SEP 16 1998

St. 4 - 73 **ENGINEERING DATA TRANSMITTAL**

1. EDT 624121

2. To: (Receiving Organization) See Distribution Sheet	3. From: (Originating Organization) COGEMA Engineering	4. Related EDT No.: 624119
5. Proj./Prog./Dept./Div.: TWRS: Infrastructure	6. Design Authority/ Design Agent/Cog. Engr.: J. R. Freeman-Pollard	7. Purchase Order No.: N/A
8. Originator Remarks: All comments need to be returned to Ms. J. R. Freeman-Pollard by July 16, 1998.		9. Equip./Component No.: N/A
		10. System/Bldg./Facility: N/A
11. Receiver Remarks: 11A. Design Baseline Document? [] Yes [X] No		12. Major Assm. Dwg. No.: N/A
		13. Permit/Permit Application No.: N/A
		14. Required Response Date: July 16, 1998

15. DATA TRANSMITTED

(A) Item No.	(B) Document/Drawing No.	(C) Sheet No.	(D) Rev. No.	(E) Title or Description of Data Transmitted	(F) Approval Designator	(G) Reason for Transmittal	(H) Originator Disposition	(I) Receiver Disposition
1	HNF-2199	-	~~A~~ 0 few 9.15.98	Feed Tank Transfer Requirements Document Rev 0	N/A	4		

16. KEY

Approval Designator (F)	Reason for Transmittal (G)	Disposition (H) & (I)
E, S, Q, D or N/A (see WHC-CM-3-5 Sec.12.7)	1. Approval 2. Release 3. Information 4. Review 5. Post-Review 6. Dist. (Receipt Acknow. Required)	1. Approved 2. Approved w/comment 3. Disapproved w/comment 4. Reviewed no/comment 5. Reviewed w/comment 6. Receipt acknowledged

17. SIGNATURE/DISTRIBUTION
(See Approval Designator for required signatures)

(G) Reason	(H) Disp.	(J) Name (K) Signature (L) Date (M) MSIN	(G) Reason	(H) Disp.	(J) Name (K) Signature (L) Date (M) MSIN
		Design Authority N/A			
		Design Agent N/A			
4		Cog.Eng. J. R. Freeman-Pollard [signature] B4-51			
		Cog. Mgr. R. W. Root [signature]			
		QA J. F. Bores per telecon S. H. Byers 372-8199 6/9/98			
		Safety			
		Env.			

18. J. R. Freeman-Pollard [signature] 6/8/98 Signature of EDT Originator Date	19. Authorized Representative Date for Receiving Organization	20. R. W. Root [signature] 6/9/98 Design Authority/ Cognizant Manager Date	21. DOE APPROVAL (if required) Ctrl. No. [] Approved [] Approved w/comments [] Disapproved w/comments

BD-7400-172-2 (05/96) GEF097

BD-7400-172-1

FEED TANK TRANSFER REQUIREMENTS

J. R. Freeman-Pollard

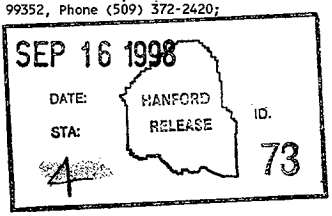
COGEMA Engineering Corporation, Richland, WA 99352
U.S. Department of Energy Contract DE-AC06-96RL13200

EDT/ECN: 624121 UC: 2020
Org Code: SS18000 Charge Code: D6303
B&R Code: EW3130010 Total Pages: 98

Key Words: Feed Tank, Transfer, Requirements, Nuclear Safety, Environmental, Engineering, Reporting, AP-106, AP-108, BNFL, LMAES, Privatization Contractor, PC

Abstract: This document presents a definition of tank turnover. Also, DOE and PC responsibilities; TWRS DST permitting requirements; TWRS Authorization Basis (AB) requirements; TWRS AP Tank Farm operational requirements; unreviewed safety question (USQ) requirements are presented for two cases (i.e., tank modifications occurring before tank turnover and tank modification occurring after tank turnover). Finally, records and reporting requirements, and documentation which will require revision in support of transferring a DST in AP Tank Farm to a privatization contractor are presented.

AutoCAD is a registed trademark of AutoDesk, Inc.



9/15/98
Release Approval Date

Release Stamp

Approved for Public Release

Feed Tank Transfer Requirements

Prepared for the U.S. Department of Energy

Fluor Daniel Hanford, Inc.
Richland, Washington

Hanford Management and Integration Contractor for the
U.S. Department of Energy under Contract DE-AC06-96RL13200

Feed Tank Transfer Requirements

J. R. Freeman-Pollard
COGEMA Engineering Corporation

M. L. Deffenbaugh
Lockheed Martin Hanford Corporation

J. P. Harris III
Numatec Hanford Corporation

D. A. Smith
Fluor Daniel Northwest

K. A. White
Lockheed Martin Hanford Corporation

M. W. Cline
J. G. Coenenberg
B. L. Curn
N. M. Menard
Waste Management Federal Services of Hanford

Date Published
June 1998

Prepared for the U.S. Department of Energy

Fluor Daniel Hanford, Inc.
P.O. Box 1000
Richland, Washington

Hanford Management and Integration Contractor for the
U.S. Department of Energy under Contract DE-AC06-96RL13200

CONTENTS

1.0 INTRODUCTION 1-1
1.1 PURPOSE 1-1
1.2 REPORT ORGANIZATION 1-2

2.0 TANK TURNOVER REQUIREMENTS 2-1
2.1 DEFINITION OF FEED TANK TURNOVER 2-1
2.2 DOE AND PC INTERFACE RESPONSIBILITIES 2-2
2.2.1 DOE Responsibilities 2-2
2.2.2 PC Responsibilities 2-3

3.0 TWRS DST PERMITTING REQUIREMENTS 3-1
3.1 TANK TURNOVER 3-1
3.2 DST RCRA PERMIT INTERIM VS FINAL STATUS 3-1
3.2.1 Interim Status Requirements 3-1
3.2.2 Final Status Requirements 3-2
3.3 DST RCRA TANK TURNOVER REQUIREMENTS 3-2
3.3.1 Interim Status Requirements 3-2
3.3.2 Final Status Requirements 3-3
3.4 AIR OPERATING PERMIT REPORTING REQUIREMENTS 3-3
3.4.1 Semiannual Reports 3-3
3.4.2 Annual Compliance Certification 3-4
3.4.3 Transfer of Data 3-4
3.4.4 Data Quality and Format 3-5

4.0 TWRS AUTHORIZATION BASIS REQUIREMENTS 4-1
4.1 CASE 1: PC MODIFICATION ACTIVITIES OCCUR BEFORE TANK TURNOVER 4-1
4.2 CASE 2: PC MODIFICATION ACTIVITIES OCCUR AFTER TANK TURNOVER 4-2
4.3 EMERGENCY RESPONSE PROCEDURES AND TRAINING 4-3
4.4 WASTE TREATMENT OPERATIONS 4-3
4.5 RETURN OF THE FEED TANKS TO THE DOE 4-3

5.0 TWRS AP TANK FARM OPERATIONAL AND ENGINEERING REQUIREMENTS 5-1
5.1 CASE 1: TANK TURNOVER OCCURS BEFORE MODIFICATION ACTIVITIES 5-1
5.1.1 Facility Access Requirements 5-1
5.1.2 Work Authorization 5-2
5.1.3 Resource Availability 5-2
5.1.4 Design Approval 5-3
5.1.5 Work Area Congestion 5-3
5.1.6 Waste Disposal/Segregation 5-4
5.2 CASE 2: TANK TURNOVER OCCURS AFTER MODIFICATION ACTIVITIES 5-4
5.2.1 Facility Access Requirements 5-4

CONTENTS (cont'd)

5.2.2 Work Authorization 5-5
5.2.3 Resource Availability 5-5
5.2.4 Design Approval 5-6
5.2.5 Work Area Congestion 5-6
5.2.6 Waste Disposal/Segregation 5-7

6.0 RECORDS AND REPORTING REQUIREMENTS 6-1
6.1 TRANSMITTAL PATHWAY 6-1
6.1.1 Direct Submission to the Subcontractor Responsible for the Report 6-1
6.1.2 Submission to DOE Who Would Then Provide the Information to the Prime Contractor 6-1
6.1.3 Submission to the Prime Contractor Who Would Then Provide the Information to the Appropriate Subcontractor 6-1
6.1.4 Submission of PC Collected Data to the TWRS Subcontractor (i.e., WMH) Who Would Submit the Data along With Its Own Information to Appropriate Parties 6-1
6.2 DATA NEEDS 6-2

7.0 241-AP-106/241-AP-108 DOCUMENTATION REQUIRED FOR TANK TRANSFER 7-1
7.1 241-AP-106 AND 241-AP-108 DESIGN DRAWINGS 7-1
7.2 AP TANK FARM PROCEDURE AND DOCUMENT REVISIONS 7-1

8.0 REFERENCES 8-1

ACRONYMS

AB	authorization basis
AOP	Air Operating Permit
BIO	Basis for Interim Operation
DOE	U.S. Department of Energy
DST	double-shell tank
ECN	engineering change notice
Ecology	Washington State Department of Ecology
FDH	Fluor Daniel Hanford, Inc.
HGET	Hanford General Employee Training
ICD	Interface Control Description
IPT	Integrated Product Team
ISB	Interim Safety Basis
LAW	low-activity waste
LMHC	Lockheed Martin Hanford Company
M&I	management and integration
PC	privatization contractor
PHMC	Project Hanford Management Contractor
RCRA	*Resource Conservation and Recovery Act of 1976*
RL	Richland Operations Office
RU	regulatory unit
SAA	Satellite Accumulation Area
TSD	treatment, storage, and disposal
TWRS	Tank Waste Remediation System
USQ	unreviewed safety question
WAC	Washington Administrative Code
WMH	Waste Management Federal Services of Hanford, Inc.

FEED TANK TRANSFER REQUIREMENTS

1.0 INTRODUCTION

As part of the contract to acquire Hanford Site tank waste treatment services on a privatization basis, the U.S. Department of Energy (DOE) will transfer double-shell tanks (DST) 241-AP-106 and 241-AP-108 with associated equipment (i.e., pump pits, waste piping, and instrumentation) and land to a privatization contractor(s) (PC). 241-AP-106 and 241-AP-108 will serve as the Low-Activity Waste (LAW) Feed Tanks to the PC's waste treatment facility. LAW feed envelopes will be staged in 241-AP-106/241-AP-108 and then transferred to the PC's waste treatment facility[1].

The transfer of 241-AP-106 and 241-AP-108 will permit the PC to accomplish the Phase 1 Privatization Waste Treatment Mission as specified in the Tank Waste Remediation System (TWRS) Privatization contracts *TWRS Privatization - BNFL Inc. Contract #DE-AC06-RL3308 and TWRS Privatization - LMAES Contract #DE-AC06-RL13309.* Phase 1 is divided into Parts A and B. Part A is a 20-month development period to establish the technical, operational, regulatory, business, and financial elements required by the PC to provide tank waste treatment services on a fixed-unit price basis. Part B is a demonstration that provides tank waste treatment services at a fixed-unit price for a portion of the Hanford Site tank waste.

The PC will provide primary and annulus ventilation systems, instrumentation, equipment, waste piping, instrument, control buildings, and all other items needed to operate 241-AP-106/241-AP-108 independently of the AP Tank Farm while accomplishing the waste treatment mission. PC operational readiness will be determined by the Regulatory Unit (RU) with input from TWRS Waste Disposal Division and Waste Storage Division. The RU will have full authority in determining when the PC is ready to operate 241-AP-106/241-AP-108 as waste feed tanks. Before completion of the PC's mission, the PC will be required to restore 241-AP-106 and 241-AP-108 to their original design configuration.

The DOE will operate 241-AP-106/241-AP-108 during the transition period (i.e., the time duration required for the transfer of 241-AP-106/241-AP-108, which may or may not include the actual modifiations to 241-AP-106/241-AP-108), the reconfiguration of AP Tank Farm (i.e., the time duration required for TWRS to reconfigure and operate the remaining six AP Tank Farm DSTs), and the re-establishment of AP Tank Farm (i.e., the time duration required to reconfigure 241-AP-106/241-AP-108 back into AP Tank Farm at the conclusion of Phase 1).

1.1 PURPOSE

The purpose of this document is to define tank turnover; present the PC and DOE responsibilities; identify the TWRS DST permitting requirements; identify the TWRS

[1]Waste streams generated by the PC during PC operations, are not included in this document.

Authorization Basis (AB) requirements; identify TWRS AP Tank Farm operational requirements; identify unreviewed safety question (USQ) requirements; identify records and reporting requirements, and identify the 241-AP-106/241-AP-108 documentation (i.e., procedures, engineering documents, and drawings) which will require revision in support of waste feed tank modification activities and tank turnover.

In this document the above requirements are presented for two implementation paths. One implementation path addresses turnover of the tanks to the PC before modifications have begun while the other implementation path addresses turnover of the tanks to the PC after modifications and operational readiness testing are completed. Ongoing contract negotiations between DOE and the PC are expected to define the implementation path. Once an implementation path is determined, this document will be modified to reflect the chosen path.

1.2 REPORT ORGANIZATION

This document consists of the following sections and appendices in addition to the background:

Section 2.0, Tank Turnover Definition and Interface Responsibilities, provides a definition of tank turnover, PC interface responsibilities and DOE interface responsibilities.

Section 3.0, TWRS DST *Resource Conservation and Recovery Act of 1976* (RCRA) Permitting Requirements, provides RCRA interim and final status requirements the PC must meet before assuming operational responsibility.

Section 4.0, TWRS Authorization Basis Requirements, provides the nuclear safety AB requirements the PC (or TWRS acting in behalf of the PC - depending on under whose auspices the modifications are performed) must meet before commencing tank modification activities and before returning the tanks to DOE at the conclusion of the Phase 1 waste treatment mission.

Section 5.0, TWRS AP Tank Farm Operational And Engineering Requirements, provides the TWRS AP Tank Farm operational and engineering facility access; work authorization, resource availability, design approval, work priority, and waste disposal requirements the PC (or TWRS acting in behalf of the PC - depending on under whose auspices the modifications are performed) must meet before commencing tank modification activities.

Section 6.0, Records and Reporting Requirements, provides the recording and data reporting requirements the PC must meet and the possible pathways to transmit the data.

Section 7.0, AP Tank Farm Documentation Required for Tank Transfer, provides a summary of the operational procedures, documents and drawings that will need to be revised and/or submitted to the PC upon turnover of 241-AP-106 and 241-AP-108.

Section 8.0, References, lists the references for this report.

Appendices are used to present additional data from Section 7.0 used to prepare this report. To avoid redundancy, such information is incorporated by reference, rather than appended, whenever it is published and readily available to data users.

2.0 TANK TURNOVER REQUIREMENTS

2.1 DEFINITION OF FEED TANK TURNOVER

Although DOE has committed to turning the operational control of 241-AP-106 and 241-AP-108 over to the PC, the TWRS Privatization contracts do not define what is meant by tank turnover.

The definition of feed tank turnover was not originally believed to be a significant issue because the intent was to make the feed tank totally independent of the balance of the AP Tank Farm. In practice, this will not be happening for three primary reasons. First, Washington State Department of Ecology (Ecology) has made a "determination" that tanks 241-AP-106 and 241-AP-108 should not be removed from the current RCRA permit[2]. Second, the nuclear safety AB in effect at the time the contract was written (Interim Safety Basis [ISB]) has been superceded by the TWRS AB currently in effect (list of AB documentation given in HNF-IP-0842, Volume IV, Section 5.4, Attachment A [Gibson and Hamm 1997]). However, the requirement documents cited in the TWRS Privatization contracts were derived from the ISB and may now be obsolete under the new AB (of which the Basis for Interim Operation [BIO] constitutes the majority). Third, it was expected that the feed envelopes would be staged well in advance of the PC needs date, and in advance of when the PC needs to begin modifications to 241-AP-106 and 241-AP-108. However, the first batch of conforming waste feed is not scheduled to be transferred to the PC until mid 2001which is potentially after the PC has assumed operational control of 241-AP-106 and 241-AP-108[3].

Due to the three reasons mentioned above, the definition of feed tank turnover will be determined by the implementation path chosen by DOE and the PC. The two implementation paths and associated tank turnover definitions are as follows[4]:

1) Tank Turnover After Modifications. Definition: Feed Tank Turnover occurs after the PC (or Project Hanford Management Contractor [PHMC] Team or another sub-contractor acting in behalf of the PC) has completed all feed tank modifications, installed associated ancillary equipment (i.e., ventilation system, transfer piping), and can demonstrate operational readiness per a RU approved AB. DOE will then turn over operational control of 241-AP-106 and 241-AP-108 to the PC.

2) Tank Turn Over Before Modifications. Definition: Feed Tank Turnover means that DOE will turn over operational control of 241-AP-106 and 241-AP-108 to the

---

[2] It is possible that this determination is not a hard and fast requirement and could be reconsidered if compelling reasons exist.

[3] If the PC assumes operational control of 241-AP-106 and 241-AP-108 prior to the transfer of conforming waste feed, the PCs would be operating outside of the TWRS Privatization contract (i.e., storing waste outside of their [DOE] approved envelopes).

[4] Award of Phase 1B of the TWRS Privatization contract will determine the implementation path and associated definition.

PC before feed tank modifications and installation of associated ancillary equipment (i.e., ventilation system, transfer piping) occurs.

2.2 DOE AND PC INTERFACE RESPONSIBILITIES

The following is a detailed summary of the DOE and PC's interface responsibilities. The responsibilities were obtained from Interface Control Document (ICD) 21 HNP-SP-1225; DOE Memorandum 97-WDD-056, "Clarification of the Requirements and Responsibilities for the Turnover of Double-Shell Tanks (DST) 241-AP-106 and 241-AP-108 to the Privatization Contractor," and Integrated Product Team (IPT) meetings.

2.2.1 DOE Responsibilities

The following is a summary of DOE's interface responsibilities:

- Perform waste feed tank inspections prior to turnover to determine the conditions of the tank prior to turnover. The inspection will include, as required, testing and examination of the tanks as well as permitting requirements. The DOE will establish the inspection and permitting requirements with concurrence from Ecology, the PC, and the RU, as applicable.

- Turnover the waste feed tanks to the PC which will include: preparation of a privatization feed tank turnover and requirements document which provides the requirements for the transfer of 241-AP-106 and 241-AP-108 to the PC, preparation of ICD #21, negotiation (between DOE and the PC) of redundant monitoring, development/modification of safety requirements, operating and maintenance procedures, resolution of any USQs indicating a need for AB (BIO or FSAR, depending on which is in place at the time of turnover) modifications, preparation of a feed tank implementation plan and custody transfer document, and reconfiguration of the AP Tank Farm.

- Provide as-built design information on waste feed tank and ancillary equipment systems to assist the PC in designing, constructing, and implementing the changes required to operate the feed tank independently of the AP Tank Farm. This package will include the certification vendor information, existing tank drawings with applicable Engineering Change Notice (ECN) and specification file, maintenance and operational record for the tank(s), structures, piping, equipment and instrumentation since the tanks were put in service.

- Monitor and maintain the secondary containment tank leak detection system which includes the leak pit and cathodic protection systems.

- Provide the capacity to receive emergency transfer of tank wastes. The PC is required to provide for the emergency transfer of the feed tank contents back to DOE in the event of a leak in the primary tank. The DOE must provide the spare tank capacity to receive the emergency transfer from the PC, the pipeline

configuration (excluding the PC's pipeline), and the operational support needed to accomplish the emergency transfer according to approved procedures.

