



**Department of Energy**  
 Richland Operations Office  
 P.O. Box 550  
 Richland, Washington 99352

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 DNF SAFETY BOARD

JUL 31 1997

97-WSD-180

The Honorable John T. Conway  
 Chairman  
 Defense Nuclear Facilities Safety Board  
 625 Indiana Avenue N.W., Suite 700  
 Washington, D.C. 20004

Dear Mr. Chairman:

TRANSMITTAL OF THE DEFENSE NUCLEAR FACILITIES SAFETY BOARD (DNFSB)  
 RECOMMENDATION 93-5 IMPLEMENTATION PLAN (IP) QUARTERLY REPORT FOR APRIL  
 THROUGH JUNE 1997

The DNFSB 93-5 Quarterly Report for April through June 1997 is attached (Attachment 1). This quarterly report addresses issues and milestones as presented in the Recommendation 93-5 IP, Revision 1.

The U.S. Department of Energy (DOE), Richland Operations Office (RL) staff have completed several significant technical achievements this quarter. RL staff have reviewed and approved the Authorization Basis change request for Rotary Mode Core Sampling (RMCS) in Flammable Gas Tanks submitted by the contractor. Approval of this change request provides authorization of controls for RMCS which are consistent with similar tank farm operations authorized under the Justification for Continued Operation and Standing Orders. In addition, RL has concluded that two changes to the High Priority Tank (HPT) List are appropriate at this time. One is the addition of tank U-103 to the HPT List, per DNFSB request. The other is the deletion of tank TY-103 from the list. The reason for the deletion is that the information from TY-103 was intended to close the ferrocyanide issue. With the closure of the ferrocyanide issue in December 1996, this information is no longer needed. RL has kept your staff informed of the need for these changes.

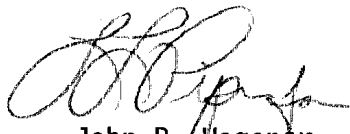
Attachment 2 (Change 2, dated July 15, 1997) documents the changes to the HPT List, as discussed above, in Recommendation 93-5 IP, Revision 1. Change 2 is intended to replace a previous change to the HPT List which was submitted with the 93-5 Quarterly Report for October through December 1996. The page changes included in Attachment 2 should be inserted into all copies of the IP to keep it up to date.

Section 6 of RL's IP allows for changes, such as those proposed in Change 2, as part of the quarterly reporting process. RL is providing you notification of this change with the attached quarterly report.

JUL 31 1997

If you have any questions, please contact me, or your staff may contact Jackson Kinzer, Assistant Manager for the Office of Tank Waste Remediation System, on (509) 376-7591.

Sincerely,



John D. Wagoner  
Manager

WSD:JMC

Attachments (2)

cc w/attachs:

J. Owendoff, EM-2  
C. Peabody, EM-4  
R. Erickson, EM-38  
K. Lang, EM-38  
M. Whitaker, S-3.1

cc w/o attachs:

T. J. Kelley, LMHC  
M. A. Payne, LMHC

cc w/attachs:

L. D. Pennington, LMHC

**DNFSB 93-5 QUARTERLY REPORT, APRIL 1 TO JUNE 30, 1997****EXECUTIVE SUMMARY**

Significant accomplishments this quarter included completion of three milestones, final approval of the Basis for Interim Operations and a Readiness Assessment plan for the transition from the Interim Safety Basis to the Basis for Interim Operations, core sampling productivity improvements, production implementation of the Inductively Coupled Plasma / Mass Spectrometer at 222-S Laboratory, and resumption of full laboratory production at the 222-S Laboratory following implementation of corrective actions for the findings from a Washington State Department of Ecology audit.

The current issues discussed are the resumption of rotary mode core drilling, the status of the Final Safety Analysis Report (FSAR), the status of the High Heat Safety Issue milestones, and submittal of a revised Change 2 to the Implementation Plan.

Resuming rotary mode core sampling was delayed by design issues related to compliance of the exhauster with the flammable gas requirements of the Safety Assessment. A modification to those requirements that are not unique to the Rotary Mode Core System to bring them into line with the requirements of the Flammable Gas Justification for Continued Operation and the Basis for Interim Operation has been approved by the Department of Energy. This approval should permit rotary mode core drilling to be resumed during the next quarter.

Milestone 5.4.3.1d, "Approved FSAR," due June 1997, was not submitted. This delay is the result of focusing resources on the Basis for Interim Operation completion and implementation. The current estimated milestone completion date is March 1998.

Change 2 to the Implementation Plan has been rewritten and is attached to this Quarterly Report forwarding letter. This change revises the High Priority Tank list by adding tank U-103 and removing tank TY-103.

**DNFSB 93-5 QUARTERLY REPORT, APRIL 1 TO JUNE 30, 1997**

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**DNFSB 93-5 QUARTERLY REPORT, APRIL 1 TO JUNE 30, 1997**

**1 PURPOSE**

This quarterly report covers High Level Waste Tank Characterization activities at the Hanford Site related to the Defense Nuclear Facilities Safety Board (DNFSB) Recommendation 93-5 during the period April 1 to June 30, 1997. The Recommendation dealt with insufficient technical information to ensure safe storage, operation, retrieval, and disposal of the Hanford high-level tank wastes in both single and double-shell tanks. An Implementation Plan responding to Recommendation 93-5 was transmitted to the DNFSB by the Secretary of Energy in January 1994. The plan was accepted by the DNFSB on March 25, 1994. On June 17, 1996, Revision 1 to the Implementation Plan was submitted to the DNFSB. Revision 1 was accepted by the DNFSB on September 4, 1996 with comments.

