/01/89
Photo Interpretation Comments:

Photographs show a liquid surface with solids visible beneath the surface and large areas (some floating) of exposed solids. The FIC plummet appears to be contacting soft solids, but is very difficult to see.

Temperature Status

Highest temperature during 1992: 91.2 °F (01/01/92)
Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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Tank 241-S-104

Riser and Drywell Locations
Tank 241-S-104

Tank Description

Type: Single Shell
Constructed: 1951
In-service: 02/09/53
Out of Service: 1968
Diameter: 75'
Usable Depth: 23'
Capacity: 758K gallons
Bottom shape: Dish
Hanford Coordinates:
36,124' North
75,665' West
Ventilation: Passive

Leak Detection System

Surface Level:
FIC Riser- R-05
Manual Tape Riser- None
LOW Riser(s)- None

Number of External Drywells: 4
Number of Lateral Wells: None

Tank Status

Contents

Type: Non-Complexed Waste
Total Waste: 294K gallons
Supernate Volume: 1K gallons
Drainable Interstitial Liquid: 28K gallons

Isolation Status

Date Interim Stabilized: 12/20/83

Surface Level/Leak Status

Integrity Category: Assumed Leaker
Date Declared Confirmed or Assumed Leaker: 1968
Leak Volume Estimate: 24,000 Gallons (1989)
Manual Tape Surface Level: 113.50 Inches (12/28/92)
Last Photographed: 12/12/84
Photo Interpretation Comments:

Photographs show a smooth surface of sludge with very shallow liquid covering portions of the solids, and a shallow liquid pool around the salt well.

Temperature Status

Highest temperature during 1992: 112.3 °F (01/01/92)
Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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Tank 241-S-105

Riser and Drywell Locations
Tank 241-S-105

Tank Description

Type: Single Shell
Constructed: 1951
In-service: 1953
Out of Service: 1974
Diameter: 75'
Usable Depth: 23'
Capacity: 758K gallons
Bottom shape: Dish
Hanford Coordinates:
36,124' North
75,767' West
Ventilation: Passive

Leak Detection System

Surface Level:
FIC Riser- R-03
Manual Tape Riser- None
LOW Riser(s)- R-14

Number of External Drywells: 5
Number of Lateral Wells: None

Tank Status

Contents

Type: Non-Complexed Waste
Total Waste: 456K gallons
Supernate Volume: 0K gallons
Drainable Interstitial Liquid: 35K gallons

Isolation Status

Date Partially Interim Isolated: 12/15/82
Date Interim Stabilized: 09/88

Surface Level/Leak Status

Integrity Category: Sound
FIC Surface Level: 161.60 Inches (12/28/92)
Surface Level Comments: Intrusion Mode
Last Photographed: 04/12/89
Photo Interpretation Comments:
Photographs show an uneven heavily crusted surface of saltcake and a pool of liquid around the salt well. The FIC plummet is contacting solids in a hole and measurement anomalies can be expected.

Temperature Status

Highest temperature during 1992: 79.1 °F (01/01/92)
Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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Tank 241-S-106

Tank Description

Type: Single Shell
 Constructed: 1951
 In-service: 1953
 Diameter: 75'
 Usable Depth: 23'
 Capacity: 758K gallons
 Bottom shape: Dish
 Hanford Coordinates:
     36,124' North
     75,869' West
 Ventilation: Passive

Leak Detection System

Surface Level:
     FIC Riser- R-03
     Manual Tape Riser- None
     LOW Riser(s)- R-04

Number of External Drywells: 6
 Number of Lateral Wells: None

Tank Status

Contents

Type: Non-Correlated Waste
 Total Waste: 543K gallons
 Supernate Volume: 0K gallons
 Drainable Interstitial Liquid: 185K gallons

Isolation Status

Date Partially Interim Isolated: 12/15/82

Surface Level/Leak Status

Integrity Category: Sound
 FIC Surface Level: 177.90 Inches (12/28/92)
 Surface Level Comments: Intrusion Mode
 Last Photographed: 03/17/89
 Photo Interpretation Comments:

Photographs show a cracked uneven surface of salt cake with a pool of liquid under the FIC plummet and also around the salt well and in-tank dry well casing. There appears to be more liquid than in previous photos, although some sluffing of solids is evident.

Temperature Status

Highest temperature during 1992: 93 °F (07/03/92)
 Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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Tank 241-S-107

Tank Description

Type: Single Shell
 Constructed: 1951
 In-service: 08/25/52
 Diameter: 75'
 Usable Depth: 23'
 Capacity: 758K gallons
 Bottom shape: Dish
 Hanford Coordinates:
     36,022' North
     75,665' West
 Ventilation: Passive

Leak Detection System

Surface Level:
 FIC Riser- R-03
 Manual Tape Riser- None
 LOW Riser(s)- None

Number of External Drywells: 6
 Number of Lateral Wells: None

Tank Status

Contents

Type: Non-Complexed Waste
 Total Waste: 368K gallons
 Supernate Volume: 6K gallons
 Drainable Interstitial Liquid: 45K gallons

Isolation Status

Date Partially Interim Isolated: 12/15/82

Surface Level/Leak Status

Integrity Category: Sound
 FIC Surface Level: 144.30 Inches (12/28/92)
 Last Photographed: 03/12/87
 Photo Interpretation Comments:

Photographs reveal a large area of clear liquid toward the center of the tank and exposed solids around the perimeter. The FIC plummet is contacting liquid. No photograph comparisons were made (active to 10/80).

Temperature Status

Highest temperature during 1992: 113 °F (01/01/92)
 Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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Tank 241-S-108

Riser and Drywell Locations
Tank 241-S-108

Tank Description

Type: Single Shell
Constructed: 1951
In-service: 10/30/52
Out of Service: 1979
Diameter: 75'
Usable Depth: 23'
Capacity: 758K gallons
Bottom shape: Dish
Hanford Coordinates:
36,022' North
75,767' West
Ventilation: Passive

Leak Detection System

Surface Level:
FIC Riser- R-03
Manual Tape Riser- R-02
LOW Riser(s)- R-16

Number of External Drywells: 5
Number of Lateral Wells: None

Tank Status

Contents

Type: Non-Complexed Waste
Total Waste: 604K gallons
Supernate Volume: 0K gallons
Drainable Interstitial Liquid: 127K gallons

Isolation Status

Date Interim Stabilized: 04/79
Date Partially Interim Isolated: 12/15/82

Surface Level/Leak Status

Integrity Category: Sound
FIC Surface Level: Intrusion level set at 172.80 Inches (12/28/92)
Surface Level Comments: Intrusion Mode
Last Photographed: 03/12/87
Photo Interpretation Comments:
Photographs show a dry cracked uneven surface. The FIC plummet is contacting solids in a hole (created by the plummet) on the slope of a depression in the salt cake.

Temperature Status

Highest temperature during 1992: 94 °F (01/01/92)
Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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Tank 241-S-109

Tank Description

Type: Single Shell
 Constructed: 1951
 In-service: 12/23/52
 Diameter: 75'
 Usable Depth: 23'
 Capacity: 758K gallons
 Bottom shape: Dish
 Hanford Coordinates:
 36,022' North
 75,869' West
 Ventilation: Passive

Leak Detection System

Surface Level:
 FIC Riser- R-03
 Manual Tape Riser- None
 LOW Riser(s)- R-08

Number of External Drywells: 6
 Number of Lateral Wells: None

Tank Status

Contents

Type: Non-Complexed Waste
 Total Waste: 568K gallons
 Supernate Volume: 0K gallons
 Drainable Interstitial Liquid: 141K gallons

Isolation Status

Date Interim Stabilized: 05/79
 Date Partially Interim Isolated: 12/15/82

Surface Level/Leak Status

Integrity Category: Sound
 FIC Surface Level: Intrusion level set at 173.80 Inches (12/28/92)
 Surface Level Comments: Intrusion Mode
 Last Photographed: 08/24/84
 Photo Interpretation Comments:

Photographs show a dry cracked uneven surface of salt cake. The FIC plummet is in a large depression and measurement anomalies can be expected. There is now liquid visible around the salt well casing.

Temperature Status

Highest temperature during 1992: 150 °F (10/16/92)
 Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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Tank 241-S-110

Tank Description

Type: Single Shell
 Constructed: 1951
 In-service: 1952
 Out of Service: 1979
 Diameter: 75'
 Usable Depth: 23'
 Capacity: 758K gallons
 Bottom shape: Dish
 Hanford Coordinates:
     35,920' North
     75,665' West
 Ventilation: Passive

Leak Detection System

Surface Level:
 FIC Riser- R-03
 Manual Tape Riser- None
 LOW Riser(s)- R-02

Number of External Drywells: 7
 Number of Lateral Wells: None

Tank Status

Contents

Type: Non-Complexed Waste
 Total Waste: 390K gallons
 Supernate Volume: 0K gallons
 Drainable Interstitial Liquid: 110K gallons

Isolation Status

Date Interim Stabilized: 01/31/79
 Date Partially Interim Isolated: 12/15/82

Surface Level/Leak Status

Integrity Category: Sound
 FIC Surface Level: Intrusion level set at 149.30 Inches (12/28/92)
 Surface Level Comments: Intrusion Mode
 Last Photographed: 03/12/87
 Photo Interpretation Comments: No current photographs.

Temperature Status

Highest temperature during 1992: 121.50 °F (01/01/92)
 Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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Tank 241-S-111

Tank Description

Type: Single Shell
 Constructed: 1951
 In-service: 1952
 Diameter: 75'
 Usable Depth: 23'
 Capacity: 758K gallons
 Bottom shape: Dish
 Hanford Coordinates:
 35,920' North
 75,767' West
 Ventilation: Passive

Leak Detection System

Surface Level:
 FIC Riser- R-03
 Manual Tape Riser- None
 LOW Riser(s)- R-16

Number of External Drywells: 5
 Number of Lateral Wells: None

Tank Status

Watch List: **Hydrogen**

Contents

Type: Non-Complexed Waste
 Total Waste: 596K gallons
 Supernate Volume: 10K gallons
 Drainable Interstitial Liquid: 195K gallons

Isolation Status

Date Interim Stabilized: 03/78
 Date Partially Interim Isolated: 12/15/82

Surface Level/Leak Status

Integrity Category: Sound
 FIC Surface Level: 203.40 Inches (12/28/92)
 Last Photographed: 08/10/89
 Photo Interpretation Comments: See attached photo.

Temperature Status

Highest temperature during 1992: 97 °F (01/05/92)
 Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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Tank: 241-S-111

August 1989

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Tank 241-S-112

Tank Description

Type: Single Shell
 Constructed: 1951
 In-service: 07/25/52
 Diameter: 75'
 Usable Depth: 23'
 Capacity: 758K gallons
 Bottom shape: Dish
 Hanford Coordinates:
 35,920' North
 75,869' West
 Ventilation: Passive

Leak Detection System

Surface Level:
 FIC Riser- R-03
 Manual Tape Riser- None
 LOW Riser(s)- R-08

Number of External Drywells: 5
 Number of Lateral Wells: None

Tank Status

Watch List: *Hydrogen*

Contents

Type: Non-Complexed Waste
 Total Waste: 637K gallons
 Supernate Volume: 0K gallons
 Drainable Interstitial Liquid: 134K gallons

Isolation Status

Date Interim Stabilized: 06/79
 Date Partially Interim Isolated: 12/15/82

Surface Level/Leak Status

Integrity Category: Sound
 FIC Surface Level: Intrusion level set at 196.40 Inches (12/24/92)
 Surface Level Comments: Intrusion Mode
 Last Photographed: 03/24/87
 Photo Interpretation Comments: See attached photo.

Temperature Status

Highest temperature during 1992: 92 °F (03/26/92)
 Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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WHC EP 0628

Tank: 241-S-112

March 1987

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241-SX Tank Farm
June 1991 91060449 21CN

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Tank 241-SX-101

Tank Description

Type: Single Shell
 Constructed: 1954
 In-service: 05/54
 Out of Service: 11/21/80
 Diameter: 75'
 Usable Depth: 30.9'
 Capacity: 1,000K gallons
 Bottom shape: Dish
 Hanford Coordinates:
     35,552' North
     75,665' West
 Ventilation: Operating Exhauster

Leak Detection System

Surface Level:
     FIC Riser- R-04
     Manual Tape Riser- R-18
     LOW Riser(s)- R-14

Number of External Drywells: 7
 Number of Lateral Wells: None

Tank Status

Watch List: *Hydrogen*

Contents

Type: Dilute Complexed Waste
 Total Waste: 456K gallons
 Supernate Volume: 1K gallons
 Drainable Interstitial Liquid: 145K gallons

Isolation Status

Date Partially Interim Isolated: 06/85

Surface Level/Leak Status

Integrity Category: Sound
 FIC Surface Level: Intrusion level set at 172.00 Inches (12/28/92)
 Surface Level Comments: Intrusion Mode
 Last Photographed: 03/10/89
 Photo Interpretation Comments: See attached photo.

Temperature Status

Highest temperature during 1992: 145.7 °F (11/25/92)
 Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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WHC EP 0628

Tank: 241-SX-101

March 1989

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Tank 241-SX-102

Riser and Drywell Locations
Tank 241-SX-102

Tank Description

Type: Single Shell
 Constructed: 1954
 In-service: 05/54
 Out of Service: 08/15/80
 Diameter: 75'
 Usable Depth: 30.9'
 Capacity: 1,000K gallons
 Bottom shape: Dish
 Hanford Coordinates:
     35,552' North
     75,767' West
 Ventilation: Operating Exhauster

Leak Detection System

Surface Level:
     FIC Riser- R-04
     Manual Tape Riser- None
     LOW Riser(s)- R-14

Number of External Drywells: 5
 Number of Lateral Wells: None

Tank Status

Watch List: *Hydrogen*

Contents

Type: Double Shell Slurry Feed
 Total Waste: 543K gallons
 Supernate Volume: 0K gallons
 Drainable Interstitial Liquid: 183K gallons

Isolation Status

Date Partially Interim Isolated: 06/85

Surface Level/Leak Status

Integrity Category: Sound
 FIC Surface Level: Intrusion level set at 205.00 Inches (12/28/92)
 Surface Level Comments: Intrusion Mode
 Last Photographed: 01/07/88
 Photo Interpretation Comments: See attached photo.

