S

ENGINEERING CHANGE NOTICE

1. ECN 609661

Proj. ECN

2. ECN Category (mark one)	3. Originator's Name, Organization, MSIN, and Telephone No.	4. USQ Required?	5. Date
Supplemental [] Direct Revision [X] Change ECN [] Temporary [] Standby [] Supersedure [] Cancel/Void []	RP Bushore 32900/T4-56/373-5077	[X] Yes [] No	01/28/99
	6. Project Title/No./Work Order No.	7. Bldg./Sys./Fac. No.	8. Approval Designator
	T Plant	N/A	SQD
	9. Document Numbers Changed by this ECN (includes sheet no. and rev.)	10. Related ECN No(s).	11. Related PO No.
	HNF-SD-WM-TSR-003 Rev. 0	N/A	N/A

12a. Modification Work	12b. Work Package No.	12c. Modification Work Complete	12d. Restored to Original Condition (Temp. or Standby ECN only)
[] Yes (fill out Blk. 12b) [X] No (NA Blks. 12b, 12c, 12d)	N/A	N/A Design Authority/Cog. Engineer Signature & Date	N/A Design Authority/Cog. Engineer Signature & Date

13a. Description of Change

13b. Design Baseline Document? [] Yes [X] No

Update for completion of Project W-259. Updates references and contractors. Administrative Control 5.2 wording changed similar to HNF-SD-WM-TSR-007, *Waste Receiving and Packaging Facility Technical Safety Requirements*. Administrative Control 5.3 modified to reflect 2706-T/TA/TB building and associated areas as isolated facilities/areas. Administrative Control 5.4 modified to reflect limits in HNF-2896, *Safety Assessment for Project W-259*. Deletes Appendix C (not needed). Minor editorial changes. Section 1.6 is changed to clarify separate portions of the facility or operations may be in different MODES of operation.

14a. Justification (mark one)

Criteria Change	[X]	Design Improvement	[]	Environmental	[]	Facility Deactivation	[]
As-Found	[]	Facilitate Const	[]	Const. Error/Omission	[]	Design Error/Omission	[]

14b. Justification Details

As part of USQ T-96-102, the Plant Review Committee directed that the W-259 Safety Assessment (HNF-2896) be forwarded to DOE for approval. This document requires revision and DOE approval in conjunction with approval of HNF-2896. This also provides the annual update of the IOSR.

15. Distribution (include name, MSIN, and no. of copies)

Distribution List

RELEASE STAMP

DATE STA: 4 HANFORD RELEASE ID: 58

JUN 4 1999

A-7900-013-2 (05/96) GEF095

ENGINEERING CHANGE NOTICE

1. ECN (use no. from pg. 1): 609661

16. Design Verification Required	17. Cost Impact				18. Schedule Impact (days)	
	ENGINEERING		CONSTRUCTION			
[] Yes	Additional	[] $	Additional	[] $	Improvement	[]
[X] No	Savings	[] $	Savings	[] $	Delay	[]

19. Change Impact Review: Indicate the related documents (other than the engineering documents identified on Side 1) that will be affected by the change described in Block 13. Enter the affected document number in Block 20.

SDD/DD	[]	Seismic/Stress Analysis	[]	Tank Calibration Manual	[]
Functional Design Criteria	[]	Stress/Design Report	[]	Health Physics Procedure	[]
Operating Specification	[X]	Interface Control Drawing	[]	Spares Multiple Unit Listing	[]
Criticality Specification	[]	Calibration Procedure	[]	Test Procedures/Specification	[]
Conceptual Design Report	[]	Installation Procedure	[]	Component Index	[]
Equipment Spec.	[]	Maintenance Procedure	[]	ASME Coded Item	[]
Const. Spec.	[]	Engineering Procedure	[]	Human Factor Consideration	[]
Procurement Spec.	[]	Operating Instruction	[X]	Computer Software	[]
Vendor Information	[]	Operating Procedure	[]	Electric Circuit Schedule	[]
OM Manual	[]	Operational Safety Requirement	[]	ICRS Procedure	[]
FSAR/SAR	[X]	IEFD Drawing	[]	Process Control Manual/Plan	[]
Safety Equipment List	[]	Cell Arrangement Drawing	[]	Process Flow Chart	[]
Radiation Work Permit	[]	Essential Material Specification	[]	Purchase Requisition	[]
Environmental Impact Statement	[]	Fac. Proc. Samp. Schedule	[]	Tickler File	[]
Environmental Report	[]	Inspection Plan	[]	Authorization Basis Compliance Matrix	[X]
Environmental Permit	[]	Inventory Adjustment Request	[]		[]

20. Other Affected Documents: (NOTE: Documents listed below will not be revised by this ECN.) Signatures below indicate that the signing organization has been notified of other affected documents listed below.