## DNFSB 93-5 QUARTERLY REPORT, APRIL 1 TO JUNE 30, 1997

### 2 QUARTERLY HIGHLIGHTS

#### 2.1 Milestones Submitted - The following milestones were completed during this quarter:

2.1.1 5.4.3.5l, "Letter reporting refinement of flammable gas generation/retention models using void meter and retained gas sampling data," due May 31, 1997, completed May 27, 1997.

2.1.2 5.6.3.1d, "Updated HTCEs," due June 30, 1997, completed June 6, 1997.

2.1.3 5.4.3.3a, "Letter reporting completion of supporting technical document on Organic Complexant Safety Issue. (This topical report will describe the current understanding of the issue and future work for resolution)," due December 31, 1996, completed June 27, 1997.

2.2 Basis for Interim Operations (BIO) Approval - The Department of Energy Richland Operations Office (DOE/RL) gave final approval to the BIO and related Technical Safety Requirements (TSRs) on May 30, 1997. The contractor will implement the BIO and TSRs and will complete a Readiness Assessment within 90 days of this approval.

2.3 Core Sampling Productivity Improvements - This quarter, a total of 21 core samples were completed. The monthly average of seven cores per month is the highest rate ever achieved. This productivity improvement resulted from increased truck availability and operations performance.

2.4 222-S Ecology Audit Update - As reported last quarter, a Washington State Department of Ecology audit during February 1997 outlined problems with waste storage and disposal in the 222-S Laboratory. A plan to revise the necessary procedures and train personnel in response to the issues raised by the State was implemented in April and full production capability was restored to the laboratory.

2.5 Inductively Coupled Plasma / Mass Spectrometer (ICP/MS) at 222-S Laboratory - The ICP/MS was made available for routine analysis of samples this quarter at the 222-S Laboratory. This instrument broadens our ability to conduct elemental and isotopic analysis of liquefied samples. The use of this technique adds to the laboratory's capability to perform isotopic characterization required to support the disposal mission. The first tanks to be characterized using ICP/MS will be SY-102 and SY-103.

**DNFSB 93-5 QUARTERLY REPORT, APRIL 1 TO JUNE 30, 1997**

**3 CURRENT ISSUES**

- 3.1 Resumption of Rotary Core Drilling - As reported to the DNFSB by letter (Wagoner 1997a) and by the last quarterly report, the resumption of Rotary Mode Core System (RMCS) operation was delayed by lack of compliance of the exhauster with the flammable gas safety requirements of the RMCS Safety Assessment (Hamilton 1996). An engineering review determined that full Safety Assessment compliance would require a major redesign of the exhauster. This would have been costly and add about nine additional months delay in deploying RMCS. In addition, it was recognized that the requirements of the RMCS Safety Assessment were not consistent with the flammable gas control requirements for most other Tank Waste Remediation System (TWRS) activities imposed by the Flammable Gas Justification for Continued Operation (JCO). Consequently, the contractor submitted a request to replace the flammable gas controls for RMCS, that are not unique to the RMCS, with those from the Flammable Gas JCO. This request has been approved by DOE/RL. This approval, and the expected resolution of issues concerning the exhauster air emissions permit from the Washington State Department of Health, will allow RMCS operations to start during the next quarter. These issues and the estimated schedule impacts will continue to be updated during weekly conference calls.
- 3.2 Final Safety Analysis Report (FSAR) - Milestone 5.4.3.1d, "Approved FSAR," due June 1997, was not submitted on time. This delay is the result of incorporating additional controls into the BIO to reduce risk and focusing resources on BIO completion and implementation. Additional details on this delay were provided by letter (Wagoner 1997b). The current estimated milestone completion date is March 1998.
- 3.3 High Heat Safety Issue - Last quarter the three milestones related to the High Heat Safety Issue were reported to be behind schedule. Milestone 5.4.3.6b, "Letter reporting completion of tank C-106 retrieval safety assessment," due July 1997, will be delayed until September 1997. The cause of the delay was the need for additional evaluation to resolve new issues with flammability and steam bump. Completion dates for the other two milestones will be submitted when the safety assessment is approved.
- 3.4 Implementation Plan Change 2 - Change 2 to the Implementation Plan has been rewritten and is attached to this Quarterly Report forwarding letter. Discussions with the DNFSB Staff resulted in agreement that only two tanks, U-103 and TY-103, provided strong technical justification for revising the High Priority Tank (HPT) list. Tank U-103 is important to both the flammable gas program for sampling using the retained gas sampler (completed April 9, 1997), and to the organic fuel safety issue. The DNFSB letter of acceptance for Revision 1 to the Implementation Plan (Conway 1996a) also recommended that U-103 should be placed on the HPT list. Tank TY-103 is removed from the HPT list by this change. The priority for sampling this tank was based solely on information needs for the ferrocyanide safety program. The ferrocyanide safety issue was closed in December 1996 (Conway 1996b, Wagoner 1996). As discussed in the last Quarterly Report, a revised schedule for HPT core sampling is not included, and will be provided when the RMCS has been deployed and operational experience obtained with the modified equipment configuration.

DNFSB 93-5 QUARTERLY REPORT, APRIL 1 TO JUNE 30, 1997

4 STATUS OF REVISION 1 MILESTONES OVERDUE, DUE WITHIN SIX MONTHS, OR COMPLETED DURING THE REPORTING QUARTER

4.1 Safe Storage of Tank Wastes and Safe Operation of Tank Farms

**Commitment**

**Number**

5.4.3.1 TWRS Manage Tank Waste Function Authorization Basis

Statement: Upgrade the Authorization Basis for the TWRS Manage Tank Waste Function

Responsible Manager: Assistant Manager, TWRS

Applicable facilities and programs: TWRS

Milestone deliverables/due dates:

d. **Approved FSAR.**

Due Date: June 1997

Status: Overdue. Delayed by BIO revision and implementation. The estimated milestone completion date is March 1998.

