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STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

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May 31, 1995

Mr. John Wagoner, Manager  
U. S. Department of Energy  
P. O. Box 550  
Richland, WA 99352



Dr. LeMar Trego, President  
Westinghouse Hanford Company  
P. O. Box 1970  
Richland, WA 99352

Mr. Joe F. Nemeec, President  
Bechtel Hanford Company  
P. O. Box 969  
Richland, WA 99352

Dr. William J. Madia, Director  
Pacific Northwest Laboratory  
P. O. Box 999  
Richland, WA 99352

Dear Messrs. Wagoner, Trego, Nemeec, and Madia:

This letter transmits draft modifications to the Dangerous Waste Portion of the *Resource Conservation and Recovery Act Permit for the Treatment, Storage, and Disposal of Dangerous Waste* (Permit). We have also enclosed the supporting documentation for the Permit, which includes a Focus Sheet/Statement of Basis and copies of Ecology review completion letters (three units).

The public comment period for this modification begins June 8, 1995, and ends on July 24, 1995. Any formal comments you have regarding the draft modifications must be received by our office during that time. Any questions you may have should be directed to Moses Jaraysi, Washington State Department of Ecology, at (509)736-3016.

Sincerely,

Michael Wilson, Manager  
Nuclear Waste Program

MW:MJ:mf

cc: Cliff Clark, USDOE  
Dan Duncan, EPA  
Doug Sherwood, EPA  
Harold Tilden, PNL

L. A. Mehalik, BHI  
Sue Price, WHC  
Administrative Record

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**Modifications to Part V of the Permit**

CHAPTER 9

## Hanford Patrol Academy Demolition Site

The Hanford Patrol Academy Demolition Site (HPADS) is an inactive treatment unit which is currently undergoing permanent closure activities. This TSD unit was operated as an open burning/open detonation unit for dangerous waste. This Chapter sets forth the closure requirements for this TSD unit.

V.9.A. COMPLIANCE WITH THE APPROVED CLOSURE PLAN

The permittees shall comply with all the requirements set forth in the Hanford Patrol Academy Demolition Sites Closure Plan (Plan), as found in Attachment 24, including the amendments specified in condition V.9.B. Enforceable portions of the Plan are listed below. (All subsections, figures, and tables included in these portions are also enforceable unless stated otherwise.)

## Part A Application

Section 2.2.2	Facility Description and General Provisions
Section 2.2.3	Description of Hanford Patrol Academy Demolition Sites
Section 2.24	Security Information
Chapter 3.0	Process Information
Chapter 4.0	Waste Characteristics
Chapter 5.0	Groundwater Monitoring
Chapter 6.0	Closure Strategy and Performance Standards
Chapter 7.0	Closure Activities
Chapter 8.0	Postclosure Plan
Appendix 4A	Waste Inventories
Appendix 7A	Quality Assurance Project Plan for Soil Sampling and Analysis for the Hanford Patrol academy Demolition Sites
Appendix 7B	Training Course Descriptions
Appendix 7C	Sampling and Analysis Plan

- V.9.B. AMENDMENTS TO THE APPROVED CLOSURE PLAN
- V.9.B.a. A written notification that closure has begun and will be conducted in accordance with the Plan, including these conditions to the Plan, shall be submitted to the Department within 30 days after the Plan is approved through issuance of this Permit.
- V.9.B.b. The results of all sampling required by this Plan shall be provided to the Department. This submittal shall include the raw analytical data, a summary of analytical results, a data validation package, and a narrative summary with conclusions.
- V.9.B.c. The Department shall be provided, for review and approval, a sampling plan and the date of sampling for any sampling event not addressed in the Plan which provides data used to support HPADS closure activities at least 30 days prior to initiating actual sampling activities. The results of this sampling shall be submitted to the Department. These submittals shall include the raw analytical data, a summary of analytical results, a data validation package, and a narrative summary with conclusions.
- V.9.B.d. The Permittees shall notify the Department, in writing, if the action levels as defined in Section 6.1 of the Plan are exceeded. The notification shall include a request to develop a phase two investigation to determine further sampling activities or remedial actions.
- V.9.B.e. The Permittees and the independent, registered, professional engineer certifications of closure shall be prepared and submitted to the Department by registered mail within 60 days of closure, as described in Section 6.3.2 of the Plan. The Permittees shall continue to address HPADS as a dangerous waste management unit until receipt of the Department's written notification that HPADS is accepted as clean closed.
- V.9.B.f. The Permittees shall complete HPADS closure activities within 180 days after the effective date of Revision 2 to this Permit.
- V.9.B.g. The Permittees shall use the risk analysis report titled, "Risk Associated With the Napalm Canister at HPADS" as the basis to address any safety concerns.