Document Number/Revision	Document Number/Revision	Document Number Revision
HNF-SD-WM-ISB-006 Rev. 1	OSD-D-187-00008 Rev. C-2	HNF-IP-1218 Sect 2.1 Rev. 0
HNF-2359		

21. Approvals

	Signature	Date
Design Authority NK Myers	N K Myers	1-28-99
Cog. Eng. RP Bushore	R P Bushore	1/28/99
Cog. Mgr. RJ Nicklas	R J Nicklas	2/16/99
QA CA McNaughton	C A McNaughton	2/16/99
Safety JA locklair	J A Locklair	2-16-99
Environ.		
Other		
WMH Nuc. Eng. RR Ames	R R Ames	1/29/99
Ops Mgr D levinskas	D Levinskas	2/9/99

	Signature	Date
Design Agent CJ Winslow	C J Winslow	1/29/99
PE		
QA		
Safety		
Design		
Environ.		
Other		

DEPARTMENT OF ENERGY

Signature or a Control Number that tracks the Approval Signature: DOE-RL 99-WPD-241 06/01/99

ADDITIONAL

Unreviewed Safety Question Changes Screening (Safety Review) form.

DOCUMENT NUMBER WHC-SD-W259-FDC-001 USQ SCREENING NUMBER T-96-102

TITLE Project W-259 Functional Design Criteria

QUESTIONS

Does the referenced item:

1. Does the proposed change represent a change to the facility as described in the SAR?[1] N/A___ NO___ Yes/Maybe X

2. Does the proposed change represent a change to procedures as described in the SAR?[1] N/A___ NO___ Yes/Maybe X

3. Does the proposed change represent a test or experiment not described in the SAR?[1] N/A X NO___ Yes/Maybe___

4. Does the proposed change require a change to the Technical Safety Requirements/Operational Safety Requirements (TSRs/OSRs)? N/A___ NO___ Yes/Maybe X

Project W-259 will add a liquid waste collection, containment, leak detection system, and transfer system for handling decontamination solutions in the 2706-T Facility. Changes include upgrades to HVAC, exhaust ventilation, lighting and utilities, and provisions for secondary confinement for 2706-T, 2706-TA, and 2706-TB facilities.

BASIS (supporting information is required for each question, attach additional pages as necessary.)

1. Modifications to the facility proposed by this project are extensive. Modifications include the addition of structure 2706-TB, a liquid waste collection system, etc..

2. The modifications to the facility will necessitate the revision of many procedures. Procedures which implement criticality, and inventory limits will be revised. Liquid waste transfers, the source of the accident with the highest consequences in the Safety Analysis Report for T Plant WHC-SD-CP-SAR-007, and the Interim Safety Basis for Solid Waste Facilities (T Plant) (DOE) approval pending) WHC-SD-WM-ISB-006 will have the potential to occur in 2706-T instead of exclusively in the canyon.

3. The change is a facility modification. Test and experiments associated with this projects will only be functional and readiness tests within authorization basis for the T Plant facility.

4. The potential revision in fissile and health based inventory limits may require revised Operational Safety Requirements (OSR) in chapter 11 of WHC-SD-CP-SAR-007 or in T Plant Interim Operational Safety Requirements (approval pending) WHC-SD-WM-TSR-003.

USQE #1 Matthew Meyer (print name)

Signature Date 1/6/97

USQE #2 W. John Geuther (print name)

Signature Date 1/6/97

1 The SAR means the documentation comprising the authorization/safety basis. This may be identified in Interim Safety Basis documents or the Implementation Plan for DOE Orders 5480.21, .22, and .23.

ISD
MJM 3-10-97
WJG 3/11/97

Unreviewed Safety Question Evaluation (Safety Review) Form

DOCUMENT NUMBER WHC-SD-W259-FDC-001 USQ SCREENING NUMBER T-96-102

TITLE Project W-259 Functional Design Criteria

QUESTIONS

1. Does the proposed change or discovery increase the probability of occurrence of an accident previously evaluated in the safety basis? No X Yes/Maybe ___

   Equipment and systems installed for the W-259 Project are similar to equipment currently in operation at the T Plant facility. Failure rates and modes are the same as previously analyzed. The probability of occurrence of accidents will not increase.