5.4.3.3 Organic Complexants

Statement: Complete testing and evaluation confirming simulant results with real waste.

Responsible Manager: Assistant Manager, TWRS

Applicable facilities and programs: TWRS

Milestone deliverables/due dates:

a. **Letter reporting completion of supporting technical document on Organic Complexant Safety Issue. (This topical report will describe the current understanding of the issue and future work for resolution).**

Due Date: December 1996

Status: Complete. Submitted to the DNFSB on June 27, 1997.

5.4.3.5 Flammable Gas

Statement: Complete analytical evaluations and steady-state vapor samples to determine which flammable gas tanks require mitigative actions. Qualify saltwell pumping and rotary-mode core sampling for flammable gas environments.

Responsible Manager: Assistant Manager, TWRS

Applicable facilities and programs: TWRS

Milestone deliverables/due dates:

d. **Letter reporting qualification of Rotary Mode Core Sampling System for use in Flammable Gas Tanks.**

Due Date: September 1996

Status: Overdue. Adoption of the BIO flammable gas controls for the RMCS controls that are not unique to the Rotary Mode Core System has been approved by DOE/RL. Approval allows exhauster operation without major modifications. Start of rotary mode core sampling is expected during the next quarter.

l. **Letter reporting refinement of flammable gas generation/retention models using void meter and retained gas sampling data.**

Due Date: May 1997

Status: Complete. Reported to the DNFSB on May 27, 1997.



**DNFSB 93-5 QUARTERLY REPORT, APRIL 1 TO JUNE 30, 1997**

**5.4.3.6 High Heat**

Statement: Retrieve wastes from tank C-106.  
Responsible Manager: Assistant Manager, TWRS  
Applicable facilities and programs: TWRS  
Milestone deliverables/due dates:

**b. Letter reporting completion of tank C-106 retrieval safety assessment.**

Due Date: July 1997

Status: Behind schedule. Submittal to DNFSB delayed until September 1997 to allow for independent review and approval process.

**c. Letter reporting initiation of tank C-106 waste retrieval.**

Due Date: October 1997

Status: Behind schedule. Equipment modifications will be delayed until the safety assessment is approved (previously scheduled in parallel) to eliminate the risk of potential rework caused by safety assessment changes.

**4.2 Technical Basis for Characterization**

**5.6.3.1 Complete Tank Waste Characterization Basis Sampling and Analysis**

Statement: Complete the sampling and analysis specified by the Tank Waste Characterization Basis (approximately 28 tanks) to provide the highest priority information requested by the programmatic DQOs.

Responsible Manager: Assistant Manager, TWRS

Applicable facilities and programs: TWRS

Milestone deliverables/due dates:

**d. Updated HTCEs.**

Due Date: June 1997

Status: Complete. Reported to the DNFSB on June 6, 1997.

**e. Letter reporting verification of headspace homogeneity and evaluation of variations in headspace vapor concentrations in passively ventilated tanks with changing atmospheric temperatures.**

Due Date: October 1997

Status: On schedule.

**f. Standard inventory estimates for all tanks.**

Due Date: November 1997

Status: On schedule.

**DNFSB 93-5 QUARTERLY REPORT, APRIL 1 TO JUNE 30, 1997**

**5 REFERENCES**

Conway, J. T., 1996a, (letter to H. R. O'Leary, DOE, September 4), Defense Nuclear Facilities Safety Board, Washington, District of Columbia.

Conway, J. T., 1996b, (letter to A. L. Alm, DOE, December 17), Defense Nuclear Facilities Safety Board, Washington, District of Columbia.

Hamilton, D. W., 1996, *A Safety Assessment for Rotary Mode Core Sampling in Flammable Gas Single Shell Tanks, Hanford Site, Richland, Washington*, WHC-SD-WM-SAD-035, Rev. 0-a, Westinghouse Hanford Corporation, Richland, Washington.

Wagoner, J. D., 1996, Contract Number DE-AC06-96RL13200; *Approval to Revise the Interim Safety Basis to Remove Ferrocyanide Tanks from the Watch List*, (letter to H. J. Hatch, Fluor Daniel Hanford, Inc., December 30), Department of Energy, Richland Operations Office, Richland, Washington.

Wagoner, J. D., 1997a, *Completion of Defense Nuclear Facilities Safety Board (DNFSB) Recommendation 93-5 Implementation Plan (IP), Revision 1, Milestone 5.4.3.5.d, "Letter Reporting Qualification of Rotary Mode Core Sampling System for Use in Flammable Gas Tanks,"* (letter to J. T. Conway, DNFSB, 97-WSD-066, April 4), Department of Energy, Richland Operations Office, Richland, Washington.

Wagoner, J. D., 1997b, *Delay in Completing Defense Nuclear Facilities Safety Board (DNFSB) Recommendation 93-5 Implementation Plan (IP), Revision 1, Milestone 5.4.3.1.d, Approved Tank Waste Remediation System (TWRS) Final Safety Analysis Report (FSAR),* (letter to J. T. Conway, DNFSB, 97-MSD-203, June 13), Department of Energy, Richland Operations Office, Richland, Washington.

