



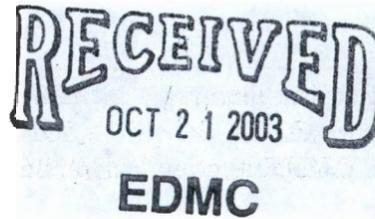
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STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

1315 W. 4th Avenue • Kennewick, Washington 99336-6018 • (509) 735-7581

October 16, 2003

Mr. Joel Hebdon, Director  
Regulatory Compliance and Analysis Division  
United States Department of Energy  
P.O. Box 550, MSIN: A5-15  
Richland, Washington 99352



Dear Mr. Hebdon:

Re: Ecology Review Comments on the Hanford Facility Dangerous Waste Closure Plan, 241-Z Treatment and Storage Tanks and the State Environmental Policy Act (SEPA) checklist

This letter transmits the Washington State Department of Ecology review comments (attached) for the above referenced documents. Should you have any questions regarding these comments, please contact myself at 736-3007 or Jeff Ayres at 736-5717.

Sincerely,

for Rick Bond  
Transition Project Manager  
Nuclear Waste Program

JA:nc  
Attachment

cc w/attach: Dave Bartus, EPA  
Dennis A. Faulk, EPA  
Stacy Charboneau, USDOE  
Ellen Mattlin, USDOE  
Tony McKarns, USDOE  
Richard Bloom, FH  
Karl Hadley, FH  
Andrea M. Hopkins, FH

Scott Luke, FH  
Ron D. Morrison, FH  
Todd Martin, HAB  
Rick Gay, CTUIR  
Pat Sobotta, NPT  
Russell Jim, YN  
Ken Niles, OOE

Administrative Record



Ecology Review Comments  
Hanford Facility Dangerous Waste Closure Plan  
241-Z Treatment and Storage Tanks

**Page iii, FOREWORD**

Re-write the Forward with the following text:

The Hanford Facility is owned by the U.S. Government Department of Energy, Richland Field Office and contractor operated. The Hanford Site covers approximately 560 square miles of semiarid land within the Pasco Basin of the Columbia Plateau in southeastern Washington State. The Hanford Site has restricted public access and provides a buffer for the smaller areas (including reactors, chemical separation facilities, and special nuclear material facilities) onsite that historically were used for production of special nuclear materials and waste storage and disposal. Dangerous waste and mixed waste (containing both radioactive and dangerous components) are generated and managed on the Hanford Facility. The mission of the Hanford Site recently has focused on waste management and environmental remediation and restoration. The dangerous waste is regulated in accordance with the Resource Conservation and Recovery Act of 1976 and the Washington State Hazardous Waste Management Act of 1976 (as administered through the Washington State Department of Ecology Dangerous Waste Regulations, Washington Administrative Code (WAC-173-303). The radioactive component of mixed waste is interpreted by the U.S. Department of Energy to be regulated under the Atomic Energy Act of 1954; the nonradioactive dangerous component of mixed waste is interpreted to be regulated under the Resource Conservation and Recovery Act of 1976 (RCRA) and WAC 173-303. Additional information regarding the Hanford Facility is described in the General Information Portion of the Hanford Site RCRA permit.

For purposes of the Resource Conservation and Recovery Act of 1976 and the Washington State Department of Ecology Dangerous Waste Regulations, the Hanford Facility is considered to be a single facility. The single dangerous waste permit identification number issued to the Hanford Facility by the U.S. Environmental Protection Agency and the Washington State Department of Ecology is U.S. Environmental Protection Agency/State Identification Number WA 7890008967. The initial Hanford Facility Resource Conservation and Recovery Act Permit became effective in September 1994, and is comprised of two portions, a Dangerous Waste Portion, issued by Ecology, and a Hazardous and Solid Waste Amendments Portion, issued by the U.S. Environmental Protection Agency, Region 10. The Hanford Facility Dangerous Waste Permit Application is considered to be a single application organized into a General Information Portion (DOE/RL-91-28) and a Unit-Specific portion. Both the General Information and Unit-Specific portions of the Hanford Facility Dangerous Waste Permit Application address the contents of the Part B permit application guidance documentation prepared by the Washington State Department of Ecology and the U.S. Environmental Protection Agency (40 Code of Federal Regulations 270), with additional information needs defined by revisions of WAC 173-303 and by the Hazardous and Solid Waste Amendments. Information provided in this revised 241-Z Treatment and Storage Tanks closure plan is current as of July 2003.