Temperature Status

Highest temperature during 1992: 157.6 °F (12/27/92)
 Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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W-100-100-100
Tank: 241-SX-102
January 1988

W-100-100-100

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Tank 241-SX-103

Tank Description

Type: Single Shell
 Constructed: 1954
 In-service: 05/54
 Out of Service: 08/27/80
 Diameter: 75'
 Usable Depth: 30.9'
 Capacity: 1,000K gallons
 Bottom shape: Dish
 Hanford Coordinates:
     35,552' North
     75,869' West
 Ventilation: Operating Exhauster

Leak Detection System

Surface Level:
     FIC Riser- R-03
     Manual Tape Riser- R-07
     LOW Riser(s)- R-14

Number of External Drywells: 6
 Number of Lateral Wells: None

Tank Status

Watch List: *Hydrogen*

Contents

Type: Non-Complexed Waste
 Total Waste: 652K gallons
 Supernate Volume: 1K gallons
 Drainable Interstitial Liquid: 232K gallons

Isolation Status

Date Partially Interim Isolated: 06/85

Surface Level/Leak Status

Integrity Category: Sound
 FIC Surface Level: 242.50 Inches (12/10/92)
 Last Photographed: 12/17/87
 Photo Interpretation Comments: See attached photo.

Temperature Status

Highest temperature during 1992: 181.80 °F (01/10/92)
 Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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WHC-EP-0625

Tank: 241-SX-103

December 1987

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Tank 241-SX-104

Tank Description

Type: Single Shell
 Constructed: 1954
 In-service: 02/55
 Out of Service: 08/18/80
 Diameter: 75'
 Usable Depth: 30.9'
 Capacity: 1,000K gallons
 Bottom shape: Dish
 Hanford Coordinates:
     35,450' North
     75,665' West
 Ventilation: Operating Exhauster

Leak Detection System

Surface Level:
     FIC Riser- R-04
     Manual Tape Riser- None
     LOW Riser(s)- R-16

Number of External Drywells: 6
 Number of Lateral Wells: None

Tank Status

Watch List: *Hydrogen*

Contents

Type: Double Shell Slurry Feed
 Total Waste: 614K gallons
 Supernate Volume: 0K gallons
 Drainable Interstitial Liquid: 201K gallons

Isolation Status

Date Partially Interim Isolated: 06/85

Surface Level/Leak Status

Integrity Category: Assumed Leaker
 Date Declared Confirmed or Assumed Leaker: 1988
 Leak Volume Estimate: 6,000 Gallons (1988)
 FIC Surface Level: Intrusion level set at 237.00 Inches (12/28/92)
 Surface Level Comments: Intrusion Mode
 Last Photographed: 09/08/88
 Photo Interpretation Comments: See attached photo.

Temperature Status

Highest temperature during 1992: 181 °F (07/04/92)
 Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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WHC-EP-0625

Tank: 241-SX-104

September 1988

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Tank 241-SX-105

Riser and Drywell Locations
Tank 241-SX-105

Tank Description

Type: Single Shell
 Constructed: 1954
 In-service: 02/55
 Out of Service: 08/29/80
 Diameter: 75'
 Usable Depth: 30.9'
 Capacity: 1,000K gallons
 Bottom shape: Dish
 Hanford Coordinates:
 35,450' North
 75,767' West
 Ventilation: Operating Exhauster

Leak Detection System

Surface Level:
 FIC Riser- R-04
 Manual Tape Riser- None
 LOW Riser(s)- R-16

Number of External Drywells: 7
 Number of Lateral Wells: 3

Tank Status

Watch List: *Hydrogen*

Contents

Type: Double Shell Slurry Feed
 Total Waste: 683K gallons
 Supernate Volume: 0K gallons
 Drainable Interstitial Liquid: 261K gallons

Isolation Status

Date Partially Interim Isolated: 06/85

Surface Level/Leak Status

Integrity Category: Sound
 FIC Surface Level: Intrusion level set at 257.00 Inches (12/28/92)
 Surface Level Comments: Intrusion Mode
 Last Photographed: 06/15/88
 Photo Interpretation Comments: See attached photo.

Temperature Status

Highest temperature during 1992: 189.3 °F (01/10/92)
 Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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WHC-EP-0625

Tank: 241-SX-105

April 1983

107233-3CN

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Tank 241-SX-106

Tank Description

Type: Single Shell
 Constructed: 1954
 In-service: 1954
 Out of Service: 10/28/80
 Diameter: 75'
 Usable Depth: 30.9'
 Capacity: 1,000K gallons
 Bottom shape: Dish
 Hanford Coordinates:
     35,450' North
     75,869' West
 Ventilation: Operating Exhauster

Leak Detection System

Surface Level:
     FIC Riser- R-03
     Manual Tape Riser- R-11
     LOW Riser(s)- R-14

Number of External Drywells: 6
 Number of Lateral Wells: None

Tank Status

Watch List: *Hydrogen, Organic Salts*

Contents

Type: Non-Complexed Waste
 Total Waste: 538K gallons
 Supernate Volume: 61K gallons
 Drainable Interstitial Liquid: 194K gallons

Isolation Status

Date Partially Interim Isolated: 06/85

Surface Level/Leak Status

Integrity Category: Sound
 FIC Surface Level: 206.30 Inches (12/28/92)
 Last Photographed: 06/01/89
 Photo Interpretation Comments: See attached photo.

Temperature Status

Highest temperature during 1992: 116.5 °F (03/01/92)
 Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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WHC-EP 0625

Tank: 241-SX-106

June 1989

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Tank 241-SX-107

Riser and Drywell Locations
Tank 241-SX-107

Tank Description

Type: Single Shell
 Constructed: 1954
 In-service: 04/56
 Out of Service: 1964
 Diameter: 75'
 Usable Depth: 36.9'
 Capacity: 1,000K gallons
 Bottom shape: Dish
 Hanford Coordinates:
 35,348' North
 75,665' West
 Ventilation: Operating Exhauster

Leak Detection System

Surface Level:
 FIC Riser- None
 Manual Tape Riser- R-02
 LOW Riser(s)- None

Number of External Drywells: 7
 Number of Lateral Wells: 3

Tank Status

Contents

Type: Non-Complexed Waste
 Total Waste: 104K gallons
 Supernate Volume: 0K gallons
 Drainable Interstitial Liquid: 5K gallons

Isolation Status

Date Interim Stabilized: 10/19/79
 Date Interim Isolated: 09/82

Surface Level/Leak Status

Integrity Category: Assumed Leaker
 Date Declared Confirmed or Assumed Leaker: 1964
 Leak Volume Estimate: < 5,000 Gallons (1983)
 Manual Tape Surface Level: 40.50 Inches (10/15/92)
 Last Photographed: 03/06/87
 Photo Interpretation Comments:
 Photographs show a dry, level caked surface with no visible liquid.

Temperature Status

Highest temperature during 1992: 175 °F (03/05/92)
 Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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Tank 241-SX-108

Riser and Drywell Locations
Tank 241-SX-108

Tank Description

Type: Single Shell
 Constructed: 1954
 In-service: 11/55
 Out of Service: 1962
 Diameter: 75'
 Usable Depth: 30.9'
 Capacity: 1,000K gallons
 Bottom shape: Dish
 Hanford Coordinates:
     35,348' North
     75,767' West
 Ventilation: Operating Exhauster

Leak Detection System

Surface Level:
     FIC Riser- None
     Manual Tape Riser- R-02
     LOW Riser(s)- None

Number of External Drywells: 6
 Number of Lateral Wells: 3

Tank Status

Contents

Type: Non-Complexed Waste
 Total Waste: 115K gallons
 Supernate Volume: 0K gallons
 Drainable Interstitial Liquid: 6K gallons

Isolation Status

Date Interim Stabilized: 08/79
 Date Interim Isolated: 12/15/82

Surface Level/Leak Status

Integrity Category: Assumed Leaker
 Date Declared Confirmed or Assumed Leaker: 1962
 Leak Volume Estimate: 2,400 to 35,000 Gallons (1991)
 Manual Tape Surface Level: 36.50 Inches (11/02/92)
 Last Photographed: 03/06/87
 Photo Interpretation Comments:
     Photographs show a dry, caked surface and a discarded tape in the immediate area of the manual tape plummet.

Temperature Status

Highest temperature during 1992: 200.6 °F (01/17/92)
 Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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Tank 241-SX-109

Tank Description

Type: Single Shell
 Constructed: 1954
 In-service: 09/55
 Out of Service: 1965
 Diameter: 75'
 Usable Depth: 30.9'
 Capacity: 1,000K gallons
 Bottom shape: Dish
 Hanford Coordinates:
     35,348' North
     75,869' West
 Ventilation: Operating Exhauster

Leak Detection System

Surface Level:
     FIC Riser- None
     Manual Tape Riser- R-02
     LOW Riser(s)- None

Number of External Drywells: 7
 Number of Lateral Wells: 3

Tank Status

Watch List: *Hydrogen potential, other tanks vent thru it*
 Contents

Type: Non-Complexed Waste
 Total Waste: 250K gallons
 Supernate Volume: 0K gallons
 Drainable Interstitial Liquid: 10K gallons

Isolation Status

Date Interim Stabilized: 05/81
 Date Interim Isolated: 09/82

Surface Level/Leak Status

Integrity Category: Assumed Leaker
 Date Declared Confirmed or Assumed Leaker: 1965
 Leak Volume Estimate: < 10,000 Gallons (1992)
 Manual Tape Surface Level: 95.00 Inches (10/01/92)
 Last Photographed: 05/21/86
 Photo Interpretation Comments: See attached photo.

Temperature Status

Highest temperature during 1992: 162.20 °F (01/17/92)
 Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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WHC-EP-0625

Tank: 241-SX-109

May 1986

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Tank 241-SX-110

Tank Description

Type: Single Shell
 Constructed: 1954
 In-service: 11/60
 Diameter: 75'
 Usable Depth: 30.9'
 Capacity: 1,000K gallons
 Bottom shape: Dish
 Hanford Coordinates:
     35,246' North
     75,665' West
 Ventilation: Operating Exhauster

Leak Detection System

Surface Level:
 FIC Riser- None
 Manual Tape Riser- R-02
 LOW Riser(s)- None

Number of External Drywells: 8
 Number of Lateral Wells: 3

Tank Status

Contents

Type: Non-Complexed Waste
 Total Waste: 62K gallons
 Supernate Volume: 0K gallons
 Drainable Interstitial Liquid: 0K gallons

Isolation Status

Date Interim Stabilized: 08/79
 Date Interim Isolated: 06/14/85

Surface Level/Leak Status

Integrity Category: Assumed Leaker
 Date Declared Confirmed or Assumed Leaker: 1976
 Leak Volume Estimate: 5,500 Gallons (1989)
 Manual Tape Surface Level: 26.75 inches (10/01/92)
 Last Photographed: 02/20/87
 Photo Interpretation Comments:
     Photographs show a dry, caked surface with no visible liquid.

Temperature Status

Highest temperature during 1992: 178 °F (03/05/92)
 Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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Tank 241-SX-111

Tank Description

Type: Single Shell
 Constructed: 1954
 In-service: 06/56
 Diameter: 75'
 Usable Depth: 30.9'
 Capacity: 1,000K gallons
 Bottom shape: Dish
 Hanford Coordinates:
     35,246' North
     75,767' West
 Ventilation: Operating Exhauster

Leak Detection System

Surface Level:
 FIC Riser- None
 Manual Tape Riser- R-02
 LOW Riser(s)- None

Number of External Drywells: 7
 Number of Lateral Wells: 3

Tank Status

Contents

Type: Non-Complexed Waste
 Total Waste: 125K gallons
 Supernate Volume: 0K gallons
 Drainable Interstitial Liquid: 7K gallons

Isolation Status

Date Interim Stabilized: 07/79
 Date Interim Isolated: 12/15/82

Surface Level/Leak Status

Integrity Category: Assumed Leaker
 Date Declared Confirmed or Assumed Leaker: 1974
 Leak Volume Estimate: 2,000 Gallons (1986)
 Manual Tape Surface Level: 49.75 Inches (10/01/92)
 Last Photographed: 03/10/87
 Photo Interpretation Comments:
     Photographs show a dry, caked surface of sludge with no visible liquid.

Temperature Status

Highest temperature during 1992: 198.3 °F (01/17/92)
 Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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Tank 241-SX-112

Tank Description

Type: Single Shell
 Constructed: 1954
 In-service: 02/56
 Diameter: 75'
 Usable Depth: 30.9'
 Capacity: 1,000K gallons
 Bottom shape: Dish
 Hanford Coordinates:
     35,246' North
     75,869' West
 Ventilation: Operating Exhauster

Leak Detection System

Surface Level:
 FIC Riser- None
 Manual Tape Riser- R-02
 LOW Riser(s)- None

Number of External Drywells: 7
 Number of Lateral Wells: 3

Tank Status

Contents

Type: Non-Complexed Waste
 Total Waste: 92K gallons
 Supernate Volume: 0K gallons
 Drainable Interstitial Liquid: 3K gallons

Isolation Status

Date Interim Stabilized: 07/79
 Date Interim Isolated: 12/15/82

Surface Level/Leak Status

Integrity Category: Assumed Leaker
 Date Declared Confirmed or Assumed Leaker: 1969
 Leak Volume Estimate: 30,000 Gallons (1986)
 Manual Tape Surface Level: 33.75 Inches (10/01/92)
 Last Photographed: 03/10/87
 Photo Interpretation Comments:
     Photographs from 1974 show a liner crack as much as 3 in. wide (204-in. level).
     4/18/84 photographs reveal a sludge surface free of liquid. Discarded tapes and donoughnuts are in the immediate area of the manual tape plummet and measurement anomalies can be expected.

Temperature Status

Highest temperature during 1992: 162 °F (10/08/92)
 Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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Tank 241-SX-113

Riser and Drywell Locations
Tank 241-SX-113

Tank Description

Type: Single Shell
Constructed: 1954
In-service: 02/58
Out of Service: 1962
Diameter: 75'
Usable Depth: 30.9'
Capacity: 1,000K gallons
Bottom shape: Dish
Hanford Coordinates:
35,144' North
75,665' West
Ventilation: Passive

Leak Detection System

Surface Level:
FIC Riser- None
Manual Tape Riser- R-02
LOW Riser(s)- None

Number of External Drywells: 1

Number of Lateral Wells: None

Tank Status

Contents

Type: Non-Complexed Waste
Total Waste: 26K gallons
Supernate Volume: 0K gallons
Drainable Interstitial Liquid: 0K gallons

Isolation Status

Date Interim Stabilized: 11/30/78
Date Interim Isolated: 09/82

Surface Level/Leak Status

Integrity Category: Assumed Leaker
Date Declared Confirmed or Assumed Leaker: 1962
Leak Volume Estimate: 15,000 Gallons (1986)
Manual Tape Surface Level: 15.00 Inches (10/15/92)
Last Photographed: 03/18/88

Photo Interpretation Comments:

Photographs show a dry, cracked surface in most areas but the surface appears damp near the tank's center (as do previous photographs). The manual tape plummet has a discarded manual tape directly beneath it.