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6 APPENDICES

6.1 High Priority Tank Core Sampling and Analysis Status

Tank	Rank	Planned Samples	Samples Obtained	Sampling Completed	Lab Analysis Completed	Tank Characterization Report (TCR)
U-103	100	3P	3 cores, 1 RGS core	4/9/97		
BY-105	100	2R	1 partial rotary and push core.			WHC-SD-WM-ER-598
U-105	93	3R	3 cores	3/18/96	6/25/96	WHC-SD-WM-ER-617
U-109	91	3R	3 cores	1/19/96	6/29/96	WHC-SD-WM-ER-609
BY-103	86	2R				
U-108	84	3R	3 cores	5/6/96	11/6/96	HNF-SD-WM-ER-639
U-107	76	3R	3 partial push cores. Need rotary.			WHC-SD-WM-ER-614
BY-106	74	2R	2 cores	12/19/95	4/29/96	WHC-SD-WM-ER-616
S-102	74	2R	2 cores	3/8/96	7/12/96	WHC-SD-WM-ER-611
SX-103	67	2R				
BY-108	65	3R	3 cores	8/18/95	2/12/96	WHC-SD-WM-ER-533
A-101	62	3R	2 RGS cores	7/25/96	5/5/97	HNF-SD-WM-ER-673
TX-118	61	3R				
SX-104	61	3R				
BY-110	52	3R	9 cores	10/20/95	4/25/96	WHC-SD-WM-ER-591
TX-111	51	2R				
BY-104	51	2R	2 cores	11/15/95	5/2/96	WHC-SD-WM-ER-608
C-104	50	2R	2 cores	7/31/96	1/10/97	HNF-SD-WM-ER-679
S-107	50	3P	3 cores	9/30/95	3/15/96	WHC-SD-WM-ER-589
S-101	50	2R	2 cores	4/3/96	7/23/96	WHC-SD-WM-ER-613
SX-101	49	2R				
S-110	47	2R	1 partial push core. Need rotary.			
AW-101	47	2P	2 RGS cores	5/24/96	12/6/96	WHC-SD-WM-ER-470
AN-104	46	2P	2 RGS cores	9/12/96	6/5/97	
AX-101	43	3R				
AN-105	37	2P	2 RGS cores	6/28/96	1/24/97	HNF-SD-WM-ER-678
AN-103	36	2P	2 RGS cores	9/23/96	5/19/97	
B-104	15	2P	2 cores	6/14/95	10/1/95	WHC-SD-WM-ER-552

Notes:

P = push mode core sample

R = rotary mode core sample

RGS = Retained Gas Sample (RGS). RGS can only be used with truck #1 (push mode truck).

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**6.2 Tanks Sampled during Third Quarter FY 1997 (April through June 1997)**