CHAPTER 10

## 105-DR Large Sodium Fire Facility

The Large Sodium Fire Facility (LSFF) was a research laboratory used to conduct experiments for studying the behavior of alkali metals. This facility was also used for the treatment of alkali metal dangerous wastes. This chapter sets forth the closure requirements for this TSD unit.

V.10.A. COMPLIANCE WITH THE APPROVED CLOSURE PLAN

The Permittees shall comply with all the requirements set forth in the Large Sodium Fire Facility Closure Plan (Plan), as found in Attachment 25, including the amendments specified in Condition V.10.B. Enforceable portions of the Plan are listed below. (All subsections, figures, and tables included in these portions are also enforceable unless stated otherwise.)

Part A Application

Section 2.2	Unit Description and Operations
Section 2.3	Security Information
Chapter 4	Waste Characteristics
Chapter 6	Closure Strategy and Performance Standards
Chapter 7	Closure Activities
Chapter 8	Postclosure
Appendix B	Sampling Locations
Appendix E	Quality Assurance Project Plan for Characterization and Verification Sampling at the Large Sodium Fire Facility

V.10.B. AMENDMENTS TO THE APPROVED CLOSURE PLAN

V.10.B.a. A written notification that closure has begun and will be conducted in accordance with the Plan, including these Conditions to the Plan, shall be submitted to the Department within 30 days after the Plan is approved.

- V.10.B.b. The results of all sampling required by this Plan shall be provided to the Department. This submittal shall include the raw analytical data, a summary of analytical results, a data validation package, and a narrative summary of conclusions.
- V.10.B.c. The Department shall be provided, for review and approval, a sampling plan and the date of sampling for any sampling event not addressed in the Plan which provides data used to support LSFF cleanup activities at least 30 days prior to initiating actual sampling activities. The results of this sampling shall be submitted to the Department. These submittals shall include the raw analytical data, a summary of analytical results, a data validation package, and a narrative summary of conclusions.
- V.10.B.d. The Permittees shall notify the Department, in writing, if the action levels cited in Section 6.1.1 of the Plan cannot be achieved. The notification shall include either a request for the Department's approval of alternative action levels or identify the interim measures to be taken in the LSFF until closure activities are performed in conjunction with the 100-DR-2 Operable Unit.
- V.10.B.e. The Permittees and the independent, registered, professional engineer certifications of closure shall be prepared and submitted to the Department by registered mail within 60 days of closure, as described in Section 7.9 of the Plan. The Permittees shall continue to address LSFF as a dangerous waste management unit until receipt of the Department's written notification that LSFF is accepted as closed.
- V.10.B.d. The Permittees shall complete LSFF closure activities within 180 days after the effective date of Revision 2 of this Permit.

CHAPTER 11

## 304 Concretion Facility

The 304 Concretion Facility (304 Facility) was used for the treatment of dangerous wastes produced during the fuel fabrication process. These wastes consist of beryllium/Zircaloy-2 chips and Zircaloy-2 chips and fines.

V.11.A. COMPLIANCE WITH THE APPROVED CLOSURE PLAN

The Permittees shall comply with all the requirements set forth in the 304 Concretion Facility Closure Plan (Plan), as found in Attachment 26, including the amendments specified in Condition V.11.B. Enforceable portions of the Plan are listed below. (All subsections, figures, and tables included in these portions are also enforceable unless stated otherwise.)