- Allow the PC access to the DOE controlled site, as necessary, to perform repairs, maintenance, and upgrades of their equipment.

- Receive the waste feed tanks from the PC. At the conclusion of Phase 1, the waste feed tank(s) will be returned to DOE. The DOE will perform the design, construction, and installation activities to return the feed tank(s) to the AP Tank Farm and reconfigure the AP Tank Farm to an eight-tank farm, if necessary. These activities include all modification to safety documentation, operating and maintenance procedures, as-built documentation, training of operating and maintenance staff, required acceptance/operational readiness testing, and preparation of a feed tank return implementation plan.

2.2.2 PC Responsibilities

The following is a summary of the PC's interface responsibilities:

- Review tank inspection results (as applicable), agree to pre-existing conditions and accept tank.

- Provide and install equipment. This will include monitoring hardware, control systems needed to operate the feed tank(s), and transfer waste.

- The AB for operation of the feed tanks shall take into consideration the applicable requirements in Strehlow (1997), LMHC (1996), Heubach (1996), and Mulkey (1997).

- Provide all power (excluding what is to be provided by DOE) and consumables required to operate all PC-owned instrumentation and equipment attached to the waste feed tank.

- Provide and install a ventilation system which includes emissions monitoring systems and disconnection of existing ventilation and monitoring systems in accordance with OSD-T-151-00007.

- Design, construct, and install pipelines from the waste feed tank to and from the PC's waste treatment facility.

- Maintain and operate tank monitoring systems, this excludes the secondary containment tank monitoring system. The DOE leak detection system will monitor the "tertiary" leak detection system for the secondary tank. The PC will monitor the annulus leak detection system which monitors leaks from the primary tank.

- Minimize mixing or blending of different waste envelopes.

- Provide capability for emergency transfer of waste feed tank contents back to DOE.
- Install barriers to separate DOE's controlled property from the PC's controlled property.
- Allow DOE access to the PC-controlled site to perform repair, maintenance, and monitoring of DOE systems.
- Perform final inspection of the feed tank before returning the feed tank to DOE at the conclusion of the mission.
- Issue a final history document which will include as-built drawings of modifications made by the PC. The history document is due upon return of the waste feed tank(s) to DOE.
- Return the waste feed tank to DOE at the conclusion of the mission with the effective RCRA permit and AB.

3.0 TWRS DST PERMITTING REQUIREMENTS

3.1 TANK TURNOVER

Since the feed tanks (241-AP-106 and 241-AP-108) are to remain part of the existing DST System RCRA permits, the interim or final status requirements detailed below will apply to the co-operator (PC) having operational responsibility for these tanks at the time of modification. The RCRA requirements associated with the feed tanks will be the same regardless of the implementation path chosen (i.e., before or after modifications).

At the time the feed tanks are turned over, the PC will be identified as co-operator of its respective tank in the RCRA permitting documents. This will require the PC's certification of permitting documentation associated with their assigned tank prior to tank turnover. This action needs to occur no later than 90 days prior to the transfer of operational control.

3.2 DST RCRA PERMIT INTERIM VS FINAL STATUS

The DST System is currently operating under interim status. The DST system is scheduled to be incorporated into the Hanford Facility RCRA Permit (final status) in the second half of calendar year 2000.

The preferred alternative for accomplishing the tank modifications is to conduct these activities under interim status. Depending on the nature and extent of the modifications to the tanks, a revision to the DST Part A, Form 3, could be required. Regardless of the extent of modifications, it is recommended that Ecology be kept informed of the tank modifications. This will help facilitate future permitting efforts.

Tank modifications that are conducted under final status will require more effort and expense than under interim status. Tank modifications that are conducted under the DST final status permit would require a permit modification that is subject to public review and comment. The permit modification must be finalized prior to starting work. While interim status is preferred, the PC schedule for tank modification and design availability may preclude implementation under interim status. One strategy for remaining under interim status is to revisit the separation of the feed tank from the DST system RCRA permits.

Regardless of whether the tank modifications are conducted under interim or final status, a tank integrity assessment could be required by the RU.

Summarized below are the tank modification RCRA permitting requirements for interim and final status.

3.2.1 Interim Status Requirements

- A revised Part A permit application, Form 3, must be submitted to Ecology no later than 90 days prior to transfer of operational control.

- If waste management capacities are to be increased or different processes are to be implemented, a notice of intent will be required followed by submittal of a revised DST system Part A, Form 3, for Ecology approval prior to implementing the modifications.

- If the existing DST System capacities or processes are not changed, the DST System Part A, Form 3, may need to be revised to reflect the changes in operator and the tank modification design information would be incorporated into the DST system Part B permit application with little or no differentiation between the existing system and modifications for the PC. These activities could be conducted concurrently with the tank modifications and be subject to the same review and public comments as the rest of the DST system. Ecology's review of tank modification information is recommended in order to prevent problems with Ecology's approval of the Part B permit.

- Depending on the nature of the tank modifications, a tank integrity assessment could be required by the RU.

3.2.2 Final Status Requirements

- A revised Part B permit application must be submitted to Ecology no later than 90 days prior to transfer of operational control.

- Proposed tank modifications that will impact information required to be included in the Part B Permit will require that a permit modification be requested. This permit modification will need to be finalized prior to implementing the tank modifications.

- Depending on the nature of the tank modifications, a tank integrity assessment could be required by the RU.

3.3 DST RCRA TANK TURNOVER REQUIREMENTS

The following summarizes the RCRA interim and final status requirements that must be met prior to DOE turning operational control of the feed tanks over to the PC.

3.3.1 Interim Status Requirements

If the transfer of the feed tank occurs while the DST system is under interim status, the following is required:

- A revised Part A must be submitted to Ecology no later than 90 days prior to transfer of operational control.

- The PC must adopt the existing DST interim status documents or develop their own documents to meet the applicable standards of Washington Administrative Code (WAC) 173-303-400.

3.3.2 Final Status Requirements

If the transfer of the feed tank occurs while the DST system is under final status, the following is required:

- A revised Part B must be submitted to Ecology no later than 90 days prior to transfer of operational control.

- The PC must adopt the final status documents or develop their own documents to meet the applicable standards of WAC 173-303-600.

3.4 AIR OPERATING PERMIT REPORTING REQUIREMENTS

Under the provisions of the Hanford Site Air Operating Permit (AOP), the PC will be required to contribute to at least three AOP reports each year. These reports are the two semiannual reports and the annual compliance certification, as described below. Additional PC reporting requirements are located in Section 6.0.

3.4.1 Semiannual Reports

The semiannual reports will be submitted by March 15th and August 15th of each year. The semiannual report submitted by March 15th will contain information for the period from the previous July 1 through December 31. The semiannual report submitted by August 15th will contain information for the period from the previous January 1 through June 30. The semiannual reports will be in addition to the currently submitted reports. There are no reporting requirements for insignificant emission units identified by WAC 173-401-530. Each semiannual report will be consistent with WAC 173-401-520.

Each semiannual report will contain the following information for the applicable reporting period (January 1 through June 30 or July 1 through December 31).

1. Each semiannual report will provide a reference to reports submitted to the regulatory agencies as required by AOP General Conditions Section 4.5, Permit Deviation Reporting.

2. Each semiannual report will reference source test(s) and/or monitoring reports (required by any regulatory order, e.g., Notice of Construction) that have been issued during the reporting period.

3. Each semiannual report will contain a summary of any air emission compliant investigation(s) required in Attachment 1, Table 2-3 of the Hanford Site AOP and issued during the reporting period.

4. For all minor radioactive emission points (potential to emit <0.1 mrem to the maximally exposed individual) listed in Attachment 2, Tables 2.1, 2.2, or Section 2.3 of the Hanford Site AOP, each semiannual report will contain confirmation that any required periodic confirmatory measurements were conducted to verify low emissions during the reporting period.

5. Each semiannual report will list any new regulatory order, (e.g., Notice of Construction) approval conditions imposed during the reporting period by Ecology, the Washington State Department of Health, or the U.S. Environmental Protection Agency, Region 10.

3.4.2 Annual Compliance Certification

The annual compliance certification will be submitted by March 15th for the preceding calendar year. The compliance certification will consist of the following:

a. The identification of each term or condition of the Hanford Site AOP that is the basis of the certification.
b. The compliance status.
c. Whether compliance was continuous or intermittent.
d. The method(s) used to determine the compliance status of the source over the reporting period consistent with WAC 173-401-615(3)(a).

No certification is required for insignificant emission units according to WAC 173-401-530(2)(d). The annual report will be certified consistent with WAC 173-401-520.

3.4.3 Transfer of Data

The AOP team within the Air and Water Services Group of Waste Management Federal Services of Hanford, Inc. (WMH) is responsible for coordinating and integrating input from the various Hanford Site contractors to compile the semiannual reports and the annual compliance certification. To ensure timely completion of these reports, all Hanford contractors with input to the semiannual reports or the annual compliance certification must adhere to the following schedule for submittal of information and review of the compiled reports:

- A Call Letter with a request for information appropriate to each report will be issued to participating contractors eight weeks before March 15th and August 15th report deadlines.

- Each contractor will have two weeks to assemble information and submit the information to WMH.

- WMH will prepare the first draft of each report and distribute each draft to the contractors for review within one week of receiving all information from the contractors.

- The contractors will have one week to review the initial drafts of the reports and forward any comments they may have to WMH.
- WMH will resolve contractor comments within one week and return the reports to the contractor for certification.
- The contractors will have one week to certify the final draft of the reports and return their certifications to WMH.
- WMH will then have one week to prepare the final report package and deliver this package to the DOE Richland Operations Office (RL).
- RL will have one week to transmit the reports to the regulators.

3.4.4 Data Quality and Format

All data and information transmitted from the PC to WMH for inclusion in AOP semiannual reports or the AOP annual compliance certification must be a quality that allows certification by the PC in accordance with WAC 173-401-520. This regulation addresses certification and includes the following requirements:

> "Any application form, report, or compliance certification submitted pursuant to this chapter shall contain certification by a responsible official of truth, accuracy, and completeness. This certification and any other certification required under this chapter shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete."

Regarding format, information required for completion of AOP reports will be provided both electronically and by paper copy using the Hanford Site standard unless otherwise specified.

4.0 TWRS AUTHORIZATION BASIS REQUIREMENTS

According to the TWRS Privatization Phase 1 contract, the PC will provide ventilation systems, instrumentation, equipment, piping, control systems, and other items required to operate 241-AP-106 and 241-AP-108 (the feed tanks) independent of the rest of the AP Tank Farm.

This section discusses the strategy for developing and maintaining nuclear safety AB requirements during the modification and testing of the feed tanks, the operation of 241-AP-106 and 241-AP-108 as waste feed tanks for the Phase 1B privatization waste treatment mission and the return of 241-AP-106 and AP-018 to the DOE at the conclusion of the waste treatment mission.

The assumptions used to develop this section were as follows:

- The PHMC Team will maintain responsibility for the AB for the feed tanks until turnover.
- DOE will be the regulatory approval authority for the feed tanks until turnover.
- The privatization RU will be the regulatory approval authority for the waste feed tanks after turnover.
- Modification and testing of the tanks for utilization by the PC may occur prior to tank turnover or after tank turnover.
- Identification of the physical interfaces between the PHMC Team and the PC will not be addressed in this document. However, the information will be included in an interface control document.

4.1 CASE 1: PC MODIFICATION ACTIVITIES OCCUR BEFORE TANK TURNOVER

If modification activities occur before the feed tank is turned over to the PC, the feed tank modification, construction, and testing activities shall be conducted within the requirements of the TWRS AB. The following activities will be required to maintain the AB for the feed tanks.

- The design for the tank modifications shall, to the extent practical, incorporate design features that provide the capability for the system to be operated and maintained in accordance with the requirements of the AB. It is recognized that the modifications may involve safety systems for the tank. The PC will be responsible for obtaining any waivers to DOE Orders and Standards and Directives necessary for the modification and testing of the waste feed tanks and related systems.
- The PC will provide design and testing information and technical support for the identification and evaluation of potential hazards for the modification, testing, and operation of the waste feed tanks and the waste treatment facility. The PHMC

Team will evaluate the changes through the USQ process for a possible modification to the TWRS AB.

- The AB may have to be revised by the PHMC Team prior to the PC performing feed tank modifications, construction, and testing activities. The process for revision to the TWRS AB is outlined in the *Tank Waste Remediation System Retrieval Authorization Basis Amendment Task Plan* (Goetz 1998). The revised AB will provide the basis for the modifications and testing of the waste feed tanks and will address the potential hazards associated with operation of the waste feed tank and the waste treatment facility on the other TWRS facilities. The revised AB will not provide the safety basis for the operation of the tank as a waste feed tank for the waste treatment facility and will not be subject to review and approval by the RU. (NOTE: The TWRS contractors could prepare and maintain the AB for the operation of the waste feed tank under contract to the PC.) Areas related to the waste feed tanks which may need to be addressed in the amendment include:

  - Revised responsibilities for the waste feed tanks.

  - Identification and evaluation of any new hazards to TWRS operations related to the modification, testing, maintenance and operation of the waste feed tank and associated systems (the AB for other facilities onsite and the other waste feed tank and waste treatment facility may also be impacted).

  - Identification and evaluation of any new hazards to TWRS operations related to construction testing and operation (and decommissioning) of the Phase I waste treatment facility (the AB for other facilities onsite and the other waste feed tank and waste treatment facility may also be impacted).

  - Interface agreements with the PC regarding operation and emergency response.

- The PC will prepare the AB for operation of the waste feed tanks in support of the waste treatment mission (or as noted above, the PC may contract with the TWRS contractors for preparation and maintenance of the AB).

4.2 CASE 2: PC MODIFICATION ACTIVITIES OCCUR AFTER TANK TURNOVER

If modification activities occur after the feed tank is turned over to the PC the following nuclear safety authorization requirements will need to be met:

- The PC will prepare the AB for modification, testing, and operation of the waste feed tanks (unless contracted to the PHMC Team to perform).

- The PC will provide design and testing information and technical support for the identification and evaluation of potential hazards for the modification, testing and operation of the waste feed tanks and the waste treatment facility. The PHMC

Team will evaluate this information through the USQ process for a possible modification to the TWRS AB as a result of changed hazards resulting from the modification or operation of the PC tanks.

- The TWRS contractor will revise the AB as required to address the potential hazards associated with operation of the waste feed tank and the waste treatment facility on the other TWRS facilities. This effort will be similar to item 4.1 but will not include the basis for the modification and testing of the waste feed tanks.

4.3 EMERGENCY RESPONSE PROCEDURES AND TRAINING

The TWRS contractor will provide training to PC and PHMC Team personnel on TWRS emergency response procedures. The PC will provide training to site personnel on the PC emergency response procedures. TWRS personnel involved in the operation of the AP Tank Farms shall be considered facility personnel for the purposes of the accident analysis for the waste feed tanks. Other onsite personnel shall be considered as collocated workers for the purpose of the accident analysis for the waste treatment facilities. PC and contractor personnel involved in the modification, testing, and operation of the waste feed tanks shall be considered facility personnel for the purposes of the TWRS accident analysis. PC and contractor personnel involved in the construction, testing, operation, and decommissioning of the waste treatment facilities shall be considered as collocated workers for the purpose of the TWRS accident analysis. Any AP Farm occurrence reports generated between the PC and the PHMC team will be distributed to all potentially-affected parties.

4.4 WASTE TREATMENT OPERATIONS

The PC will provide the DOE any information related to any safety issue identified in the operation of the waste feed tank or the waste treatment facility that could impact the operation of other facilities onsite. Similarly, the management and integration (M&I) contractor will provide the DOE any information related to any safety issue identified in the TWRS facilities or other site facilities which could impact the waste treatment operations. The TWRS contractors and the PC will have responsibility for performing the USQ determinations and any necessary revisions to the AB for their respective facilities (the PC could also contract this to the TWRS contractors for maintenance of the AB for the waste feed tanks).

4.5 RETURN OF THE FEED TANKS TO THE DOE

On completion of Phase 1 of the TWRS privatization contract, the following nuclear safety authorization requirements will need to be met prior to return of the waste feed tanks to DOE:

- The PC will provide the TWRS contractor with the current AB and identify any needed changes based on the tank configuration and operation.

- The TWRS contractor will revise the TWRS AB for the return of the tanks.

- The TWRS contractor will prepare a compliance implementation plan if necessary to address any areas where the design and operation of the waste feed tanks are not in accordance with the requirements of the TWRS AB.

5.0 TWRS AP TANK FARM OPERATIONAL AND ENGINEERING REQUIREMENTS

This section provides the TWRS AP Tank Farm operational and engineering facility access, work authorization, resource availability, design approval, work priority, and waste disposal requirements that must be met by either the PC, DOE, or PHMC. The TWRS operational and engineering requirements are presented for both implementation paths (i.e., turnover before modifications/construction and turnover after modifications/construction). Also, the TWRS AP Tank Farm operational and engineering requirements are based on the assumption that the feed tanks (241-AP-106 and 241-AP-108) are to remain in the current DST System RCRA Part A and B permits.

5.1 CASE 1: TANK TURNOVER OCCURS BEFORE MODIFICATION ACTIVITIES

5.1.1 Facility Access Requirements

The following facility access interface requirements (i.e., control, training, and dosimetry) will have to be met by the PC prior to beginning tank modification/construction activities.

5.1.1.1 Facility Access Control. With the feed tanks (241-AP-106 and 241-AP-108) remaining in the current DST system RCRA Part A and B permits and the minimal physical boundaries identified in the ICDs, PHMC Tank Farm Operations would require a single facility access point to ensure adequate control of their facility boundaries.

This single point facility access equates to the PC not having individual and/or unique access gates and the PC would have to obtain keys from the PHMC Tank Farm Shift Manager to enter their facilities. Pending policy decisions and procedure development on prioritization of PHMC Team and the PC activities, keys would be provided as long as the PC's activity does not result in operational or safety conflicts with other work in the facility. Current policy provides that the prioritization of conflicting activities is at the Shift Manager's discretion.

5.1.1.2 Facility Access Training Requirements. Current training requirements for entry into 241-AP Tank Farm include Hanford General Employee Training (HGET) (including Tank Farm specific training), Tank Farm Facility Orientation, Radiological Worker I, and 24 hour Hazardous Material Worker training. Since access to the PC's facilities will only be possible via entry to the PHMC owned 241-AP Tank Farm, documentation of this training or its equivalent must be provided prior to permission being granted to enter 241-AP. There are currently no procedures or policies in place with guidance on the necessary documentation and proof of equivalency.

5.1.1.3 Dosimetry Requirements. Currently, there are no policies or procedures developed to specify the differences or equivalency of the PC dosimetry requirements to the existing PHMC dosimeter requirements. If the PC dosimetry requirements are determined to be different, the

level of additional dosimetry required for facility access, must be established prior to access being granted.

5.1.2 Work Authorization

The following work authorization interface requirements (i.e., document preparation, review/approval and release; lock and tag and excavation and other permits) will have to be met by the PC prior to beginning tank modification/construction activities.

5.1.2.1 Document Preparation. It is assumed that document preparation and format would be the responsibility of the PC and that none of the PHMC procedures and policies affecting document preparation would need to be adhered to.

5.1.2.2 Document Review/Approval. Providing no special permits are required for the work activity, a TWRS AP Tank Farm Operations and Engineering review is not required outside of verification that the work to be performed does not impact any other activities in 241-AP Tank Farm and potentially other interfacing facilities.

5.1.2.3 Document Release. Providing no special permits are required for the work activity, a TWRS AP Tank Farm Operations and Engineering work release is not required outside of verification that the work to be performed does not impact any other activities in 241-AP Tank Farm and potentially other interfacing facilities.