2. Does the proposed change or discovery increase the consequences of an accident previously evaluated in the safety basis? No ___ Yes/Maybe X

   The project allows for increased fissile material and health based inventory limits. Therefore, there is the potential for greater accident consequences.

3. Does the proposed change or discovery increase the probability of occurrence of a malfunction of equipment Important to Safety previously evaluated in the safety basis? No X Yes/Maybe ___

   Equipment and systems installed for the W-259 Project are similar to equipment currently in operation at the T Plant facility. Failure modes and rates are the same as previously analyzed in the Safety Analysis for T Plant, WHC-SD-CP-SAR-007 and in the Interim Safety Basis for Solid Waste Facilities (T Plant), WHC-SD-WM-ISB-006 (approval pending).

4. Does the proposed change or discovery increase the consequences of a malfunction of equipment Important to Safety previously evaluated in the safety basis? No X Yes/Maybe ___

   No equipment is identified in WHC-SD-CP-SAR-007 or WHC-SD-CP-ISB-006 as being Important to Safety which the project has the potential to impact.

5. Does the proposed change or discovery create the possibility of an accident of a different type than any previously evaluated in the safety basis? No ___ Yes/Maybe X

   This project introduces many facility modifications with the possibility to create an accident sequence not previously analyzed. Of particular interest are reactions in the liquid collection system.

6. Does the proposed change or discovery create the possibility of a malfunction of equipment Important to safety of a different type than any previously evaluated in the safety basis? No ___ Yes/Maybe X

   The increases in allowed inventory and modification to the facility could result in new equipment being designated Important to Safety.

7. Does the proposed change or discovery reduce the margin of safety as defined in the basis for any Technical Safety Requirement? No ___ Yes/Maybe X

   Decontamination of alpha bearing wastes and the proposed increase in the fissionable material inventory discussed will decrease the margin of safety defined in the Operational Safety Requirements (OSR) in Chapter 11 of WHC-SD-CP-SAR-007 or in T Plant Interim Operational Safety Requirements WHC-SD-WM-TSR-003.

8. Does the proposed change or discovery require a new or revised Technical Safety Requirement? No ___ Yes/Maybe X

   Increases in health based and fissile material inventories may lead to revised TSR/OSR. A revised accident analysis may show that new TSR/OSR may need to be developed to maintain the authorization basis within acceptable guidelines.

Basis (supporting information is required for each question, attach additional pages as necessary.)

USQE #1 Matthew Meyer (print name) Date 1/6/97

USQE #2 W. John Geuther (print name) Date 1/6/97

Signature

Signature

PRC REVIEW

Meeting # 1-6-97 Date Jan. 6, 1997

PRC Chairman Concurrence

Approved - Safety Assessment for this project will be submitted to DOE for approval

CHAIRMAN, PRC

1-13-97

ISB
3-10-97
WJG
3/11/97

It was noted in the PRC meeting that the ISB will not cover W259 in total.

DISTRIBUTION SHEET

To	From	Page 1 of 1
Distribution List	WMH Operations Support Engineering	Date 06/03/99
Project Title/Work Order		EDT No.
HNF-SD-WM-TSR-003 Rev. 1, T Plant Interim Operational Safety Requirements		ECN No. 609661

Name	MSIN	Text With All Attach.	Text Only	Attach./ Appendix Only	EDT/ECN Only
R. E. Allen (Solid Waste EP)	T4-05	X			
R. R. Ames (WMH Nuclear Engineering)	T4-56				X
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T Plant Interim Operational Safety Requirements

R. P. Bushore
Waste Management Federal Services of Hanford, Inc.
P. O. Box 700, Richland, WA 99352
U.S. Department of Energy Contract DE-AC06-96RL13200

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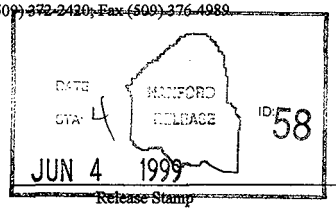
B&R Code: N/A Total Pages: 28 29

Key Words: T Plant,2706-T, interim safety basis, technical safety requirement, operational safety requirement, authorization basis, safety basis

Abstract: T Plant is the primary decontamination facility for the Hanford Site, and also performs waste handling, verification, and repackaging. This Interim Operational Safety Requirement (IOSR) document provides required limits, programs, and administrative controls at the T Plant Complex. It is to be used in conjunction with HNF-SD-WM-ISB-006, *Interim Safety Basis (ISB) for Solid Waste Facilities (T Plant)*, and HNF-2896, *Safety Assessment for Project W-259*, which is an addendum to the ISB.