## V.11.B. Part A Application

Section 2.1	Description of the 304 Concretion Facility
Section 2.3	Security
Chapter 4	Waste Characteristics
Chapter 6	Closure Strategy and Performance Standards
Chapter 7	Closure Activities
Chapter 8	Postclosure
Appendix B	Random Sampling Locations
Appendix E	Personnel Training
Appendix F	Quality Assurance Project Plan for Sampling and Analysis for the 304 Concretion Facility Closure Activities
Appendix G	Phase I Sampling and Analysis Plan for the 304 Concretion Facility Closure Activities

V.11.B. AMENDMENTS TO THE APPROVED CLOSURE PLAN

V.11.B.a. A written notification that closure has begun and will be conducted in accordance with the Plan, including these Conditions to the Plan, shall be submitted to the Department within 30 days after the Plan is approved.

V.11.B.b. The results of all sampling required by this Plan shall be provided to the Department. This submittal shall include the raw analytical data, a summary of

analytical results, a data validation package, and a narrative summary of conclusions.

- V.11.B.c. The Department shall be provided, for review and approval, a sampling plan and the date of sampling for any sampling event not addressed in the Plan which provides data used to support 304 Facility cleanup activities at least 30 days prior to initiating actual sampling activities. The results of this sampling shall be submitted to the Department. These submittals shall include the raw analytical data, a summary of analytical results, a data validation package, and a narrative summary of conclusions.
- V.11.B.d. Page 6-2, lines 12-13. Delete "Hanford Baseline Risk Assessment Methodology (DOE-RL 1992)" and replace with "Model Toxics Control Act (WAC 173-340)." The Permittees shall notify the Department, in writing, if the action levels cited in Section 6.1 of the Plan are exceeded. The notification shall include a request for the Department's approval of alternative action levels or identify the interim measures to be taken in the 304 Facility until closure activities are performed in conjunction with the 300-FF-2 Operable Unit.
- V.11.B.e. The Permittees and the independent, registered, professional engineer certifications of closure shall be prepared and submitted to the Department by registered mail within 60 days of closure as described in Section 7.8 of the Plan. The Permittees shall continue to address 304 Facility as a dangerous waste management unit until receipt of the Department's written notification that 304 Facility is accepted as clean closed.
- V.11.B.f. The Permittees shall complete 304 Facility closure activities within 180 days after the effective date of Revision 2 of this Permit..

**Proposed Modification to Permit Condition I.A.3 to Add a Five Year  
Permit Modification Schedule**

## Proposed Modification to Permit Condition I.A.3.

### Purpose of Modification:

The submittal of Part B Dangerous Waste Permit Applications and Closure Plans for Resource Conservation and Recovery Act (RCRA) Treatment, Storage, and Disposal Facilities (TSDs) on Hanford was scheduled through the Federal Facility Agreement and Consent Order (FFACO) Milestone M-20-00. These Part B Applications, and Closure/Postclosure Plans will be reviewed by the Department for completeness and consistency with the respective regulations. The final approval of these applications and closure plans is now being achieved through a Permit Modification Cycle to enter unit-specific conditions for the individual TSDs into Parts III or V of the Permit, giving these units final status.

Due to the large number of these units requiring permit applications and closure plans, it has become necessary to develop a schedule for finalizing these applications and closures and entering them in the Permit. It is also critical, at this stage of limited resources to all parties involved, to use such a schedule to effectively plan the available resources to implement the Permit modification process.

This proposed modification introduces the Permit Modification Schedule for the next five years, until the year 2000, in Attachment 27.