5.1.2.4 Lock and Tag Boundary Issues. DOE and PHMC Team (i.e., TWRS AP Tank Farm Operations and Engineering) must develop, prior to turnover, a policy defining the needs and procedures for overtags and installation of tags affecting equipment outside the facility of origination.

5.1.2.5 Excavation and Other Permits. DOE and PHMC Team (i.e., TWRS AP Tank Farm Operations and Engineering) must develop, prior to turnover, a policy defining the needs and procedures for excavation and other permits (energized work permits, confined space entry, etc.) affecting equipment or locations outside the facility of origination.

5.1.3 Resource Availability

The following resource contract interface requirements (i.e., essential staff and support staff limitations) will have to be met by the PC prior to beginning tank modification/construction activities.

5.1.3.1 Limited Staff at PHMC. If policies and procedures developed for facility access require PHMC personnel to escort the PC to their facility, there may be a shortage of trained, available personnel to perform this task.

Since it is unknown how much support the PC will require; the following is the minimum support the PHMC Team believes it will have to provide to the PC:

- Operator - TWRS AP Tank Farm operations support is required if escort services, within AP Tank Farm, are necessary.

- Operations Engineer - TWRS AP Tank Farm operations will provide an Operational Engineer dedicated to the communication and work process flow between TWRS, PHMC Team, and the PC.

- Health Physics Technician - PHMC health physics support is required if escort services, within AP Tank Farm, are necessary.

- Bargaining Unit Contract Re-negotiation Support - The existing bargaining unit contract provides the union halls with a near exclusive right to work activities on the Hanford Site (i.e., AP Tank Farm). If the PC are not held to this contract, terms within the contract may need to be re-negotiated.

5.1.4 Design Approval

The following design approval and USQ interface requirements have to be met by the PC prior to beginning tank modification/construction activities.

5.1.4.1 Review and Approval Personnel. It is assumed that the PHMC review, of the PC design, will be limited to the interface points for tie-ins or disconnection. Those aspects of the PC design affecting these interface points will have to be reviewed and approved by PHMC Team (i.e., TWRS AP Tank Farm Engineering and Operations). However, any design change which reflects the PC modifications impacting the PHMC facilities will need to be submitted for PHMC review and subsequent approval.

5.1.4.2 USQ Review. Concurrent with the design review and approval of the aspects of the PC design affecting interface points or tie-ins will be the performance and approval of USQ Screenings and Determinations. In some instances, it may become necessary to convene the PHMC Plant Review Committee for decisions concerning specific design attributes. The potential exists that there may need to be modifications and/or additions to the TWRS AB to adequately bound the PC's waste treatment facility configurations.

5.1.5 Work Area Congestion

The following work area priority interface requirement has to be addressed by the PHMC Team, DOE, and the PC prior to beginning tank modification/construction activities.

5.1.5.1 Policy for Number of Simultaneous Operations Within AP Tank Farm. The current policy provides Shift Managers with discretionary control over which activities and how many activities can be performed simultaneously in a given facility. This is based on interferences with activities in the specific facility and other interfacing facilities. There is a real potential that there could be as many as six different organizations attempting simultaneous work in the 241-AP facility, after award of the Phase 1B contract. The organizations could include 241-AP-106 PC, 241-AP-108 PC, W-211 project, W-314 project, waste characterization personnel (waste sampling activities), and tank farms operations personnel (surveillances,

maintenance, transfers, etc.). A guideline for establishing priority for the various conflicting activities must be prepared prior to turnover of 241-AP-106 and 241-AP-108.

In conjunction with the guideline, a procedure or policy identifying the primary organization with the authority to enforce the guideline directions must be prepared. Failure to develop the guideline for establishing work priorities and the procedure/policy enforcing the guideline could result in potential safety hazards to the workers, the environment, and, in the event of an operational upset, the public.

5.1.6 Waste Disposal/Segregation

The following waste disposal/segregation interface requirements must be met by the PC prior to beginning tank modification/construction activities.

5.1.6.1 Number of Satellite Accumulation Areas (SAA) in the Farm. Policies and procedures need to be established to determine how waste generated during construction activities will be segregated. This may include directing the PC to establish two new waste streams, one from 241-AP-106 and one from 241-AP-108. The PC would then pay for the disposal of its own waste stream. However, if this concept is not implemented, direction should be provided to identify the method for determining reimbursement of PHMC for disposal of the PC generated waste.

5.1.6.2 Laundry Services. Policies and procedures need to be established to determine how laundry and respirators used by the PC within the 241-AP Tank Farm fence line will be segregated. This may include directing the PC to establish PC specific entry locations for their facilities and have laundry and respirator storage and pick-up from the specific entry locations. The PC would then pay for the treatment of its own laundry and respirators. However, if this concept is not implemented, direction should be provided to identify the method for determining reimbursement of PHMC for treatment of the PC generated laundry and respirators.

5.2 CASE 2: TANK TURNOVER OCCURS AFTER MODIFICATION ACTIVITIES

5.2.1 Facility Access Requirements

The following facility access requirements (i.e., control, training and dosimetry) will have to be met by the PC.

PHMC Operations will require a single facility access point to ensure adequate control of their facility boundaries and activities. Single point facility access equates to the PC not having individual unique access gates and that they would have to obtain keys from the PHMC Tank Farm Shift Manager to enter the facility. Pending policy decisions and procedure development on prioritization of PHMC Team and the PC activities, keys would be provided as long as the PC's activity does not result in operational or safety conflicts with other work in the facility and the work has been authorized via the work authorization process identified below. Current policy provides that the prioritization of conflicting activities is at the Shift Manager's discretion.

5.2.1.1 Facility Access Training Requirements. Current training requirements for entry into 241-AP Tank Farm for intrusive work performance include HGET including Tank Farm specific training, Tank Farm Facility Orientation, Radiological Worker II, and 40 hour Hazardous Material Worker training. Documentation of this training or its equivalent must be provided prior to permission being granted to enter 241-AP to perform work. There are currently no procedures or policies in place with guidance on the necessary documentation and proof of equivalency.

5.2.1.2 Dosimetry Requirements. Currently, there are no policies or procedures developed to specify the differences or equivalency of the PC dosimetry requirements to the existing PHMC dosimeter requirements. If the PC dosimetry requirements are determined to not be equivalent, it must be established what level of additional dosimetry is required for facility access.

5.2.2 Work Authorization

The following work authorization requirements (i.e., document preparation, review/approval and release; lock and tag and excavation and other permits) will have to be met by the PC.

5.2.2.1 Document Preparation. PC document preparation and format will need to comply with the existing PHMC procedures. Document preparation should be performed by the PC. All of the PHMC procedures and policies affecting document preparation would need to be adhered to.

5.2.2.2 Document Review/Approval. All work documents prepared by the PC will need to be reviewed and approved by PHMC Team (TWRS AP Tank Farm Operations and Engineering). Design changes reflecting PC/PHMC Team interface details will need to be generated to maintain PHMC configuration control integrity.

5.2.2.3 Document Release. PHMC work release will be required for all activities.

5.2.2.4 Lock and Tag Boundary Issues. The existing lock and tag program will be adhered to for all PC construction work activities.

5.2.2.5 Excavation and Other Permits. The existing PHMC procedures controlling excavation and other permits will be adhered to for all PC construction work activities.

5.2.3 Resource Availability

The following resource availability (i.e., essential staff and support staff limitations) and contract requirements will have to be met by the PC.

5.2.3.1 Limited Staff at PHMC. There may be a shortage of trained, available personnel to escort and support the PC construction activities. Since it is unknown how much support the PC will require; the following is the minimum support PHMC Team believes it will have to provide to the PC:

- Operator - TWRS AP Tank Farm operations and engineering support is required for field work support.

- Operations Engineer - TWRS AP Tank Farm will provide an Operational Engineer dedicated to the communication and work process flow between TWRS, PHMC Team, and the PC.

- Health Physics Technician - PHMC health physics support is required for field activities.

- Bargaining Unit Contract Re-negotiation Support - The existing bargaining unit contract provides the union halls with a near exclusive rights to work activities on the Hanford Site (i.e., AP Tank Farm). If the PC are not held to this contract, terms within the contract may need to be re-negotiated.

5.2.4 Design Approval

The following design approval and USQ requirements have to be met by the PC.

5.2.4.1 Review and Approval Personnel. PHMC Team review (by TWRS AP Tank Farm Operations and Engineering) of all aspects of the PC design within the 241-AP Tank Farm fence is required. Those aspects of the PC design affecting interface points will have to be incorporated into the PHMC configuration control in such a manner that the information will remain with the PHMC after turnover of the tanks.

5.2.4.2 USQ Review. Concurrent with the design review and approval will be the performance and approval of USQ Screenings and Determinations. In some instances, it may become necessary to convene the PHMC Plant Review Committee for decisions concerning specific design attributes. The potential exists that there may need to be modifications and/or additions to the TWRS AB to adequately bound the new facility configurations.

5.2.5 Work Area Congestion

The following work area priority requirement has to be addressed by the PHMC Team, DOE, and the PC.

5.2.5.1 Policy for Number of Simultaneous Operations Within AP Tank Farm. The current policy provides Shift Managers with discretionary control over which activities and how many activities can be performed simultaneously in a given facility. This is based on interferences with activities in the specific facility and other interfacing facilities. There is a real potential that there could be as many as six different organizations attempting simultaneous work in the 241-AP facility, after award of the Phase 1B contract. The organizations could include 241-AP-106 PC, 241-AP-108 PC, W-211 project, W-314 project, waste characterization personnel (waste sampling activities), and tank farms operations personnel (surveillances, maintenance, transfers, etc.). A guideline for establishing priority for the various conflicting activities must be prepared prior to turnover of 241-AP-106 and 241-AP-108.

6.0 RECORDS AND REPORTING REQUIREMENTS

On the transfer of 241-AP-106 and 241-AP-108, the PC will assume responsibility for recording and providing data necessary for the development of several reports which are required by various Hanford Site specific regulations and environmental permits.

6.1 TRANSMITTAL PATHWAY

Currently, information for the majority of the Hanford Site specific reports is submitted either directly to a Prime Contractor (i.e., Fluor Daniel Hanford [FDH]) or to a subcontractor responsible for compiling the information for the report (i.e.,WMH). Depending on the terms of the TWRS Privatization contract, the PC could transmit data a number of ways. The following is a summary of the various pathways the PC could transmit data.

6.1.1 Direct Submission to the Subcontractor Responsible for the Report

This is the current method for compiling the necessary data. Also, this is the most direct method and would avoid delays in transmitting the data through various channels to the appropriate subcontractor.

6.1.2 Submission to DOE Who Would Then Provide the Information to the Prime Contractor

The Prime Contractor would then supply the data to the subcontractor responsible for compiling the data. Although this option provides the maximum control of the flow of data, it could create significant delays in providing the data to the subcontractor responsible for compiling the report. Also, this option has a high probability for mis-communication of data.

6.1.3 Submission to the Prime Contractor Who Would Then Provide the Information to the Appropriate Subcontractor

This option would fulfill the requirement for tracing data submittals. However delays in the transmittal of information from the Prime Contractor to the subcontractor could result in completion delays.

6.1.4 Submission of PC Collected Data to the TWRS Subcontractor (i.e., WMH) Who Would Submit the Data along With Its Own Information to Appropriate Parties

This option would best accommodate the PC's inclusion in the TWRS DST System Dangerous Waste Permit which is to be issued by Ecology in November 1999. All TWRS RCRA related reporting and record keeping must be maintained as one treatment, storage, and disposal (TSD) unit. Therefore, the responsibilities and coordination for the submittal of

required reports and upkeep of the DST Unit Operating Record would need to be a joint effort between the PC and the TWRS subcontractor (WMH)[5].

6.2 DATA NEEDS

The following table lists the reports and data required by various regulations, permits and DOE Orders that need input from the PC. The table is organized at follows: report title, brief description of the information needed, types of certifications required, if any, and approximate due dates to the PHMC Team, RL, and the regulatory agency, as required. The certification requirement is further described as to whether it is an internal certification, i.e., one that does not require that it accompany the document to the regulator, or as a certification that does accompany the document to the regulator.

[5]The current understanding is that the PC will be co-operator with RL and FDH thus, 7.1.1 or 7.1.4 are the two most likely paths of data transmittal.

Report	Information Needed From Private Contractors	Required by Contract or Regulations	Certifications	Approximate Due Dates
Annual LDR Report	Waste inventories and narrative descriptions of TSD units storing mixed LDR waste	Tri-Party Agreement milestone M-26-01	None	To FDH 4/1 To RL 4/15 To EPA/ Ecology 4/30
Hanford Site Environmental Report	Compliance with environmental regulations, current site activities, accomplishments and issues. Releases of radionuclides in air/water, hazardous substances, unplanned environmental releases, inventories of chemicals effluent monitoring activities and environmental surveillance activities	DOE Order 5400.1 (PNNL coordinates collection of information)	None	To RL by 7/31 of each year
EPCRA Tier II Emergency and Hazardous Chemical Inventory	Provide periodic input on inventory of hazardous materials with annual verification/certification of information	40 CFR 370	Contractors- Internal Certification RL - Certification	To PHMC 1/13 To RL 1/31 To Regulator 3/1
EPCRA Toxic Chemical Release Inventory Report	Annual input on use and releases of toxic chemicals	40 CFR 372	Contractors- Internal Certification RL - Certification	To PHMC 4/14 To RL 6/1 To Regulator 7/1
Annual Dangerous Waste Report	Provide information on waste generation and waste management activities	WAC 173-303	Contractors- Internal Certification RL - Certification	To PHMC 1/13 To RL 1/31 To Regulator 3/1
PCB Annual Document Log	Information on TSCA regulated PCB waste is required for the document log including waste weights and descriptions, container ID numbers, manifest information for PCBs sent off-site for disposal and date of disposal.	40 CFR 761.180 (TSCA)	None (Not sent to regulators)	To FDH 4/15 To RL 6/15

Report	Information Needed From Private Contractors	Required by Contract or Regulations	Certifications	Approximate Due Dates
PCB Annual Status Report on Storage of PCBs	Report requires container ID numbers, PCB waste weights and descriptions, PCB out of service dates, and programmatic information on current or alternative PCB disposal technologies and data on TSCA regulated PCB waste that contains radioactive constituents and PCB waste that contains both radioactive and RCRA constituents.	Federal Facility Compliance Agreement with EPA	None	To RL 11/4 To HQ 12/31 To EPA 2/8
RCRA Section 3016 Biennial Report	Data on environmental monitoring, hydrogeologic site characterization, environmental contamination, and response actions is required. Also information on RCRA TSD Facilities that managed hazardous waste on or after November 19, 1980, including programmatic data and facility descriptions.	WAC 173-303	None	To RL 12/15 To HQ 1/15 To EPA 1/31
Effluent Information System-Onsite Discharge Information System	DOE requires its sites to annually compile and send radionuclide release data, for both liquid and airborne discharges by April 1 of each year.	DOE Order 5400.1	None	Submitted to INEL (INEL has no funding at this time to evaluate this data.
Environmental Releases	This report presents data for radioactive and non-radioactive substances released into the environment during each calendar year. Information includes general descriptions of facilities, summary of non-routine releases and spills.	DOE Order 5484.1	None	To RL - 10 days after the end of quarter. Internal document only.

Report	Information Needed From Private Contractors	Required by Contract or Regulations	Certifications	Approximate Due Dates
Radionuclide Air Emissions Report	This report includes information on radionuclides emitted to the atmosphere from Hanford Site Facilities, an assessment of the offsite dose to any member of the public and descriptions of point sources	WAC 246-247-080	FDH - certification RL - certification	To RL 6/14 To EPA 6/30 To DOH 6/30
Nonradioactive Air Emission Inventory Information	Annually transmit a report on nonradioactive air emissions to Ecology containing information on operations having the potential to emit combustion products from fossil fuels.	WAC 173-400	None	Submitted to Ecology 105 days after January 1st.
Hanford Facility RCRA Permit General	Requirements for periodic submittals include: quarterly permit documentation modifications, Updates to the permit handbook, annual noncompliance report, annual permitting status report. Maintain each TSD unit's operating log and employee dangerous waste training records	HF RCRA Permit Section II HF RCRA Permit Section II	subcontractor - Internal Cert. Prime - Certification RL - Certification None	As required in the permit NA
Hanford Facility RCRA Permit Condition II.U & V.	Requires TSD units to mark and submit maps of underground dangerous waste pipelines that are subject to WAC regulations. Includes all underground pipes at a TSD that have carried dangerous waste at any time since January 1, 1980. If these lines are located outside of the major fenced areas, these lines must be marked	HF RCRA Permit Condition II.U and V.	None	NA

Report	Information Needed From Private Contractors	Required by Contract or Regulations	Certifications	Approximate Due Dates
Document DOE/RL-96-50	Report for the Mapping and Marking of Dangerous Waste Underground Pipelines submitted to Ecology to meet conditions II.U & V described above. Private contractors will need to comply with the detailed methods identified	HF RCRA Permit Condition II U and V.	None	Document submitted in 1996. Will be updated on an as needed basis
Hanford Facility RCRA Part A Permit Applications	Submittal of Part A permit application documentation for inclusion into the HF RCRA Permit for interim status. All Part A Permit application documentation will be required for incorporation into DOE/RL-88-21	WAC 173-303	Subcontractor - Internal Certification Prime - Certification RL - Certification	Negotiated with Ecology and RL.
Hanford Facility RCRA Part B Permit Applications	Submittal of Part B permit application documentation for inclusion into the HF RCRA Permit for final status	WAC 173-303	Subcontractor - Internal Certification Prime - Certification RL - Certification	Negotiated with Ecology and RL.
Hanford Facility Air Operating Permit	Sitewide air operating permit for Facilities on the Hanford Site. Data needs include: permit modification and renewal information and copies of air permits (NOCs, PSD). Reports submitted semiannually and compliance report submitted annually.	WAC 173-401	Contractors - internal certification RL- Certification	To DOH/EPA 7/11

Report	Information Needed From Private Contractors	Required by Contract or Regulations	Certifications	Approximate Due Dates
Projections of Anticipated Costs for Closure and Postclosure	Annual information required for any TSD unit in final status, undergoing closure, has been closed or is in postclosure care during the preceding fiscal year. Detailed cost estimates for closure or postclosure care, including any monitoring or maintenance being performed or anticipated.	Permit Section II.H	Subcontractors- Internal Certification. Prime contractors - Certification RL - Certification	TWRS will not have a TSD units incorporated in the HF RCRA Permit until 1999 in accordance with Permit Modification Schedule, Rev. 3.0

7.0 241-AP-106/241-AP-108 DOCUMENTATION REQUIRED FOR TANK TRANSFER

The operational procedures and documents will be managed in accordance with the PHMC Team's Configuration Management Plan (Vann et al. 1998). All information, in any form, provided to the PC by the PHMC Team or other government contractors, including and not limited to drawings, specifications, electronic files, letter reports, calculations, analysis reports, etc., the PC will be responsible for maintaining configuration control over changes to such information as appropriate, using the PC's established configuration management policies and procedures. Implementation of a configuration management system will enable the PC to provide the PHMC Team with timely and accurate documentation (i.e., permits, design drawings, etc.) upon return to the 241-AP-106 and 241-AP-108 at the conclusion of the mission.

7.1 241-AP-106 AND 241-AP-108 DESIGN DRAWINGS

A condition of the TWRS privatization contract is the transmittal of design drawings (i.e., as-builts) when 241-AP-106 and 241-AP-108 are turned over to the PC. A total of 353 design drawings have been identified by PHMC Team as needing to be transmitted to the PC. Of these, 274 drawings need to be converted from manual to AutoCAD. Also all the drawings will require outstanding ECN incorporation[6]. See Appendix A for a list of the design drawings to be transmitted to the PC. The list is comprised of the drawings number, the sheet number, the title and an indication (i.e., Y) if the drawing has already been converted to AutoCAD.