Temperature Status

Highest temperature during 1992: 80.4 °F (01/01/92)
Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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Tank 241-SX-114

Tank Description

Type: Single Shell
 Constructed: 1954
 In-service: 11/56
 Diameter: 75'
 Usable Depth: 30.9'
 Capacity: 1,000K gallons
 Bottom shape: Dish
 Hanford Coordinates:
     35,144' North
     76,767' West
 Ventilation: Operating Exhauster

Leak Detection System

Surface Level:
     FIC Riser- None
     Manual Tape Riser- R-02
     LOW Riser(s)- None

Number of External Drywells: 7
 Number of Lateral Wells: 3

Tank Status

Contents

Type: Non-Complexed Waste
 Total Waste: 181K gallons
 Supernate Volume: 0K gallons
 Drainable Interstitial Liquid: 14K gallons

Isolation Status

Date Interim Stabilized: 07/79
 Date Interim Isolated: 09/82

Surface Level/Leak Status

Integrity Category: Assumed Leaker
 Date Declared Confirmed or Assumed Leaker: 1972
 Leak Volume Estimate: 7.8K gallons = 1/19th of 150K gallons
 Manual Tape Surface Level: 66.00 Inches (10/01/92)
 Last Photographed: 02/26/87
 Photo Interpretation Comments:

Photographs show a dry surface of sludge with no visible liquid. The manual tape plummet appears to be in a small depression created by the plummet.

Temperature Status

Highest temperature during 1992: 192.5 °F (08/07/92)
 Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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Tank 241-SX-115

Riser and Drywell Locations
Tank 241-SX-115

Tank Description

Type: Single Shell
Constructed: 1954
In-service: 09/58
Out of Service: 1965
Diameter: 75'
Usable Depth: 30.9'
Capacity: 1,000K gallons
Bottom shape: Dish
Hanford Coordinates:
35,144' North
76,869' West
Ventilation: Passive

Leak Detection System

Surface Level:
FIC Riser- None
Manual Tape Riser- R-02
LOW Riser(s)- None

Number of External Drywells: 6
Number of Lateral Wells: 3

Tank Status

Contents

Type: Non-Complexed Waste
Total Waste: 12K gallons
Supernate Volume: 0K gallons
Drainable Interstitial Liquid: 0K gallons

Isolation Status

Date Interim Stabilized: 09/30/78
Date Interim Isolated: 12/15/82

Surface Level/Leak Status

Integrity Category: Assumed Leaker
Date Declared Confirmed or Assumed Leaker: 1965
Leak Volume Estimate: 50,000 Gallons (1986)
Manual Tape Surface Level: 7.00 Inches (10/01/92)
Last Photographed: 03/31/88
Photo Interpretation Comments:
Photographs reveal a dry, level surface of sludge.

Temperature Status

Highest temperature during 1992:
Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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241-SY Tank Farm

June 1991

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Tank 241-SY-101

Riser and Drywell Locations
Tank 241-SY-101

Tank Description

Type: Double Shell
 Constructed: 1976
 In-service: 1977
 Diameter: 75'
 Usable Depth: 35.2'
 Capacity: 1,160.5K gallons
 Bottom shape: Flat
 Hanford Coordinates:
     36,405' North
     75,455' West
 Ventilation: Operating Exhauster

Leak Detection System

Surface Level:
     FIC Riser- R-01C
     Manual Tape Riser- R-17A
     LOW Riser(s)- None

Number of External Drywells: None
 Number of Lateral Wells: None

Tank Status

Watch List: *Hydrogen*

Contents

Type: Complexant Concentrate Waste
 Total Waste: 1127K gallons
 Supernate Volume: 37K gallons
 Drainable Interstitial Liquid: 237K gallons

Surface Level/Leak Status

Integrity Category: Sound
 Manual Tape Surface Level: 409.00 Inches (12/29/92)
 FIC Surface Level: 408.70 Inches (12/29/92)
 Last Photographed: 04/12/89
 Photo Interpretation Comments: See attached photo.

Temperature Status

Highest temperature during 1992: 199.5 °F (10/19/92)
 Comments: Temperatures are stable.

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Tank 241-SY-102

Riser and Drywell Locations
Tank 241-SY-102

Tank Description

Type: Double Shell
 Constructed: 1976
 In-service: 1977
 Diameter: 75'
 Usable Depth: 35.2'
 Capacity: 1,160.5K gallons
 Bottom shape: Flat
 Hanford Coordinates:
     36,405' North
     75,562' West
 Air Lift Circulators: Yes (1)
 Ventilation: Operating Exhauster

Leak Detection System

Surface Level:
     FIC Riser- R-02A
     Manual Tape Riser- R-17A
     LOW Riser(s)- None

Number of External Drywells: None
 Number of Lateral Wells: None

Tank Status

Contents

Type: DN/PT
 Total Waste: 675K gallons
 Supernate Volume: 604K gallons
 Drainable Interstitial Liquid: 0K gallons

Surface Level/Leak Status

Integrity Category: Sound
 Manual Tape Surface Level: 245.00 Inches (12/29/92)
 Last Photographed: 04/29/81
 Photo Interpretation Comments:
     No current photographs are available because tank 102-SY is active as a feed tank.

Temperature Status

Highest temperature during 1992: 73 °F (09/07/92)
 Comments: Temperatures are stable.

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Tank 241-SY-103

Riser and Drywell Locations
Tank 241-SY-103

Tank Description

Type: Double Shell
Constructed: 1976
In-service: 1977
Diameter: 75'
Usable Depth: 35.2'
Capacity: 1,160.5K gallons
Bottom shape: Flat
Hanford Coordinates:
36,298' North
75,562' West
Ventilation: Operating Exhauster

Leak Detection System

Surface Level:
FIC Riser- R-02A
Manual Tape Riser- R-17A
LOW Riser(s)- None

Number of External Drywells: None
Number of Lateral Wells: None

Tank Status

Watch List: **Hydrogen**

Contents

Type: Complexant Concentrate Waste
Total Waste: 751K gallons
Supernate Volume: 174K gallons
Drainable Interstitial Liquid: 0K gallons

Surface Level/Leak Status

Integrity Category: Sound
Manual Tape Surface Level: 274.00 Inches (12/29/92)
FIC Surface Level: 271.50 Inches (12/29/92)
Last Photographed: 10/01/85
Photo Interpretation Comments: See attached photo.

Temperature Status

Highest temperature during 1992: 143 °F (01/27/92)
Comments: Temperatures are stable.

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241-T Tank Farm

June 1991 91060449 16.04

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Tank 241-T-101

Tank Description

Type: Single Shell
 Constructed: 1944
 In-service: 12/44
 Diameter: 75'
 Usable Depth: 16'
 Capacity: 530K gallons
 Bottom shape: Dish
 Hanford Coordinates:
 43,647' North
 75,637' West
 Ventilation: Passive

Leak Detection System

Surface Level:
 FIC Riser- R-01
 Manual Tape Riser- None
 LOW Riser(s)- None

Number of External Drywells: 5
 Number of Lateral Wells: None

Tank Status

Watch List: **Ferrocyanide**

Contents

Type: Non-Complexed Waste
 Total Waste: 133K gallons
 Supernate Volume: 30K gallons
 Drainable Interstitial Liquid: 5K gallons

Isolation Status

Date Partially Interim Isolated: 12/15/82

Surface Level/Leak Status

Integrity Category: Sound
 FIC Surface Level: 43.55 Inches (01/01/93)
 Last Photographed: 07/03/84
 Photo Interpretation Comments: See attached photo.

Temperature Status

Highest temperature during 1992: 76 °F (11/19/92)
 Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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Tank: 241-T-101

July 1984

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Tank 241-T-102

Riser and Drywell Locations
Tank 241-T-102

Tank Description

Type: Single Shell
Constructed: 1944
In-service: 09/45
Out of Service: 1974
Diameter: 75'
Usable Depth: 16'
Capacity: 530K gallons
Bottom shape: Dish
Hanford Coordinates:
43,647' North
75,737' West
Ventilation: Passive

Leak Detection System

Surface Level:
FIC Riser- R-01
Manual Tape Riser- None
LOW Riser(s)- None

Number of External Drywells: 6
Number of Lateral Wells: None

Tank Status

Contents

Type: Non-Complexed Waste
Total Waste: 32K gallons
Supernate Volume: 13K gallons
Drainable Interstitial Liquid: 0K gallons

Isolation Status

Date Interim Stabilized: 03/81
Date Interim Isolated: 08/81

Surface Level/Leak Status

Integrity Category: Sound
FIC Surface Level: 7.10 Inches (12/21/92)
Last Photographed: 06/28/89
Photo Interpretation Comments:

Photographs from 08/01/83 and 11/08/83 continue to show more surface liquid as do photographs back to 1978. The surface is now shallow liquid except for a band of exposed sludge around the tank perimeter. The FIC plummet is contacting liquid (8/1/83 photographs).

Temperature Status

Highest temperature during 1992:
Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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5 of 6

Tank 241-T-103

Tank Description

Type: Single Shell
 Constructed: 1944
 In-service: 11/45
 Out of Service: 1974
 Diameter: 75'
 Usable Depth: 16'
 Capacity: 530K gallons
 Bottom shape: Dish
 Hanford Coordinates:
     43,647' North
     75,837' West
 Ventilation: Passive

Leak Detection System

Surface Level:
     FIC Riser- R-01
     Manual Tape Riser- None
     LOW Riser(s)- None

Number of External Drywells: 6
 Number of Lateral Wells: None

Tank Status

Contents

Type: Non-Complexed Waste
 Total Waste: 27K gallons
 Supernate Volume: 4K gallons
 Drainable Interstitial Liquid: 0K gallons

Isolation Status

Date Interim Stabilized: 11/28/83
 Date Interim Isolated: 08/81

Surface Level/Leak Status

Integrity Category: Assumed Leaker
 Date Declared Confirmed or Assumed Leaker: 1974
 Leak Volume Estimate: < 1,000 Gallons (1989)
 FIC Surface Level: 7.10 Inches (09/16/92)
 Last Photographed: 07/02/84
 Photo Interpretation Comments:

Photographs from 4/2/81 show more surface liquid from intrusions than previous photographs, and a band of exposed sludge around the perimeter of the tank. The FIC plummet is contacting liquid. Photographs from 7/3/84 show little change from previous photographs

Temperature Status

Highest temperature during 1992: 64.6 °F (01/05/92)
 Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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Tank 241-T-104

Tank Description

Type: Single Shell
 Constructed: 1944
 In-service: 03/46
 Diameter: 75'
 Usable Depth: 16'
 Capacity: 530K gallons
 Bottom shape: Dish
 Hanford Coordinates:
     43,547' North
     75,657' West
 Ventilation: Passive

Leak Detection System

Surface Level:
 FIC Riser- None
 Manual Tape Riser- R-05
 LOW Riser(s)- R-01

Number of External Drywells: 5
 Number of Lateral Wells: None

Tank Status

Contents

Type: Non-Complexed Waste
 Total Waste: 445K gallons
 Supernate Volume: 3K gallons
 Drainable Interstitial Liquid: 47K gallons

Isolation Status

Date Partially Interim Isolated: 12/15/82

Surface Level/Leak Status

Integrity Category: Sound
 Manual Tape Surface Level: 155.00 Inches (12/28/92)
 Last Photographed: 06/29/89
 Photo Interpretation Comments:

Photographs from 3/18/81 reveal a surface of damp sludge, a larger band of liquid around the perimeter of the tank and a larger pool of liquid at the salt well than previous photographs. The manual tape pencil plummet is contacting sludge at the very edge of a small hole. Photographs from 08/02/84 appear to have slightly more liquid around the edge of the tank.

Temperature Status

Highest temperature during 1992: 70 °F (11/05/92)
 Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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Tank 241-T-105

Riser and Drywell Locations
Tank 241-T-105

Tank Description

Type: Single Shell
Constructed: 1944
In-service: 07/46
Out of Service: 1974
Diameter: 75'
Usable Depth: 16'
Capacity: 530K gallons
Bottom shape: Dish
Hanford Coordinates:
43,547' North
75,737' West
Ventilation: Passive

Leak Detection System

Surface Level:
FIC Riser- R-01
Manual Tape Riser- None
LOW Riser(s)- None

Number of External Drywells: 3
Number of Lateral Wells: None

Tank Status

Contents

Type: Non-Complexed Waste
Total Waste: 98K gallons
Supernate Volume: 0K gallons
Drainable Interstitial Liquid: 23K gallons

Isolation Status

Date Interim Stabilized: 06/80
Date Partially Interim Isolated: 12/15/82

Surface Level/Leak Status

Integrity Category: Sound
FIC Surface Level: Intrusion level set at 30.10 Inches (12/28/92)
Surface Level Comments: Intrusion Mode
Last Photographed: 05/14/87
Photo Interpretation Comments:
Photographs show little change from those taken on 05/15/80. The surface appears to be damp solids with several pools and rivulets of liquid. The FIC plummet is contacting solids.

Temperature Status

Highest recent temperature: 75 °F (02/07/81)

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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Tank 241-T-106

Tank Description

Type: Single Shell
 Constructed: 1944
 In-service: 06/47
 Out of Service: 1973
 Diameter: 75'
 Usable Depth: 16'
 Capacity: 530K gallons
 Bottom shape: Dish
 Hanford Coordinates:
     43,547' North
     75,837' West
 Ventilation: Passive

Leak Detection System

Surface Level:
     FIC Riser- R-01
     Manual Tape Riser- None
     LOW Riser(s)- None

Number of External Drywells: 9
 Number of Lateral Wells: None

Tank Status

Contents

Type: Non-Complexed Waste
 Total Waste: 21K gallons
 Supernate Volume: 2K gallons
 Drainable Interstitial Liquid: 0K gallons

Isolation Status

Date Interim Stabilized: 08/10/81
 Date Interim Isolated: 08/81

Surface Level/Leak Status

Integrity Category: Assumed Leaker
 Date Declared Confirmed or Assumed Leaker: 1973
 Leak Volume Estimate: 115,000 Gallons (1986)
 FIC Surface Level: Intrusion level set at 4.20 Inches (12/28/92)
 Surface Level Comments: Intrusion Mode
 Last Photographed: 06/29/89
 Photo Interpretation Comments:
     Photographs are hazy, but there appears to be little change from previous
     photographs. The surface is mostly sludge sloping toward the tank center with
     shallow liquid visible in the center of the tank. The FIC plummet is contacting
     solids and a discarded tape is beside it.