**Page v, CONTENTS**

The plan should contain the following chapters

**CONTENTS**

**FOREWORD**

**GLOSSARY**

**PART A, FORM 3 (include history of Part A)**

**1.0 INTRODUCTION**

**2.0 SYSTEM DESCRIPTION**

**3.0 PROCESS INFORMATION**

**4.0 WASTE CHARACTERISTICS**

**5.0 GROUNDWATER MONITORING**

**6.0 CLOSURE STRATEGY AND PERFORMANCE STANDARDS**

**7.0 CLOSURE ACTIVITIES**

**8.0 POST-CLOSURE ACTIVITIES**

**9.0 REFERENCES**

**APPENDICES**

**1A TRI-PARTY AGREEMENT MILESTONES: —83-30, or other milestones impacting closure activities or compliance schedules**

## **Page 1-i, Introduction**

The introduction should contain the following information:

### **CONTENTS**

#### **1.0 INTRODUCTION AND OVERVIEW**

- 1.1 Background
- 1.2 Preferred Closure Strategy
- 1.3 Closure Plan and PFP Deactivation/Decommissioning Integration
- 1.4 241-Z Treatment and Storage Tanks (241-Z) Closure Plan

## **Page 1-1, Introduction and Overview**

This chapter should be rewritten to contain the following:

### **1.0 INTRODUCTION AND OVERVIEW**

This chapter provides background information for the 241-Z Treatment and Storage Tanks (241-Z) and provides an overview of the 241-Z closure plan.

This certified closure plan for the 241-Z Treatment and Storage Tanks (241-A), an unpermitted RCRA treatment, storage, and/or disposal (TSD) unit is being submitted for approval to the Washington State Department of Ecology (Ecology) in accordance with Hanford Federal Facility Agreement and Consent Order (TPA) Milestone M-83-30. Submittal of a certified closure plan for the '241-Z Waste Treatment Facility' by July 31, 2003 was required by this milestone (Ecology et al. 1996). Management of closure will be based on agreements made between RL and Ecology, as described in this closure plan and documented in the Administrative Record. General requirements for RCRA closure are discussed in the Tri-Party Agreement (TPA). These requirements (Section 5.3 of the Tri-Party Agreement) state that 'all [treatment, storage and/or disposal] TSD units that undergo closure, irrespective of permit status, shall be closed pursuant to the authorized State Dangerous Waste Program in accordance with WAC 173-303-610.' Closure of this unit will commence pursuant to WAC 173-303-610, WAC 173-303-640, and the Hanford Facility Dangerous Waste Permit (Permit). Approval of this closure plan will be obtained through the permit modification process pursuant to WAC 173-303-840 and WAC 173-303-830. The 241-Z Waste Treatment Facility and the 241-Z are synonymous. Although the treatment, storage and/or disposal of radioactive waste (i.e., source, special nuclear, and by-product materials as identified the Atomic Energy Act of 1954) are not within the scope of RCRA or Washington Administrative Code (WAC) 173-303, information is provided for general knowledge.

This closure plan is divided into nine chapters. Chapter 1.0 provides the introduction, regulatory basis, and strategy for managing the closure unit. Chapter 2.0, 3.0, 4.0, and 5.0 discuss the detailed facility description, process information, waste characteristics, and groundwater monitoring, respectively. Chapter 6.0 deals with the closure strategy and performance standard, including the closure activities for the D-4 through D-8 vaults, piping, miscellaneous associated building areas, glove box XX and associated ancillary equipment. Chapter 7.0 addressed the closure activities identified in Chapter 6.0, and also adds information on closure activities for the soil directly beneath the unit, regulated material removed during closure, and the schedule for closure. Chapter 8.0 provides post closure information, and Chapter 9.0 provides a list of references used throughout the document. Appendix A-1 contains Milestone M-083-22, 30,-31, & -32 documentation.