7.2 AP TANK FARM PROCEDURE AND DOCUMENT REVISIONS

Another condition of the TWRS privatization contract is the identification and revision of TWRS AP Tank Farm operational procedures and documents that will be affected when PC activities (i.e., tank modification, pipeline construction, etc.) commence. A total of 888 operational procedures and documents have been identified by PHMC Team as requiring revision in support of turning over 241-AP-106 and 241-AP-108 to the PC[7,8]. The following is a break down by category of the operational procedures and documents needing revision and the appendices they are located in:

- 45 Plant Operating Procedures (Appendix C)
- 2 Operator Routine Surveillance Procedures (Appendix C)
- 9 Alarm Response Procedures (Appendix C)
- 8 Preventative Maintenance Procedures (Appendix C)

---

[6] Detailed facility configuration drawings which support interface, connection and PC modifications are not included. These drawings will be identified upon award of the Phase 1B contract and captured in ICD 21, HNF-SP-1225.

[7] A checklist developed as an aid in determining if a given administrative procedure would be impacted by the turnover of 241-AP-106 and 241-AP-108 can be found in Appendix B.

[8] The lists of operational procedures and documents needing revision are subject to change due to PHMC procedure and manual changes since the lists were developed.

- 9 Functional Test Procedures (Appendix C)
- 2 Operating Specification Documents (Appendix C)
- 1 Criticality Specification Procedure (Appendix C)
- 455 Administrative Procedures (Appendix D)
- 161 Preventative Maintenance System Component History Files (Appendix E)
- 162 Calibration Data Sheets (Appendix F)
- 34 Essential Facility Electrical and Piping and Instrumentation Drawings (Appendix G).

8.0 REFERENCES

Gibson and Hamm, 1997, *TWRS Administration*, HNF-IP-0842, Rev. 0, Lockheed Martin Hanford Company, Richland, Washington.

Goetz, T. G., 1998, *Tank Waste Remediation System Retrieval Authorization Basis Amendment Task Plan*, HNF-1722, Rev. 0, Lockheed Martin Hanford Company, Richland, Washington.

Heubach, E. C., 1996, *Double Shell Tank Interim Operational Safety Requirements*, WHC-SD-WM-OSR-016, Rev. OE, Duke Engineering and Services Hanford Company, Richland, Washington.

LMHC, 1996, *Operating Specifications for Tank Farm Leak Detection and Single Shell Tank Intrusion Detection*, OSD-T-151-00031, Lockheed Martin Hanford Company, Richland, Washington.

Mulkey, C. H., 1997, *Double-Shell Tank Waste Analysis Plan*, WHC-SD-WM-EV-053, Rev. 4a, Lockheed Martin Hanford Company, Richland, Washington.

Noorani, Y.G., 1997, *Tank Waste Remediation System Basis for Interim Operation*, HNF-SD-WM-BIO-001, Rev. 0F, DS&H Hanford, Inc., for Fluor Daniel Hanford, Inc., Richland, Washington.

Strehlow, J. P., 1997, *Unclassified Operating Specifications for the 241-AN, AP, AW, AY, AZ, and SY Tank Farms*, OSD-T-151-00007, Lockheed Martin Hanford Company, Richland, Washington.

Vann, J. M., E. R. Hamm, and R. D. Crips, 1998, *Tank Waste Remedation System Configuration Management Plan*, HNF-1900, Rev. 0, Fluor Daniel Hanford, Inc., January 1998.

APPENDIX A

LISTING OF PRINTS NEEDED FOR TURNOVER

LISTING OF PRINTS NEEDED FOR TURNOVER

Drawing Number	Sheet	Title	CAD
H-2-00 3808	1	Tie Rod Detail Hanford & PUREX - Redox Type	
H-2-00 7249	1	Socket - Canyon Impact Wrench	
H-2-00 30600	1	Standard Square Kick-Off Plate for Male Connectors	
H-2-00 31750	1	Piping Material Code	
H-2-00 31750	2	Piping Material Code	
H-2-00 31750	3	Piping Material Code	
H-2-00 31750	4	Piping Material Code	
H-2-00 31750	5	Piping Material Code	
H-2-00 31750	6	Piping Material Code	
H-2-00 31750	7	Piping Material Code	
H-2-00 31750	8	Piping Material Code	
H-2-00 31750	9	Piping Material Code	
H-2-00 31750	10	Piping Material Code	
H-2-00 31750	11	Piping Material Code	
H-2-00 31750	12	Piping Material Code	
H-2-00 31750	13	Piping Material Code	
H-2-00 31750	14	Piping Material Code	
H-2-00 31750	15	Piping Material Code	
H-2-00 31750	16	Piping Material Code	
H-2-00 31750	17	Piping Material Code	
H-2-00 31750	18	Piping Material Code	
H-2-00 31750	19	Piping Material Code	
H-2-00 31750	20	Piping Material Code	
H-2-00 31750	21	Piping Material Code	
H-2-00 31750	22	Piping Material Code	
H-2-00 31750	23	Piping Material Code	
H-2-00 31750	24	Piping Material Code	
H-2-00 31750	25	Piping Material Code	
H-2-00 31750	26	Piping Material Code	
H-2-00 31750	27	Piping Material Code	
H-2-00 31750	28	Piping Material Code	
H-2-00 31750	29	Piping Material Code	
H-2-00 31750	30	Piping Material Code	
H-2-00 31750	31	Piping Material Code	
H-2-00 31750	32	Piping Material Code	
H-2-00 31750	33	Piping Material Code	
H-2-00 31750	34	Piping Material Code	
H-2-00 31750	35	Piping Material Code	
H-2-00 31750	36	Piping Material Code	
H-2-00 31750	37	Piping Material Code	
H-2-00 31750	38	Piping Material Code	
H-2-00 31750	39	Piping Material Code	
H-2-00 31750	40	Piping Material Code	
H-2-00 31750	41	Piping Material Code	
H-2-00 31750	42	Piping Material Code	
H-2-00 31750	43	Piping Material Code	
H-2-00 31750	44	Piping Material Code	
H-2-00 31750	45	Piping Material Code	
H-2-00 31750	46	Piping Material Code	
H-2-00 31750	47	Piping Material Code	
H-2-00 31750	48	Piping Material Code	
H-2-00 31750	49	Piping Material Code	
H-2-00 31750	50	Piping Material Code	
H-2-00 31750	51	Piping Material Code	
H-2-00 31750	52	Piping Material Code	

LISTING OF PRINTS NEEDED FOR TURNOVER

Drawing Number	Sheet	Title	CAD
H-2-00 31750	53	Piping Material Code	
H-2-00 31750	54	Piping Material Code	
H-2-00 31750	55	Piping Material Code	
H-2-00 31750	56	Piping Material Code	
H-2-00 31750	57	Piping Material Code	
H-2-00 31750	58	Piping Material Code	
H-2-00 31750	59	Piping Material Code	
H-2-00 31750	60	Piping Material Code	
H-2-00 31750	61	Piping Material Code	
H-2-00 31750	62	Piping Material Code	
H-2-00 31750	63	Piping Material Code	
H-2-00 32420	1	Assembly - Horizontal & Vertical 2" Connector	
H-2-00 32420	2	Assembly - Horizontal & Vertical 2" Connector	
H-2-00 32420	3	Assembly - Horizontal & Vertical 2" Connector	
H-2-00 32421	1	Details - 2" Connector Installation	
H-2-00 32423	1	Details Connector Block - 2" Connector	
H-2-00 32423	2	Details Connector Block 3 Way - 2" Connector	
H-2-00 32423	3	Details Connector Block 3 Way - 2" Connector	
H-2-00 32430	1	Assembly Horiz & Vert Conn - 3" Connector	
H-2-00 32430	2	Assembly Horiz & Vert Conn - 3" Connector	
H-2-00 32431	1	Details 3" Connector Installation	
H-2-00 32433	1	Details Connector Block - 3" Connector	
H-2-00 32433	2	Details Connector Block 3 Way - 3" Connector	
H-2-00 32433	3	Details Connector Block - 3" Connector	
H-2-00 32446	1	Details - Alloy Steel Male Connector Nozzle 1", 2", 3", 4" Instrumentation Waste Tank Liquid Level Gauge Installation and	
H-2-00 36382	1	Riser Schedule	
H-2-00 38088	1	F. I. C. Sleeved Guage Liquid Surveillance	
H-2-00 38654	1	Suction Float for Transfer Pump	
H-2-00 57331	1	Mechanical Equipement Details Short and Long Dowels	
H-2-00 57332	1	Mechanical Eqpt Detail - Studs	
H-2-00 57901	1	Flexible Metal Hose Mod and Assy for Process Use	
H-2-00 63804	1	Jumper Miscellaneous Details	
H-2-00 68205	1	Hook Guide 2" Connector PUREX /REDOX Type	
H-2-00 68206	1	Hook Guide 3" Connector PUREX Type	
H-2-00 68209	1	Operating Nut 2" PUREX/REDOX Type	
H-2-00 68215	1	Skirt - Verticle 2" Connector PUREX/REDOX Type	
H-2-00 68215	2	Skirt - Verticle 2" Connector PUREX/REDOX Type	
H-2-00 68218	1	Skirt - Horizontal 3" Connector PUREX/REDOX Type	
H-2-00 68218	2	Skirt - Horizontal 3" Connector PUREX/REDOX Type	
H-2-00 68219	1	Skirt - Verticle 3" Connector PUREX/REDOX Type	
H-2-00 69897	1	Modified Pump Discharge Head	
H-2-00 69897	2	Sub-Assembly Pump Discharge Head	
H-2-00 69897	3	Pump Discharge Head Miscellaneous Details	
H-2-00 69897	4	Pump Discharge Head Miscellaneous Details	
H-2-00 70001	1	Lifting Bail Tank Farm Pump	
H-2-00 73453	1	Std Isolation Blank Assy for PUREX/Hanford Nozzle	
H-2-00 73453	2	Std Isolation Blank Assy for PUREX/Hanford Nozzle	
H-2-00 90160	1	Standard Folding Bails	
H-2-00 90161	1	Standard Rigid Lifting Bails	
H-2-00 90162	1	Standard Horiz Conn Bails	
H-2-00 90174	1	Hook 2" Connector PUREX/REDOX Type	
H-2-00 90174	2	Hook 2" Connector PUREX/REDOX Type	
H-2-00 90184	1	Male Nozzle 1" PUREX	
H-2-00 90185	1	Male Nozzle 2" PUREX	

LISTING OF PRINTS NEEDED FOR TURNOVER

Drawing Number	Sheet	Title	CAD
H-2-00 90185	2	Male Nozzle 2" PUREX	
H-2-00 90186	1	Male Nozzle 3" PUREX	
H-2-00 90186	2	Male Nozzle 3" PUREX	
H-2-00 90439	1	Structural Concrete Tank Foundation Plan & Details	
H-2-00 90440	1	Structural Insulating Concrete Plan & Details	
H-2-00 90441	1	Structural Dome Reinforcement Plan & Detail	
H-2-00 90442	1	Structural Tank Section and Haunch Reinforcement	
H-2-00 90443	1	Structural Haunch Reinforcement at Annulus ACS	
H-2-00 90444	1	Structural Leak Detection Drain Plans and Sections	
H-2-00 90444	2	Piping Leak Detection Drain Plan and Sections	
H-2-00 90444	3	Piping Leak Detection Drain Plan and Sections	
H-2-00 90446	1	Structural Annulus Pump Pits Plans and Sect	
H-2-00 90447	1	Structural Central Pump Pits Plans and Sect	
H-2-00 90447	2	Structural Central Pump Pits Plans, Sect and Det	
H-2-00 90450	1	Structural Vent Pits Plans and Sections	
H-2-00 90453	1	Arch/Strl Details Support Facilties	
H-2-00 90454	1	Structural Typical Details	
H-2-00 90454	2	Structural Typical Details	
H-2-00 90454	3	Structural Typical Details	
H-2-00 90457	3	Structural Central Exhaust Sta Sections and Det	
H-2-00 90464	1	Istn Conc Fdn Plan and Det TK-241-AP-101 Thru 108	
H-2-00 90464	2	Istn Conc Fdn Plan and Det TK-241-AP-101 Thru 108	
H-2-00 90465	1	Elec Instm Insulating Concrete Plan and Details	
H-2-00 90465	2	Elec Instm Insulating Concrete Plan and Details	
H-2-00 90465	3	Elec Instm Insulating Concrete Plan and Details	
H-2-00 90466	1	Instrumentation Concrete Shell Plan and Details	
H-2-00 90466	2	Instrumentation Concrete Shell Plan and Details	
H-2-00 90467	1	Instm Tank Conduit Routing Plan & Details	
H-2-00 90467	2	Instm Tank Conduit Routing Plan & Details	
H-2-00 90470	1	Electrical Power Distribution Plan	
H-2-00 90470	4	Electrical Power Distribution Details	
H-2-00 90470	5	Electrical Power Distribution Details	
H-2-00 90470	6	Electrical Power Distribution Sections	
H-2-00 90470	7	Electrical Power Distribution Sections	
H-2-00 90470	8	Electrical Power Distribution Details	
H-2-00 90471	1	Electrical Instm Distribution Plan	
H-2-00 90471	2	Electrical Instm Distribution Sections	
H-2-00 90472	1	Electrical Heat Trace Distribution Plan	
H-2-00 90472	2	Electrical Heat Trace Distr Plan and Details	
H-2-00 90472	3	Electrical Heat Trace Distr Details	
H-2-00 90472	4	Electrical Heat Trace Distr Details	
H-2-00 90475	2	Elec Instr Bldg 241-AP-271 Plan and Elevations	
H-2-00 90476	1	Elec Elem Diags Central Exh Station	
H-2-00 90476	2	Electrical Elementary Diag Pumps and Fans	
H-2-00 90476	3	Electrical Elementary Diagrams Annunciator	
H-2-00 90476	4	Electrical Elementary Diagrams Annunciator	
H-2-00 90476	5	Electrical Elementary Diagrams CRT Logic and Controls	
H-2-00 90476	6	Electrical Elementary Diagrams Leak Detection Intlks	
H-2-00 90476	7	Electrical Elementary Diag CRT Logic	
H-2-00 90476	8	Electrical Elementary Diag Leak Detection	
H-2-00 90476	9	Electrical Elementary Diagrams Annunciator	
H-2-00 90476	10	Electrical Elementary Diagrams Heat Trace	
H-2-00 90476	11	Electrical Elementary Diagram Shutdown Ckt & FA	
H-2-00 90476	12	Electrical Elementary Diagrams Radiation Mon	
H-2-00 90476	13	Elec Elm Diag Heater Controller	

LISTING OF PRINTS NEEDED FOR TURNOVER

Drawing Number	Sheet	Title	CAD
H-2-00 90477	1	Electrical Wire Run List	
H-2-00 90477	2	Electrical Wire Run List	
H-2-00 90477	3	Electrical Wire Run List	
H-2-00 90477	4	Electrical Wire Run List	
H-2-00 90477	5	Electrical Wire Run List	
H-2-00 90477	6	Electrical Wire Run List	
H-2-00 90477	7	Electrical Wire Run List	
H-2-00 90477	8	Electrical Wire Run List	
H-2-00 90477	9	Electrical Wire Run List	
H-2-00 90477	10	Electrical Wire Run List	
H-2-00 90479	1	Electrical Leak Detection Encl Detail & Assy	
H-2-00 90480	1	Electrical Relay Enclosures	
H-2-00 90480	2	Electrical Relay Enclosures	
H-2-00 90489	1	Instrumentation Engineering Block Diagrams	
H-2-00 90490	1	Instm LDI & LI Assembly & Details	
H-2-00 90490	2	Instm LDI & LI Assembly & Details	
H-2-00 90490	3	Instm Tank Sludge level Assy & Det	
H-2-00 90491	1	Instm Xmtr/MUX Enclosure Type A	
H-2-00 90491	2	Instm Xmtr/MUX Enclosure Type A	
H-2-00 90491	3	Instm Xmtr/MUX Enclosure Type A	
H-2-00 90491	4	Instm Xmtr/MUX Enclosure Type A	
H-2-00 90491	5	Instm Xmtr/MUX Enclosure Type A	
H-2-00 90491	6	Instm Xmtr/MUX Enclosure Type A	
H-2-00 90491	7	Instm Xmtr/MUX Enclosure Type A	
H-2-00 90492	1	Inst Multi-Thermocouple Probe Assembly	
H-2-00 90494	1	Instm Temp Display Sys Interconnection Diag	
H-2-00 90494	2	Instm Temp Display Sys Interconnection Diag	
H-2-00 90494	3	Instm Temp Display Sys Interconnection Diag	
H-2-00 90495	1	Instm Panel Fabrication Support & Finish	
H-2-00 90496	1	Instm Panel & Rack Arrangements	
H-2-00 90496	2	Instm Panel & Rack Arrangements	
H-2-00 90496	3	Instm Panel & Rack Arrangements	
H-2-00 90496	4	Instm Panel & Rack Arrangements	
H-2-00 90498	1	Instm Instrumentation Panel Arrangements	
H-2-00 90498	2	Instm Instrumentation Panel Arrangements	
H-2-00 90500	1	Instm Interconnection Diagrams Annunciators	
H-2-00 90500	2	Instm Interconnection Diagrams Annunciators	
H-2-00 90500	4	Instm Interconnection Diag Misc Radiation	
H-2-00 90501	1	Instm radiation Probe Mounting Pole	
H-2-00 90503	1	Instm Analog Rack & Loop Diagrams	
H-2-00 90503	2	Instm Analog Rack & Loop Diagrams	
H-2-00 90503	5	Instm Analog Rack & Loop Diagrams	
H-2-00 90503	6	Instm Analog Rack & Loop Diagrams	
H-2-00 90503	10	Instm Analog Rack & Loop Diagrams	
H-2-00 90507	1	Instm CASS Alarm Interface Connection Diagram	
H-2-00 90507	5	Instm CASS Alarm Interface Connection Diagram	
H-2-00 90507	6	Instm CASS Alarm Interface Connection Diagram	
H-2-00 90508	1	Instm CASS Substa "A" FIC Interface Conn Diag	
H-2-00 90510	2	Instm Rad Mon Encl Vent Pit	
H-2-00 90510	4	Instm Rad Mon Encl Vent Pit	
H-2-00 90512	1	Instm LDI & LI Tape & Drum Sub-Assy & Det	
H-2-00 90512	2	Instm LDI & LI Tape & Drum Sub-Assy & Det	
H-2-00 90512	3	Instm LDI & LI Tape & Drum Sub-Assy & Det	
H-2-00 90521	1	HVAC Air Intake Station Plans & Details	
H-2-00 90522	1	HVAC Equipment Schedules and Notes	