6/3/99
Release Approval Date



Release Stamp

Approved for Public Release

RECORD OF REVISION	(1) Document Number HNF-SD-WM-TSR-003	Page 1

(2) Title

T Plant Interim Operational Safety Requirements

CHANGE CONTROL RECORD

(3) Revision	(4) Description of Change - Replace, Add, and Delete Pages	Authorized for Release	
		(5) Cog. Engr.	(6) Cog. Mgr. Date
0	Initial issue. EDT 605365 of 03/13/97	LS Semmens	TL Erickson 03/13/97
RS 1	Replaces Revision 0 entirely. ECN 609661.	RP Bushore RP Bushore	RJ Nicklas 6/4/99

PREFACE

These Interim Operational Safety Requirements (IOSRs) for the T Plant Complex (T Plant) define acceptable conditions and administrative controls required to ensure safe operation of the T Plant.

The format and content for this IOSR document is generally based on U.S. Department of Energy (DOE) Order 5480.22, DOE-STD-3009-94, DOE-STD-3011-94, and Hanford Site and company policies and procedures.

The scope of this IOSR document is based on HNF-SD-WM-ISB-006, *Interim Safety Basis for Solid Waste Facilities (T Plant)*, referred to as the T Plant ISB, HNF-2896, *Safety Assessment for Project W-259,* referred to as the W-259 Safety Assessment, and supporting documents. The acceptable conditions and administrative controls set forth in this IOSR document are derived from the T Plant safety analysis included as an appendix in the T Plant ISB and in the W-259 Safety Assessment. It is the responsibility of the T Plant operations contractor to establish, implement, and maintain specific programs and procedures that meet the requirements of this IOSR.

The numbering and wording of the IOSR sections have been maintained for consistency with the Hanford Site policy on IOSRs. The sections that are not applicable to T Plant are noted throughout the IOSR document.

TABLE OF CONTENTS

List of Terms

AC	Administrative Control
ALARA	As Low As Reasonably Achievable
CPS	Criticality Prevention Specification
DOE	U.S. Department of Energy
IOSR	Interim Operational Safety Requirement
ISB	Interim Safety Basis
LCO	Limiting Condition for Operation
LCS	Limiting Control Setting
NA	Not Applicable
PSO	Program Secretarial Officer
RCT	Radiological Control Technician
SAR	Safety Analysis Report
SL	Safety Limit
TSR	Technical Safety Requirement
WHC	Westinghouse Hanford Company

SECTION 1

USE AND APPLICATION

1.0 USE AND APPLICATION

1.1 Definitions

----------NOTE----------
The defined terms of this section are unique definitions. They appear in CAPITALIZED type and are applicable throughout these IOSRs and BASES. Some terms refer the user to another Section for the definition. This has been provided to prevent a shortened definition from being supplied and used out of context.

Term	Definition
BASES	BASES are pertinent information and details supporting IOSR elements and specific values or characteristics (see Appendix A, BASES).
DESIGN FEATURES	See Appendix B, DESIGN FEATURES.
MODE	See Section 1.6, MODES.
OPERABLE/OPERABILITY	A system, subsystem, train, component, or device shall be OPERABLE or have OPERABILITY when it is capable of performing its specified safety function(s), and: a) actuation points are within limits, b) operating parameters are within limits, and c) when all necessary attendant equipment, instrumentation, controls, electrical power sources, cooling water, lubrication or other auxiliary equipment that are required for the system, subsystem, train, component, or device to perform its specified function(s) are also capable of performing their related support function(s).
VERIFY/VERIFIED/ VERIFICATION	A qualitative assessment to confirm or substantiate that specific facility conditions exist, and if not in this condition, ensure that a response is taken to satisfy the requirements. This may include collecting sample data or quantitative data; taking instrument readings; adjusting instrumentation set points; recording data and information on logs, data sheets or electronic media; and evaluating data and information in accordance with approved and controlled procedures.
VIOLATION	See Section 5.1, IOSR VIOLATIONS.

1.2 Logical Connectors

NA for T Plant.

[Not applicable to the T Plant because there are no Limiting Conditions for Operation and Surveillance Requirements]

1.3 Completion Times

NA for T Plant.

[Not applicable to the T Plant because there are no Limiting Conditions for Operation and Surveillance Requirements]

1.4 Frequency

NA for T Plant.

[Not applicable to the T Plant because there are no Limiting Conditions for Operation and Surveillance Requirements]

1.5 Notes

NA for T Plant.