1.1 Background (Insert the following text: "The Hanford Facility is owned by the U.S. Government and operated by the U.S. Department of Energy, Richland Field Office. The Hanford Site covers approximately 560 square miles of semiarid land within the Pasco Basin of the Columbia Plateau in southeastern Washington State. The Hanford Site has restricted public access and provides a buffer for the smaller areas (including reactors, chemical separation facilities, and special nuclear material facilities) onsite that historically were used for production of nuclear materials and waste storage and disposal. Dangerous waste and mixed waste (containing both radioactive and dangerous components) are managed and produced on the Hanford Facility. The mission of the Hanford Site recently has focused on waste management and environmental remediation and restoration. The dangerous waste is regulated in accordance with the Resource Conservation and Recovery Act of 1976 and the Washington State Hazardous Waste Management Act of 1976 (as administered through the Washington State Department of Ecology Dangerous Waste Regulations, Washington Administrative Code (WAC-173-303). The radioactive component of mixed waste is interpreted by the U.S. Department of Energy to be regulated under the Atomic Energy Act of 1954; the nonradioactive dangerous component of mixed waste is interpreted to be regulated under the Resource Conservation and Recovery Act of 1976 (RCRA) and WAC 173-303. Throughout this closure plan, 'mixed waste' refers to waste containing both dangerous and radioactive components. Additional information regarding the Hanford Facility is described in the General Information Portion of the Hanford Site RCRA permit.

Insert text from page 1-1, beginning on line 15 through line 30. Include information about the glove box, etc. that you intend to close along with the 241-Z tanks. Identify tank D-6 as a CERCLA past-practice tank)

1.2 Preferred Closure Strategy (insert text from page 1-1, beginning on line 32 through line 50 continuing on page 1-2, lines 1-4.

1.3 Closure Plan and PFP Deactivation/Decommissioning Integration (insert brief text explaining coordination of efforts. Include planned CERCLA actions (include dates) for tank D-6 & other CERCLA associated actions. Explain what is meant by 'terminal cleanout.'

Explain how you intend to handle the closure of the overflow tank.

### **Page 2-1, Section 2.1**

Insert text (line 6) to include PFP complex is located in the 200 West Area of the Hanford Site. Identify tank D-6 as a CERCLA unit, a concrete tank and, the size of the vault containing it. If appropriate, identify the past-practice infrastructure (line 20) as CERCLA.

### **Page 2-1, Section 2.1.1**

Line 31; insert "single shell" after 'large'

Line 35; describe the size of the vaults

Insert in sentence in line 36: The cells have not floor drains, 'but contain sumps' and...

Line 45; change "a" to "the" in sentence...'toward a sump located...'

Describe how the tanks are physically positioned in the vaults. Are they sitting on elevated tank supports with an air space between the bottom of the tank and the vault floor or, are they located directly on the vault floor?

### **Page 2-2, Section 2.1.2.1**

Clarify date of construction; vaults were built in 1944 but the building was constructed at a later date. Why is there a difference?

### **Page 2-2, Section 2.1.2.2**

Need a more detailed description of the glove box and sample piping

### **Page 2-3, Section 2.1.3, Line 13**

Insert into sentence after ...CERCLA action for the 200-UP-001 operable unit in accordance with section 5.5 of the TPA.

### **Page 2-3, Section 2.2**

Identify appropriate section of the General Information document (reference the document)

Page F2-3, Figure 2-3: Identify Tanks D-5&D4 as waste collection tanks (two more arrows)

Update Figure 2-5 to show sump flow returns

### **Page 3-1, Section 3.1**

Waste codes should be included with the waste descriptions.

5<sup>th</sup> bullet, further explain what is meant by additional plutonium processes waste in support of ...etc.

### **Page 3-2, Section 3.2**

The first paragraph of this section is confusing as written and difficult to follow. Also, what waste streams went into each tank (if different waste streams went into different tanks).

### **Page 3-3, Section 3.3**

Identify RCRA & CERCLA components in the title

### **Page 3-3, Section 3.3.1**

Clarify this paragraph. What failed in the system to cause the spill? What was the quantity of water actually spilled?