LISTING OF PRINTS NEEDED FOR TURNOVER

Drawing Number	Sheet	Title	CAD
H-2-00 90533	1	Engineering Flow Diagram 241-AP-106	
H-2-00 90534	1	Tank Cross Section 241-AP Tanks	
H-2-00 90536	1	Plan Tank Penetrations 241-AP-106 & 108	
H-2-00 90537	1	Tank Penetrations & Riser Details 241AP Tanks	
H-2-00 90541	1	Engineering Flow Diagram 241-AP-108	
H-2-00 90542	1	Piping Hydraulic Diagram 241-AP Tank Farm	
H-2-00 90543	1	Piping Plan #1 241-AW Tank Farm	
H-2-00 90544	1	Piping Plan #2 Waste Transfer Lines	
H-2-00 90547	1	Piping Plan #5	
H-2-00 90547	2	Piping Plan #5	
H-2-00 90548	1	Piping Plan #6	
H-2-00 90552	1	Piping Sections & Details 241-AP Tank Farm	
H-2-00 90558	1	Piping Plan Tank 106	
H-2-00 90560	1	Piping Plan Tank 108	
H-2-00 90561	1	Piping Miscellaneous Details I	
H-2-00 90561	2	Piping Miscellaneous Details I	
H-2-00 90562	1	Piping Plan Central Pump Pit 241-AP-01A Thru 08A	
H-2-00 90563	1	Piping Sect & Det Central Pump Pit 241-AP-01A Thru 08A	
H-2-00 90564	1	Piping Plan Annulus Pump Pit 241-AP-01B Thru 08B	
H-2-00 90565	1	Ppg Sect & Det Annulus Pump Pit 241-AP-01B Thru 08B	
H-2-00 90570	1	Piping Concrete Shielding Details	
H-2-00 90572	1	Piping Riser Details I	
H-2-00 90573	1	Piping Riser Details II	
H-2-00 90574	1	Piping Riser Details III	
H-2-00 90574	2	Piping Riser Details IV	
H-2-00 90576	1	Piping Pump Arrangements P-AP-1 & P-AP-2	
H-2-00 90582	1	Piping Support Plan #5	
H-2-00 90583	1	Piping Support Plan #6	
H-2-00 90585	1	Piping Expansion Void Details	
H-2-00 90585	2	Piping Expansion Void Details	
H-2-00 90585	3	Piping Expansion Void Details	
H-2-00 90585	4	Piping Expansion Void Details	
H-2-00 90585	5	Piping Expansion Void Details	
H-2-00 90586	1	Piping Exhaust Line Encl	
H-2-00 90586	2	Piping Exhaust Line Encl	
H-2-00 90592	1	Piping Support Plan TK-106	
H-2-00 90594	1	Piping Support Plan TK-108	
H-2-00 90595	1	Piping Support Details	
H-2-00 90595	2	Piping Support Details	
H-2-00 90596	1	Pit & Pit Cover Painting Diag 241-AP Tank Farms	
H-2-00 90599	1	Jumper Arrgmt Ctl Pump Pit 241-AP-01A Thru 08A	
H-2-00 90599	2	Jumper Arrgmt Ctl Pump Pit 241-AP-01A Thru 08A	
H-2-00 90600	1	Jumper Arrgmt Annulus Pump Pit 241-AP-01B Thru 08B	
H-2-00 90725	1	Jumper Assembly A-E Pump Central Pump Pit	
H-2-00 90726	1	Flex Jumper Assembly A-C, A-D Alternate	
H-2-00 90727	1	Jumper Assy B to Distributor Central Pump Pit	
H-2-00 90729	1	Flex Jumper Assembly Pump to A	
H-2-00 90750	1	HVAC Details	
H-2-00 90751	5	Electrical Details	
H-2-00 90833	1	Piping Dummy Pump Head	
H-2-00 90835	1	Piping Vent Pit #1 & #2	
H-2-00 90835	2	Piping Vent Pit #1 & #2	
H-2-00 90841	1	Piping Concrete Shielding	
H-2-00 90842	1	Piping Misc Details II	
H-2-00 90843	1	Piping Misc Details III	

LISTING OF PRINTS NEEDED FOR TURNOVER

Drawing Number	Sheet	Title	CAD
H-2-00 90844	1	Piping Distribitor Assy	
H-2-00 90845	1	Jumper Misc Details III	
H-2-00 90846	1	Piping Spray Wand Assy	
H-2-00 90848	1	Piping Pit Drain Seal Assembly	
H-2-00 90849	1	Piping Pit Drain Seal Details	
H-2-00 90850	1	Piping Miscellaneous Details IV	
H-2-00 90852	1	Jumper Misc Details I	
H-2-00 90853	1	Jumper Misc Details II	
H-2-00 90853	2	Jumper Misc Details II	
H-2-00 91247	1	12" Annulus Exhaust Duct Probe Assembly	
H-2-00 91550	1	4" Drill Rod Guide Assembly and Details	
H-2-00 91550	2	4" Drill Rod Guide Assembly and Details	
H-2-00 91760	1	Dual Beta Monitor Cabinet Split Entry Assy	
H-2-00 91943	1	Process Turbine Pump-AN-AW-AP	
H-2-00 91943	2	Process Turbine Pump-AN-AW-AP	
H-2-00 91943	3	Process Turbine Pump-AN-AW-AP	
H-2-00 92447	1	Surveillance P. A. D. Assembly	
H-2-00 92448	1	Surveillance P. A. D. Main Amplifier Board Assembly	
H-2-00 92449	1	Surveillance P. A. D. Auxiliary Board Schematics	
H-2-00 92449	2	Surveillance P. A. D. Auxiliary Board Schematics	
H-2-00 92450	1	Surveillance P. A. D. Main Amplifier Board Drill & Trim	
H-2-00 92450	2	Surveillance P. A. D. Main Amplifier Board Drill & Trim	
H-2-00 92450	3	Surveillance P. A. D. Main Amplifier Board Drill & Trim	
H-2-00 92451	1	Surveillance P. A. D. Auxiliary Board Assembly	
H-2-00 92452	1	Surveillance P. A. D. Low Voltage Auxiliary Board - Silk Screen	
H-2-00 92452	2	Surveillance P. A. D. Low Voltage Auxiliary Board - Silk Screen	
H-2-00 92453	1	Surveillance P. A. D. High Voltage Auxiliary Board - Silk Screen	
H-2-00 92453	2	Surveillance P. A. D. High Voltage Auxiliary Board - Silk Screen	
H-2-00 92488	1	Generic Stack Sampler / Monitor Modified Monitor Assy	
H-2-00 92488	2	Generic Stack Sampler / Monitor Modified Monitor Assy	
H-2-00 92490	1	Generic Stack Sampler / Monitor Sample Extraction Assy	
H-2-00 92497	1	Generic Stack Sampler / Monitor Basic Cabinet Assy	
H-2-00 92497	2	Generic Stack Sampler / Monitor Basic Cabinet Assy	
H-2-00 94082	1	Cathodic Protection Piping Plan #6	
H-2-00 94083	1	Cathodic Protection Test Station Details	
H-2-00 94084	1	Cathodic Protection Test Station Details	
H-2-00 94085	1	Cathodic Protection Details Anodes, Rectifiers	
H-2-00 94086	1	Cathodic Protection Details Cables, Boxes & Jumpers	
H-2-00 94087	1	Cathodic Protection Details Connections, Miscellaneous	
H-2-00 94872	1	Liquid Level Instr. Shielding	
H-2-00 94872	2	Liquid Level Instr. Shielding	
H-2-00 94872	3	Liquid Level Instr. Shielding	
H-2-00 95260	1	Stainless Steel Flake Tank Electrode Box Assy	
H-2-00 95260	2	Stainless Steel Flake Tank Electrode Box Assy	
H-2-00 95260	3	Stainless Steel Flake Tank Electrode Box Assy	
H-2-00 95331	1	Liquid Level Reel Arrangement	
H-2-00 95331	2	Liquid Level Reel Arrangement	
H-2-00 95331	3	Liquid Level Reel Arrangement	
H-2-00 95331	4	Liquid Level Reel Arrangement	
H-2-00 95331	5	Liquid Level Reel Arrangement	
H-2-00 95331	6	Liquid Level Reel Arrangement	
H-2-00 95360	1	Flash Tank	
H-2-00 95360	2	Flash Tank	
H-2-00 95360	3	Flash Tank	
H-2-00 95365	1	Liquid Level Plummet	

LISTING OF PRINTS NEEDED FOR TURNOVER

Drawing Number	Sheet	Title	CAD
H-7-00 1275	1	Electrical Symbol	
H-9-00 1105	1	Pump Vertical Turbine Non-Corrosive Service	
H-14-00 10503	6	Dome Penetration Schedules (WST/WSTA) Tank 241-AP-106	Y
H-14-00 10503	8	Dome Penetration Schedules (WST/WSTA) Tank 241-AP-108	Y
H-14-00 20000	1	Tank Farms System P&ID Drawing Legend	Y
H-14-00 20000	2	Tank Farms System P&ID Drawing Legend	Y
H-14-00 20103	1	Ventilation Tank Primary System (VTP) O&M Sys P&ID	Y
H-14-00 20203	1	Ventilation Tank Annulus System (VTA) O&M Sys P&ID	Y
H-14-00 20203	2	Ventilation Tank Annulus System (VTA) O&M Sys P&ID	Y
H-14-00 20303	1	Service & Instrumentation Air System (SA/IS) O&M Sys P&ID	Y
H-14-00 20303	3	Service & Instrumentation Air System (SA/IS) O&M Sys P&ID	Y
H-14-00 20303	5	Service & Instrumentation Air System (SA/IS) O&M Sys P&ID	Y
H-14-00 20503	6	Waste Storage Tank Annulus Instm Sys (WSTA) O&M Sys P&ID	Y
H-14-00 20503	8	Waste Storage Tank Annulus Instm Sys (WSTA) O&M Sys P&ID	Y
H-14-00 20603	6	Waste Storage Tank Primary Instm Sys (WST) O&M Sys P&ID	Y
H-14-00 20603	8	Waste Storage Tank Primary Instm Sys (WST) O&M Sys P&ID	Y
H-14-00 20803	4	Waste Transfer System (WT) O&M Sys P&ID	Y
H-14-00 21803	1	Raw Water System (RW) O&M Sys P&ID	Y
H-14-00 30003	1	Electrical (EDS) One Line Diagram	Y
H-14-00 30003	2	Electrical (EDS) One Line Diagram	Y
H-14-00 30003	22	Electrical (EDS) Panelboard Schedule	Y
H-14-00 30003	23	Electrical (EDS) Panelboard Schedule	Y
H-14-00 30003	27	Electrical (EDS) Panelboard Schedule	Y
H-14-00 30003	28	Electrical (EDS) Equipment Power Isolation Table	Y

Number of Prints to Convert to CAD	217
Number of Prints to Needed for Turnover	261

APPENDIX B

PROCEDURE DEVELOPMENT CHECKLIST

PROCEDURE DEVELOPMENT CHECKLIST

The following checklist was developed to help determine which procedures will be impacted by transferring 241-AP-106 and 241-AP-108 to the vitrification privatization contractors.

1 Does it regulate/influence Farm Facility access? (e.g. gates, training requirements, vehicle access, personnel access)

2 Does it regulate/influence Waste Management/Disposal? (e.g. laundry services, waste pick-ups/disposal, use of Satellite Accumulation Area)

3 Does it affect document review/release?

4 Does it affect work release?

5 Does it specify charters?

6 Does it specify real estate?

7 Does it specify contractor responsibilities/roles/interfaces?

8 Does it affect information/technology/documentation transfer/transmittal protocol?

9 Does it affect configuration management? (e.g. drawing release, configuration control, drawing/configuration ownership)

10 Does it affect Conduct of Operations? (e.g. equipment status, lock and tag, event reporting)

11 Does it affect bargaining unit contracts?

12 Does it affect project management protocol/interfaces?

13 Does it affect training program scope/requirements?

14 Does it affect PHMC/contractors ability to accept non-DOE work scope /funding?

15 Does it affect contractual agreements?

16 Does it affect emissions monitoring? (e.g. stack, soil, water)

17 Does it affect emergency response or reporting requirements?

APPENDIX C

OPERATING PROCEDURES

OPERATING PROCEDURES

Plant Operating Procedures

TO-001-180	EMERGENCY TRANSFER FROM TK-101-AY/TK-102-AY TO TK-104-AP
TO-001-182	EMERGENCY PUMP PROCEDURE FOR AP-FARM
TO-020-005	PERFORM PIT EXAMINATIONS
TO-020-141	IN-TANK VIDEO PROCEDURE
TO-020-193	RESPOND TO LDT-48 ALARMS IN AP TANK FARMS
TO-020-270	PREPARATION FOR WORK IN DIVERSION BOXES OR PITS AND JUMPER CHANGES
TO-020-420	CLEAN, LIT TAPES, PLUMMETS AND DISPLACERS; REPLACE FIC/ROBERT SHAW TAPES
TO-020-430	REMOVE TANK SLUDGE LEVEL WEIGHTS OR MEASUREMENT PENCILS
TO-020-595	LEAK DETECTION PIT/RADIATION DETECTION DRYWELL TRANSFERS
TO-020-755	RECORD STATUS OF FACILITY ALARM PANELS
TO-040-020	OPERATE CASS TERMINALS
TO-040-025	OPERATE CASS CENTRAL FACILITY
TO-040-035	OPERATE THE TMAC SURVEILLANCE SYSTEM FOR UGS TANKS
TO-040-180	OPERATE TANK SURFACE LEVEL MONITORING DEVICES
TO-040-501	PERFORM SURVEILLANCE/SAFETY/HOUSEKEEPING INSPECTION OF 200-EAST TANK FARMS
TO-040-540	RAW WATER SURVEILLANCE AND USAGE
T0-040-560	200 EAST/WEST TANK FARMS SLUDGE LEVEL READINGS
TO-040-590	LEAK DETECTION WELLS AND ANNULUS LEAK DETECTION SYSTEM
TO-040-650	OBTAIN/RECORD DOUBLE-SHELL TANK TEMPERATURE DATA

TO-040-740	PERFORM ROUTINE SURV OF WINTERIZED BLDG EQUIP EAST AREA
TO-060-340	OPERATE 241-AP PRIMARY VENTILATION SYSTEM
TO-060-341	OPERATE 241-AP ANNULUS VENTILATION SYSTEM
TO-100-002	PREPARING AND ISSUING WASTE CONTAINERS
TO-100-003	PERFORM CLEAN-UP OF RODENT CONTAMINATED AREAS
TO-100-010	WASTE TRUCK SUPPORT SERVICES
TO-100-040	ESTABLISH AND INSPECT ACTIVE AND SATELLITE ACCUMULATION AREA CONTAINERS
TO-100-052	PERFORM WASTE GENERATION, SEGREGATION AND ACCUMULATION
TO-100-053	PERFORM SAMPLING & REPACKAGING OF LLW, RMW AND HAZ WASTE
TO-140-170	PRESSURE TEST OF PROCESS PIPELINES AND PIPE ENCASEMENT
TO-220-027	TRANSFER FROM 244-A TO 101-AN
TO-220-096	TRANSFER FROM TK-106-AW TO TK-106-AN
TO-230-276	TRANSFER FROM TK-244-A TO TK-101-AN
TO-270-024	TRANSFER FROM TK-105-AW TO TK-108-AP
TO-270-040	OPERATE 241-AP TEMPERATURE DISPLAY SYSTEM
TO-270-140	OPERATE 241-AP-273 AIR COMPRESSOR SYSTEMS
TO-270-204	TRANSFER FROM 204-AR TO TK-106-AP
TO-270-226	TRANSFER FROM TK-101-AN TO TK-106-AP
TO-270-244	TRANSFER FROM 244-A TO TK-106-AP
T0-270-266	TRANSFER FROM TK-106-AN TO TK 108-AP
TO-270-256	TRANSFER FROM TK-102-AY TO TK-106-AP
TO-270-311	TRANSFER FROM ER-311 TO TK-106-AP

TO-270-344	TRANSFER FROM 244-BX TO TK-106-AP
TO-270-826	TRANSFER FROM B-PLANT CELL 24 TO TK-106-AP
TO-270-828	TRANSFER FROM B-PLANT CELL 24 TO TK-108-AP
TO-430-485	CROSS-SITE TRANSFER FROM TK-102-SY TO TK-104-AP

Operator Routine Surveillance Procedures

TF-OR-A-03	AP, AW TANK FARMS
TF-OR-EF-AP	AP TANK FARM ROUNDS

Alarm Response Procedures

ARP-T-271-00106	RESPOND TO PANEL 106 ALARMS AT 271-AP
ARP-T-271-00108	RESPOND TO PANEL 108 ALARMS AT 271-AP
ARP-T-271-AUX	RESPOND TO PANEL AUX ALARMS AT 271-AP
ARP-T-271-HVAC	RESPOND TO PANEL HVAC ALARMS AT 271-AP
ARP-T-271-RM	RESPOND TO PANEL RM ALARMS AT 271-AP
ARP-T-601-AB2	RESPOND TO PANEL AB2 ALARMS AT THE 242-A EVAPORATOR
ARP-T-601-081	RESPOND TO FACEPLATE # 81 ALARMS AT THE 242-A EVAPORATOR
ARP-T-601-290	RESPOND TO FACEPLATE # 290 ALARMS AT THE 242-A EVAPORATOR
ARP-T-601-295	RESPOND TO FACEPLATE # 295 ALARMS AT THE 242-A EVAPORATOR

Preventative Maintenance Procedures

3-MISC-363	WINTERIZATION/DE-WINTERIZATION EAST TANK FARMS
6-TF-155AE	APPENDIX AE, 241-AP ANNULUS EXHAUSTER STACK 296-A-41 AIR FLOW TEST DATA SH
6-TF-155B	APPENDIX B, 241-AP TANK EXHAUSTER STACK 296-A-40 AIR FLOW TEST DATA SHEETS

6-TF-156AD	APPENDIX AD, 241-AP TANK FARM ANNULUS INLET FILTER AEROSOL TEST DATA SHEET
6-TF-221	INSPECTION OF CATHODIC PROTECTION SYSTEM
6-TF-225	INSPECTION OF EAST TANK FARM TRANSFORMERS
6-TF-233	OPERATING LOAD CHECK & THERMAL HEATING SUREY OF THE 241-AP AREA DISTRIBUTI
6-TF-357ET (ET)	CATHODIC PROTECTION SYSTEM TESTING EAST TANK FARMS

Functional Test Procedures

TF-EFT-279-110	PERFORM BUILDING AP-271 RADIATION MONITORING FUNCTIONAL TEST
TF-FT-049-002	PERFORM FOOD INSTRUMENT CORPORATION LIQUID LEVEL GAUGE FUNCTIONAL TEST
TF-FT-049-003	PERFORM ENRAF FUNCTIONAL TEST
TF-FT-049-004	PERFORM MANUAL TAPE FUNCTIONAL TEST
TF-FT-049-006	PERFORM LEAK DETECTION FUNCTIONAL TEST FOR SUPERNATANT AND SLURRY TRANSFER
TF-FT-279-001	PERFORM DOUBLE SHELL TANK 241-AP PRESSURE FUNCTIONAL TEST
TF-FT-279-008	PERFROM AP DST 101 THROUGH 108 ANNULUS LEAK DETECTION FUNCTIONAL TEST
TF-FT-279-016	PERFORM AP DST 101 THROUGH 108 ANNULUS CAM LEAK DETECTION FUNCTIONAL TEST
TF-ICF-020-001	PERFORM WASTE TANK DOME ELEVATION SURVEYS

Operating Specification Documents

OSD-T-151-00007	OPERATING SPECIFICATIONS FOR 241-AN,AP,AW,AY,AZ & SY TANK FARMS
OSD-T-151-00031	OPERATING SPEFICIATIONS FOR TANK FARM LEAK DETECTION