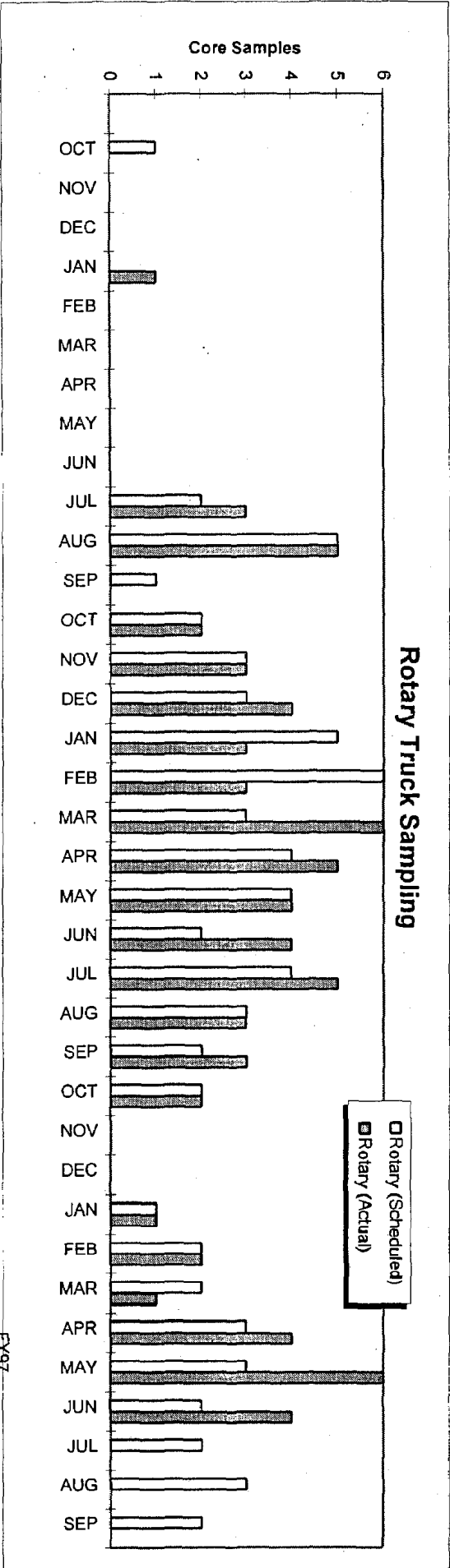
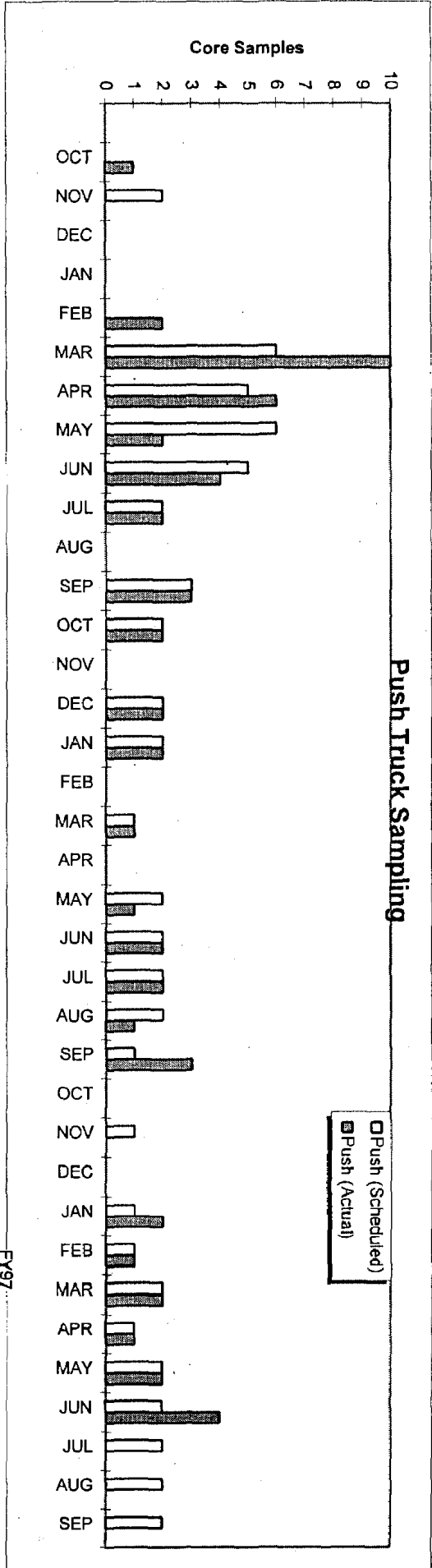
<b>SAMPLE</b>	<b>Actual Start</b>	<b>Actual Finish</b>
BX-104 Temporal Vapor Sample (4) High Priority	4/7/97	4/7/97
SX-104 Grab Sample Compatibility	4/9/97	4/9/97
U-103 Push Samples 1 Segments 9 RGS High Priority	3/25/97	4/9/97
T-204 Rotary Samples 1 Segments 10	3/24/97	4/14/97
T-203 Rotary Samples 1 Segments 9	4/14/97	4/18/97
AY-101 Grab Sample - Caustic Verification	4/21/97	4/22/97
T-202 Rotary Samples 1 Segments 6	4/18/97	4/22/97
T-201 Rotary Samples 1 Segments 9	4/22/97	4/25/97
AW-106 Grab Sample	5/1/97	5/1/97
TX-104 Vapor Sample (4)	5/5/97	5/5/97
AW-103 Push Sample 2 Segments 4-10	4/28/97	5/8/97
AW-105 Rotary Sample 2 Segments 4-9	5/8/97	5/14/97
SX-107 Vapor Sample (4) Rotary	5/19/97	5/19/97
BX-110 Rotary Samples 2 Segments 5	5/15/97	5/22/97
SX-111 Vapor Sample (4) Rotary	5/22/97	5/22/97
244-TX Grab Sample Compatibility	5/28/97	5/29/97
BY-101 Push Samples 2 Segments 8	5/21/97	5/30/97
SX-103 Grab Sample Compatibility	6/6/97	6/6/97
BX-104 Temporal Vapor Sample (4) High Priority	6/10/97	6/10/97
BX-111 Rotary Samples 2 Segments 4	5/28/97	6/10/97
BY-109 Push Samples 2 Segments 7	6/4/97	6/17/97
SX-112 Vapor Sample (4) Rotary	6/18/97	6/19/97
AW-104 Rotary Samples 2 Segments 15-22	6/16/97	6/25/97
SX-114 Vapor Sample (4) Rotary	6/25/97	6/25/97
T-105 Push Sample 2 Segments 2	6/19/97	6/30/97

**6.3 Chart of Samples Taken vs. Samples Scheduled**

Two pages inserted following this page.