### **Page 4-i, Chapter 4.0**

Add new section: "4.2.6 Constituents of Concern for Closure." Reference the Part A.

Move Section 7.1.4 to Chapter 4.0.

### **Page 4-1, Section 4.2.1 PRF Waste Streams**

What are the heavy metal contaminants of the PRF HSW.

Need information regarding the PPO and the PSA; where did you discuss their waste streams?

### **Page T4-1, Table 4-1 & 4-2**

Where's Mercury, Arsenic, Magnesium, fluoride, chloride? Are all the constituents listed?

Explain the silver persulfate process in Chapter 3 & 4.

### **Page 5-1, Chapter 5.0**

Replace with following:

'The 241-Z is not subject to the groundwater monitoring requirements of WAC 173-303-610 (7)(a) if there is not waste left in place, as consistent with the preferred 'clean closure' strategy. Section 6.3.1 of the TPA agreement states, "Any demonstration for clean closure of a disposal unit, or selected treatment or storage units as determined by the lead regulatory agency, must include documentation that groundwater and soils have not been adversely impacted by the TSD group/unit as described in WAC 173-303-645." Although the 241-Z has not operated as a dangerous waste surface impoundment, waste pile, land treatment, or landfill as defined in WAC 173-303-645 (1)(a), final 'clean closure' will depend upon demonstration that dangerous waste constituents have not

been transported into the adjacent soil or groundwater in accordance with Section 6.3.2 of the TPA. The initial approach to demonstrating closure is to assess the integrity of the tank system and the vaults. If clean closure can be attained, groundwater monitoring is not required. In accordance with the TPA, the 241-Z is within the 200-ZP-1 (groundwater) Operable Unit. The 200-ZP-1 OU CERCLA cleanup will integrate RCRA actions with CERCLA actions in accordance with the TPA. Remediation of any groundwater contamination from the 241-Z unit will occur under the 200-ZP-1 OU CERCLA Record of Decision (ROD).

#### **Page 6-1, Section 6.1 CLOSURE STRATEGY**

Change to read:

The 241-Z unit tanks (including some components, structures, and soil beneath the unit) will not be removed under this plan. The unit will be clean closed in place or will remain in place for disposition and final closure in conjunction with the CERCLA action(s) for the 241-z OU (Chapter 7.2.1). The 241-Z unit will be clean closed with respect to dangerous waste contamination from RCRA operations in accordance with WAC 173-303-610 (2)(b) and WAC 173-303-640(8) and in accordance with WAC 173-303-806. Incidental cleanup of non-RCRA components (e.g., tanks D-6, D-9, D-10, and D-11) and structures are planned to occur in conjunction with the 241-Z tank system closure activities (in accordance with Milestone M-083-22) and are considered outside the scope of this closure plan. Past-practice contamination existing in the adjacent D-6 vault or emanating from documented spills to the D-6 vault is considered CERCLA-only contamination that has been identified in the Waste Information Data System (WIDS) for tracking to disposition by the appropriate CERCLA action(s) (e.g., the 200-ZP-1 OU) and is considered outside of the scope of this 241-Z TSD unit closure plan.

All components, structure, and soil that meet the closure standards as identified in this plan and the requirements of WAC 173-303-610 will be clean closed. If the 241-Z unit can not be clean closed under this plan, the unit will undergo post closure pursuant to WAC 173-303-610, WAC 173-303-640(8) and in accordance with WAC 173-303-806. The Part A, Form 3, would be modified to remove clean closed portions from the TSD unit description and identify all unclosed portions for tracking until final closure. Final closure of the 241-Z unit would occur after disposition of any remaining TSD unit contamination in conjunction with the CERCLA Removal Action (e.g., engineering evaluation/cost analysis (EE/CA) in accordance with Milestone M-083-22) that includes 241-Z structures and/or the CERCLA Remedial Action that includes 241-Z soils. It is anticipated there will be a need for extension of the closure period beyond 180 and integration of closure with CERCLA action(s). Closure activities are scheduled to begin in June of 2005 and end by September 2011, as required, under the milestone M-083-31. As such, a request for extension pursuant to WAC 173-303-610 (4)(e)(iii) will not be required. Should closure activities require additional time for completion, any extension of the closure period due to integration with CERCLA action(s) will be done in accordance with WAC 173-303-806, WAC 173-303-810, and WAC 173-303-830 and WAC 173-303-840.