Criticality Specification Documents

CPS-T-149-00010	WASTE STORAGE IN DOUBLE-SHELL TANKS AND ASSOCIATED EQUIPMENT

APPENDIX D

ADMINISTRATIVE PROCEDURES

ADMINISTRATIVE PROCEDURES

LEVEL I & II PROCEDURES

WHC-CM-1-3, Management Requirements and Procedures

GENERAL MANAGEMENT

1.1	Managing DOE Directives (HNF-PRO-116)
1.5	Obtaining Conflict of Interest Determinations (HNF-PRO-165)
1.6	Release of Information to the Public (HNF-PRO-165)
1.16	Performing Work for Others (HNF-PRO-106)
1.25	Responding to RL Direction (HNF-PRO-107)
1.27	Determining Allowable Costs (HNF-PRO-99)
1.29	Internal Assessments
	HNF-PRO-551 (Construction Program)
	HNF-PRO-555 (System Configuration Management Plan)
	HNF-PRO-556 (Verification and Validation Reports}
1.31	Managing Data and Information (HNF-PRO-656)

FINANCIAL AND ADMINISTRATIVE SERVICES

2.1	Authorizing Expenditures (HNF-PRO-695)
2.16	Processing CM System Procedures (HNF-PRO-589)
2.21	Requesting and Processing Waivers to Controlled Manuals (HNF-PRO-589)

INFORMATION RESOURCE MANAGEMENT

- 3.7 Reproduction Services
- 3.8 Determining Signature Authority for Official External Correspondence (HNF-PRO-113)
- 3.9 Mail Services (HNF-PRO-698)
- 3.10 Photography and Audiovisual Services
- 3.17 Telephone Services
- 3.20 Cellular Telephone Service

OPERATIONS ASSURANCE

- 5.10 Waste Management Unit Management
- 5.12 Identifying and Resolving Unreviewed Safety Questions (See WHC-CM-1-5, 7.3)
- 5.44 Waste Minimization Program (See WHC-CM-7-5, 14.0)

TECHNICAL AND OPERATIONAL SERVICES

- 6.12 Building Management
- 6.15 Facility Shutdown, Standby, and Transfer

WHC-CM-1-4 Corrective Action Management Manual
(Replaced in its entirety HNF-PRO-052)

WHC-CM-1-5 Standard Operating Practices

1.0 OPERATIONS ORGANIZATION AND ADMINISTRATION

- 1.2 Startup and Restart of Facilities (HNF-PRO-55)

2.0 SHIFT ROUTINES AND OPERATING PRACTICES

3.0 CONTROL AREA ACTIVITIES

4.0 COMMUNICATIONS

5.0 CONTROL OF ON-SHIFT TRAINING

5.1 Operational Drill Program
(HNF-PRO-56)

6.0 INVESTIGATION OF ABNORMAL EVENTS

6.2 Critiquing Events
(HNF-PRO-58)

7.0 NOTIFICATIONS

7.1 Reporting Occurrences and Processing Operations Information
(HNF-PRO-60)

7.2 Reporting Safety Concerns for NRC Programs/Facilities
(HNF-PRO-061)

7.3 Identifying and Resolving Unreviewed Safety Questions
(HNF-PRO-062)

8.0 CONTROL OF EQUIPMENT AND SYSTEM STATUS

8.1 Alarm Management
(HNF-PRO-063)

8.2 Tagging Portable Tools and Equipment Out of Commission
(HNF-PRO-064)

9.0 LOCKOUTS AND TAGOUT

9.2 Electrical Utilities Lock and Tag Program
(HNF-PRO-66)

10.0 INDEPENDENT VERIFICATION

11.0 LOGKEEPING

12.0 OPERATIONS TURNOVER

13.0 OPERATIONS ASPECTS OF FACILITY CHEMISTRY AND UNIQUE PROCESSES

14.0 REQUIRED READING

14.1 Managing Lessons Learned
(HNF-PRO-67)

15.0 TIMELY ORDERS TO OPERATORS

15.1 Shutdown and Stop-Work Direction

16.0 OPERATIONS PROCEDURES

17.0 OPERATOR AID POSTINGS

18.0 EQUIPMENT AND PIPING LABELING

WHC-CM-1-8 Work Management Manual

1.0 Fundamentals
(HNF-PRO-69)

2. Work Document Processing
(WHC-IP-1217)

3. Plant Forces Work Review
(HNF-PRO-070)

4. Work Turndown Process
(See WHC-CM-1-3, 4.7)

6. Preparing Excavation Permits
(HNF-PRO-473)

7. Plant Instrumentation and Equipment Status Labeling
(HNF-PRO-072)

WHC-CM-1-10 Safety Manual

1 Safety Responsibilities
(HNF-PRO-074)

2 Safety Communications
(HNF-PRO-075)

3 Safety Inspection
(HNF-PRO-076)

4 Reporting and Investigating Accidents, Injuries, and Illnesses
(HNF-PRO-077)

5 Subcontractor Safety and Health Management
(HNF-PRO-078)

6 Pre-Job Safety Planning
(HNF-PRO-079)

7 Worksite First Aid
(HNF-PRO-080)

8 Hazardous Energy Control Standard
(HNF-PRO-081)

10 Personal Protection
(HNF-PRO-083)

11 Safety Showers and Eyewashes
(HNF-PRO-084)

12 Hand and Portable Power Tools
(HNF-PRO-085)

13 Machine Guarding
(HNF-PRO-086)

14 Storing, Using, and Handling Compressed Gases
(HNF-PRO-087)

15 Electrical Work Safety
(HNF-PRO-088)

16 Electrical Installation Safety
(HNF-PRO-089)

17 Excavating, Trenching, and Shoring
(HNF-PRO-090)

18 Walking/Working Surfaces
(HNF-PRO-091)

19 Fall Protection
(HNF-PRO-092)

20 Elevating Work Platforms
(HNF-PRO-093)

21 Ladders
(HNF-PRO-094)

22 Scaffolding
(HNF-PRO-095)

23 Erecting Steel Structures
(HNF-PRO-591)

24 Concrete and Masonry Construction
(HNF-PRO-577)

25 Material Handling and Storage
(HNF-PRO-096)

26 Demolition
(HNF-PRO-576)

27 Transportation Safety
(HNF-PRO-100)

28 Signs, Tags, and Barriers
(HNF-PRO-101)

29 Safety Color Coding
(HNF-PRO-102)

30 Control of Working Hours and Working Alone
(HNF-PRO-103)

32 Steam Distribution System Safety
(HNF-PRO-105)

HNF-MD-003 Contractor Identifiers in Controlled Information Product
(HNF-PRO-604)

HNF-MD-006 Identifying/Reporting a DOE Nuclear Safety Requirement Noncompliance

WHC-CM-1-11 Industrial Hygiene Manual

WKH-1	Industrial Hygiene Program Overview
WKH-2	Asbestos Control
WKH-4	Carcinogen Control
WKH-5	Confined Space Program (HNF-PRO-110)
WKH-6	Occupational Medical Qualification and Monitoring (HNF-PRO-111)
WKH-8	Hazard Communication

WKH-9	Hazardous Waste Operations & Emergency Response
WKH-11	Process Safety
WKH-14	Lead Control Program (HNF-PRO-119)
WKH-17	Industrial Hygiene Records Management

WHC-CM-2-3 Property Management Manual

4.3 Reporting Loss/Damage/Destruction of Government-Owned Property (HNF-PRO-137)

7.5 Transfer of Property to Other Hanford Contractors (HNF-PRO-146)

7.7 Disposition of Non-Capitol Equipment Used in Radiation Zones

8.1 Management of Government-Owned Property in the Possession of Subcontractors and Vendors (HNF-PRO-150)

9.1 Property Management Walkthroughs (HNF-PRO-374)

WHC-CM-2-5 Management Control System

HNF-MD-008	Baseline Change Control
HNF-MD-013	Work Breakdown Structure
HNF-MD-015	Cost Account Plan
HNF-MD-017	Multi-Year Work Plan
HNF-MD-019	Project Work Authorization
HNF-MD-022	Incoming External Work Orders
HNF-MD-023	Work for Others

1.0 DEFINE AND ORGANIZE WORK

1.1 Work Breakdown Structure, Index and Dictionary (HNF-PRO-518)

2.0 PLANNING AND WORK ORGANIZATION

2.1 Cost Account Authorization
(HNF-PRO-521)

2.2 Cost Account Plan
(HNF-PRO-522)

2.3 Baseline Management
(HNF-PRO-523)

2.4 Funds Management
(HNF-PRO-524)

2.5 External Work Orders
(HNF-PRO-525)

2.8 Capital Equipment Not Related to Construction
(HNF-PRO-526)

3.0 REPORTING

3.1 Data Analysis and Variance Reporting
(HNF-PRO-527)

Appendix A, Cost Performance Analysis and Trend Analysis Techniques

Appendix B, Variance Analysis Report, Form and Preparation Instructions

Appendix C, Financial Data System Reports

3.2 Estimates at Completion
(HNF-PRO-528)

3.3 Agreements, Commitments and Action Items

3.4 Project Reporting
(HNF-PRO-529)

3.5 Site Management System Reporting
(HNF-PRO-530)

4.1 Change Control
(HNF-PRO-533)

5.0 SURVEILLANCE

5.1 Surveillance
(HNF-PRO-534)

5.2 Associate Contractors

5.3 Acceptance Review
(HNF-PRO-535)

6.0 REFERENCE MATERIAL

Appendix A, Glossary and Acronym List
(HNF-PRO-536)

WHC-CM-2-14 Hazardous Material Packaging and Shipping

PART I Introduction
(HNF-PRO-152)

PART II Responsibilities and Procedures for all Hazardous Material Shipments
(HNF-PRO-154)

PART III Nonradioactive Hazardous Materials/Hazardous Waste (HM/HW) Shipments
(HNF-PRO-156)

PART IV Radioactive Material Shipments
(HNF-PRO-157)

PART V Shipping and Receiving Hazardous Material in the 1100 Area
(HNF-PRO-158)

PART VI Cargo Tanks/Cargo Tank Motor Vehicles
(HNF-PRO-160)

PART VII Documentation and Record Keeping
(HNF-PRO-163)

PART VIII Transportation Safety Training Requirements
(HNF-PRO-166)

APPENDIXES

D1. Prenotification Requirements for Offsite Shipments of Spent Fuel and High Level Radioactive Waste

D2. Prenotification Requirements for Offsite Shipments of Highway Route Controlled Quantities of Radioactive Materials

WHC-CM-2-15 Training Standards

EXECUTIVE SUMMARY

1.0 SYSTEMATIC APPROACH TO TRAINING

- 1.1 Using the SAT Model for Training (HNF-PRO-167)

2.0 TRAINING ORGANIZATION

- 2.1 Employee Training (HNF-PRO-168)
- 2.2 Assigning Training Responsibilities (HNF-PRO-169)

3.0 TRAINING ANALYSIS

- 3.1 Analyzing Training Requirements (HNF-PRO-170)

4.0 TRAINING DESIGN

- 4.1 Designing Training (HNF-PRO-171)

5.0 TRAINING DEVELOPMENT

- 5.1 Developing Training (HNF-PRO-172)

6.0 TRAINING IMPLEMENTATION

- 6.1 Implementing Training (HNF-PRO-173)

7.0 TRAINING EVALUATION

- 7.1 Evaluating Training (HNF-PRO-174)

8.0 QUALIFICATION PROGRAMS

- 8.1 Developing a Qualification Program (HNF-PRO-175)
- 8.2 Preparing Qualification Programs at Nuclear Facilities (HNF-PRO-176)

8.3 Preparing Certification Programs at Nuclear Facilities (HNF-PRO-177)

8.4 Qualifying Instructional Staff (HNF-PRO-178)

HNF-PR0-249 (Training Course Administration and Records)

9.0 PROCEDURES

9.1 Obtaining Training Exceptions and Extensions (HNF-PRO-179)

WHC-CM-3-4 Information Release Administration

IRA-1.1 Introduction (HNF-PRO-184)

IRA-1.4 Use of References (HNF-PRO-185)

IRA-1.5 Information Release Forms (HNF-PRO-187)

IRA-1.6 Processing Business-Sensitive Information (HNF-PRO-188)

IRA-2.1 Public Release: New Documents, Full Revisions, Changes (HNF-PRO-189)

IRA-2.2 Pre-Consolidation Documents (HNF-PRO-191)

IRA-2.6 Computer Software (HNF-PRO-199)

IRA-3.1 Limited Distribution Documents (HNF-PRO-201)

IRA-4.1 Uncontrolled General and Administrative (HNF-PRO-203)

IRA-5.2 Outside Requests (HNF-PRO-206)

1.0 General
(HNF-PRO-208)

1.1 Performing Management Implementation Reviews
(HNF-PRO-209)

1.2 Records Management Program
(HNF-PRO-210)

1.3 Administrative Record
(HNF-PRO-211)

4.0 Records Inventory and Disposition Schedules
(HNF-PRO-214)

5.0 Records Storage, Retrieval, and Destruction
(HNF-PRO-215)

6.0 Vital Records Protection Program
(HNF-PRO-216)

8.4 Other Records Management Activities, File Equipment Procurement
(HNF-PRO-221)

9.0 Quality Assurance Records
(HNF-PRO-222)

12.0 Document Control
(HNF-PRO-224)

12.2 Classified Document Control
(HNF-PRO-226)

12.3 Micrographics/Vault Services
(HNF-PRO-027)

12.4 Central Files and Distribution of Non-Copy-Controlled Documents
(HNF-PRO-228)

12.5 Technical Procedure Standard
(HNF-PRO-229)

12.7 Approval of Environmental, Safety and Quality Affecting Documents
(HNF-PRO-233)

12.8 Controlling Field, Laboratory, and Facility Notebooks/Logbooks
(HNF-PRO-230)

12.9 Correspondence and Commitment Control
(HNF-PRO-231)

12.10 Project and Task Document Management
(HNF-PRO-232)

WHC-CM-4-2 Quality Assurance Manual

QR 1.0 ORGANIZATION
(HNF-MP-599)

QR 2.0 QUALITY ASSURANCE PROGRAM
(HNF-MP-599; HNF-PRO-232 & HNF-PRO-053)

QI 2.1 Quality Assurance Program Planning - Project Type Activities
(HNF-PRO-261)

QI 2.4 Qualification and Certification of Inspection and Test Personnel
(HNF-PRO-263)

QR 10.0 INSPECTION AND SURVEILLANCE
(HNF-MP-599)

QR 12.0 CONTROL OF INSTRUMENTS
(HNF-MP-599)

QI 12.2 Operator Calibrated Measuring and Test Equipment

QI 12.3 Calibration Control of Plant-Installed Instrumentation

QI 12.4 Calibration Control of Measuring and Test Equipment

QI 12.5 Statistically Controlled Analytical Instruments

QI 12.6 Determinately Controlled Laboratory Instruments

QI 13.4 Chain-of-Custody for Samples of Environmental Media and Wastes

QR 15.0 CONTROL OF NONCONFORMING ITEMS
(HNF-MP-599)

QI 15.1 Nonconforming Item Reporting
(HNF-PRO-298)

QI 15.2 Nonconformance Report Processing
(HNF-PRO-298)

QI 15.6 Control of Suspect/Counterfeit Items
(HNF-PRO-301)

QR 18.0 INDEPENDENT ASSESSMENTS
(HNF-MP-599; HNF-PRO-246 & HNF-PRO-651)