# Characterization Push and Rotary Sampling

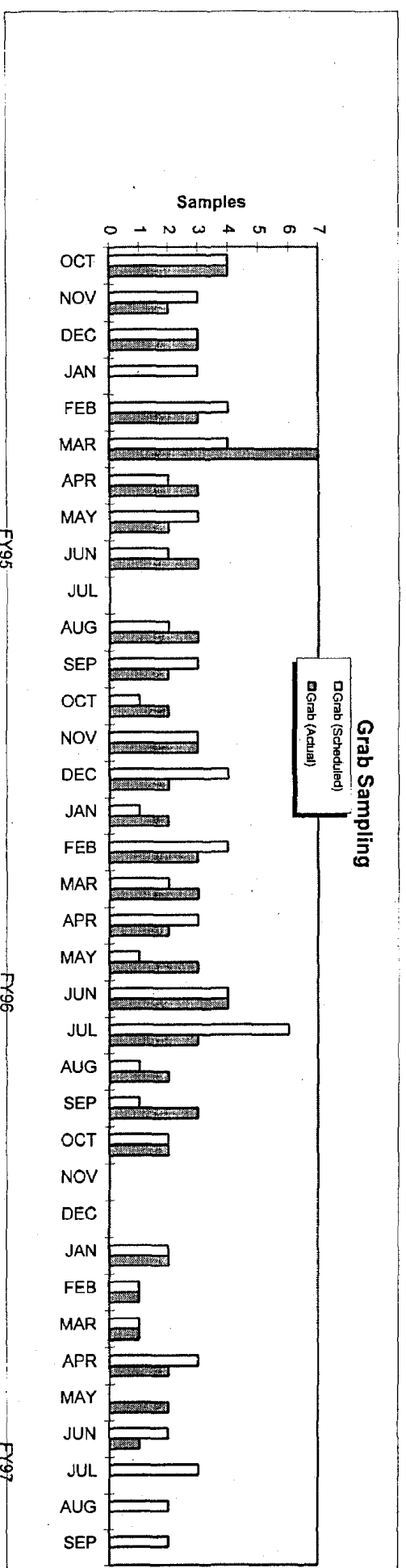
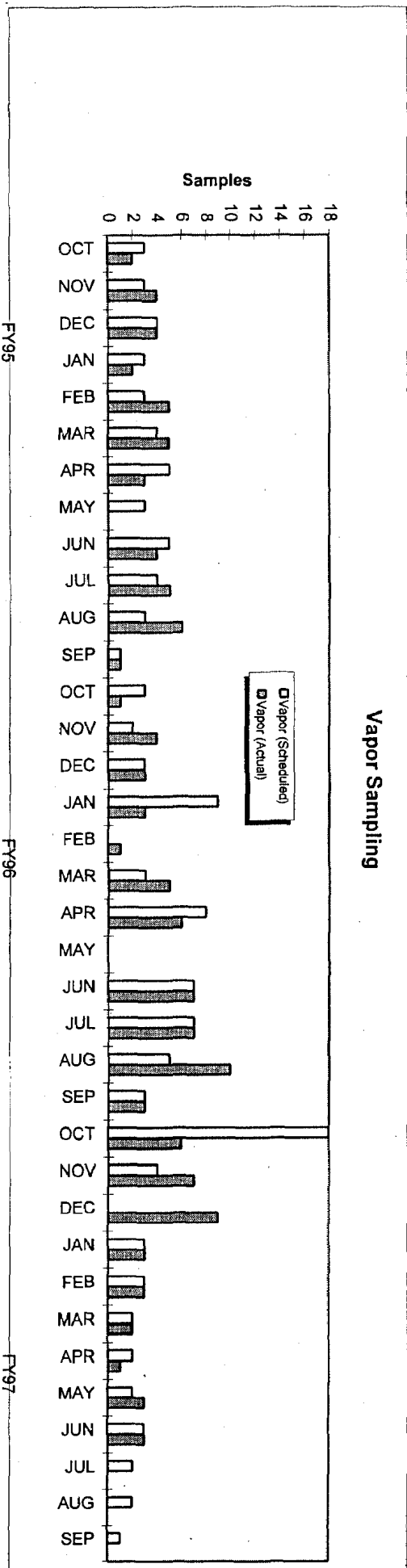




# Characterization

## Vapor and Grab Sampling

Vapor Sampling



**DNFSB 93-5 QUARTERLY REPORT, APRIL 1 TO JUNE 30, 1997**

**6.4 Sampling Schedule for Fourth Quarter FY 1997 (July through September 1997)**

<b>TITLE</b>	<b>Early Start</b>	<b>Early Finish</b>
T-105 Push Sample 2 Segments 2	6/20/97	7/7/97
AP-105 Push Sample 2 Segments 2-4	6/30/97	7/15/97
SY-102 Push Sample 2 Segments 12-13	7/8/97	7/28/97
TX-302-C Grab Sample Compatibility	7/14/97	7/16/97
AX-103 Rotary Samples 2 Segments 3	7/16/97	8/12/97
SX-110 Vapor Sample (4) (Rotary)	7/17/97	7/18/97
AX-101 Grab Sample Compatibility	7/21/97	7/23/97
AP-103 Grab Sample (Caustic Verification)	7/28/97	7/30/97
SX-101 Rotary Samples 2 Seg 9 High Priority	7/28/97	8/28/97
SY-103 Push Samples 1 Segments 15	7/29/97	8/18/97
SX-108 Vapor Sample (4) (Rotary)	7/31/97	8/1/97
AZ-101 Grab Sample	8/11/97	8/13/97
C-201 Rotary Sample 1 Segments 1	8/13/97	8/19/97
TX-113 Vapor Sample (4) (Rotary)	8/14/97	8/15/97
B-107 Push Samples 2 Segments 3	8/19/97	9/16/97
C-202 Rotary Sample 1 Segments 1	8/20/97	8/26/97
AP-106 Grab Sample - (98-1 Compatibility)	8/25/97	8/27/97
TX-110 Vapor Sample (4) (Rotary)	8/28/97	8/29/97
SX-103 Rotary Samples 2 Seg 13 High Priority	8/29/97	10/2/97
SY-102 Grab Sample - (98-1 Compatibility)	9/2/97	9/4/97
TX-109 Rotary Samples 2 Segments 8	9/4/97	10/1/97
SX-102 Rotary Samples 2 Segments 11	9/8/97	10/9/97
SX-102 Grab Sample Compatibility	9/9/97	9/11/97
SX-105 Grab Sample Compatibility	9/12/97	9/16/97
TX-116 Vapor Sample (4) (Rotary)	9/12/97	9/15/97