**Page 6-1, 6.2 Closure Performance Standards**

Replace with this text.

“Clean closure, as defined in the HF RCRA permit, Section II.K.1 and as provided in this plan, will meet the closure performance standards of WAC-173-303-610 (2)(a) by eliminating future maintenance and by removing or reducing chemical contamination at the 241-Z unit to levels that controls, minimizes or eliminated to the extent necessary to protect human health and the environment, post-closure escape of dangerous waste, dangerous constituents, leachate, contaminated runoff, or dangerous waste decomposition products to the ground, surface water, ground water, or atmosphere. After closure, appearance of the land will be consistent with future land use determinations for adjacent portions of the 200 Areas. Clean closure will be achieved when all 241-Z unit dangerous waste, waste residue, or contaminated equipment are removed or decontaminated to the visual or analytical clean closure performance standards identified in this plan and established in accordance with WAC 173-303-610(2)(b). After closure, the appearance of the land will be consistent with future land use determinations for adjacent portions of the 200 Area. Clean closed tanks and vault cells could remain in place until disposition in conjunction with future PFP decommissioning and CERCLA action(s) activities.”

**Page 6-1, Section 6.2.1 Clean Closure Standards for Structures and Components**

Change line 45 to read: At time of closure, Ecology will determine which closure standard to apply based on information provided during the terminal cleanout of the system.

**Page 6-2, Section 6.2.1.2 Analytical Performance Standards...**

Change line 14, to read: Materials that do not meet the visual clean debris surface standard or to which the visual standard will not be applied (e.g., inaccessible pipe internal surfaces) will be clean closed by sampling and analysis.

Line 22; define what is meant by ‘totals analyses

Change line 24 to read: ...prescribed by WAC 173-303-610(2) (b) (i) will be used as the clean closure standard for the material.

**Page 6-2, 6.2.2 Closure Standards for Underlying Soil**

Change line 30 to read. Integrity inspections will be conducted on concrete surfaces to check for through-thickness cracks, etc.

Replace sentence beginning line 34:

If inspections identify such cracks and further investigation (Chapter 7.0, Section 7.2.4) identifies a potential for soil contamination, the condition will be documented in the 241-Z TSD unit’s Closure log and the unit will undergo post closure as described in Section 6.1.

## **Page 7-1, Chapter 7.0**

Pg 7-1: 2<sup>nd</sup> bullet: Please clarify; confusing ideas listed in last sub-bullet.

Note: the order of these bulleted activities seems incorrect. Please review their order. It is expected that you will do an integrity inspection of the secondary containment prior to any removal activities; repair leaks & cracks, and then proceed with closure activities. The vaults can not be considered clean closed until after final removed or decontamination of tanks, ancillary equipment, etc. and a final inspection determines the vaults to meet clean closure standards. At this point the closure status for the soil can be determined.

## **Page 7-2, Section 7.1.3**

Bullet 1; this bullet is confusing. Please explain how RCRA waste becomes CERCLA.

Bullet 2; Change sentence to read ...will be designated at the point of generation, containerized....

Bullet 3; Change sentence to read ...if any, will be designated at the point of generation and transferred to... .

Bullet 4; Delete "for storage until final disposition."

## **Page 7-3, Section 7.1.4**

This section moved to chapter 4; however, please reiterate information in this section.

Insert at beginning of line 14: "It is anticipated that the 241-Z will be closed to 'clean closure' standards using the visually verifiable performance standard of a 'clean debris surface' or by meeting analytical performance standards (Chapter 6, Section 6.2.1.2)."