Temperature Status

Highest temperature during 1992: 65.7 °F (01/05/92)
 Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established
 baseline profiles.

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Tank 241-T-107

Riser and Drywell Locations
Tank 241-T-107

Tank Description

Type: Single Shell
 Constructed: 1944
 In-service: 12/44
 Out of Service: 1976
 Diameter: 75'
 Usable Depth: 16'
 Capacity: 530K gallons
 Bottom shape: Dish
 Hanford Coordinates:
     43,447' North
     75,637' West
 Ventilation: Passive

Leak Detection System

Surface Level:
     FIC Riser- R-01
     Manual Tape Riser- None
     LOW Riser(s)- None

Number of External Drywells: 3
 Number of Lateral Wells: None

Tank Status

Watch List: *Ferrocyanide*

Contents

Type: Non-Complexed Waste
 Total Waste: 130K gallons
 Supernate Volume: 9K gallons
 Drainable Interstitial Liquid: 13K gallons

Isolation Status

Date Partially Interim Isolated: 12/15/82

Surface Level/Leak Status

Integrity Category: Assumed Leaker
 Date Declared Confirmed or Assumed Leaker: 1984
 Leak Volume Estimate: 7.8K gallons = 1/19th of 150K gallons
 FIC Surface Level: 66.50 Inches (12/28/92)
 Last Photographed: 07/12/84
 Photo Interpretation Comments: See attached photo.

Temperature Status

Highest temperature during 1992: 73 °F (10/07/92)
 Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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WHC-EP-0625

Tank: 241-T-107

July 1984

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Tank 241-T-108

Tank Description

Type: Single Shell
 Constructed: 1944
 In-service: 09/45
 Out of Service: 04/47
 Diameter: 75'
 Usable Depth: 16'
 Capacity: 530K gallons
 Bottom shape: Dish
 Hanford Coordinates:
     43,447' North
     75,737' West
 Ventilation: Passive

Leak Detection System

Surface Level:
     FIC Riser- R-01
     Manual Tape Riser- R-13
     LOW Riser(s)- None

Number of External Drywells: 6
 Number of Lateral Wells: None

Tank Status

Contents

Type: Non-Complexed Waste
 Total Waste: 44K gallons
 Supernate Volume: 0K gallons
 Drainable Interstitial Liquid: 0K gallons

Isolation Status

Date Interim Stabilized: 11/30/78
 Date Interim Isolated: 06/81

Surface Level/Leak Status

Integrity Category: Assumed Leaker
 Date Declared Confirmed or Assumed Leaker: 1974
 Leak Volume Estimate: < 1,000 Gallons (1980)
 FIC Surface Level: 13.00 Inches (10/01/92)
 Last Photographed: 07/17/84
 Photo Interpretation Comments:

Photographs show a surface that appears to be mostly damp sludge with the manual tape plummet over a clear liquid pool (7 to 10 feet in diameter).

Temperature Status

Highest temperature during 1992: 70 °F (02/07/81)

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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Tank 241-T-109

Riser and Drywell Locations
Tank 241-T-109

Tank Description

Type: Single Shell
 Constructed: 1944
 In-service: 12/45
 Out of Service: 1974
 Diameter: 75'
 Usable Depth: 16'
 Capacity: 530K gallons
 Bottom shape: Dish
 Hanford Coordinates:
     43,447' North
     75,837' West
 Ventilation: Passive

Leak Detection System

Surface Level:
     FIC Riser- R-01
     Manual Tape Riser- None
     LOW Riser(s)- None

Number of External Drywells: 6
 Number of Lateral Wells: None

Tank Status

Contents

Type: Non-Complexed Waste
 Total Waste: 58K gallons
 Supernate Volume: 0K gallons
 Drainable Interstitial Liquid: 0K gallons

Isolation Status

Date Interim Stabilized: 12/20/84
 Date Partially Interim Isolated: 12/15/82

Surface Level/Leak Status

Integrity Category: Assumed Leaker
 Date Declared Confirmed or Assumed Leaker: 1974
 Leak Volume Estimate: < 1,000 Gallons (1989)
 FIC Surface Level: Intrusion level set at 16.70 Inches (12/21/92)
 Surface Level Comments: Intrusion Mode
 Last Photographed: 07/03/84
 Photo Interpretation Comments:
     Photographs reveal an uneven surface of sludge with no visible liquid. The FIC
     plummet is not visible but would be contacting solids in a depression and
     measurement anomalies should be expected.

Temperature Status

Highest recent temperature: 75 °F (02/16/91)

Drywell Status

Comments: Current drywell profiles were stable and consistent with established
 baseline profiles.

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Tank 241-T-110

Tank Description

Type: Single Shell
 Constructed: 1944
 In-service: 12/44
 Diameter: 75'
 Usable Depth: 16'
 Capacity: 530K gallons
 Bottom shape: Dish
 Hanford Coordinates:
     43,347' North
     75,637' West
 Ventilation: Passive

Leak Detection System

Surface Level:
     FIC Riser- R-01
     Manual Tape Riser- None
     LOW Riser(s)- R-05

Number of External Drywells: 4
 Number of Lateral Wells: None

Tank Status

Watch List: **Hydrogen**

Contents

Type: Non-Complexed Waste
 Total Waste: 379K gallons
 Supernate Volume: 3K gallons
 Drainable Interstitial Liquid: 39K gallons

Isolation Status

Date Partially Interim Isolated: 12/15/82

Surface Level/Leak Status

Integrity Category: Sound
 FIC Surface Level: 147.70 Inches (12/28/92)
 Last Photographed: 07/12/84
 Photo Interpretation Comments: See attached photo.

Temperature Status

Highest temperature during 1992: 68.5 °F (09/10/92)
 Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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WFO-TP-0028

Tank: 241-T-110

July 1984

WFO-TP-0028

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Tank 241-T-111

Tank Description

Type: Single Shell
 Constructed: 1944
 In-service: 10/45
 Out of Service: 04/74
 Diameter: 75'
 Usable Depth: 16'
 Capacity: 530K gallons
 Bottom shape: Dish
 Hanford Coordinates:
     43,347' North
     75,737' West
 Ventilation: Passive

Leak Detection System

Surface Level:
 FIC Riser- R-04
 Manual Tape Riser- None
 LOW Riser(s)- R-07

Number of External Drywells: 5
 Number of Lateral Wells: None

Tank Status

Contents

Type: Non-Complexed Waste
 Total Waste: 458K gallons
 Supernate Volume: 2K gallons
 Drainable Interstitial Liquid: 49K gallons

Isolation Status

Date Interim Stabilized: 09/79
 Date Partially Interim Isolated: 12/15/82

Surface Level/Leak Status

Integrity Category: Assumed Leaker
 Date Declared Confirmed or Assumed Leaker: 1984
 Leak Volume Estimate: < 1,000 Gallons (1980)
 FIC Surface Level: 162.60 Inches (12/14/92)
 Last Photographed: 08/02/84
 Photo Interpretation Comments:

Photographs from 1/30/81 show a flat, cracked, flagstone-like surface of sludge and a larger liquid pool around the salt well than previous photos. The FIC plummet is contacting a very small puddle of liquid in a depression caused by repeated plummet flushes. Photograph from 08/01/84 comparisons show little change if any.

Temperature Status

Highest temperature during 1992: 71.8 °F (01/05/92)
 Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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Tank 241-T-112

Tank Description

Type: Single Shell
 Constructed: 1944
 In-service: 01/46
 Diameter: 75'
 Usable Depth: 16'
 Capacity: 530K gallons
 Bottom shape: Dish
 Hanford Coordinates:
     43,347' North
     75,837' West
 Ventilation: Passive

Leak Detection System

Surface Level:
     FIC Riser- R-01
     Manual Tape Riser- None
     LOW Riser(s)- None

Number of External Drywells: 3
 Number of Lateral Wells: None

Tank Status

Contents

Type: Non-Complexed Waste
 Total Waste: 67K gallons
 Supernate Volume: 7K gallons
 Drainable Interstitial Liquid: 0K gallons

Isolation Status

Date Interim Stabilized: 03/81
 Date Interim Isolated: 06/81

Surface Level/Leak Status

Integrity Category: Sound
 FIC Surface Level: 20.30 Inches (12/28/92)
 Last Photographed: 08/01/84
 Photo Interpretation Comments:

Photographs show a surface of exposed sludge and liquid. The FIC plummet is contacting clear liquid.

Temperature Status

Highest temperature during 1992: 70 °F (11/05/92)
 Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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241 - TX Tank Farm

June 1991 91060443 18A234

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Tank 241-TX-101

Tank Description

Type: Single Shell
 Constructed: 1948
 In-service: 07/27/49
 Diameter: 75'
 Usable Depth: 23'
 Capacity: 758K gallons
 Bottom shape: Dish
 Hanford Coordinates:
     41,650' North
     75,750' West
 Ventilation: Passive

Leak Detection System

Surface Level:
 FIC Riser- R-04
 Manual Tape Riser- None
 LOW Riser(s)- None

Number of External Drywells: 5
 Number of Lateral Wells: None

Tank Status

Contents

Type: Non-Complexed Waste
 Total Waste: 87K gallons
 Supernate Volume: 3K gallons
 Drainable Interstitial Liquid: 2K gallons

Isolation Status

Date Interim Stabilized: 02/03/84
 Date Interim Isolated: 08/84

Surface Level/Leak Status

Integrity Category: Sound
 FIC Surface Level: 40.30 Inches (12/28/92)
 Last Photographed: 10/24/85
 Photo Interpretation Comments:

Photographs from 01/31/84 show a shallow liquid surface and exposed solids around the tank perimeter. The FIC plummet is contacting a small island of sludge. Photographs of the surface area from 10/24/85 are not clear.

Temperature Status

Highest temperature during 1992:

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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Tank 241-TX-102

Riser and Drywell Locations
Tank 241-TX-102

Tank Description

Type: Single Shell
Constructed: 1948
In-service: 01/21/50
Diameter: 75'
Usable Depth: 23'
Capacity: 758K gallons
Bottom shape: Dish
Hanford Coordinates:
41,650' North
75,852' West
Ventilation: Passive

Leak Detection System

Surface Level:
FIC Riser- None
Manual Tape Riser- R-10A
LOW Riser(s)- R-03

Number of External Drywells: 5
Number of Lateral Wells: None

Tank Status

Contents

Type: Non-Complexed Waste
Total Waste: 113K gallons
Supernate Volume: 0K gallons
Drainable Interstitial Liquid: 22K gallons

Isolation Status

Date Interim Stabilized: 04/05/83
Date Interim Isolated: 08/84

Surface Level/Leak Status

Integrity Category: Sound
Manual Tape Surface Level: 82.50 Inches (12/21/92)
Last Photographed: 10/31/85
Photo Interpretation Comments:

Photographs from 11/10/82 show a crusted uneven surface of salt cake with no visible liquid. The salt cake has slumped toward the tank center and the pencil plummet is contacting solids in a deep depression. Measurement anomalies can be expected. Photographs from 10/31/85 show little or no change.

Temperature Status

Highest temperature during 1992:

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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Tank 241-TX-103

Tank Description

Type: Single Shell
 Constructed: 1948
 In-service: 07/14/50
 Diameter: 75'
 Usable Depth: 23'
 Capacity: 758K gallons
 Bottom shape: Dish
 Hanford Coordinates:
     41,650' North
     75,954' West
 Ventilation: Passive

Leak Detection System

Surface Level:
     FIC Riser- R-08
     Manual Tape Riser- R-11A
     LOW Riser(s)- None

Number of External Drywells: 6
 Number of Lateral Wells: None

Tank Status

Contents

Type: Non-Complexed Waste
 Total Waste: 157K gallons
 Supernate Volume: 0K gallons
 Drainable Interstitial Liquid: 15K gallons

Isolation Status

Date Interim Stabilized: 08/12/83
 Date Interim Isolated: 08/84

Surface Level/Leak Status

Integrity Category: Sound
 FIC Surface Level: Intrusion level set at 58.60 Inches (12/28/92)
 Surface Level Comments: Intrusion Mode
 Last Photographed: 10/31/85
 Photo Interpretation Comments:

Photographs show what appear to be soft moist solids with isolated pockets of liquid and a small pool of liquid in the vicinity of the salt well. The FIC plummet is above solids.

Temperature Status

Highest temperature during 1992:

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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Tank 241-TX-104

Riser and Drywell Locations
Tank 241-TX-104

Tank Description

Type: Single Shell
Constructed: 1948
In-service: 11/12/50
Diameter: 75'
Usable Depth: 23'
Capacity: 758K gallons
Bottom shape: Dish
Hanford Coordinates:
41,650' North
76,056' West
Ventilation: Passive

Leak Detection System

Surface Level:
FIC Riser- R-08
Manual Tape Riser- R-11A
LOW Riser(s)- None

Number of External Drywells: 6
Number of Lateral Wells: None

Tank Status

Contents

Type: Non-Complexed Waste
Total Waste: 65K gallons
Supernate Volume: 1K gallons
Drainable Interstitial Liquid: 14K gallons

Isolation Status

Date Interim Stabilized: 09/18/79
Date Interim Isolated: 08/84

Surface Level/Leak Status

Integrity Category: Sound
FIC Surface Level: 32.20 Inches (12/28/92)
Last Photographed: 10/16/84
Photo Interpretation Comments:

Photographs show surface liquid in the vicinity of the tank center and an uneven surface of exposed solids (going from damp to dry) toward the outer edge. Photograph comparisons (04/03/84 photographs) tend to show a shifting of solids and a larger but shallower pool of liquid at the tank center. The FIC plummet appears to be contacting liquid.