**6.5 List of Tank Sampling and Analysis Plans issued during the Quarter**

<b>Tank</b>	<b>Number</b>	<b>Rev</b>	<b>Date</b>
AW-103	HNF-SD-WM-TSAP-131 (Push Mode)	0	04/29/97
AW-104	HNF-SD-WM-TSAP-139 (Push Mode)	0	06/16/97
AW-105	HNF-SD-WM-TSAP-132 (Push Mode)	0 1	05/01/97 06/24/97
AX-101	WHC-SD-WM-TSAP-107 (Rotary Mode)	0-B	05/21/97
AY-101	HNF-SD-WM-TSAP-129 (Grab)	0 0-A	04/11/97 04/28/97
BX-104	HNF-SD-WM-TP-522 (Vapor Sampling and Analysis Plan/Test Plan for Temporal Studies of Tanks BX-104, BY-108, C-107 and S-102)	1	05/28/97
BX-111	HNF-SD-WM-TSAP-135 (Push Mode)	0	05/22/97
BY-101	HNF-SD-WM-TSAP-128 (Push Mode)	0	05/06/97
BY-109	HNF-SD-WM-TSAP-133 (Push Mode)	0	06/04/97

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Tank	Number	Rev	Date
C-107	HNF-SD-WM-TP-522 (Vapor Sampling and Analysis Plan/Test Plan for Temporal Studies of Tanks BX-104, BY-108, C-107 and S-102)	1	05/28/97
S-106	HNF-SD-WM-TSAP-124 (Push Mode)	0-C	06/19/97
T-105	HNF-SD-WM-TSAP-134 (Push Mode)	0 0-A 0-B	05/29/97 06/04/97 06/19/97
T-201	HNF-SD-WM-TSAP-130 (Push Mode)	0	04/22/97
T-202	HNF-SD-WM-TSAP-121 (Push Mode)	0-A	05/20/97
U-103	HNF-SD-WM-TSAP-097 (Push Mode)	1-B	06/11/97
*	WHC-SD-WM-TSAP-115 * Compatibility Grab Sampling and Analysis Plan for Fiscal Year 1997	0-D 0-E 0-F	04/02/97 05/12/97 05/20/97
*	HNF-SD-WM-TSAP-126 * Vapor Sampling and Analysis Plan	0-B	04/29/97

6.6 List of Tank Characterization Reports issued during the Quarter

Tank	Number	Rev	Date
A-101	HNF-SD-WM-ER-673	0	05/27/97
AN-105	HNF-SD-WM-ER-678	0	05/02/97
AP-101	HNF-SD-WM-ER-357	1	06/24/97
AP-102	HNF-SD-WM-ER-358	1	01/28/97
AP-103	HNF-SD-WM-ER-359	1	01/21/97
AP-105	HNF-SD-WM-ER-360	1	05/22/97
AW-102	HNF-SD-WM-ER-363	1	05/30/97
AW-105	HNF-SD-WM-ER-364	1	06/05/97
AW-106	HNF-SD-WM-ER-365	1	05/02/97
B-108	HNF-SD-WM-ER-674	0 0-A	05/12/97 05/20/97
B-109	HNF-SD-WM-ER-677	0	05/30/97
BY-107	HNF-SD-WM-ER-637	0	04/09/97
C-104	HNF-SD-WM-ER-679	0	05/21/97
C-109	HNF-SD-WM-ER-402	1 1-A	05/23/97 06/17/97
C-110	HNF-SD-WM-ER-367	1	06/24/97
C-112	HNF-SD-WM-ER-541	1	06/10/97
S-104	HNF-SD-WM-ER-370	1	04/15/97
S-109	HNF-SD-WM-ER-627	0-A	05/29/97
S-111	HNF-SD-WM-ER-638	0	04/28/97
T-102	HNF-SD-WM-ER-700	0	06/24/97
U-106	HNF-SD-WM-ER-636	0	04/15/97



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6.7 List of Laboratory Analytical Reports Issued

Tank	Title	Number	Date
A-101	Tank 241-A-101, Cores 154 and 156 Analytical Results for the Final Report	HNF-SD-WM-DP-200, Rev. 1	05-05-97
AN-103	Tank 241-AN-103, Cores 166 and 167 Analytical Results for the Final Report	HNF-SD-WM-DP-223, Rev. 0	05-19-97
AN-104	Tank 241-AN-104, Cores 163 and 164 Analytical Results for the Final Report	HNF-SD-WM-DP-226, Rev. 0	06-05-97
AN-104	Tank 241-AN-104, Cores 163 and 164 Analytical Results for the Final Report	HNF-SD-WM-DP-226, Rev. 0A	06-09-97
AN-105	Tank Waste Remediation System (TWRS) Privatization Private Contractor Samples Waste Envelope B Material Tank 241-AN-105	HNF-SD-WM-DP-218, Rev. 0	04-15-97
AN-105	Tank Waste Remediation System (TWRS) Privatization Private Contractor Samples Waste Envelope B Material Tank 241-AN-105	HNF-SD-WM-DP-218, Rev. 0A	05-22-97
AN-105	Tank Waste Remediation System (TWRS) Privatization Private Contractor Samples Waste Envelope B Material Tank 241-AN-105	HNF-SD-WM-DP-218, Rev. 1	06-13-97
AN-107	Tank Waste Remediation System (TWRS) Privatization Private Contractor Samples Waste Envelope C Material Tank 241-AN-107	HNF-SD-WM-DP-205, Rev. 1	04-09-97
AP-103	Tank 241-AP-103, Grab Sample 3AP-97-1 Analytical Results for the Final Report	HNF-SD-WM-DP-241, Rev. 0	04-23-97
B-108	Tank 241-B-108, Cores 172 and 173 Analytical Results for the Final Report	HNF-SD-WM-DP-219, Rev. 0B	04-21-97
BY-111	Tank 241-BY-111, Cores 168 and 171 Analytical Results for the Final Report	HNF-SD-WM-DP-203, Rev. 0	05-05-97
BY-112	Tank 241-BY-112, Cores 174 and 177 Analytical Results for the Final Report	HNF-SD-WM-DP-229, Rev. 0	05-07-97
C-106	Tank Waste Remediation System (TWRS) Privatization Private Contractor Samples Waste Envelope D Material 241-C-106	HNF-SD-WM-DP-225, Rev. 1	04-14-97
T-110	Waste Compatibility Safety Issues and Final Results for Tank 241-T-110 Push Mode Samples	HNF-SD-WM-DP-238, Rev. 0	05-15-97
T-110	Waste Compatibility Safety Issues and Final Results for Tank 241-T-110 Grab Samples	HNF-SD-WM-DP-239, Rev. 0	4-25-97
T-112	Tank 241-T-112, Cores 185 and 186 Analytical Results for the Final Report	HNF-SD-WM-DP-243, Rev. 0	06-03-97