Line 15, Insert in front of 'Sampling would be used...' 'Sampling is expected on rinsates from the piping and tanks and, as such, it will be necessary to develop a Sampling and Analysis plan in accordance with 40 CFR 300.415(4). To coordinate any future closure activities with the operable unit, as discussed in Chapters 7 & 8, this information on the constituents of concern for closure will be integrated into the CERCLA clean up actions of the areas of the operable unit associated with the PFP building."

## **Page 7-3, Section 7.2.1**

Line 39; Change "could" to "will" and change the word "any" to "an."

Please site appropriate WAC

### **7.2.1.1 Closure of Tank Internal Surfaces**

What is the disposal pathway of the decontamination solutions? Will they go to the DST system?

Pg 7-4, line 4; Need details of visual inspection procedures and what the desired outcome of the visual inspection will be.

Line 8 - 10: Need more detail regarding what the materials are that could be removed. This section seems to combine two different approaches. Needs clarification & separation of events.

**Page 7-4, Section 7.2.1.2, Page 7-4**

Line 19: Change "could" to "will."

Lines 27: Need to sample and designate the paint on tank D-8.

**Page 7-5, Section 7.2.2**

Page 7-5, Line 10; Change to read "will" remain in place.

**Page 7-5, Section 7.2.3 Activities for Closure of the Concrete**

Line 25; please describe what is meant by the statement that "the area below the tanks and their support pads are grouted." Is there a space between the bottom of the tank and the support pad or is the tank sitting directly on the support pad? Is there a leveling course of grout between the tank and the support pad?

Line 37: Change sentence to read. "Sumps used as rinsate collection areas will be cleaned and possibly inspected last."

Line 43: change to read ...'rinsate will be collected and sampled in accordance with the approved SAP.

Line 44: Clarify intent of sentence, confusing.

**Page 7-5, Section 7.2.4**

Line 49; Change to read. "The soils could be contaminated if the concrete has failed. An integrity inspection will be conducted to identify cracks in the concrete surfaces that could provide a pathway for dangerous waste or dangerous waste residues. If no cracks are noted, the soil will be designated as achieving clean closure.

**Page 7-6, Section 7.2.5 Other Activities Required for Closure**

Line 30: Change this paragraph to read: During the period between when the Permittee demonstrates that not all waste or waste residuals can be practicably be removed from the 241-Z unit and certification of closure as a landfill, but prior to the initiation of post-closure care, will operate according to a contingency plan and personnel training plan to be submitted as a permit

modification, as described in Section 8.0. This permit modification will also include inspection (including an inspection schedule, inspection parameters, and a response plan to unsatisfactory conditions) and/or monitoring of unclosed components and concrete structures that overlay potential soil contamination to ensure conditions do not develop that could mobilize contamination. Such a plan would identify all areas of concern.

### **7.3 Page 7-6, Section 7.3 Schedule of Closure**

Line 45: Change to read: ...will be coordinated with PFP deactivation activities and will be coordinated with future CERCLA actions(s).

Line 46: Change to read: 'TPA milestone M-83-31 indicates that after June 30, 2005, the 241-Z tank system is to cease waste liquid discharges to Tank Farms. Closure activities might not begin until after this date.' Etc

### **7.4 Page 7-7, Section 7.4 Amendment of Plan**

Line 7; Change to read: Any amendments to the closure plan will be submitted in accordance with the Hanford Facility Dangerous Waste Permit Application, General Information Portion, Section 11.1.10 (DOE/RL-91-28) and in accordance with WAC 173-303-810(12) and WAC 173-303-810(13)

### **Page 7-7, Section 7.4 Certification of Closure**

Line 12; Change to read: Certification of closure will be submitted in accordance with the Hanford Facility Dangerous Waste Permit Application, General Information Portion, Section 11.1.11(DOE/RL-91-28) and in accordance with WAC 173-303-810(12) and WAC 173-303-810(13).

Page F7-1, Figures 7-1, Section 7:

Add box for 'Depth of surface layer removal (cm) (e.g., for concrete)

Page F7-2, Figure 7-2

Is the schedule in the proper order of events? Should closure of vaults come after closure of tanks and piping/ancillary equipment?

### **Page 8-1, Chapter 8.0**

Line 2, replace with: The 241-Z is proposed to be closed by removal or decontamination ("clean closed"), in which case no post closure care would be required.