### Condition I.A.3. Before Modification

*"Each TSD unit shall have an application documentation for a final status permit or closure/postclosure plan submitted to the Department in accordance with the schedules identified in the FFACO (Milestone M-20-00). After completion of the permit application or closure plan review, a final permit decision will be made pursuant to WAC 173-303-840. Specific conditions for each TSD unit shall be incorporated into this permit in accordance with the Class 3 permit modification procedure identified in condition I.C.3."*

### Proposed modification

Add the following language to the end of this condition:

*", at the time identified in the five year Permit Modification Schedule in Attachment 27."*

### Scope of the Five Year Permit Modification Schedule

This schedule identifies the Part B Permit Applications and Closure/Postclosure Plans to be reviewed, processed, and entered in the Permit in the annual Permit Modification Cycles for the next five years, beginning in 1996 and ending in 2000.

**Future Changes to the Permit Modification Schedule**

In the year 2000, this Schedule will be modified to expand its applicability over the period ending September 2004.

Any Permittee initiated modification to this schedule will be made through a Class<sup>1</sup> 1 modification process, as per WAC 173-303-830(4)(a)(ii), which requires prior written approval of the Department. Modifications initiated by the Department will be made in accordance with WAC 173-303-830(3).

The Class<sup>1</sup> 1 modification decision is based on the fact that similar modifications listed in WAC-173-303-830(Appendix I)(A)(5)(a), and (Appendix I)(D)(1)(b), have been given a Class 1 modification requiring prior written approval.

**PERMIT MODIFICATION SCHEDULE****Attachment 27**

<b>Year and Mod.</b>	<b>TSD/Unit</b>	<b>*</b>	<b>Status and Remarks</b>
1995 Mod. A	218-E-8 Borrow Pit Demolition Site	C	In Rev. 1, Completed, approved
	200 Area Ash Pit Demolition Site	C	In Rev. 1, Completed, approved
	216-B-3 Expansion Ponds	C	In Rev. 1, Completed, approved
	2101 M Pond	C	In Rev. 1, Completed, approved
	Simulated High Level Waste Slurry	C	In Rev. 1, Completed, approved
1995 Mod. A'	Hanford Patrol Academy Demolition	C	Proposed for Rev. 2
	105-DR Sodium Fire Facility	C	Proposed for Rev. 2
	304 Concretion Facility	C	Proposed for Rev. 2
1996 Mod. B	PUREX Tunnels 1 & 2	B	
	300 Area Process Trenches <sup>†</sup>	C	
	3718-F Alkali Metal Treatment	C	
	4843 Alkali Metal Storage	C	
1997 Mod. C	303-K Storage Facility	C	
	300 Waste Acid Treatment & Storage	C	
	325 Waste Treatment Facility	B	
	200 Area Liquid Waste Complex	B	
	216-U-12 Crib	C	
	Low Level Burial Grounds	B	
1998 Mod. D	100 D Ponds	C	
	1325-N Liquid Waste Disposal	C	
	1301-N Liquid Waste Disposal	C	
	1324-N Surface Impoundment	C	
	1324-NA Percolation Pond	C	
	Hanford Central Waste Complex	B	
	Waste Receiving & Processing (1)	B	

<sup>†</sup> Public comment period for the 300 APT to be conducted simultaneously with the 300-FF-1 Operable Unit ROD.

Attachment 27  
Continued

Year and Mod.	TSD/Unit	*	Status and Remarks
1999 Mod. E	222-S Laboratories	B	
	Double Shell Tank Farms	B	
	Transuranic Storage and Assay Facility (TRUSAF)	B	
2000 Mod. F	216-B-3 Main Pond	C	
	216-B-63 Trench	C	
	216-A-29 Ditch	C	

Legend:      \*      Type of Permit  
                   B      Part B Application  
                   C      Closure/Postclosure Plan

**Note:**

1. All TSD Units not shown in this table will be scheduled through a Class 1 Permit Modification (requiring prior approval) to Attachment 27.
2. All Permit Modifications listed in this table will be conducted in accordance with the applicable requirements in WAC 173-303-830.
3. New TSD Part B Applications, if submitted, will be added to this table through a Class 1 Permit Modification (requiring prior approval).

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**Ecology Letters for Completion of Review of the Three Proposed Closure Plans**