[Not applicable to the T Plant because there are no Limiting Conditions for Operation and Surveillance Requirements]

1.6 Modes

The MODES identified below may be applied to each segment individually, rather than to the T Plant Complex as a whole. In addition, individual sources within a segment may also be in different MODES. Sources and segments are described in Appendices D and F of the T Plant ISB.

The MODES defined for T Plant are:

OPERATION	Decontamination activities may occur. Packaging, repackaging and verification activities may occur. Fuel material is being stored. Facility maintenance and surveillances may occur.
STANDBY	Fuel material is being stored. Decontamination activities or packaging/repackaging/verification activities may not occur. Facility maintenance and surveillances may occur.
RESTRICTED	Restricted area or activity is defined. Fuel material is being stored. No T Plant activities affected by the restriction that involves radioactive materials may be performed unless specifically required by an approved Recovery Plan. Acceptance of equipment for decontamination associated with the restricted activities is not allowed. Routine surveillances and maintenance may be performed.

1.7 Safety Limits (SLs)

SLs are limits on process variables associated with those primary physical barriers, generally passive, that are necessary for the intended facility function and which are found to be required to guard against the uncontrolled release of radioactivity which would result in unacceptable dose consequences to the offsite public as defined by ANS 51.1.

[There are no SLs identified for T Plant, based upon the selection criteria in DOE Order 5480.22 and the conclusions found in the T Plant ISB and HNF-2896.]

1.8 Limiting Control Settings (LCSs)

LCSs are settings on safety systems that control process variables to prevent exceeding Safety Limits (SLs).

[Since there are no SLs identified for T Plant there are no LCSs, based upon the selection criteria in DOE Order 5480.22.]

1.9 Limiting Conditions for Operation (LCOs)

LCOs are the lowest functional capability or performance level of safety-related structures, systems, components and their support systems required for normal safe operation.

LCOs shall be based upon maintaining the systems and structures OPERABLE or conditions within specified limits which are required for the protection of the offsite public from unacceptable consequences, as defined by ANS 51.1.

[There are no LCOs identified for T Plant based upon the selection criteria in DOE Order 5480.22 and the conclusions found in the T Plant ISB and HNF-2896.]

1.10 Surveillance Requirements (SRs)

SRs are requirements relating to testing, calibration, or inspection to ensure that the necessary OPERABILITY and quality of safety-related structures, systems, components and their support systems, or specified conditions required for safe operation of the facility, are maintained.

[Because there are no LCOs identified for T Plant there are no associated SRs, based upon the selection criteria in DOE Order 5480.22.

1.11 Administrative Controls (ACs)

ACs are the provisions relating to organization and management, procedures, recordkeeping, reviews, and audits necessary to ensure safe operation of the facility.

Facility specific programs and provisions established as being necessary to ensure the safe operation of T Plant include organization, criticality safety, and source strength controls.

Section 2

SAFETY LIMITS

2.0 SAFETY LIMITS (SLS)

There are no Safety Limits (SLs) identified for T Plant based upon the selection criteria defined in Section 1.7, Safety Limits. Additionally, there are no Limiting Control Settings (LCSs) since there are no SLs, based on the selection criteria defined in Section 1.8, Limiting Control Settings.

SECTION 3

LIMITING CONDITIONS FOR OPERATION

3.0 LIMITING CONDITIONS FOR OPERATION (LCOs)

There are no LCOs identified for T Plant based on the discussion in Section 1.9, Limiting Conditions for Operation.

SECTION 4

SURVEILLANCE REQUIREMENTS

4.0 SURVEILLANCE REQUIREMENTS (SRs)

There are no Surveillance Requirements identified for T Plant since there are no LCOs based upon the discussion in Section 1.10, Surveillance Requirements.

SECTION 5

ADMINISTRATIVE CONTROLS

5.0 ADMINISTRATIVE CONTROLS

5.1 IOSR violations

5.1.1 VIOLATION Criteria

VIOLATIONS of the IOSR occur as the result of four circumstances:

a. Exceeding a SL **[NA for T Plant]**.

b. Failure to take the ACTIONS required within the required time limit following:

1. Exceeding a LCS **[NA for T Plant]**.

2. Failure to meet a LCO **[NA for T Plant]**.

3. Failure to successfully meet a SR **[NA for T Plant]**.

c. Failure to perform a Surveillance within the required time limit **[NA for T Plant]**.

d. Failure to comply with an AC requirement.