Temperature Status

Highest temperature during 1992: 82.6 °F (07/04/92)
Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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Tank 241-TX-105

Riser and Drywell Locations
Tank 241-TX-105

Tank Description

Type: Single Shell
Constructed: 1948
In-service: 03/02/51
Diameter: 75'
Usable Depth: 23'
Capacity: 758K gallons
Bottom shape: Dish
Hanford Coordinates:
41,752' North
75,750' West
Ventilation: Passive

Leak Detection System

Surface Level:
FIC Riser- None
Manual Tape Riser- R-12
LOW Riser(s)- R-09B

Number of External Drywells: 6
Number of Lateral Wells: None

Tank Status

Watch List: *Organic Salts*

Contents

Type: Non-Complexed Waste
Total Waste: 609K gallons
Supernate Volume: 0K gallons
Drainable Interstitial Liquid: 20K gallons

Isolation Status

Date Interim Stabilized: 09/29/83
Date Interim Isolated: 08/84

Surface Level/Leak Status

Integrity Category: Assumed Leaker
Date Declared Confirmed or Assumed Leaker: 1977
Leak Volume Estimate: 7.8K gallons = 1/19th of 150K gallons
Manual Tape Surface Level: 214.00 Inches (10/01/92)
Last Photographed: 10/24/89
Photo Interpretation Comments:

Photographs show a very irregular, broken, crusted surface of salt cake with many deep holes. The M-tape plummet is contacting solids in a depression.

Temperature Status

Highest temperature during 1992: 104 °F (04/23/92)
Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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WHC-EP-0625

Tank: 241-TX-105

October 1989

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Tank 241-TX-106

Riser and Drywell Locations
Tank 241-TX-106

Tank Description

Type: Single Shell
 Constructed: 1948
 In-service: 06/16/51
 Diameter: 75'
 Usable Depth: 23'
 Capacity: 758K gallons
 Bottom shape: Dish
 Hanford Coordinates:
     41,752' North
     75,852' West
 Ventilation: Passive

Leak Detection System

Surface Level:
 FIC Riser- None
 Manual Tape Riser- R-08
 LOW Riser(s)- R-11A

Number of External Drywells: 5
 Number of Lateral Wells: None

Tank Status

Contents

Type: Non-Complexed Waste
 Total Waste: 453K gallons
 Supernate Volume: 0K gallons
 Drainable Interstitial Liquid: 10K gallons

Isolation Status

Date Interim Stabilized: 06/08/83
 Date Interim Isolated: 08/84

Surface Level/Leak Status

Integrity Category: Sound
 Manual Tape Surface Level: 133.50 Inches (10/01/92)
 Last Photographed: 10/31/85
 Photo Interpretation Comments:
     Photographs from 06/09/82 and 10/31/85 show a crusted, uneven surface, that is free of liquid. The manual tape plummet is contacting solids and a discarded tape is near the plummet.

Temperature Status

Highest temperature during 1992:

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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Tank 241-TX-107

Tank Description

Type: Single Shell
 Constructed: 1948
 In-service: 1950
 Diameter: 75'
 Usable Depth: 23'
 Capacity: 758K gallons
 Bottom shape: Dish
 Hanford Coordinates:
 41,752' North
 75,954' West
 Ventilation: Passive

Leak Detection System

Surface Level:
 FIC Riser- R-08
 Manual Tape Riser- R-11A
 LOW Riser(s)- None

Number of External Drywells: 7
 Number of Lateral Wells: None

Tank Status

Contents

Type: Non-Complexed Waste
 Total Waste: 36K gallons
 Supernate Volume: 1K gallons
 Drainable Interstitial Liquid: 1K gallons

Isolation Status

Date Interim Stabilized: 10/79
 Date Interim Isolated: 08/84

Surface Level/Leak Status

Integrity Category: Assumed Leaker
 Date Declared Confirmed or Assumed Leaker: 1984
 Leak Volume Estimate: 2,500 Gallons (1986)
 FIC Surface Level: 17.70 Inches (12/28/92)
 Last Photographed: 10/31/85
 Photo Interpretation Comments:

Photographs from 07/13/84 show exposed solids and a liquid pool in the center.
 The FIC plummet appears to be contacting liquid, but is not readily visible.
 Photographs from 10/31/85 show little change, although there does appear to be slightly less liquid.

Temperature Status

Highest temperature during 1992:

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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Tank 241-TX-108

Riser and Drywell Locations
Tank 241-TX-108

Tank Description

Type: Single Shell
Constructed: 1948
In-service: 1950
Diameter: 75'
Usable Depth: 23'
Capacity: 758K gallons
Bottom shape: Dish
Hanford Coordinates:
41,752' North
76,056' West
Ventilation: Passive

Leak Detection System

Surface Level:
FIC Riser- R-08
Manual Tape Riser- R-11A
LOW Riser(s)- R-09

Number of External Drywells: 3
Number of Lateral Wells: None

Tank Status

Contents

Type: Non-Complexed Waste
Total Waste: 134K gallons
Supernate Volume: 0K gallons
Drainable Interstitial Liquid: 0K gallons

Isolation Status

Date Interim Stabilized: 03/28/83
Date Interim Isolated: 08/84

Surface Level/Leak Status

Integrity Category: Sound
FIC Surface Level: Intrusion level set at 57.10 Inches (12/28/92)
Surface Level Comments: Intrusion Mode
Last Photographed: 09/12/89
Photo Interpretation Comments:
Photographs from 05/29/81 show a shallow liquid surface continuing to increase in size (no surface liquid in 04/04/77 photographs). Photographs from 04/12/83 show the FIC and manual tape plummet contacting mounds of exposed salt cake with no visible liquid.

Temperature Status

Highest temperature during 1992:

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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Tank 241-TX-109

Riser and Drywell Locations
Tank 241-TX-109

Tank Description

Type: Single Shell
Constructed: 1948
In-service: 1950
Diameter: 75'
Usable Depth: 23'
Capacity: 758K gallons
Bottom shape: Dish
Hanford Coordinates:
41,854' North
75,750' West
Ventilation: Passive

Leak Detection System

Surface Level:
FIC Riser- R-04
Manual Tape Riser- R-01
LOW Riser(s)- R-03

Number of External Drywells: 5
Number of Lateral Wells: None

Tank Status

Contents

Type: Non-Complexed Waste
Total Waste: 384K gallons
Supernate Volume: 0K gallons
Drainable Interstitial Liquid: 10K gallons

Isolation Status

Date Interim Stabilized: 04/19/83
Date Interim Isolated: 08/84

Surface Level/Leak Status

Integrity Category: Sound
FIC Surface Level: Intrusion level set at 148.60 Inches (12/28/92)
Surface Level Comments: Intrusion Mode
Last Photographed: 10/24/89
Photo Interpretation Comments:

Photographs show the FIC and manual tape plummet contacting solids. The FIC plummet appears to be directly over a hole in the salt cake. There is no visible liquid.

Temperature Status

Highest temperature during 1992:

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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Tank 241-TX-110

Riser and Drywell Locations
Tank 241-TX-110

Tank Description

Type: Single Shell
Constructed: 1948
In-service: 09/49
Diameter: 75'
Usable Depth: 23'
Capacity: 758K gallons
Bottom shape: Dish
Hanford Coordinates:
41,854' North
75,852' West
Ventilation: Passive

Leak Detection System

Surface Level:
FIC Riser- None
Manual Tape Riser- R-01
LOW Riser(s)- R-13

Number of External Drywells: 6
Number of Lateral Wells: None

Tank Status

Contents

Type: Non-Complexed Waste
Total Waste: 462K gallons
Supernate Volume: 0K gallons
Drainable Interstitial Liquid: 15K gallons

Isolation Status

Date Interim Stabilized: 04/05/83
Date Interim Isolated: 08/84

Surface Level/Leak Status

Integrity Category: Assumed Leaker
Date Declared Confirmed or Assumed Leaker: 1977
Leak Volume Estimate: 7.8K gallons = 1/19th of 150K gallons
Manual Tape Surface Level: 147.00 Inches (10/01/92)
Last Photographed: 10/24/89
Photo Interpretation Comments:

Photographs show an uneven surface of salt cake with no visible liquid. The manual tape was removed to obtain pictures, but would contact solids in a depression with a discarded donoughnut and tape in the immediate area.

Temperature Status

Highest recent temperature: 77 °F (04/24/91)
Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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Tank 241-TX-111

Riser and Drywell Locations
Tank 241-TX-111

Tank Description

Type: Single Shell
Constructed: 1948
In-service: 03/50
Diameter: 75'
Usable Depth: 23'
Capacity: 758K gallons
Bottom shape: Dish
Hanford Coordinates:
41,854' North
75,954' West
Ventilation: Passive

Leak Detection System

Surface Level:
FIC Riser- None
Manual Tape Riser- R-01
LOW Riser(s)- R-11A

Number of External Drywells: 5
Number of Lateral Wells: None

Tank Status

Contents

Type: Non-Complexed Waste
Total Waste: 370K gallons
Supernate Volume: 0K gallons
Drainable Interstitial Liquid: 9K gallons

Isolation Status

Date Interim Stabilized: 04/05/83
Date Interim Isolated: 08/84

Surface Level/Leak Status

Integrity Category: Sound
Manual Tape Surface Level: 137.00 Inches (10/01/92)
Last Photographed: 09/12/89
Photo Interpretation Comments:
Photographs show a dry, cracked, uneven surface of salt-cake with no visible liquid.

Temperature Status

Highest temperature during 1992:

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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Tank 241-TX-112

Tank Description

Type: Single Shell
 Constructed: 1948
 In-service: 08/24/50
 Diameter: 75'
 Usable Depth: 23'
 Capacity: 758K gallons
 Bottom shape: Dish
 Hanford Coordinates:
 41,854' North
 76,056' West
 Ventilation: Passive

Leak Detection System

Surface Level:
 FIC Riser- None
 Manual Tape Riser- R-01
 LOW Riser(s)- R-12

Number of External Drywells: 6
 Number of Lateral Wells: None

Tank Status

Contents

Type: Non-Complexed Waste
 Total Waste: 649K gallons
 Supernate Volume: 0K gallons
 Drainable Interstitial Liquid: 24K gallons

Isolation Status

Date Interim Stabilized: 04/05/83
 Date Interim Isolated: 08/84

Surface Level/Leak Status

Integrity Category: Sound
 Manual Tape Surface Level: 237.50 Inches (10/01/92)
 Last Photographed: 11/19/87
 Photo Interpretation Comments:

Photographs show a dry, uneven surface of salt-cake with no visible liquid. The manual tape donoughnut plummet is contacting solids in a small depression.

Temperature Status

Highest temperature during 1992:

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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Tank 241-TX-113

Riser and Drywell Locations
Tank 241-TX-113

Tank Description

Type: Single Shell
Constructed: 1948
In-service: 12/50
Out of Service: 1971
Diameter: 75'
Usable Depth: 23'
Capacity: 758K gallons
Bottom shape: Dish
Hanford Coordinates:
41,956' North
75,750' West
Ventilation: Passive

Leak Detection System

Surface Level:
FIC Riser- None
Manual Tape Riser- R-01
LOW Riser(s)- R-04

Number of External Drywells: 3
Number of Lateral Wells: None

Tank Status

Contents

Type: Non-Complexed Waste
Total Waste: 607K gallons
Supernate Volume: 0K gallons
Drainable Interstitial Liquid: 16K gallons

Isolation Status

Date Interim Stabilized: 04/05/83
Date Interim Isolated: 08/84

Surface Level/Leak Status

Integrity Category: Assumed Leaker
Date Declared Confirmed or Assumed Leaker: 1974
Leak Volume Estimate: 7.8K gallons = 1/19th of 150K gallons
Manual Tape Surface Level: 215.50 Inches (10/01/92)
Last Photographed: 04/11/83
Photo Interpretation Comments:

Photographs show an uneven surface of salt-cake and no visible liquid. The manual tape pencil plummet is contacting solids in a hole.

Temperature Status

Highest temperature during 1992:

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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Tank 241-TX-114

Riser and Drywell Locations
Tank 241-TX-111

Tank Description

Type: Single Shell
Constructed: 1948
In-service: 04/51
Out of Service: 1971
Diameter: 75'
Usable Depth: 23'
Capacity: 758K gallons
Bottom shape: Dish
Hanford Coordinates:
41,956' North
71,852' West
Ventilation: Passive

Leak Detection System

Surface Level:
FIC Riser- None
Manual Tape Riser- R-08
LOW Riser(s)- R-12A, R-09A, R-07

Number of External Drywells: 3
Number of Lateral Wells: None

Tank Status

Contents

Type: Non-Complexed Waste
Total Waste: 535K gallons
Supernate Volume: 0K gallons
Drainable Interstitial Liquid: 15K gallons

Isolation Status

Date Interim Stabilized: 04/05/83
Date Partially Interim Isolated: 12/15/82
Date Interim Isolated: 08/84

Surface Level/Leak Status

Integrity Category: Assumed Leaker
Date Declared Confirmed or Assumed Leaker: 1974
Leak Volume Estimate: 7.8K gallons = 1/19th of 150K gallons
Manual Tape Surface Level: 201.25 Inches (10/01/92)
Last Photographed: 04/11/83
Photo Interpretation Comments:
Photographs from 09/22/80 continue to show a larger liquid pool at the salt well than 05/28/80 and 10/07/77 photographs. Photographs from 04/11/83 show a dry, uneven surface of salt-cake.

Temperature Status

Highest temperature during 1992:

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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Tank 241-TX-115

Riser and Drywell Locations
Tank 241-TX-111

Tank Description

Type: Single Shell
Constructed: 1948
In-service: 1951
Diameter: 75'
Usable Depth: 23'
Capacity: 758K gallons
Bottom shape: Dish
Hanford Coordinates:
41,956' North
75,954' West
Ventilation: Passive

Leak Detection System

Surface Level:
FIC Riser- None
Manual Tape Riser- R-01
LOW Riser(s)- R-09A

Number of External Drywells: 4
Number of Lateral Wells: None

Tank Status

Contents

Type: Non-Complexed Waste
Total Waste: 640K gallons
Supernate Volume: 0K gallons
Drainable Interstitial Liquid: 19K gallons

Isolation Status

Date Interim Stabilized: 09/29/83
Date Partially Interim Isolated: 02/03/83
Date Interim Isolated: 08/84

Surface Level/Leak Status

Integrity Category: Assumed Leaker
Date Declared Confirmed or Assumed Leaker: 1977
Leak Volume Estimate: 7.8K gallons = 1/19th of 150K gallons
Manual Tape Surface Level: 201.50 Inches (10/01/92)
Last Photographed: 06/15/88
Photo Interpretation Comments:

Photographs from 01/28/81 show the manual tape plummet contacting solids and a larger pool of liquid at the salt well than previous photos. Photographs from 03/28/83 show no visible liquid. The manual tape plummet is contacting salt cake near the edge of a depression caused by slumpage from salt well pumping.