Line 4, replace this paragraph with: If the unit cannot be clean closed under this plan and the Permittee demonstrates that not all waste or waste residuals can be practicably removed, a permit modification will be submitted to revise the 241-Z closure schedule and modify closure requirements to reflect actions necessary to satisfy landfill closure requirements pursuant to WAC 173-303-640(8)(b). This revised plan will reflect and be consistent with the appropriate 241-Z CERCLA action(s) (Chapter 6.0, Section 6.1). The modified closure plan will contain a plan for unit monitoring and inspection as described in Chapter 7.0, Section 7.2.5 that will be in place until certification of closure as a landfill is complete.

**Page Distr-1, Distribution List:** Correct spelling to read "Ayres"

## SEPA CHECKLIST ON 241-Z TANK SYSTEM

CHECKLIST REFERENCE	ECOLOGY COMMENTS	REGULATORY REFERENCE
pp. 7 of 19, 9 and 10 of 19, 10 and 11 of 19	There appears to be several sections missing and some formatting that is not clear. SEPA checklist item 3. Water a. Surface: 1) is missing. Item B.5.a mammals reference to the PNNL 6415 Rev 14 document information is repeated on the bottom of 9 and top of p. 10. The reference to the document is not sufficient because no specific reference to the 200 West Area or PFP is included for the permit writer's use in performing an initial assessment (WAC 197-11-330(1) (a) (ii)). Item B.6.c and a response are missing. Item B.7.a checklist text is only partially shown.	WAC 197-11-330(1)(a)(ii)
A.8. ¶ 1, p. 2 of 19	Reference is made to Rev. 0 of the subject SEPA Environmental Checklist that submitted with a Notice of Intent, submitted in September 1996. No explanation is provided as to why Rev. 1 was prepared and submitted. In addition, the HFFACO Administrative Record shows the NOI was submitted in 1992, but the SEPA Environmental Checklist appears as part of the 241-Z Closure Plan in 1996. Ecology requests further explanation of the environmental information in Rev. 0 that changed in Rev. 1.	WAC 197-11-960, Instructions for applicants, ¶ 1, last sentence, "Answer the questions...with the most precise information known..."
Same page, section, ¶ 2, sentence 2.	Final disposition of the PFP complex, including the tanks, will be addressed in CERCLA "documentation". Ecology requests a more complete definition of what CERCLA documents will be used to evaluate the environmental impacts of final disposition of the PFP facility.	WAC 197-11-960
CHECKLIST REFERENCE	ECOLOGY COMMENTS	REGULATORY REFERENCE
A.9, p. 2 of 19	The radioactive air emissions Notice of Construction for the 241-Z is listed under item A8. Please include the information on the air emissions NOC in Section 9, not 8.	WAC-197-11-
A.8, ¶ 4, p. 2 of 19	Ecology noted that no reference is made to the PFP Stabilization EIS, DOE-EIS-0244F, or subsequent supplements. Assuming that the PFP FEIS is not applicable to the tank stabilization efforts, it appears that the USDOE RL is determining whether further NEPA action will be required, through the reference to the PFP EA. If the closure of the 241-Z Tanks is part of the actions undergoing evaluation in the PFP EA pending, then Ecology must review the EA before closing the required SEPA actions for the 24-Z Tanks.	WAC 197-11-060(3)(b)(ii)
A.9, p. 2 of 19	Ecology suggests that the discussion of submission of a radioactive air emissions notice of construction be relocated to item 9 because it is a permit application.	WAC 197-11-960