An AC VIOLATION occurs: (a) when a required program has not been established; (b) when the program has been established but the facility has not implemented the program; or (c) when failure to comply with the program requirements specified in Sections 5.2.1, 5.2.3, 5.3.1, 5.4.1, or 5.5.1 results in T Plant operations exceeding the analyzed authorization basis.

If during implementation of the required program it is discovered that a procedural element was not performed or not followed, then a procedural noncompliance would result, but not necessarily an AC VIOLATION unless the noncompliance results in T Plant operations exceeding the analyzed authorization basis.

5.1.2 Response to a Safety Limit VIOLATION

[Not applicable to T Plant)

5.1.3 Response to a Limiting Condition for Operation and Limiting Control Setting VIOLATION.

[Not applicable to T Plant]

5.1.4 Response to a Surveillance Requirement VIOLATION

[Not applicable to T Plant]

5.1.5 Response to an Administrative Control VIOLATION

If a VIOLATION of an AC occurs, proceed as follows:

a. Place the affected T Plant facility in restricted mode and notify the DOE of the VIOLATION in accordance with DOE occurrence reporting requirements.

b. Prepare an Occurrence Report in accordance with DOE occurrence reporting requirements.

c. Prepare and implement a Recovery Plan describing the steps leading to compliance with the AC.

d. Perform and document a technical evaluation, if appropriate, of the AC VIOLATION to determine if any damage may have occurred.

e. Perform and document a root cause analysis and implement a corrective action plan, if appropriate, to minimize the chance of recurrence.

5.1.6 Response to an Administrative Control PROCEDURAL NONCOMPLIANCE

If a PROCEDURAL NONCOMPLIANCE of an AC occurs, proceed as follows:

a. Determine if the affected T Plant facility needs to be placed in a restricted mode and if so notify the DOE of the PROCEDURAL NONCOMPLIANCE in accordance with DOE occurrence reporting requirements.

b. Prepare an Occurrence Report in accordance with DOE occurrence reporting requirements.

c. Prepare and implement a Recovery Plan describing the steps leading to compliance with the AC.

d. Perform and document a technical evaluation, if appropriate, of the PROCEDURAL NONCOMPLIANCE to determine if any damage may have occurred.

e. Perform and document a root cause analysis and implement a corrective action plan, if appropriate, to minimize the chance of recurrence.

5.2 Organization

5.2.1 Contractor Responsibilities

Lines of authority, responsibility, and communication shall be established and defined for the highest management levels through intermediate levels to and including all safety and operating organization positions. These relationships shall be documented and updated, as appropriate, in the form of organization charts, functional descriptions of departmental responsibilities and relationships, and job descriptions for key personnel positions, or in equivalent forms of documentation.

The contractor shall be responsible for maintaining the current DOE approved IOSR as a controlled document.

The contractor is responsible for ensuring that the requirements of the T Plant IOSR are met. Compliance shall be demonstrated by:

a. Operating within the Safety Limits (SLs) **[NA for T Plant]**,

b. Operating within the Limiting Conditions for Operation (LCOs), Limiting Control Settings (LCSs) and the associated Surveillance Requirements (SRs) during their Applicability **[NA for T Plant]**,

c. Operating within the ACTIONS of LCOs and LCSs when required **[NA for T Plant]**,

d. Performing all SRs as required **[NA for T Plant]**,

e. Establishing, implementing and maintaining the required ACs, and

f. Maintaining required DESIGN FEATURES. **[NA for T Plant]**

The contractor is responsible for taking emergency actions that depart from the approved IOSRs when no actions consistent with the IOSR are immediately apparent, and when these actions are needed to protect the public health and safety. Such contractor actions shall be approved, as a minimum, by an operator or supervisor qualified through an approved training program. If emergency actions are taken which are not covered by existing emergency procedures verbal notifications shall be made in accordance with the DOE occurrence reporting requirements.

5.2.2 T Plant Facility Manager

The T Plant Facility Manager shall be responsible for safe operation of T Plant. Safe operation shall include, as necessary, interface requirements with other onsite organizations and facilities.

5.2.3 Minimum Operations Shift Complement

The number of qualified shift managers and operators available shall be adequate to operate and support T Plant activities safely. Minimum operations shift manager complement shall be based on the shift manager being available at the T Plant complex. Abnormal conditions shall be considered in determining operator assignments. Management shall provide additional personnel, as necessary, to support other activities.

The minimum operations shift complement per shift for T Plant shall be as follows:

MODE	Shift Manager	Operators	RCT
OPERATION	1	1	as required*
STANDBY	0	0	0
RESTRICTED	as required**	as required**	as required**

* Whenever T Plant operating procedures require a radiological control technician (RCT) to be present.