Temperature Status

Highest temperature during 1992:

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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Tank 241-TX-116

Riser and Drywell Locations
Tank 241-TX-116

Tank Description

Type: Single Shell
Constructed: 1948
In-service: 1951
Out of Service: 1969
Diameter: 75'
Usable Depth: 23'
Capacity: 758K gallons
Bottom shape: Dish
Hanford Coordinates:
42,058' North
75,750' West
Ventilation: Passive

Leak Detection System

Surface Level:
FIC Riser- None
Manual Tape Riser- R-01
LOW Riser(s)- None

Number of External Drywells: 3
Number of Lateral Wells: None

Tank Status

Contents

Type: Non-Complexed Waste
Total Waste: 631K gallons
Supernate Volume: 0K gallons
Drainable Interstitial Liquid: 23K gallons

Isolation Status

Date Interim Stabilized: 04/05/83
Date Interim Isolated: 08/84

Surface Level/Leak Status

Integrity Category: Assumed Leaker
Date Declared Confirmed or Assumed Leaker: 1977
Leak Volume Estimate: 7.8K gallons = 1/19th of 150K gallons
Manual Tape Surface Level: 212.25 Inches (10/01/92)
Last Photographed: 10/17/89
Photo Interpretation Comments:

Photographs from 01/28/81 and 04/11/83 reveal a dry, cracked surface and no visible liquid.

Temperature Status

Highest temperature during 1992:

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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Tank 241-TX-117

Riser and Drywell Locations
Tank 241-TX-117

Tank Description

Type: Single Shell
Constructed: 1948
In-service: 04/51
Out of Service: 1969
Diameter: 75'
Usable Depth: 23'
Capacity: 758K gallons
Bottom shape: Dish
Hanford Coordinates:
42,058' North
75,852' West
Ventilation: Passive

Leak Detection System

Surface Level:
FIC Riser- None
Manual Tape Riser- R-11A
LOW Riser(s)- R-07

Number of External Drywells: 4
Number of Lateral Wells: None

Tank Status

Contents

Type: Non-Complexed Waste
Total Waste: 626K gallons
Supernate Volume: 0K gallons
Drainable Interstitial Liquid: 8K gallons

Isolation Status

Date Interim Stabilized: 03/28/83
Date Interim Isolated: 08/84

Surface Level/Leak Status

Integrity Category: Assumed Leaker
Date Declared Confirmed or Assumed Leaker: 1977
Leak Volume Estimate: 7.8K gallons = 1/19th of 150K gallons
Manual Tape Surface Level: 183.00 Inches (10/01/92)
Last Photographed: 04/11/83
Photo Interpretation Comments:

Photographs show mounds of diatomaceous earth with no visible liquid. The manual tape plummet is over a deep hole where a pump has been removed.

Temperature Status

Highest temperature during 1992:

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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Tank 241-TX-118

Riser and Drywell Locations
Tank 241-TX-118

Tank Description

Type: Single Shell
Constructed: 1948
In-service: 04/51
Diameter: 75'
Usable Depth: 23'
Capacity: 758K gallons
Bottom shape: Dish
Hanford Coordinates:
42,058' North
75,954' West
Ventilation: Passive

Leak Detection System

Surface Level:
FIC Riser- R-04
Manual Tape Riser- R-01
LOW Riser(s)- R-05

Number of External Drywells: 7

Number of Lateral Wells: None

Tank Status

Watch List: *Ferrocyanide, Organic Salts*

Contents

Type: Non-Complexed Waste
Total Waste: 347K gallons
Supernate Volume: 0K gallons
Drainable Interstitial Liquid: 27K gallons

Isolation Status

Date Interim Stabilized: 04/05/83
Date Interim Isolated: 08/84

Surface Level/Leak Status

Integrity Category: Sound
FIC Surface Level: Intrusion level set at 117.70 Inches (12/14/92)
Surface Level Comments: Intrusion Mode
Last Photographed: 12/19/79
Photo Interpretation Comments:
There are no current photographs because of jet salt well pumping.

Temperature Status

Highest temperature during 1992: 78.4 °F (12/20/92)
Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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Tank 241-TY-101

Tank Description

Type: Single Shell
 Constructed: 1952
 In-service: 1953
 Out of Service: 1973
 Diameter: 75'
 Usable Depth: 23'
 Capacity: 758K gallons
 Bottom shape: Dish
 Hanford Coordinates:
     42,602' North
     75,852' West
 Ventilation: Passive

Leak Detection System

Surface Level:
     FIC Riser- R-01
     Manual Tape Riser- None
     LOW Riser(s)- None

Number of External Drywells: 3
 Number of Lateral Wells: None

Tank Status

Watch List: *Ferrocyanide*

Contents

Type: Non-Complexed Waste
 Total Waste: 118K gallons
 Supernate Volume: OK gallons
 Drainable Interstitial Liquid: OK gallons

Isolation Status

Date Interim Stabilized: 04/05/83
 Date Partially Interim Isolated: 12/15/82
 Date Interim Isolated: 10/30/84

Surface Level/Leak Status

Integrity Category: Assumed Leaker
 Date Declared Confirmed or Assumed Leaker: 1973
 Leak Volume Estimate: < 1,000 Gallons (1980)
 FIC Surface Level: Intrusion level set at 51.40 Inches (12/14/92)
 Surface Level Comments: Intrusion Mode
 Last Photographed: 08/22/89
 Photo Interpretation Comments:
     Photographs show a dry, caked, uneven surface with no visible liquid.

Temperature Status

Highest temperature during 1992: 77 °F (09/30/92)
 Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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WHC-EP-0625

Tank: 241-TY-101

August 1989

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Tank 241-TY-102

Tank Description

Type: Single Shell
 Constructed: 1952
 In-service: 1953
 Diameter: 75'
 Usable Depth: 23'
 Capacity: 758K gallons
 Bottom shape: Dish
 Hanford Coordinates:
     42,602' North
     75,954' West
 Ventilation: Passive

Leak Detection System

Surface Level:
 FIC Riser- R-01
 Manual Tape Riser- None
 LOW Riser(s)- None

Number of External Drywells: 5
 Number of Lateral Wells: None

Tank Status

Contents

Type: Non-Complexed Waste
 Total Waste: 64K gallons
 Supernate Volume: 0K gallons
 Drainable Interstitial Liquid: 14K gallons

Isolation Status

Date Interim Stabilized: 04/02/84
 Date Interim Isolated: 12/15/82

Surface Level/Leak Status

Integrity Category: Sound
 FIC Surface Level: 31.70 Inches (12/21/92)
 Last Photographed: 07/07/87
 Photo Interpretation Comments:

Photographs show the tank contains mostly solids with a shallow pool of liquid in the center of the tank. Photo comparisons show more surface liquid and the small puddle beneath the FIC plummet engulfed by the larger pool of liquid.

Temperature Status

Highest temperature during 1992: 69 °F (11/05/92)
 Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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Tank 241-TY-103

Tank Description

Type: Single Shell
 Constructed: 1952
 In-service: 07/16/53
 Diameter: 75'
 Usable Depth: 23'
 Capacity: 758K gallons
 Bottom shape: Dish
 Hanford Coordinates:
     42,500' North
     75,852' West
 Ventilation: Passive

Leak Detection System

Surface Level:
     FIC Riser- R-01
     Manual Tape Riser- None
     LOW Riser(s)- R-03

Number of External Drywells: 3
 Number of Lateral Wells: None

Tank Status

Watch List: **Ferrocyanide**

Contents

Type: Non-Complexed Waste
 Total Waste: 162K gallons
 Supernate Volume: 0K gallons
 Drainable Interstitial Liquid: 5K gallons

Isolation Status

Date Interim Stabilized: 03/01/83
 Date Partially Interim Isolated: 12/15/82
 Date Interim Isolated: 10/30/84

Surface Level/Leak Status

Integrity Category: Assumed Leaker
 Date Declared Confirmed or Assumed Leaker: 1973
 Leak Volume Estimate: 3,000 Gallons (1986)
 FIC Surface Level: Intrusion level set at 67.50 Inches (12/28/92)
 Surface Level Comments: Intrusion Mode
 Last Photographed: 08/22/89
 Photo Interpretation Comments:
     Photographs show an uneven surface of solids and a small pool of liquid around the salt well. The FIC plummet is contacting solids.

Temperature Status

Highest temperature during 1992: 79.2 °F (11/19/92)
 Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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WHC-EP-0625

Tank: 241-TY-103

August 1989

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Tank 241-TY-104

Tank Description

Type: Single Shell
 Constructed: 1952
 In-service: 08/10/53
 Out of Service: 03/74
 Diameter: 75'
 Usable Depth: 23'
 Capacity: 758K gallons
 Bottom shape: Dish
 Hanford Coordinates:
     42,500' North
     75,954' West
 Ventilation: Passive

Leak Detection System

Surface Level:
     FIC Riser- R-01
     Manual Tape Riser- None
     LOW Riser(s)- None

Number of External Drywells: 5
 Number of Lateral Wells: None

Tank Status

Watch List: *Ferrocyanide*

Contents

Type: Non-Complexed Waste
 Total Waste: 46K gallons
 Supernate Volume: 3K gallons
 Drainable Interstitial Liquid: 12K gallons

Isolation Status

Date Interim Stabilized: 11/01/83
 Date Interim Isolated: 12/15/82

Surface Level/Leak Status

Integrity Category: Assumed Leaker
 Date Declared Confirmed or Assumed Leaker: 1981
 Leak Volume Estimate: 1,400 Gallons (1986)
 FIC Surface Level: 23.70 Inches (11/27/92)
 Last Photographed: 11/03/87

Photo Interpretation Comments:

Photographs from 01/31/80 show exposed solids along the outer edge of the tank and a much larger pool of liquid toward the center of the tank than 175 photographs. The FIC plummet is contacting liquid. 04/05/83 photos appear unchanged.

Temperature Status

Highest temperature during 1992: 78 °F (09/30/92)
 Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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WHC-EP-0625

Tank: 241-TY-104

November 1987

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Tank 241-TY-105

Tank Description

Type: Single Shell
 Constructed: 1952
 In-service: 01/29/53
 Out of Service: 09/60
 Diameter: 75'
 Usable Depth: 23'
 Capacity: 758K gallons
 Bottom shape: Dish
 Hanford Coordinates:
 42,400' North
 75,852' West
 Ventilation: Passive

Leak Detection System

Surface Level:
 FIC Riser- None
 Manual Tape Riser- R-02
 LOW Riser(s)- None

Number of External Drywells: 1
 Number of Lateral Wells: None

Tank Status

Contents

Type: Non-Complexed Waste
 Total Waste: 231K gallons
 Supernate Volume: OK gallons
 Drainable Interstitial Liquid: OK gallons

Isolation Status

Date Interim Stabilized: 03/01/83
 Date Partially Interim Isolated: 12/15/82
 Date Interim Isolated: 10/30/84

Surface Level/Leak Status

Integrity Category: Assumed Leaker
 Date Declared Confirmed or Assumed Leaker: 1960
 Leak Volume Estimate: 35,000 Gallons (1986)
 Manual Tape Surface Level: 86.50 Inches (10/01/92)
 Last Photographed: 09/07/89
 Photo Interpretation Comments:

Photographs show the manual tape plummet contacting what appear to be soft solids and a pool of liquid around the salt well that was not visible in the 10/14/82 photographs.

Temperature Status

Highest temperature during 1992: 81.40 °F (01/12/92)
 Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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Tank 241-TY-106

Tank Description

Type: Single Shell
 Constructed: 1952
 In-service: 06/27/53
 Diameter: 75'
 Usable Depth: 23'
 Capacity: 758K gallons
 Bottom shape: Dish
 Hanford Coordinates:
     42,400' North
     75,954' West
 Ventilation: Passive

Leak Detection System

Surface Level:
     FIC Riser- None
     Manual Tape Riser- R-03
     LOW Riser(s)- None

Number of External Drywells: 5
 Number of Lateral Wells: None

Tank Status

Contents

Type: Non-Complexed Waste
 Total Waste: 17K gallons
 Supernate Volume: OK gallons
 Drainable Interstitial Liquid: OK gallons

Isolation Status

Date Interim Stabilized: 11/30/78
 Date Interim Isolated: 12/15/82

Surface Level/Leak Status

Integrity Category: Assumed Leaker
 Date Declared Confirmed or Assumed Leaker: 1959
 Leak Volume Estimate: 20,000 Gallons (1986)
 Manual Tape Surface Level: 13.50 inches (10/01/92)
 Last Photographed: 08/22/89
 Photo Interpretation Comments:
     Photographs show a dry, cracked surface of sludge and no visible liquid.

Temperature Status

Highest temperature during 1992: 64.5 °F (01/03/92)
 Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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241-U Tank Farm

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Tank 241-U-101

Tank Description

Type: Single Shell
 Constructed: 1944
 In-service: 02/25/46
 Out of Service: 11/59
 Diameter: 75'
 Usable Depth: 16'
 Capacity: 530K gallons
 Bottom shape: Dish
 Hanford Coordinates:
     38,197' North
     75,637' West
 Ventilation: Passive

Leak Detection System

Surface Level:
 FIC Riser- None
 Manual Tape Riser- R-08
 LOW Riser(s)- None

Number of External Drywells: 2
 Number of Lateral Wells: None

Tank Status

Contents

Type: Non-Complexed Waste
 Total Waste: 25K gallons
 Supernate Volume: 3K gallons
 Drainable Interstitial Liquid: 0K gallons

Isolation Status

Date Interim Stabilized: 09/17/79
 Date Interim Isolated: 09/82

Surface Level/Leak Status

Integrity Category: Assumed Leaker
 Date Declared Confirmed or Assumed Leaker: 1959
 Leak Volume Estimate: 30,000 Gallons (1986)
 Manual Tape Surface Level: 3.75 Inches (10/01/92)
 Last Photographed: 06/19/79
 Photo Interpretation Comments:

Photographs are not clear (because of haze and radiation film damage) but do show a shallow, clear liquid surface and exposed solids around the perimeter of the tank. The manual tape plummet is not clearly visible.

Temperature Status

Highest temperature during 1992: 67.5 °F (07/04/92)
 Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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Tank 241-U-102

Tank Description

Type: Single Shell
 Constructed: 1944
 In-service: 06/23/46
 Diameter: 75'
 Usable Depth: 16'
 Capacity: 530K gallons
 Bottom shape: Dish
 Hanford Coordinates:
     38,197' North
     75,737' West
 Ventilation: Passive

Leak Detection System

Surface Level:
 FIC Riser- R-08
 Manual Tape Riser- None
 LOW Riser(s)- R-02

Number of External Drywells: 6
 Number of Lateral Wells: None

Tank Status

Contents

Type: Non-Complexed Waste
 Total Waste: 374K gallons
 Supernate Volume: 18K gallons
 Drainable Interstitial Liquid: 126K gallons

Isolation Status

Date Partially Interim Isolated: 12/15/82

Surface Level/Leak Status

Integrity Category: Sound
 FIC Surface Level: Intrusion level set at 131.60 Inches (12/28/92)
 Surface Level Comments: Intrusion Mode
 Last Photographed: 06/08/89
 Photo Interpretation Comments:
 Photograph comparisons from 07/26/83 and 10/02/79 tend to show more surface liquid and less exposed salt cake around the tank perimeter. Pieces of salt cake have fallen away from the liner and the FIC plummet appears to be contacting exposed solids.