WHC-CM-4-27 Radiological Control Practices and Procedures

1.0 GENERAL ADMINISTRATIVE

1.2 Preparing, Reviewing, and Approving Completed Decision Making Packages
(HNF-PRO-315)

1.3 Using the Radiological Control Interpretive Authority Process
(HNF-PRO-316)

1.5 Radiological Control Lessons Learned Program
(HNF-PRO-318)

1.6 Performing Radiological Control Self-Assessments
(HNF-PRO-319)

2.11 Using Dosimetry During Tours
(HNF-PRO-322)

5.0 TRAINING

5.1 Performing Radiological Training
(HNF-PRO-329)

5.2 Training and Qualifying Radiological Control Technicians
(HNF-PRO-386)

WHC-CM-4-29 Nuclear Criticality Safety Manual

1.0 General Requirements
(HNF-PRO-334)

2.0 Criticality Safety Control of Fissionable Material
(HNF-PRO-537)

3.0 Nuclear Criticality Safety Training
(HNF-PRO-538)

4.0 Criticality Safety Evaluation
(HNF-PRO-539)

5.0 Criticality Prevention Specifications
(HNF-PRO-540)

6.0 Criticality Safety Postings
(HNF-PRO-541)

7.0 Labeling Fissionable Material
(HNF-PRO-542)

8.0 Fissionable Material Storage
(HNF-PRO-543)

9.0 Plant Configuration Control
(HNF-PRO-544)

10 Fissionable Material Packaging and Transportation
(HNF-PRO-545)

11 Criticality Alarm System
(HNF-PRO-546)

12 Criticality Accident Dosimeters
(See WHC-CM-4-14, PNL-MA-568, PNL-MA-583)

13 Criticality Safety for Firefighting
(HNF-PRO-547)

14 Inspections and Assessments
(HNF-PRO-548)

15 Recovery from Criticality Safety Nonconformance
(HNF-PRO-549)

16 Responding to a Criticality or Potential Criticality
(HNF-PRO-550)

WHC-CM-4-33 Security Manual

1.0 PERSONNEL SECURITY

1.1 Pre-Employment Investigation Program
(HNF-PRO-366)

1.2 Processing Security Clearances and Reporting, Required Information
(HNF-PRO-389)

1.3 Special Access Authorization
(HNF-PRO-412)

1.5 Security Badges
(HNF-PRO-412)

1.6 Escorting
(HNF-PRO-390)

1.7 Controlling Site Visits and Tours
(HNF-PRO-413)

1.9 Issuing and Controlling Building-Specific Security Badges
(HNF-PRO-391)

1.11 Hosting and Escorting Unclassified Foreign National Visitors and Assignees
(HNF-PRO-392)

1.12 Obtaining a Private Vehicle Pass
(HNF-PRO-415)

2.0 SECURITY OPERATIONS

2.1 Reporting Security Incidents
(HNF-PRO-416)

2.4 Controlling Security Locks and Keys
(HNF-PRO-393)

2.7 Controlling Prohibited Articles
(HNF-PRO-417)

2.10 Physical Protection of Property and Facilities
(HNF-PRO-394)

2.11 Removal of Non-Inspective Material
(HNF-PRO-395)

2.13 Use of Explosives on Hanford Site
(HNF-PRO-336)

2.16 Reporting Foreign Travel
(HNF-PRO-418)

2.17 Security Awareness and Education
(HNF-PRO-397)

2.18 Obtaining Special Medical Access Authorization
(HNF-PRO-398)

2.19 Requesting Access to the Patrol Academy Surface Danger Zone
(HNF-PRO-399)

3.0 INFORMATION SECURITY

3.1 Classified Computer Security
(HNF-PRO-400)

3.3 Reporting Classified Computer Security Incident
(HNF-PRO-401)

3.10 Telecommunications Security
(HNF-PRO-403)

3.12 Classified Work for Others
(HNF-PRO-404)

3.13 Protecting and Controlling Classified Matter
(HNF-PRO-405)

4.0 SECURITY SYSTEMS MAINTENANCE

5.0 SITE SAFEGUARDS AND SECURITY PROGRAM PLANNING

5.1 Site Safeguards and Security Program Planning Requirements
(HNF-PRO-427)

WHC-CM-4-40 Industrial Hygiene Manual

SECTION 1 - INDUSTRIAL HYGIENE PROGRAM

1.1 Industrial Hygiene Program Overview

1.2 Hazard Assessment and Control

1.3 Medical and Exposure Records

1.4 Training

SECTION 2 - CHEMICAL HAZARDS

2.1 Hazard Communication Program
(HNF-PRO-578)

2.2 Carcinogen Control Program
(HNF-PRO-579)

2.3 Asbestos Control Program

2.4 Storing and Handling Chemicals
(HNF-PRO-699)

2.6 Process Safety Management
(HNF-PRO-580)

2.7 Chemical Spills and Releases

2.15 Lead

2.16 Pesticides

2.18 Laboratory Safety
(HNF-PRO-587)

2.19 Health and Safety for Hazardous Waste Field Operations
(HNF-PRO-599)

Appendix A - Acronyms and Abbreviations

Appendix B - Health and Safety Program Guidance

Appendix C - Site Characterization and Analysis Guidance

Appendix D - Site Control Guidance

Appendix E - Training Guidance

Appendix F - Medical Surveillance Guidance

Appendix G - Employee Protection Guidance

Appendix H - Monitoring Guidance

Appendix I - Information Programs Guidance

Appendix J - Drum and Container Handling Guidance

Appendix K - Decontamination Guidance

Appendix L - Emergency Response Guidance

Appendix M - Illumination Guidance

Appendix N - Sanitation Guidance

Appendix O - New Technology Program Guidance

Appendix P - References

2.20 Hazardous Waste Operations at RCRA TSD Facilities
(HNF-PRO-599)

2.21 Hazardous Waste Operations Emergency Response (HNF-PRO-599)

SECTION 3 - PHYSICAL HAZARDS

3.1 Confined Space Entry (See WHC-CM-1-11)

3.3 Human Factors

3.4 Temperature Extremes (See WHC-CM-1-11)

3.5 Noise/Hearing Conservation (See WHC-CM-1-11, WKH-10)

3.6 Ventilation

3.7 Using Nonionizing Radiation Sources (HNF-PRO-582)

3.8 Using Lasers (HNF-PRO-583)

3.9 Illumination

SECTION 4 - BIOLOGICAL HAZARDS

4.1 Occupational Exposure to Bloodborne Pathogens (HNF-PRO-584)

4.2 Indoor Air Quality

4.3 Drinking Water Quality

4.4 Sanitation

SECTION 5 - PROTECTIVE EQUIPMENT

5.2 Respiratory Protection Standard (See WHC-CM-1-11, WKH 15)

5.3 Respiratory Protection Manual (See WHC-CM-1-11, WKH 15)

WHC-CM-4-41 Fire Protection Program Manual

SECTION 1 - FIRE PROTECTION PROGRAM

1.1 Fire Protection Program Overview
(HNF-PRO-340)

1.2 Fire Protection Policy Statement
(HNF-PRO-341)

1.3 Responsibilities
(HNF-PRO-342)

SECTION 2 - MANAGEMENT AND ADMINISTRATION

2.1 Exemptions and Equivalencies
(HNF-PRO-344)

2.2 Fire Protection Corrective Actions
(HNF-PRO-345)

2.4 Fire Protection in Facility Operating Procedures
(HNF-PRO-346)

2.6 Employee Fire Protection Training
(HNF-PRO-347)

2.7 Fire Protection Records
(HNF-PRO-348)

SECTION 3 - FIRE PROTECTION DESIGN

3.1 Fire Protection Design Criteria
(HNF-PRO-349)

3.4 Fire Hazard Analysis Requirements
(HNF-PRO-350)

SECTION 4 - FIRE PROTECTION SYSTEMS

4.2 System Testing/Inspecting and Maintenance Frequencies
(HNF-PRO-351)

4.3 Fire Protection System Discrepancies
(HNF-PRO-352)

4.4 Fire Protection System Winterization
(HNF-PRO-353)

SECTION 5 - FIRE PREVENTION PROCEDURES

5.1 Fire Watch Requirements
(HNF-PRO-354)

5.2 Portable Heaters
(HNF-PRO-355)

5.3 Controlling Hotwork
(HNF-PRO-356)

5.5 Flammable/Combustible Liquids
(HNF-PRO-358)

5.6 Control of Combustibles
(HNF-PRO-359)

5.8 Construction Sites
(HNF-PRO-360)

SECTION 6 - FIRE PROTECTION PROCEDURES

6.1 Portable Fire Extinguishers
(HNF-PRO-361)

6.2 Nonemergency Use of Fire Hydrants
(HNF-PRO-362)

6.3 Building Emergency Exits
(HNF-PRO-363)

6.5 Fire Barriers
(HNF-PRO-365)

SECTION 7 - SPECIAL HAZARDS PROTECTION PROCEDURES

7.3 Oxidizing Materials
(HNF-PRO-367)

7.6 Laboratories
(HNF-PRO-368)

7.7 Pyrophoric Materials
(HNF-PRO-369)

7.9 Hazardous Material Storage
(HNF-PRO-370)

7.13 Disposal of Waste Absorbent Material
(HNF-PRO-371)

SECTION 8 - HANFORD FIRE DEPARTMENT

8.1 Hanford Fire Department
(HNF-PRO-372)

8.2 Hanford Fire Department Coordination Requirements
(HNF-PRO-373)

WHC-CM-4-43 Emergency Management Procedures
(DOE 0223 (Intranet))
(HNF-PRO-424)

WHC-CM-4-46 Safety Analysis Manual

WHC-CM-6-1 Standard Engineering Practices

EP-1.2 Specification Requirements
(HNF-PRO-241)

EP-1.3 Engineering Drawing Requirements
(HNF-PRO-242)

EP-1.5 Interface Control Requirements
(HNF-PRO-243)

EP-1.6 Engineering Data Transmittal Requirements
(HNF-PRO-244)

EP-1.7 Engineering Document Approval and Release Requirements
(HNF-PRO-317)

EP-1.12 Supporting Document Requirements
(HNF-PRO-439)

EP-2.2 Document Change Control Requirements
(HNF-PRO-440)

EP-2.4 Development Control Requirements
(HNF-PRO-441)

EP-3.3 Vendor Information Requirements
(HNF-PRO-444)

EP-4.2 Testing Requirements
(HNF-PRO-446)

EP-5.3 Interim Design Authority/Design Agent Engineering Process Requirements (HNF-PRO-448)

WHC-CM-6-2 Project Management

WHC-CM-7-5 Environmental Compliance

2.0 Air Quality
(HNF-PRO-450)

3.0 Regulated Substance Management
(HNF-PRO-451)

4.0 National Environmental Policy Act/State Environmental Policy Act
(HNF-PRO-452)

5.0 Records, Reporting and Response Activities
(HNF-PRO-453)

7.0 Solid Waste Management
(HNF-PRO-455)

8.0 Water Quality
(HNF-PRO-456)

9.0 New and Modified Facilities
(HNF-PRO-457)

10.0 Regulatory Permitting
(HNF-PRO-450, 455, & 456)

11.0 Environmental Training
(HNF-PRO-459)

12.0 Preservation of Cultural and Natural Resources

13.0 Environmental Issue Identification, Review, and Interface Requirements
(HNF-PRO-461)

14.0 Pollution Prevention
(HNF-PRO-462)

APPENDIXES

B Environmental Statutes, Regulations and Orders Environmental to Westinghouse Hanford Company

(HNF-PRO-690)

C Derived Concentration Guides
(HNF-PRO-690)

D Maximum Contaminant Levels

E Compliance Agreements and Consent Orders
(HNF-PRO-468)

H NEPA Site-Wide Categorical Exclusions (SWCX)

J Westinghouse Hanford Company RCRA Contingency Planning Program
(HNF-PRO-692)

WHC-CM-8-7 Operations Support Services

100 CHARTERS

200 DIRECTIVES

220 Cold Weather Protection
(HNF-PRO-472)

300 MANUALS, PROCEDURES, AND INSTRUCTIONS

503 SPECIAL PERMITS

503.1 Performing Excavation Activities
(HNF-PRO-473)

503.2 Core Drilling/Tie-In Permit
(HNF-PRO-474)

600 TRAINING

700 SITE SERVICES

720 Electric Service Request
(HNF-PRO-478)

721 Pole Contact Permits
(HNF-PRO-479)

723 Hanford Site Highway Corridor
(HNF-PRO-480)

724 Electrical Utilities Interface Agreement with Facilities/Plants
(HNF-PRO-481)

731 Controlling Cross Connection
(HNF-PRO-482)

751 Repair of ASME-Coded Pressure Systems
(HNF-PRO-488)

762 Control of Abrasive Devices

906 Road and Traffic Systems
(HNF-PRO-493)

LEVEL III PROCEDURES

WHC-CM-2-4 Property and Inventory Accounting Manual

WHC-CM-4-5 Quality Assurance Qualifications and Instructions

WHC-CM-4-14 Applied Radiological Controls

WHC-CM-4-35 Safeguards and Security

1.5 Response Plan-Investigation of Confirmatory Measurements which Fail Acceptance
(HNF-PRO-606)

1.6 Conducting Special Inventories following Emergency Evacuations of SNM Facilities
(HNF-PRO-607)

WHC-CM-4-50 Safeguards Accounting Manual

WHC-CM-4-55 Patrol Policies, Procedures, and Training

WHC-CM-6-49 TWRS Environmental Compliance Self Assessment Program Manual

WHC-CM-7-4 Operational Environmental Monitoring

WHC-CM-7-7 Environmental Investigations and Site Characterization Manual

WHC-CM-7-8 Environmental Activities

HNF-IP-0030 Fire Protection

FP-2.3 Fire Protection Facility Assessment
(HNF-PRO-684)

FP-2.4 Fire Protection Program Assessment
(HNF-PRO-685)

HNF-IP-0541 Emergency Assignment Roster and Phone Lists

HNF-IP-0718 General Emergency Radiological Recovery Checklists (HNF-PRO-661)

HNF-IP-0718 Health Physica Techincal Practicies and Procedures

PART 1

6.1 Release Surveys
(HNF-PRO-677)

7.1 Survey Method for Reposting Outdoor Contamination Areas
(HNF-PRO-678)

PART 2

3.1.11 Radiological Survey Report
(HNF-PRO-679)

APP 1

2.1 Establishment of Personnel Dose Rates
(HNF-PRO-682)

5.1 Scheduled Radiation Survey Report
(HNF-PRO-683)

PART 11.1 OFFSITE RADIATION SURVEYS
(HNF-PRO-687)

HNF-IP-1037 Operations Security - All sections
(HNF-PRO-500)

HNF-IP-1041 Training & Qualification
(HNF-PRO-494)

HNF-IP-1043 Radiation Protection
(HNF-PRO-506)

HNF-IP-1184 Training and Qualifications

1-1 HGET
(HNF-PRO-057)

1-2 Environmental Safety and Training
(HNF-PRO-059)

1-3 Environmental Training
(HNF-PRO-065)

1-5 Radiological Control Technician Training
(HNF-PRO-071)

1-6 Radiological Worker Training
(HNF-PRO-082)

1-7 Instructional Staff Training and Qualification
(HNF-PRO-118)

1-8 Nuclear Process Operator Training Program
(HNF-PRO-153)

1-9 Operations Management Fundamentals Training Program
(HNF-PRO-155)

1-10 ALARA Program Description
(HNF-PRO-159)

1-11 Criticality Safety Training Program Description
(HNF-PRO-161)

3-1 Training Matrix Capabilities & Access
(HNF-PRO-164)

3-2 Training Scheduling and Registration
(HNF-PRO-247)

3-3 Training Course Administration & Records
(HNF-PRO-249)

HNF-IP-1244 Radiological Control Document Dev & Control
(HNF-PRO-507 & 508)

HNF-IP-1246	Radiological Control Support Practices and Procedures
SP-1145	Flour Daniel Hanford Radiation Protection Program Implementation of Title 10, Code of Federal Regulations, Part 835 (HNF-PRO-658)
HNF-MP-001	Management and Integration Plan
HNF-MP-003	Integrated Safety Management System
HNF-MP-004	Safeguards and Security Plan
HNF-MP-005	Risk Management Plan
HNF-MP-007	Systems Engineering Management Plan
HNF-MP-009	Information Resource Management Plan
HNF-MP-011	Sitewide Qualification and Training Plan
HNF-MP-012	Integrated Hanford Communication Plan
HNF-MP-013	Configuration Management Plan
HNF-MP-014	Quality Assurance Plan
HNF-MP-015	Requirements Management Plan
HNF-PRO-52	Corrective Action Management
HNF-PRO-70	Plant Forces Work Review (Davis-Bacon Act Compliance)
HNF-PRO-149	Utilities Water Application/Metering for Services

HNF-PRO-246	Management Assessment
HNF-PRO-283	Control of Inspections
HNF-PRO-265	Developing and Maintaining S/RIDS
HNF-PRO-408	Asbestos General Industry - Facility Management
HNF-PRO-409	Exposure Monitoring, Reporting, and Exposure Records Management
HNF-PRO-419	Technical Issues Management List Procedure
HNF-PRO-428	Hanford Site Technical Baseline Change Control
HNF-PRO-602	Radiation Protection Center of Expertise Operations
HNF-PRO-603	Roles and Responsibilities of the Radiation Protection Center of Expertise
HNF-PRO-653	Deficiency Tracking System
HNF-PRO-655	Environmental QA Programs
HNF-PRO-688	External Dosimetry Investigations
HNF-PRO-700	Safety Analysis & Technical Safety Requirements
HNF-PRO-701	Safety Analysis Process - Existing Facility
HNF-PRO-702	Safety Analysis Process - Facility Change or Modification
HNF-PRO-704	Hazard and Accident Analysis Process

HNF-PRO-708 Stop Work

HNF-PRO-709 Preparation and Control Requirements for Engineering Drawings

HNF-IP-0842 TWRS Admininstrative Manual

SD-WM-TR-026 Dangerous Waste Training Plan

SD-WM-IP-0974 Dangerous Waste Training Matrices

APPENDIX E

CALIBRATION DATASHEETS REQUIRING MODIFICATIONS

CALIBRATION DATASHEETS REQUIRING MODIFICATIONS

Component Number	Activity Title
A-40-106-TK-PSYCH	241-AP 106 TK PSYCH
A-40-108-TK-PSYCH	241-AP 108 TK PSYCH
A-41-106-ANN-PSYCH	241-AP 106 ANN PSYCH
A-41-108-ANN-PSYCH	241-AP 108 ANN PSYCH
AI-106-1-AP	SUPERNATANT PUMP AMMETER
AI-108-1	SUPERNATANT PUMP AMMETER
AI-106-2-AP	SUPERNATANT PUMP AMMETER
AI-108-2-AP	SUPERNATANT PUMP AMMETER
AP241-VTA-FLT-222	105/106 ANN INLT FLT K2-4-3
AP241-VTA-FLT-232	107/108 ANN INLT FLT K2-4-4
AP904-WSTA-CAM-106	TK 241AP 106 ANNN EXH CAM
AP904-WSTA-CAM-108	TK 241AP 108 ANN EXH CAM
AY-AP-C	AMPERAGE TO VOLTAGE CONVRTR
AY-AP-D	AMPERAGE TO VOLTAGE CONVRTR
C8-S48	241-AP SUB STA INSP & MAINT
CVT-106-AP-1	RAN 106-1 INPUT CONVERTER MV/V
CVT-108-AP-1	RAN 108-1 INPUT CONVERTER NV/V
DPA-K2-10	INTAKE STATION D HEPA DP ALARM
DPA-K2-13	INTAKE STATION C PREFILTER DP
DPA-K2-14	INTAKE STATION D PREFILTER DP
DPA-K2-9	INTK HEPA K2-4-3 DP ALRM STA C
DPI-106-1-AP	TK-106-AP PRESSURE INDICATOR
DPI-106-2-AP	TK-106-AP ANNULUS PRESSURE-STA
DPI-108-1	TK-108-AP PRESSURE INDICATOR
DPI-108-2	TK-108-AP ANN PRESS IND-STACTC
DPIS-10-6	INTAKE STATION D HEPA DP INDIC
DPIS-13-5	INTAKE STATION C PREFILTER DP
DPIS-14-6	INTAKE STATION D PREFILTER DP
DPIS-9-5	IN HEPA K2-4-3 DP INDISW STA C
EN-RECT-301	241AP CATH. PROT RECT RI
EN-RECT-302	241AP CATH. PROT RECT R2
FA-106-AP-1	TK-106-AP ANNULUS CAM LOW FLOW
FA-108-AP-1	TK-108-AP ANNULUS CAM LOW FLOW
FAS-106-AP-A	TANK 106-AP ANNULUS CAM LOW FL
FAS-108-AP-1	TANK 108-AP ANNULUS CAM LOW FL
FI-106-1-AP	PURGE AIR ROTOMETER
FI-106-2(AP)	FLOW INDICATOR
FI-106-3-AP	FLOW TRANSMITTER
FI-106-4-AP	FLOW INDICATOR
FI-106-5(AP)	FLOW INDICATOR
FI-106-6(AP)	FLOW INDICATOR
FI-108-1	PURGE AIR ROTOMETER
FI-108-2	FLOW INDICATOR
FI-108-3	FLOW INDICATOR
FI-108-4	FLOW INDICATOR
FI-108-5	FLOW INDICATOR
FI-108-6	FLOW INDICATOR
HTA-AP-1	241-AP COMMON HEAT TRACE TROUB
HTA-AP-2	241AP COMMON HEAT TRACE TROUBL
HTTC-STA-C-1	INTAKE STA C HEAT TRACE CONTRO

CALIBRATION DATASHEETS REQUIRING MODIFICATIONS

Component Number	Activity Title
HTTC-STA-D-1	INTAKE STA D HEAT TRACE CONTRO
INSULATION/LAGGING(AP/AW)	241-AP/AW ANNUAL INSPECTION OF
LA-106-1(AP115-2)	TK-106-AP HIGH LIQ LEVEL ALARM
LA-108-1	TK-108-AP HIGH LL ALARM
LAM-106-1	P-106-1 CURRENT LIMIT ALARM MO
LAM-108-1	P-108-1 CUPPENT LIMIT ALARM MO
LDA-A-1	COMMON LEAK DETECTION ALARM-CE
LDA-A-2	COMMON LEAK DETECTION ALARM-CE
LDA-B-1	COMMON LEAK DETECTION ALARM-AN
LDA-B-2	COMMON LEAK DETECTION ALARM-AN
LDE-06A(AP173-1)	CENTRAL PUMP PIT LEAK DETECTIO
LDE-06B-1-AP	ANNULUS PUMP PIT LEAK DETECTIO
LDE-08A	CENTRAL PUMP PIT LEAK DETECTIO
LDE-08B-1	ANNULUS PUMP PIT LEAK DETECTIO
LDE-106-2	ANNULUS LK DET ELMNT TK-106-AP
LDI-106-2(AP140-2)	TK-106-AP ANNULUS LEAK DET IND
LDI-106-3(AP141-2)	LEAK DETECTOR INDICATOR
LDI-106-4(AP142-2)	LEAK DETECTOR INDICATOR
LDI-108-2	LEAK DETECTOR INDICATOR
LDI-108-3	LEAK DETECTOR INDICATOR
LDI-108-4	TK-108-AP LEAK DETEC INDICATOR
LDXA-A-1	COMMON LEAK DETECTOR FAILURE A
LDXA-B-1	COMMON LEAK DETECTOR FAILURE A
LE-06B-.1	ANNULUS PUMP PIT SUMP LEVEL EL
LE-08B-1	ANNULUS PUMP PIT SUMP LEVEL EL
LE-106-1	TK-106-AP AUTO LIQ LEV ELEMENT
LE-106-2(AP115-1)	TK-106-AP HIGH LIQ LEVEL PROBE
LE-106-3(AP123-1)	TK-106-AP MAN LIQ LEVEL ELEMNT
LE-108-1	TK 108-AP AUTO LIQ LEVEL ELMNT
LE-108-2	TK-108-AP HIGH LIQ LEVEL PROBE
LE-108-3	TK-108-AP MAN LIQ LEVEL ELEMNT
LI-106-1	TK-106-AP LEVEL INDICATOR
LI-108-1	TK-108-AP MANUAL LEVEL INDCTR
LIT-106-1(AP107-2)	TK-106-AP LEVEL IND TRANSMITR
LIT-108-1	TK-108-AP AUTO LEVEL IND XMTR
LXA-106-1	TK-106-AP HIGH LL ALARM FAILUR
LXA-108-1	TK-108-AP HIGH LL ALARM FAILUR
LXA-B-1	LEVEL FAILURE ALARM-ANNULUS PU
MS-106-1-AP	P-106-1 MANUAL SWITCH
Ms-108-1	P-108-1 MANUAL SWITCH
N/A(241AP)	241-AP PWR DIST CTR "C" INSP &
N/A(241AP)	241-AP PWR DIST CTR "D" INSP &
N/A(241AP)	241-AP DIST PNLS LOAD CK-THERM
PA-106-1(AP006-9)	TK-106-AP PRESSURE ALARM-VAC
PA-106-2(AP006-8)	TK-106-AP PRESSURE ALARM-EXCES
PA-108-1	TK-108-AP PRESSURE ALARM-VAC
PA-108-2	TK-108-AP PRESSURE ALARM-EXCES
PA-A-1	PRES ALRM VAC LOSS TKS-101-108
PA-A-2	PRES ALRM-EXC VAC TKS-101-108
PAS-106-1-AP	TK 106-AP PRES. ALM SW. LOSS 0
PAS-106-2-AP	TK 106-AP PRES. ALM SW. EXCESS