** Staffing requirements shall be defined in the specific Recovery Plan prepared when T Plant has been placed in RESTRICTED MODE.

The minimum complement can be 1 less than the required number for a period of time not to exceed 2 hours to accommodate unexpected absences, provided immediate action is taken to restore the shift complement to within the minimum shift requirements.

5.2.4 Support Organizations

The contractor shall maintain organizations that provide safety overview and quality assurance functions to ensure safe operation of the facility.

5.2.5 Audit Point

T Plant management will issue organization charts and charters describing the organization, lines of authority, and responsibilities at least annually as required by Section 5.2.1.

5.3 Nuclear Criticality Safety

5.3.1 Requirement for Nuclear Criticality Safety

A program shall be established, implemented and maintained to prevent an accidental criticality in T Plant. The fissile material reactivity shall have a k-effective plus two standard deviations of 0.95 or less.

5.3.2 Program Key Elements

a. The nuclear criticality safety program maintains a fissile materials inventory for 221-T canyon which demonstrates operations are within the classification as a Limited Control Facility per Hanford Site and company nuclear criticality safety procedures. A fissile materials inventory will also be in place for the 2706-T/TA/TB building and associated areas prior to operation as an Isolated Facility or Isolated Area.

b. Assurance against a criticality accident in 221-T canyon is currently based on analysis documented in Criticality Safety Analysis Report (CSAR) 86-007, WHC-SD-SQA-CSA-20104 and CSAR 78-001, WHC-SD-SQA-CSA-20153. Fissile mass limits and rules developed by the CSARs are supported by a Criticality Prevention Specification (CPS) CPS-D-149-00001. Up to three isolated facilities or areas may be established for 2706-T/TA/TB and associated areas as documented in Criticality Safety Evaluation Report (CSER) 96-002, WHC-SD-SQA-CSA-502, as approved by the facility manager and posted. Changes to these criticality documents are allowed and new CSERs/CPSs may be issued following Hanford Site and company nuclear criticality safety program policies and procedures.

c. In the event a CPS requirement is not met or facility fissile limits are exceeded, notification will be immediate as required by Hanford Site and company policies and procedures. The cause of the deficiency will be determined and a course of action to correct the problem will be implemented. A determination will be made as to whether the criticality safety requirement in Section 5.3.1 above for T Plant has been exceeded.

d. Fissile inventory records will be maintained demonstrating that the CPS requirements or facility fissile limits are being met as required by Hanford Site and company procedures.

e. All areas (e.g. individual storage pads or buildings) are maintained in compliance with the classification as exempt facilities with the exception of the 221-T canyon and any isolated facilities or areas established at 2706-T/TA/TB or associated areas.

5.3.3 Applicability

This program applies to all areas within the T Plant complex.

5.3.4 Audit Point

An annual review of the T Plant criticality safety program will be conducted in accordance with Hanford Site and company policies and procedures by the facility criticality safety representative. The annual review will verify that the requirements outlined in Section 5.3.1 are being met. Fissile inventory records must demonstrate that the fissile limits are being met. The results of this annual review will be documented and retained by the facility criticality safety representative and forwarded to DOE for information.

5.4 Source Strength Control

5.4.1 Requirement for Source Strength Control

A program shall be established, implemented and maintained to ensure that inventories and concentration limits assumed in the hazard categorization and accident analysis will not be exceeded.

5.4.2 Program Key Elements

The program key elements include the following:

a. Controls for inventories as follows,

Maintain radiological inventories within the approved limits as documented in the T Plant ISB and the W-259 Safety Assessment. The T Plant ISB Appendix F and W-259 Safety Assessment Section 5.0 summarize allowable inventory limits for which analyses have been performed. Maintain evidence of compliance with source strength inventory limits as specified in those documents.

b. In the event the radiological inventory and concentration requirements defined in Section 5.4.1 are not met, notification will be made as required by Hanford Site and company procedures . The cause of the event and impact on safety at the facility will be determined immediately and corrective action will be taken to remedy the situation and prevent recurrence.

c. Waste container inventory will be tracked in an information tracking system to demonstrate that the requirements in section 5.4.1 are being maintained. Records

will be maintained which demonstrate 291-T and 2706-T exhaust ventilation filter activities are within the bounding source strength assumptions. Records will be maintained which demonstrate the 2706-T liquid waste system activities are within the bounding source strength assumptions.

5.4.3 Applicability

This program applies to all areas within the T Plant complex.