Temperature Status

Highest temperature during 1992: 152.6 °F (10/19/92)
 Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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Tank 241-U-103

Tank Description

Type: Single Shell
 Constructed: 1944
 In-service: 02/28/47
 Diameter: 75'
 Usable Depth: 16'
 Capacity: 530K gallons
 Bottom shape: Dish
 Hanford Coordinates:
     38,197' North
     75,837' West
 Ventilation: Passive

Leak Detection System

Surface Level:
     FIC Riser- R-08
     Manual Tape Riser- None
     LOW Riser(s)- R-19

Number of External Drywells: 5
 Number of Lateral Wells: None

Tank Status

Watch List: *Hydrogen*

Contents

Type: Non-Complexed Waste
 Total Waste: 468K gallons
 Supernate Volume: 13K gallons
 Drainable Interstitial Liquid: 176K gallons

Isolation Status

Date Partially Interim Isolated: 12/15/82

Surface Level/Leak Status

Integrity Category: Sound
 FIC Surface Level: 166.65 Inches (12/28/92)
 Last Photographed: 09/13/88
 Photo Interpretation Comments:

Photographs from 10/01/81 and 09/28/84 show more surface liquid than previous photos with a large area of exposed salt cake floating on the surface. The FIC plummet is contacting liquid.

Temperature Status

Highest temperature during 1992: 91 °F (11/05/92)
 Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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WHC-EP-0625

Tank: 241-U-103

September 1988

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Tank 241-U-104

Riser and Drywell Locations
Tank 241-U-104

Tank Description

Type: Single Shell
Constructed: 1944
In-service: 07/21/47
Out of Service: 1960
Diameter: 75'
Usable Depth: 16'
Capacity: 530K gallons
Bottom shape: Dish
Hanford Coordinates:
38,097' North
75,637' West
Ventilation: Passive

Leak Detection System

Surface Level:
FIC Riser- None
Manual Tape Riser- R-08
LOW Riser(s)- None

Number of External Drywells: 4
Number of Lateral Wells: None

Tank Status

Contents

Type: Non-Complexed Waste
Total Waste: 122K gallons
Supernate Volume: 0K gallons
Drainable Interstitial Liquid: 7K gallons

Isolation Status

Date Interim Stabilized: 10/78
Date Interim Isolated: 12/15/82

Surface Level/Leak Status

Integrity Category: Assumed Leaker
Date Declared Confirmed or Assumed Leaker: 1961
Leak Volume Estimate: 55,000 Gallons (1986)
Manual Tape Surface Level: 32.00 Inches (10/01/92)
Last Photographed: 08/10/89
Photo Interpretation Comments:

Photographs from 08/31/78 show a crusted, cracked surface with a narrow band of very shallow liquid encompassing the center of the tank. Photographs from 05/16/84 show very little of this liquid remaining. The manual tape plummet appears to be contacting solids on the side of a slight depression.

Temperature Status

Highest temperature during 1992:

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

6 of 6

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Tank 241-U-105

Riser and Drywell Locations
Tank 241-U-105

Tank Description

Type: Single Shell
Constructed: 1944
In-service: 12/15/47
Diameter: 75'
Usable Depth: 16'
Capacity: 530K gallons
Bottom shape: Dish
Hanford Coordinates:
38,097' North
75,737' West
Ventilation: Passive

Leak Detection System

Surface Level:
FIC Riser- R-08
Manual Tape Riser- None
LOW Riser(s)- R-19

Number of External Drywells: 5
Number of Lateral Wells: None

Tank Status

Watch List: *Hydrogen*

Contents

Type: Non-Complexed Waste
Total Waste: 418K gallons
Supernate Volume: 37K gallons
Drainable Interstitial Liquid: 142K gallons

Isolation Status

Date Partially Interim Isolated: 12/15/82

Surface Level/Leak Status

Integrity Category: Sound
FIC Surface Level: 149.75 Inches (12/28/92)
Last Photographed: 07/07/88
Photo Interpretation Comments:

Photographs show a surface of liquid and exposed salt cake with more surface liquid than previous photographs. The manual tape plummet is contacting liquid and the FIC plummet is contacting solids. The manual tape was removed on 08/09/85.

Temperature Status

Highest temperature during 1992: 95 °F (12/20/92)
Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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Tank: 241-U-105

July 1988

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Tank 241-U-106

Tank Description

Type: Single Shell
 Constructed: 1944
 In-service: 05/28/48
 Diameter: 75'
 Usable Depth: 16'
 Capacity: 530K gallons
 Bottom shape: Dish
 Hanford Coordinates:
     38,097' North
     75,837' West
 Ventilation: Passive

Leak Detection System

Surface Level:
     FIC Riser- R-08
     Manual Tape Riser- None
     LOW Riser(s)- R-09

Number of External Drywells: 4
 Number of Lateral Wells: None

Tank Status

Watch List: *Organic Salts*

Contents

Type: Non-Complexed Waste
 Total Waste: 226K gallons
 Supernate Volume: 15K gallons
 Drainable Interstitial Liquid: 68K gallons

Isolation Status

Date Partially Interim Isolated: 12/15/82

Surface Level/Leak Status

Integrity Category: Sound
 FIC Surface Level: 77.70 Inches (12/28/92)
 Last Photographed: 07/07/88
 Photo Interpretation Comments:

Photographs reveal a liquid surface that is free of solids and has a thin film visible in some areas. The FIC plummet is not visible because of haze, but would be contacting liquid.

Temperature Status

Highest temperature during 1992: 86 °F (03/07/92)
 Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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Tank 241-U-106

July 1968

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Tank 241-U-107

Riser and Drywell Locations
Tank 241-U-107

Tank Description

Type: Single Shell
Constructed: 1944
In-service: 09/27/48
Diameter: 75'
Usable Depth: 16'
Capacity: 530K gallons
Bottom shape: Dish
Hanford Coordinates:
37,997' North
75,637' West
Ventilation: Passive

Leak Detection System

Surface Level:
FIC Riser- R-08
Manual Tape Riser- None
LOW Riser(s)- R-19

Number of External Drywells: 4
Number of Lateral Wells: None

Tank Status

Watch List: **Organic Salts**

Contents

Type: Double Shell Slurry Feed
Total Waste: 406K gallons
Supernate Volume: 31K gallons
Drainable Interstitial Liquid: 147K gallons

Isolation Status

Date Partially Interim Isolated: 12/15/82

Surface Level/Leak Status

Integrity Category: Sound
FIC Surface Level: 144.10 Inches (12/28/92)
Last Photographed: 10/27/88
Photo Interpretation Comments:

Photographs reveal a liquid surface with patches of floating scum-like material over much of the surface area. The FIC plummet is contacting a clear liquid surface.

Temperature Status

Highest temperature during 1992: 84 °F (11/05/92)
Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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WHC-EP-0625

Tank: 241-U-107

July 1988

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Tank 241-U-108

Tank Description

Type: Single Shell
 Constructed: 1944
 In-service: 01/04/49
 Diameter: 75'
 Usable Depth: 16'
 Capacity: 530K gallons
 Bottom shape: Dish
 Hanford Coordinates:
     37,997' North
     75,737' West
 Ventilation: Passive

Leak Detection System

Surface Level:
     FIC Riser- R-08
     Manual Tape Riser- None
     LOW Riser(s)- R-19

Number of External Drywells: 4
 Number of Lateral Wells: None

Tank Status

Watch List: *Hydrogen*

Contents

Type: Non-Complexed Waste
 Total Waste: 468K gallons
 Supernate Volume: 24K gallons
 Drainable Interstitial Liquid: 172K gallons

Isolation Status

Date Partially Interim Isolated: 12/15/82

Surface Level/Leak Status

Integrity Category: Sound
 FIC Surface Level: Intrusion level set at 166.80 Inches (12/28/92)
 Surface Level Comments: Intrusion Mode
 Last Photographed: 09/12/84
 Photo Interpretation Comments:

Photographs show what appears to be floating salt cake, with large areas of liquid visible. The intrusion mode FIC plummet appears to be suspended over solids, but is not readily visible.

Temperature Status

Highest temperature during 1992: 94 °F (07/17/92)
 Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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WHC 110625

Tank: 241-U-108

September 1984

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Tank 241-U-109

Tank Description

Type: Single Shell
 Constructed: 1944
 In-service: 03/16/49
 Diameter: 75'
 Usable Depth: 16'
 Capacity: 530K gallons
 Bottom shape: Dish
 Hanford Coordinates:
     37,997" North
     75,837" West
 Ventilation: Passive

Leak Detection System

Surface Level:
     FIC Riser- R-08
     Manual Tape Riser- None
     LOW Riser(s)- R-09

Number of External Drywells: 4
 Number of Lateral Wells: None

Tank Status

Watch List: *Hydrogen*

Contents

Type: Non-Complexed Waste
 Total Waste: 463K gallons
 Supernate Volume: 19K gallons
 Drainable Interstitial Liquid: 163K gallons

Isolation Status

Date Partially Interim Isolated: 12/15/82

Surface Level/Leak Status

Integrity Category: Sound
 FIC Surface Level: 164.80 Inches (12/28/92)
 Last Photographed: 07/07/88
 Photo Interpretation Comments:

Photographs reveal a surface of exposed salt cake and large areas of clear liquid.
 The FIC plummet (not visible in current photos) is contacting liquid near the outer edge of the tank in 03/12/81 photos.

Temperature Status

Highest temperature during 1992: 91 °F (03/01/92)
 Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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WHC-EP-0625

Tank: 241-U-109

July 1988

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Tank 241-U-110

Riser and Drywell Locations
Tank 241-U-110

Tank Description

Type: Single Shell
Constructed: 1944
In-service: 07/22/46
Out of Service: 1975
Diameter: 75'
Usable Depth: 16'
Capacity: 530K gallons
Bottom shape: Dish
Hanford Coordinates:
37,897' North
75,637' West
Ventilation: Passive

Leak Detection System

Surface Level:
FIC Riser- R-08
Manual Tape Riser- None
LOW Riser(s)- None

Number of External Drywells: 5
Number of Lateral Wells: None

Tank Status

Contents

Type: Non-Complexed Waste
Total Waste: 186K gallons
Supernate Volume: 0K gallons
Drainable Interstitial Liquid: 15K gallons

Isolation Status

Date Interim Stabilized: 12/20/84
Date Partially Interim Isolated: 12/15/82

Surface Level/Leak Status

Integrity Category: Assumed Leaker
Date Declared Confirmed or Assumed Leaker: 1975
Leak Volume Estimate: 8,100 Gallons (1986)
FIC Surface Level: Intrusion level set at 61.80 Inches (12/28/92)
Surface Level Comments: Intrusion Mode
Last Photographed: 12/11/84
Photo Interpretation Comments:
Photographs from 07/12/79 show a crusted surface with no visible liquid. The FIC plummet is contacting solids and a discarded tape is near the plummet.
Photographs from 12/11/84 that are clear show a crusted surface with no visible liquid.

Temperature Status

Highest temperature during 1992: 79.4 °F (01/11/92)
Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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Tank 241-U-111

Riser and Drywell Locations
Tank 241-U-111

Tank Description

Type: Single Shell
Constructed: 1944
In-service: 04/47
Diameter: 75'
Usable Depth: 16'
Capacity: 530K gallons
Bottom shape: Dish
Hanford Coordinates:
37,897' North
75,737' West
Ventilation: Passive

Leak Detection System

Surface Level:
FIC Riser- R-08
Manual Tape Riser- None
LOW Riser(s)- R-19

Number of External Drywells: 5
Number of Lateral Wells: None

Tank Status

Contents

Type: Double Shell Slurry Feed
Total Waste: 329K gallons
Supernate Volume: 0K gallons
Drainable Interstitial Liquid: 122K gallons

Isolation Status

Date Partially Interim Isolated: 12/15/82

Surface Level/Leak Status

Integrity Category: Sound
FIC Surface Level: Intrusion level set at 118.00 Inches (12/28/92)
Surface Level Comments: Intrusion Mode
Last Photographed: 06/23/88
Photo Interpretation Comments:
Photographs show a dry, cracked, irregular surface that appears damp in some areas. The FIC plummet is directly over a large crack and measurement anomalies are to be expected.

Temperature Status

Highest temperature during 1992: 81 °F (01/04/92)
Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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Tank 241-U-112

Riser and Drywell Locations
Tank 241-U-112

Tank Description

Type: Single Shell
Constructed: 1944
In-service: 10/47
Diameter: 75'
Usable Depth: 16'
Capacity: 530K gallons
Bottom shape: Dish
Hanford Coordinates:
37,897' North
75,837' West
Ventilation: Passive

Leak Detection System

Surface Level:
FIC Riser- None
Manual Tape Riser- R-08
LOW Riser(s)- None

Number of External Drywells: 5
Number of Lateral Wells: None

Tank Status

Contents

Type: Non-Complexed Waste
Total Waste: 49K gallons
Supernate Volume: 4K gallons
Drainable Interstitial Liquid: 0K gallons

Isolation Status

Date Interim Stabilized: 09/79
Date Interim Isolated: 12/15/82

Surface Level/Leak Status

Integrity Category: Assumed Leaker
Date Declared Confirmed or Assumed Leaker: 1980
Leak Volume Estimate: 8,500 Gallons (1986)
Manual Tape Surface Level: 12.50 Inches (10/01/92)
Last Photographed: 08/03/89
Photo Interpretation Comments:

Photographs from 07/31/81 reveal a shallow liquid surface and a sloping band of exposed solids around the perimeter of the tank. The manual tape plummet is contacting solids several feet from the liquid and a discarded tape is near the plummet. Photographs from 02/03/84 show very little change from photographs taken on 07/31/81.

Temperature Status

Highest temperature during 1992: 66.1 °F (01/04/92)
Comments: Temperatures are stable.

Drywell Status

Comments: Current drywell profiles were stable and consistent with established baseline profiles.

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GLOSSARY

Active Tank. On all terms, a tank being used, or planned for use, for the storage of liquid in excess of a minimum supernatant liquid heel in connection with production and/or waste processing.