A.10, p. 2 of 19	Reference is made to CERCLA documentation in A.8; however, Ecology cannot determine what that CERLA documentation is. Please provide a list of the documents that will be prepared under CERCLA to evaluate the environmental impacts of final disposition of PFP.	
A. 11, ¶ 1, sentence 1, p. 3 of 19.	Ecology cannot determine from the description given why only four of the five 241-Z tanks are begin closed under RCRA. Later in the text, explanation is provided that Tank D-6 is not included in the tanks subject to RCRA. For Ecology to learn why that tank was excluded, a search of the 241-Z closure plan was required, where the explanation that of the tank as a CERCLA unit was provided.	WAC 197-11-960
A. 11, ¶ 3, sentence 1, p. 3 of 19.	Bullet 1 states that visual examination will be conducted and comparison will be made to the debris rule performance standard as clean closure. Please cite 40 CFR Part 268.45 Treatment standards for hazardous debris Table 1 in text for debris rule performance standards.	40 CFR 268.45
A. 11, ¶ 3, sentence 1, p. 3 of 19.	Bullet 5 states that ancillary equipment will be removed and disposed. Please specify the equipment to be removed and project whether the equipment will be disposed as Low Level Mixed Waste or as transuranic waste.	
A. 11, ¶ 3, sentence 1, p. 3 of 19.	Bullet 8 states that if the underlying soils meet the clean closure standards, the unit will be clean closed. ¶ 2 above states that if the unit cannot be closed, then it will be addressed during the PFP CERCLA decommissioning. Item B.3 c. 2) asks if waste materials could enter the ground water. The plan to delay removal of soils under the unit if they cannot meet clean closure standards does not address any potential for the wastes present to travel through the vadose zone to groundwater. Please add an explanation of how the wastes in the soil under the unit would be expected to travel through the vadose zone if they are not removed and any mitigation measures that would be put in place to avoid contaminating the groundwater, as required by WAC 197-11-960, item B.3.d	
A. 11, ¶ 3, sentence 1, p. 3 of 19.	Bullet 9 states that if the tanks, internal piping, or concrete do not meet closure performance standards and further cleanup is ineffective, contaminated portions will be removed or coordinated with cleanup during decommissioning. This statement lacks a regulatory reference to the WAC 173-303-610 standards that apply to tank systems closed as landfill units for the portion of the tank system that cannot be cleaned or removed and disposed of waste. Please provide a regulatory basis for leaving the tanks in place that complies with the WAC, as well as a better description of the removal activities that might be conducted.	

A. 11, ¶ 3, sentence 1, p. 3 of 19.	Bullet 10 states that soil characterization and cleanup will be coordinated with the CERCLA cleanup of the facility. As above, Ecology wishes to understand how USDOE RL will protect the environment from any further migration of contaminants in the soil. Please address releases to the soil and their impact on the groundwater.	WAC 197-11-960
B.1.c, p. 5 of 19	Please add specific page references to soil classification maps and descriptions in PNNL 6415, Rev. 14. In that reference, please provide the SPECIFIC soil type under the unit, as extracted from Hajek 1966.	WAC 197-11-960
B.2.a, p. 6 of 19	Airborne releases of radionuclides and chemicals are said to be possible as a result of upset conditions. Please specify what chemicals could be released and projected quantities at release. Also provide information on any planned submission of a Notice of Construction to address emissions of air toxics.	WAC 197-11-960
B.2.c, p. 6 of 19	Please provide information about the "good engineering practices" that will be used to reduce or control emissions.	WAC 197-11-960
B.4.c., p. 9 of 19	Reference is made to lists of threatened or endangered species in a supplemental document, PNNL-6415, Rev. 14. No attempt was made to identify particular species that might be present at the Plutonium Finishing Plant (PFP). The document referenced addresses the entire Hanford Site. Specific information on the PFP complex and the tank system is required for review of significant environmental and public health impacts. This failure to provide information prevents Ecology staff from performing their initial reviews without a requirement for additional information. Please provide information specific to the PFP for Ecology evaluation.	WAC 197-11-330(1)(a)(ii)
B.7.a, p. 11 of 19	The text states that "stringent administrative controls and engineered barriers will be used to minimize the probability of even a minor incident and/or accident." This statement is not supported by any description of the measures that will be taken or any reference to a permit application or other document that enumerates the controls and barriers.	
B.7.a.2), p. 11 of 19	¶ 1 states that all personnel are trained to follow proper procedures during the disposal operations to minimize potential exposure. It is not clear from the text if the same procedures will be used to clean the tanks to meet debris standards or whether added procedures will be required to conduct the cleaning effort. Please address the cleaning activity procedures.	