5.4.4 Audit Point

Records are maintained that document inventories and concentrations present in T Plant are consistent with Section 5.4.1. These are retained for a minimum of two years.

5.5 221-T Storage Pool Water Level

5.5.1 Requirement for 221-T, PWR Core 2 Blanket Fuel Storage

A program shall be established, implemented and maintained to control the 221-T Cell 2R Storage Pool water level per direction of the Department of Energy.

5.5.2 Program Key Elements

The program will maintain the water level in the 221-T, Cell 2R storage pool at or above 15 feet. Surveillance on storage pool water level will be done at least once every two weeks. If the water level is found to be below 15 feet action will be taken to restore the level above this limit and DOE will be notified.

5.5.3 Applicability

This program applies to the Shippingport PWR Core 2 irradiated blanket fuel assemblies stored in the 221-T, Cell 2R storage pool.

5.5.4 Audit Point

Surveillance will be done at least once every two weeks. Surveillance logs will be retained for a minimum of one year.

SECTION 6

REFERENCES

6.0 REFERENCES

These references are for the IOSR and its Appendices.

ANS 51.1, 1983, *Nuclear Safety Criteria for the Design of Stationary Pressurized Water Reactor Plants*, American Nuclear Society, New York, New York.

CPS-D-149-00001, *Criticality Prevention Specification for T Plant Canyon Operations*, Rev. A-1, Waste Management Federal Services of Hanford, Richland, Washington.

DOE Order 5480.22, *Technical Safety Requirements*, U. S. Department of Energy, Washington, D.C.

DOE-STD-3009-94, *DOE Standard, Preparation Guide for U.S. Department of Energy Nonreactor Facility Safety Analysis Report*, U.S. Department of Energy, Washington, D.C.

DOE-STD-3011-94, *DOE Standard, Guidance for Preparation of DOE 5480.22 (TSR) and DOE 5480.23 (SAR) Implementation Plans*, U.S. Department of Energy, Washington, D.C.

HNF-SD-WM-ISB-006, *Interim Safety Basis for Solid Waste Facilities (T Plant)*, Rev. 1A, Waste Management Federal Services of Hanford, Richland, Washington.

HNF-2896, *Safety Assessment for Project W-259*, Rev. 0, Waste Management Federal Services of Hanford, Richland, Washington.

WHC-SD-SQA-CSA-502, *CSER 96-002: Designation of the 2706-T/TA/TB Facility as Up to Three Isolated Facilities*, Westinghouse Hanford Company, Richland, Washington.

WHC-SD-SQA-CSA-20104, *CSAR 86-007: T Plant Decontamination and Repair Facility*, Westinghouse Hanford Company, Richland, Washington.

WHC-SD-SQA-CSA-20153, *CSAR 78-001: PWR Core 2 Blanket Fuel Storage Cell 4, 221-T Building*, Westinghouse Hanford Company, Richland, Washington.

APPENDIX A

BASES

Appendix A
BASES

[Not applicable to T Plant since there are no SLs, LCSs, LCOs or SRs]

This Appendix provides summary statements of the reasons for the Safety Limits, Limiting Conditions for Operation and the associated Surveillance Requirements. The BASES describe how the limit(s), the Applicability, the Condition(s) and the Surveillance(s) will maintain operation within the authorization basis. The primary purpose for describing the BASES for these requirements is to provide the operations and engineering staff with the necessary information to maintain T Plant within the authorization basis and to ensure that any future changes to these requirements will not affect their original intent or purpose.

APPENDIX B

DESIGN FEATURES

Appendix B
DESIGN FEATURES

As stated in DOE Order 5480.22, the purpose of the DESIGN FEATURES Appendix is to describe in detail those features not covered elsewhere in the TSR that, if altered or modified, would have a significant effect on safety. The areas to be addressed are vital passive components, configuration and physical arrangement, and materials. The following definitions were taken from DOE Order 5480.22:

a. Vital passive components are essentially piping, vessels, supports, structures (such as confinement) and containers.

b. The DESIGN FEATURES Appendix should also address configuration and physical arrangement, where it is a safety concern.

c. If safe operation of the facility is dependent on any component being constructed of a particular material, that requirement should be discussed in the DESIGN FEATURES Appendix.

d. Site characteristics such as the locations of public access roads, collocated facilities, facility area boundaries, site boundaries, nearest residence distances, etc., should be presented in the DESIGN FEATURES Appendix.

Based on the above definitions and the information presented in the T Plant ISB there are no DESIGN FEATURES for T Plant.