CALIBRATION DATASHEETS REQUIRING MODIFICATIONS

Component Number	Activity Title
PAS-108-1	TK 108-AP PRES. ALM SW. LOSS
PAS-108-2	TK 108-AP PRES, ALM SW. EXCESS
PI-22-5	TK-106-AP ANNULUS INLET PRESSU
PI-24-6	TK 108-AP ANNULUS INLET PRESSU
PI-IA-106	MUX ENCL. AIR PRESSURE GAUGE
PI-IA-108	MUX ENCL AIR PRESSURE GAUGE
PI-VP-108-AP	ANNULUS VENT CAM VACUUM GAUGE
PI-WP-106-AP	ANNULUS VENT CAM VACUUM GAUGE
PR-106-1(AP006-4)	TK 106-AP PRES. RECORDER-NARRO
PR-106-2(AP006-5)	TK 106-AP PRES. RECORDER-WIDE
PR-108-1	TK 108-AP PRES. RECORDER-NARRO
PR-108-2	TK 108-AP PRES. RECORDER-WIDE
PRV-IA-106	MUX ENCLOS. AIR PRESSURE REGULA
PRV- IA-108	MUX ENCLOS. AIR PRESSURE REGULA
PT-106-1(AP006-2)	TK 106-AP PRESSURE XMTR-NARROW
PT-106-2(AP006-3)	TK 106-AP PRESSURE XMTR-WIDE R
PT-108-1	TK 108-AP PRESSURE XMTR-NARROW
PT-108-2	TK 108-AP PRESSURE XMTR-WIDE R
RA-106-AP-1	TK-106-AP ANNULUS RADIATION AL
RA-106-AP-2	TK-106-AP ANNULUS RADIATION AL
RA-106-AP-3	TK-106-AP ANNULUS RADIATION AL
RA-106-AP-4	TK-106-AP ANNULUS RADIATION AL
RA-108-AP-1	TK-108-AP ANNULUS RADIATION AL
RA-108-AP-2	TK-108-AP ANNULUS RADIATION AL
RA-108-AP-3	TK-108-AP ANNULUS RADIATION AL
RA-108-AP-4	TK-108-AP ANNULUS RADIAITON AL
RR-106-AP-1	TANK 106-AP ANNULUS RADIATION
RR-108-AP-1	TANK 108-AP ANNULUS RADIATION
RXA-106-AP-1	TK-106-AP ANNULUS RADIATION AL
RXA-106-AP-2	TK-106-AP ANNULUS RADIATION AL
RXA-108-AP-1	TK-108-AP ANNULUS RADIATION AL
RXA-108-AP-2	TF-108-AP ANNULUS RADIATION AL
SDA-106-1(AP047-5)	P-106-1 SHUT DOWN ALARM
SDA-106-1-AP	P-106-1 SHUT DOWN ALARM
SDA-108-1	P-108-1 SHUT DOWN ALARM
SDA-108-2	P-108-1 SHUT DOWN ALARM
SRV-IA-106	MUX ENCH. SAFETY RELIEF VALVE
SRV-IA-108	MUX ENCL. SAFETY RELIEF VALVE
TA-106/-108-1	TK-106/108 STACK CAB TEMP ALAR
TA-3-C	INTAKE STATION C HEATER FAILUR
TA-4-D	INTAKE STATION D HEATER FAILUR
TA-K2-3	INTAKE STATION C HEATER FAILUR
TA-K2-4	INTAKE STATION D HEATER FAILUR
TC-3-C	HTR K2-2-3 TEMP CONTR STA C
TC-4-D	INTAKE STATION HEATER TEMP CO
TDS-AP-2	241-AP FARM TEMPERATURE DISPLA
TI-13	STATION C TEMPERATURE INDICATO
TI-14	STATION C TEMPERATURE INDICATO
TI-15	STATION D TEMPERATURE INDICATO
TI-16	STATION D TEMPERATURE INDICATO
TS-106/-108HI	TK-106/108-AP STACK CAB FAN SW

CALIBRATION DATASHEETS REQUIRING MODIFICATIONS

Component Number	Activity Title
TS-106/-108LOW	TK-106/108-AP STACK CAB HEATER
WT-YYC-300 CKTS 1-16	AP FARM SN/SL LINE HEAT TRACE
WT-YYC-300-CKTS-17-32	AP FARM SN/SL LINE HEAT TRACE
WT-YYC-300-CKTS-33-48	AP FARM SN/SL LINE HEAT TRAE
WT-YYC-300-CKTS-49-64	AP FARM SN/SL LINE HEAT TRACE
AP106-PRES3URE	AP106 PRESSURE FUNCTIONAL TEST
AP108-PRESSURE	AP108 PRESSURE FUNCTIONAL TEST
241-AP-XFER-SYS	FUNCTEST TRANSFER LEAK DET
241-AP-ANN-LDK	PERFORM AN LEAK DET FUNC TEST
AP241-EDS-MCC-002	AP241 ELECT MCC INSP & MAINT

APPENDIX F

COMPONENT DATASHEETS REQUIRING MODIFICATIONS

COMPONENT DATASHEETS REQUIRING MODIFICATIONS

Component Number	Name
241-AP-ANN-LDK	DOUBLE SHELL TANK
241-AP-XFER-SYS	AP FARM TRANSFER SYSTEM LDKS
A-40-106-TK-PSYCH	106 TK PSYCH
A-40-108-TK-PSYCH	108 TK PSYCH
A-41-106-ANN-PSYCH	106 ANN PSYCH
A-41-108-ANN-PSYCH	107 ANN PSYCH
AI-106-1-AP	SUPERNATANT PUMP AMMETER -1.0
AI-106-2-AP	SUPERNATANT PUMP AMMETER -1.0
AI-108-1	SUPERNATANT PUMP AMMETER -1.0
AI-108-2-AP	SUPERNATANT PUMP AMMETER -1.0
AP106-PRESSURE	IOSR PRESSURE FUNCTIONAL TEST
AP106-PRESSURE	IOSR PRESSURE FUNCTIONAL TEST
AP108-PRESSURE	IOSR PRESSURE FUNCTIONAL TEST
AP241-VTA-FLT-222	105/106 ANN INLT FLT K2-4-3
AP241-VTA-FLT-232	107/108 ANN INLT FLT K2-4-4
AP904-WSTA-CAM-106	(106AP) CAM
AP904-WSTA-CAM-108	(108AP) CAM
CVT-106-AP-1	RAN 106-1 INPUT CONVERTER MV/V
CVT-108-AP-1	RAN 108-1 INPUT CONVERTER MV/V
DPA-K2-10	INTAKE STATION D HEPA DP ALARM
DPA-K2-13	INTAKE STATION C PREFILTER DP
DPA-K2-14	INTAKE STATION D PREFILTER DP
DPA-K2-9	INTAKE STATION C HEPA AP ALARM
DPI-106-1-AP	TK-106-AP PRESSURE INDICATOR
DPI-106-2-AP	TK-106-AP ANNULUS PRESSURE-STA
DPI-108-1	TK 108-AP PRESSURE INDICATOR
DPI-108-2	TK 108-AP ANNULUS PRESSURE-STA
DPIS-10-6	INTAKE STATION D HEPA DP INDIC
DPIS-13-5	INTAKE STATION C PREFILTER DP
DPIS-14-6	INTAKE STATION D PREFILTER DP
DPIS-9-5	INTAKE STATION C HEPA DP INDIC
EDS-DP-311	241AP MINI PWR CENTER (STA C)
EDS-DP-312	241AP MINI PWR CENTER (STA D)
FA-106-AP-1	TK-106-AP ANNULUS CAM LOW FLOW
FA-108-AP-1	TK-108-AP ANNULUS CAM LOW FLOW
FAS-106-AP-1	TANK 106-AP ANNULUS CAM LOW FL
FAS-108-AP-1	TANK 108-AP ANNULUS CAM LOW FL
FI-106-2(AP)	FLOW INDICATOR -2.0
FI-106-3-AP	FLOW TRANSMITTER
FI-106-4-AP	FLOW INDICATOR
FI-106-5(AP)	FLOW INDICATOR
FI-106-6(AP)	FLOW INDICATOR
FI-108-1	PURGE AIR ROTOMETER
FI-108-2	FLOW INDICATOR -2.0
FI-108-3	FLOW INDICATOR
FI-108-4	FLOW INDICATOR
FI-108-5	FLOW INDICATOR
FI-108-6	FLOW INDICATOR
HTA-AP-1	241-AP COMMON HEAT TRACE TROUB
HTA-AP-2	241AP COMMON HEAT TRACE TROUBL
HTTC-STA-C-1	INTAKE STATION C HEAT TRACE TH

COMPONENT DATASHEETS REQUIRING MODIFICATIONS

HTTC-STA-D-1	INTAKE STATION D HEAT TRACE TH
LA-106-1(AP115-2)	TK-106-AP HIGH LL ALARM
LA-108-1	TK-108-AP HIGH LL ALARM
LAM-106-1	P-106-1 CURRENT LIMIT ALARM MO
LAM-108-1	P-108-1 CURRENT LIMIT ALARM MO
LDA-106-1(AP140-4)	TK-106-AP ANNULUS LEAK DETECTO
LDA-108--1	TK-108-AP ANNULUS LEAK DETECTO
LDA-A-1	COMMON LEAK DETECTION ALARM-CE
LDA-A-2	COMMON LEAK DETECTION ALARM-CE
LDA-B-1	COMMON LEAK DETECTION ALARM-AN
LDA-B-2	COMMON LEAK DETECTION ALARM-AN
LDE-06A(AP173-1)	CENTRAL PUMP PIT LEAK DETECTIO
LDE-06B-1-AP	ANNULUS PUMP PIT LEAK DETECTIO
LDE-08A	CENTRAL PUMP PIT LEAK DETECTIO
LDE-08B-1	ANNULUS PUMP PIT LEAK DETECTIO
LDE-106-2	241-AP-106 ANN LEAK DETECTION
LDE-106-3(AP141-1)	241-AP-106 ANN LEAK DET (TAPE)
LDE-106-4(AP142-1)	241-AP-106 ANN LEAK DET (TAPE)
LDE-108-2	ANNULUS LEAK DETECTION TAPE
LDE-108-3	ANNULUS LEAK DETECTION TAPE
LDE-108-4	ANNULUS LEAK DETECTION TAPE
LDI-106-2(AP140-2)	LEAK DETECTOR INDICATOR
LDI-106-3(AP141-2)	LEAK DETECTOR INDICATOR
LDI-106-4(AP142-2)	LEAK DETECTOR INDICATOR
LDI-108-2	LEAK DETECTOR INDICATOR
LDI-108-3	LEAK DETECTOR INDICATOR
LDI-108-4	LEAK DETECTOR INDICATOR
LDXA-A-1	COMMON LEAK DETECTOR FAILURE A
LDXA-B-1	COMMON LEAK DETECTOR FAILURE A
LE-06B-1	ANNULUS PUMP PIT SUMP LEVEL EL
LE-08B-1	ANNULUS PUMP PIT SUMP LEVEL EL
LE-106-1	TK 106-AP AUTOMATIC LIQUID LEV
LE-106-2(AP115-1)	TK-106-AP HIGH LL PROBE
LE-106-3(AP123-1)	TK 106-AP MANUAL LIQUID LEVEL
LE-108-1	TK 108-AP AUTOMATIC LIQUID LEV
LE-108-2	TK 108-AP HIGH LL PROBE
LE-108-3	TK-108-AP MANUAL LIQUID LEVEL
LI-106-1	LEVEL INDICATOR -2.0
LI-108-1	LEAK DETECTOR INDICATOR -2.0
LIT-106-1(AP107-2,)	LEVEL INDICATOR TRANSMITTER
LIT-108-1	LEVEL INDICATOR TRANSMITTER
LXA-106-1	TK-106-AP HIGH LL ALARM FAILUR
LXA-108-1	TK-108-AP HIGH LL ALARM FAILUR
LXA-B-1	LEVEL FAILURE ALARM-ANNULUS PU
MS-106-1-AP	P-106-1 MANUAL SWITCH
MS-108-1	P-108-1 MANUAL SWITCH
PA-106-1(AP006-9)	TK-106-AP PRESSURE ALARM-VAC L
PA-106-2(AP006-8)	TK-106-AP PRESSURE ALARM-EXCESS
PA-108-1	TK-108-AP PRESSURE ALARM - VAC
PA-108-2	TK-108-AP PRESSURE ALARM-EXCESS
PA-A-1	PRESSURE ALARM-VACUUM LOSS +.5
PA-A-2	PRESSURE ALARM-EXCESS VACUUM +

COMPONENT DATASHEETS REQUIRING MODIFICATIONS

Component Number	Name
PAS-106-1-AP	TK 106-AP PRES, ALM SW.-LOSS 0
PAS-106-2-AP	TK 106-AP PRES. ALM SW.EXCESS
PAS-108-1	TK 108-AP PRES. ALM SW.-LOSS 0
PAS-108-2	TK 108-AP PRES. ALM SW.-EXCESS
PI-22-5	TK-106-AP ANNULUS INLET PRESSU
PI-24-6	TK 108-AP ANNULUS INLET PRESSU
PI-IA-106	MUX ENCL. AIR PRESSURE GAUGE
PI-IA-108	MUX ENCL. AIR PRESSURE GAUGE
PI-VP-108-AP	ANNULUS VENT CAM VACUUM GAUGE
PI-WP-106-AP	ANNULUS VENT CAM VACUUM GAUGE
PR-106-1(AP006-4)	TK 106-AP PRES. RECORDER-NARRO
PR-106-2(AP006-5)	TK 106-AP PRES. RECORDER-WII)E
PR-108-1	TK 108-AP PRES. RECORDER-NARRO
PR-108-2	TK 108-AP PRES. RECORDER-WIDE
PRV-IA-106	MUX ENCLOS. AIR PRESSURE REGULA
PRV-IA-108	MUX ENCLOS. AIR PRESSURE REGULA
PT-106-1(AP006-2)	TK 106-AP PRESSURE XMTR-NARROW
PT-106-2(AP006-3)	TK 106-AP PRESSURE XMTR-WIDE R
PT-108-1	TK 108-AP PRESSURE XMTR-NARROW
PT-108-2	TK 108-AP PRESSURE XMTR-WIDE R
RA-106-AP-1	TK-106-AP ANNULUS RADIATION AL
RA-106-AP-2	TK-106-AP ANNULUS RADIATION AL
RA-106-AP-3	TK-106-AP ANNULUS RADIATION AL
RA-106-AP-4	TK-106-AP ANNULUS RADIATION AL
RA-108-AP-1	TK-108-AP ANNULUS RADIATION AL
RA-108-AP-2	TK-108-AP ANNULUS RADIATION AL
A-108-AP-3	TK-108-AP ANNULUS RADIATION AL
RA-108-AP-4	TK-108-AP-ANNULUS RADIATION AL
RR-106-AP-1	TANK 106-AP ANNULUS RADIATION
RR-108-AP-1	TANK 108-AP ANNULUS RADIATION
RXA-106-AP-1	TK-106-AP ANNULUS RADIATION AL
RXA-106-AP-2	TK-106-AP ANNULUS RADIATION AL
RXA-108-AP-1	TX-108-AP ANNULUS RADIATION AL
RXA-108-AP-2	TK-108-AP ANNULUS RADIATION AL
SDA-106-1(AP047-5)	P-106-1 SHUT DOWN ALARM -.5
SDA-106-1-AP	P-106-1 SHUT DOWN ALARM -.5
SDA-108-1	P-108-1 SHUT DOWN ALARM -.5
SDA-108-2	P-108-1 SHUT DOWN ALARM -.5
SRV-IA-106	MUX ENCL. SAFETY RELIEF VALVE
SRV-IA-108	MUX ENCL. SAFETY RELIEF VALVE
TA-106/-108-1	TK-106/108 STACK CAB TEMP ALAR
TA-3-C	INTAKE STATION C HEATER FAILUR
TA-4-D	INTAKE STATION D HEATER FAILUR
TA-K2-3	INTAKE STATION C HEATER FAILUR
TA-K2-4	INTAKE STATION D HEATER FAILUR
TC-3-C	INTAKE STATION HEATER TEMP. +1
TC-4-D	INTAKE STATION HEATER TEMP. CO
TDS-AP-2	241-AP FARM TEMPERATURE DISPLA
TI-13	STATION C TEMPERATURE INDICATO

COMPONENT DATASHEETS REQUIRING MODIFICATIONS

Component Number	Name
TI-14	STATION C TEMPERATURE INDICATO
TI-15	STATION D TEMPERATURE INDICATOR
TI-16	STATION D TEMPERATURE INDICATO
TS-106/-108HI	TK-106/108-AP STACK CAB FAN SW
TS-106/-108LOW	TK-106/108-AP STACK CAB HEATER
WT-YYC-300 CKTS 1-16	AP FARM SN/SL LINE HEAT TRACE
WT-YYC-300-CKTS-17-32	AP FARM SN/SL LINE HEAT TRACE
WT-YYC-300 - CKTS - 33-48	AP FARM SN/SL LINE HEAT TRACE
WT-YYC-300-CKTS-49-64	AP FARM SN/SL LINE HEAT TRACE

APPENDIX G

ESSENTIAL FACILITY ELECTRICAL AND PIPING AND INSTRUMENTATION DRAWINGS (P&IDS)

ESSENTIAL FACILITY ELECTRICAL AND PIPING AND INSTRUMENTATION DRAWINGS (P&IDS)

Drawing Number/Sheet	Title
H-02-0090476/1-13	Electrical Elementary Diagrams
H-14-0010503/6, 8	Dome Penetration Schedules
H-14-0020103/1	Ventilation Tank Primary System
H-14-0020203/1, 2, 5	Ventilation Tank Annulus System
H-14-0020303/1, 3, 5	Service and Instrument Air System
H-14-0020503/6, 8	Waste Storage Tank Annulus Instrumentation
H-14-0020603/6, 8	Waste Storage Tank Instrumentation
H-14-0020803/4	Waste Transfer System
H-14-0021803/1	Raw Water System
H-14-0030003/1, 2, 22, 23, 27, 28	Electrical One Line Diagram and Panelboard Schedules