Aging Waste. High level, first-cycle solvent extraction waste from the PUREX plant neutralized cladding removal waste (NCAW).

Air Lift Circulator. Mildly agitates contents of waste tank by releasing compressed air into the waste (near the bottom) and allowing it to buoy up wastes in a pipe extending vertically through most of the waste. Its operating principle is identical to aquarium pumps that use compressed air to draw water up through a tube from an under-gravel filter. Circulation reduces the potential for solids settling in the waste tank.

Annulus. The space between the inner and outer shells on DSTs. Drain channels in the insulating and/or supporting concrete carry any leakage to the annulus space where conductivity probes are installed. Alarms from the annunciators are received by computer automated surveillance system (CASS). Continuous air monitoring (CAM) alarms are also located in the annulus. The annulus conductivity probes and radiation detectors are the primary means of leak detection for all DSTs.

Assumed Leaker. The integrity classification of a waste storage tank for which surveillance data indicate a loss of liquid attributed to a breach of tank integrity.

Automatic FIC. An automatic waste surface level measurement device manufactured by the Food Instrument Company (FIC). The instrument consists of a conductivity electrode (plummet) connected to a calibrated steel tape, a steel tape reel housing, and a controller that automatically raises and lowers the plummet to obtain a waste surface level reading. The controller can provide a digital display of the data and also transmit the reading to the CASS. Some tanks have gauges connected to CASS and others are read manually.

Bismuth Phosphate Process. First precipitation process used at the Hanford Site for separation of plutonium from the irradiated uranium fuels. This process was replaced by REDOX and PUREX processes to gain the advantages of separation and recovery of the uranium and plutonium fission products.

Boiling Waste. Waste containing sufficient radioactive decay heat to self-boil.

Bottom Referenced Tank. Either a dished bottom tank or a flat bottom tank where the zero point for liquid-level gages is the lowest elevation in the tank.

Bumping. A violent emission of vapor from a boiling liquid, contributed to by superheating.

Burial Ground (Garden). A land area specifically designated to receive packaged contaminated wastes and equipment for burial.

Catch Tank. Small-capacity single-wall tank, primarily associated with diversion boxes and diverter stations. The tanks collect liquid from diversion boxes, diverter stations, catch stations, and other facilities.

Concentrated Complexant. Concentrated product from the evaporation of dilute complexed waste.

Concentrated Phosphate Waste. Waste originating from the decontamination of 100 N Area Reactor. Concentration of this waste produces concentrated phosphate waste.

Conductivity Probe. Measures surface level of conductive liquid (or waste) by detecting electrical conductivity between probe tip and liquid/waste surface as it is lowered into contact.

Crib. A subsurface drainage field used to dispose of low activity streams. The radionuclides are absorbed in the soil and the uncontaminated water percolates to ground water.

Crust. A hard surface layer that has formed in many waste tanks containing concentrated solutions.

Dilute Complexed Waste (DC). Characterized by a high content of organic carbon including organic complexants: ethylenediaminetetra-acetic acid (EDTA), citric acid, hydroxyethylenediaminetriacetic acid (HEDTA), and iminodiacetate (IDA) being the major complexants used. The main sources of dilute complexed waste in the DSTs system are salt well liquid inventory.

Dilute Noncomplexed Waste. Low activity liquid waste originating from T and S Plants, the 300 and 400 Areas, PUREX facility (decladding supernatant and miscellaneous wastes), 100 N Area (sulfate waste), B Plant, salt wells, and Plutonium Finishing Plant (PFP) (supernate).

Diversion Box. A below-grade concrete structure that contains jumpers and nozzles for routing liquid wastes to designated transfer or storage facilities.

Double-Shell Slurry (DSS). Waste that exceeds the sodium aluminate saturation boundary in the evaporator without exceeding receiver tank composition limits. For reporting purposes, DSS is considered a solid.

Double-Shell Slurry Feed. Waste concentrated just before reaching the sodium aluminate saturation boundary in the evaporator without exceeding receiver tank composition limits. This form is not as concentrated as DSS.

Double-Shell Tank (DST). An underground waste storage tank with primary and secondary steel liners encased in a reinforced concrete shell.

Drainable Interstitial Liquid. Liquid that is not held in place by capillary forces, and will therefore migrate or move by gravity. Drainable liquid remaining minus supernate. Drainable interstitial liquid is calculated based on the salt cake and sludge volumes, using average porosity values or actual data for each tank, when available.

Drainable Liquid Remaining. Supernate plus drainable interstitial.

Drywell. Vertical boreholes with 6-inch (internal diameter) carbon steel casings positioned radially around SSTs. Periodic monitoring is done by gamma radiation or neutron sensors to obtain scan profiles of radiation or moisture in the soil as a function of well depth, which could be indicative of tank leakage. These wells range between 50 and 250 feet in depth, and are monitored between the range of 50 to 150 feet. The wells are sealed when not in use. They are called drywells because they do not penetrate to the water table and are therefore usually "dry."

Drywell (in tank). A sealed casing within a tank that is attached to a riser and used for access of a gamma or neutron detector, or an acoustical probe to determine the level of interstitial liquid.

Ferrocyanide. A compound of iron and cyanide commonly expressed as FeCN . The actual formula for the ferrocyanide anion is $[\text{Fe}(\text{CN})_6]^{4-}$.

Food Instrument Corporation (FIC). The manufacturer of a surface level indicator found on many tanks. A plummet is lowered under machine control until electrical contact is established with the waste surface.

Hanford Coordinates. A set of offsets, in feet, from a reference point on the site. These are the units used to lay out these facilities. Conversion to latitude and longitude is possible.

High-Efficiency Particulate Air (filter). A filter designed to achieve 99.95 percent minimum efficiency in the containment of radioactive particulates greater than 0.3 micrometer in size.

In-Service Tank. The waste classification of a tank being used, or planned for use, for the storage of liquid (in excess of a minimum supernatant liquid heel) in conjunction with production and/or waste processing. All Hanford Site DSTs are in-service; none of the SSTs are in-service.

Interim Stabilized. A tank which contains less than 50,000 gallons of drainable interstitial liquid and less than 5,000 gallons of supernatant liquid. If the tank was jet pumped to achieve interim stabilization, then the jet pump flow must also have been at or below 0.05 gallons/minute before interim stabilization criteria is met.

In-Tank Photography. In-tank photographs may be taken to aid in resolving in-tank measurement anomalies and determine tank integrity. Photographs help determine sludge and liquid levels by visual examination. Typically, an array of photos is taken to view the entire waste surface in a set of 12 or more images.

Interim Isolated. The administrative designation reflecting the completion of the physical effort required to minimize the addition of liquids into an inactive storage tank, process vault, sump, catch tank, or diversion box. Pipes in or out of a tank are typically blanked off, and risers and pits covered in a rigid foam (weather coated).

Interstitial Liquid. The liquid that fills the voids in the solids in the waste tank. This liquid is estimated to be about 50 percent of the solids volume: in salt cake, approximately 60 percent of the liquid is drainable and about 40 percent is held in place by capillary forces (nondrainable). In the sludge portion of the tank farm waste, this liquid is not considered pumpable or drainable but may contain pockets of liquid that cannot be estimated. Interstitial liquid may be evaporator feed or terminal liquid.

Intrusion. The unintended entry of any liquid into a waste storage tank.

Intrusion FIC. A mode of operating the FIC surface level monitoring equipment typically used when a waste surface is non-electrically conductive. The conductivity probe (plummet) is positioned a small distance above the waste surface. Should that gap be spanned by an intruding liquid, conductivity between the plummet and the waste surface would be established. This triggers an alarm in the CASS system. Note that the intrusion FIC level is not an actual measurement of the current waste surface.

Isolation. The act of sealing a tank against liquid intrusion from credible sources and confining the atmosphere in the tank. Filtered airways are not sealed. They balance the pressure to the atmosphere, and in some cases provide cooling airflow.

Jet Pump. A modified commercially available jet pump used as a salt well pump. A centrifugal pump recirculates a stream to serve as the motive fluid for the jet located at the bottom of the well.

Lance/Lancing. A long steel pipe, usually 2 to 3 inches in diameter. The top is bent at a 90-degree angle, and contains a check valve, gate valve, and nose connection. The bottom end of the lance is tapered to a 1/2-inch diameter. Water enters the top of the lance, which is forced out the bottom at high pressure. This creates a passage way which may be used for equipment installation (for example).

Lateral. Horizontal drywells positioned under single-shell waste storage tanks to detect radionuclides in the soil which indicate leakage. Lateral drywells are monitored by radiation detection probes. Laterals are 4-inch ID steel pipes located 8 to 10 feet below the tank's concrete base. There are three laterals per tank in A and SX Farms. There are no lateral drywells in any other farms.

Leak Detection Pit. The collection point for leakage from AX Farm tanks and double-wall tanks. The pits are equipped with radiation and liquid-detection instruments.

Liquid Level (LL). The waste surface level within an underground storage tank.

Liquid Observation Well (LOW). Liquid observation wells are used for monitoring the interstitial liquid level (ILL) in single-shell waste storage tanks. The wells are constructed of fiberglass, or tefzel-reinforced epoxy-polyester resin. They extend to within 1 inch of the bottom of the tank steel liner. They are sealed at their bottom ends and have a nominal outside diameter of 3.5 inches. Three probes are used to monitor changes in the interstitial liquid level: acoustic, gamma, and neutron. They can indicate intrusions or leakage by increases or decreases in the interstitial liquid level. There are 58 liquid observation wells (57 are in operation) installed in SSTs that contain or are capable of containing greater than 50,000 gallons of drainable interstitial liquid, and in two DSTs only. The liquid observation wells installed in two DSTs (102-SY and 103-AW tanks only) are used for special surveillance purposes only.

Noncomplexed. General waste term applied to all Hanford Site liquids not identified as complexed.

Out-Of-Service. A tank which does not meet the definition of an in-service tank. All SSTs are out of service.

P-10 Pump. A turbine pump used in the first stage of removing liquids from a waste storage tank.

Partially Interim Isolated. The administrative designation reflecting the interim isolated completion of the physical effort required for interim isolation, except for isolation of risers and piping that is required for jet pumping or for other methods of stabilization.

Plutonium Finishing Plant (PFP) transuranic (TRU) Solids. Transuranic solids fraction from PFP operations.

Plummet. Weighted plumb bob at the lower end of the measuring tape on liquid-level gages.

Pond (Swamp). Ground area where uncontaminated or low-level waste water is discharged to seep into the ground.

Probe. An instrument package designed to be inserted in dry wells, tank risers, or other access ports to measure conductivity, radiation, moisture, or temperature.

Pumpable Liquid Remaining. Drainable liquid remaining less undrainable heel volume.

PUREX Decladding. PUREX neutralized cladding removal waste (NCRW) is the solids portion of the PUREX plant neutralized cladding removal waste stream; the stream is received in tank farms as a slurry. Neutralized cladding removal waste solids are classified as transuranic (TRU) waste.

Riser. The upright pipe projection from a tank; any vertical pipe.

Sludge. Solids formed during sodium hydroxide additions to waste. Sludge usually was in the form of suspended solids when the waste was originally received in the tank from the waste generator. In-tank photographs may be used to estimate the volume.

Salt Cake. Results from crystallization and precipitation after concentration of liquid waste, usually in an evaporator. If salt cake is layered over sludge, it is only possible to measure total solids volume. In-tank photographs may be used to estimate the salt cake volume.

Salt Well. A screened well casing inserted into waste tank solids, extending to near the bottom of the tank. The well may contain a jet pump to remove interstitial liquid that drains into the well from surrounding solids.

Salt-Well Pump. A low-capacity pump used to remove interstitial liquid from salt wells.

Side Referenced Tank. A dished-bottom tank where the zero point for the liquid-level gages is at the elevation that the dished bottom begins.

Single-Shell Tank (SST). An underground waste storage tank with a single metal liner encased in a reinforced concrete shell.

Solids Update Source. Indicates the source or basis of the latest solids volume update.

Solids Volume Update. Indicates the latest update of any change in the solids volume.

Sound. The integrity classification of a waste storage tank for which surveillance data indicate no loss of liquid from a breach of integrity.

Supernate. The liquid above the solids in waste storage tanks.

Supernatant Liquid. Drainable liquid remaining minus drainable interstitial. Supernate is usually derived by subtracting the solids level measurement from the liquid level measurement.

Surface Levels. The surface level measurements in all waste storage tanks are monitored by manual or automatic conductivity probes, and recorded and transmitted or input to the CASS.

Tank Farm. Area containing a number of storage tanks (e.g., the chemical tank farm, which stores chemicals used in a plant, or the underground waste tank farm, which stores radioactive waste).

Thermocouple (TC). A device used to measure temperature based on the Seebeck effect. An assembly with multiple thermocouples is called a tree. In DSTs there may be one or more thermocouple trees in risers in the primary tank. In addition, in DSTs only, there are thermocouple elements installed in the insulating concrete, the lower primary tank knuckle, the secondary tank concrete foundation, and in the outer structural concrete. These monitor temperature gradients within the concrete walls, bottom of the tank, and the domes. In SSTs, there may be one or more thermocouple trees installed directly in a tank, although some SSTs do not have any trees installed. A single thermocouple may be installed in a riser, or lowered down an existing riser or liquid observation well. There are also four thermocouple laterals beneath tank 105-A in which temperature readings are taken in 34 thermocouples.

Total Waste. Solids volume plus supernatant liquid.

Watch List. A list of tanks that may pose an offsite release hazard from the following potential sources: trap and accumulate hydrogen gas, contain organic salts, contain ferrocyanide, or have a high-heat generation rate. This list is a result of a bill passed by Congress, Public Law 101-510, Section 3137, "Safety Measures for Waste Tanks at Hanford Nuclear Reservation." This law has become known at the Hanford Site as the Wyden Amendment (sponsored by Congressman Wyden from Oregon). The bill provided specific direction to the Hanford Site operating contractor for monitoring tanks with certain potential hazards.

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This interview was the source for information on the drywells.

Welty, R. K., 1988, *Waste Storage Tank Status and Leak Detection Criteria*, "Waste Tank Data Commentaries," WHC-SD-WM-TI-356, Rev. 0, Westinghouse Hanford Company, Richland, Washington.

This document was the source for the following information on the data sheets: date constructed, in-service date, out-of-service date, date interim stabilized, date partially isolated, date isolated, diameter, height, capacity, total waste, bottom shape, manual tape riser number, FIC riser number, and LOW riser number.

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