6.8 Table of DNFSB 93-5 Implementation Plan Revision 1 Commitments Status

Number	Description	Due Date	Submitted to DNFSB
5.4.3.1a	Comprehensive Source Terms Report	6/30/96	6/30/96
5.4.3.1b	Report on Lightning Evaluation	8/31/96	8/30/96
5.4.3.1c	Approved BIO	12/31/96	12/30/96
5.4.3.1d	Approved FSAR.	6/30/97	
5.4.3.2a	Topical Report on Resolution of Ferrocyanide Safety Issue.	1/31/97	9/23/96

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<b>Number</b>	<b>Description</b>	<b>Due Date</b>	<b>Submitted to DNFSB</b>
5.4.3.3a	Supporting Technical Document on Organic Complexant Safety Issue	12/31/96	6/27/97
5.4.3.3b	Confirm Safe Storage Criteria, and Organic Solubility and Aging Effects on Fuel Content	11/30/98	
5.4.3.4a	Safety Assessment Covering Pool and Entrained Organic Solvent Fires	10/31/96	10/21/96
5.4.3.4b	Organic Speciation of Core Samples for BY-108 and BY-110, and Auger Samples for C-102.	10/31/96	10/31/96
5.4.3.4c	Supporting Technical Document for Organic Solvent Safety Issue.	12/31/96	12/23/96
5.4.3.4d	Vapor Sampling of all SSTs.	12/31/99	
5.4.3.4e	Adequate Vent Path in All SSTs Suspected of Containing Organic Solvents	4/30/00	
5.4.3.4f	Letter Reporting Completion of Vapor Sampling of All DSTs.	12/31/00	
5.4.3.5d	Analyses to Determine If Additional Tanks Have Potential to Exceed 25% of the LFL.	6/30/96	6/28/96
5.4.3.5b	Gas Monitoring Instrumentation Upgrade Needs for Additional Tanks with the Potential to Exceed 25% of the LFL.	8/31/96	8/19/96
5.4.3.5c	Safety Assessment for Rotary Mode Core Sampling in Flammable Gas Tanks	9/30/96	9/27/96
5.4.3.5d	Qualification of Rotary Mode Core Sampling System for Use in Flammable Gas Tanks.	9/30/96	
5.4.3.5e	Safety Assessment for Saltwell Pumping in Flammable Gas Tanks	10/31/96	10/31/96
5.4.3.5f	Letter Reporting Completion of AN Tank Farm Ventilation Upgrade.	11/30/96	1/30/97
5.4.3.5g	Flammable Gas Safety Screening of Remaining Passively Ventilated SSTs	11/30/96	11/12/96
5.4.3.5h	Supporting Technical Document on Flammable Gas Safety Issue.	12/31/96	1/30/97
5.4.3.5i	External Equipment Spark Sources in Flammable Gas Tanks	12/31/96	12/24/96
5.4.3.5j	Voidmeter and Viscometer Readings in Tanks AN-103, AN-104, and AN-105.	12/31/96	12/18/96
5.4.3.5k	Retained Gas Sampling in Tanks AW-101, AN-103, AN-104, AN-105, and A-101.	3/31/97	3/28/97
5.4.3.5l	Refinement of Flammable Gas Generation/Retention Models	5/31/97	5/27/97
5.4.3.6a	C-106 Supernatant Sampling and Analysis.	10/31/96	10/30/96
5.4.3.6b	C-106 Retrieval Safety Assessment.	7/31/97	
5.4.3.6c	Initiation of Tank C-106 Waste Retrieval.	10/31/97	
5.4.3.6d	Topical Report to Resolve the High Heat Safety Issue.	5/31/98	
5.4.3.7a	Topical Report to Resolve the Criticality Safety Issue.	12/31/96	12/18/96
5.5.6.1a	Completion of High Priority Tanks Sampling and Analysis for the Disposal Program	3/31/98	
5.6.3.1a	Comparison Between Truck and Cart Vapor Sampling Systems.	9/30/96	9/27/96
5.6.3.1b	Implementation of FTIR Moisture Analysis Capability in 222-S Laboratory.	11/30/96	11/19/96
5.6.3.1c	Proposed Content and Format of Tank-by-Tank Safety Status Evaluation	1/31/97	1/30/97
5.6.3.1d	Updated HTCEs	6/30/97	6/6/97
5.6.3.1e	Verification of Headspace Homogeneity	10/31/97	
5.6.3.1f	Standard Inventory Estimates for All Tanks.	11/30/97	
5.6.3.1g	Completion of High Priority Tanks Sampling and Analysis.	3/31/98	
5.6.3.1h	Tank-by-Tank Safety Status Evaluation.	7/31/98	
5.6.3.1i	Update Tank Content Models	12/31/98	
5.6.3.1j	Completion of Core Sampling of All Tanks	12/31/02	