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STATE OF WASHINGTON

DEPARTMENT OF ECOLOGY

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

June 10, 1999

Mr. James Rasmussen
U.S. Department of Energy
P.O. Box 550, MSIN: A5-15
Richland, Washington 99352

Dear Mr. Rasmussen:

Re: Corrections to the Dangerous Waste Portion of the Hanford Facility Resource Conservation and Recovery Act (RCRA) Permit for the Treatment, Storage, and Disposal of Dangerous Waste (Permit), Rev. 5.

50749

The Washington State Department of Ecology (Ecology) issued Revision 5 (Mod D) to the Permit on May 18, 1999. Subsequently the following errors that need correction in this Revision were discovered.

1. Class 1 and Class[1]1 Modifications to Part IV, Chapter 1, 300 Area Process Trenches, from the quarter ending September 30, 1998, which were approved by Ecology on July 22, 1998, were not reflected in Mod D (enclosed). However, compliance with these approved Class 1 and Class[1]1 Modifications is required.

2. Permit Condition III.6.B.g., in Part III, Chapter 6, 325 Hazardous Waste Treatment Units, was erroneously modified during Mod D to include a closure date of 2-28-2000. This date should be omitted. However, we will revisit this Condition and clarify appropriate language during the next Permit Modification cycle (Mod E). Also, this Condition erroneously references Attachment 37; the correct reference should be Attachment 36.

Ecology will update the Permit to reflect these corrections during the next Permit Modification cycle, due to be completed by December 31, 1999. Also, I encourage input from the Permittees on any corrections or suggestions to ensure the accuracy and improve the quality of the Permit.

If you have any questions, please contact me at (509) 736-5715.

Sincerely,

Laura Ruud
Permitting Specialist
Nuclear Waste Program

Enclosure

LR:ld

cc: Dave Bartus, EPA
Doug Sherwood, EPA
Mike McCoy, PNNL
Harold Tilden, PNNL
Sue Price, FDH
Suzette Thompson, FDH
Administrative Record: Sitewide Permit

Hanford Facility RCRA Permit Modification Notification Forms

for

Part VI, Chapter 1 and Attachment

300 Area Process Trenches

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Hanford Facility RCRA Permit Modification Notification Form

Unit:	Permit Part & Chapter:
300 Area Process Trenches	Part VI, Chapter 1 [Section 8.0 of Attachment 31]

Description of Modification:

Deletion of obsolete requirements throughout Section 8.0, "Postclosure Plan" of Attachment 31 (*300 Area Process Trenches Modified Closure/Postclosure* Plan, DOE/RL-93-73, Rev. 1): The 300 Area Process Trenches achieved clean closure of the soil column. Therefore, no postclosure care requirements pertain to it. The current postclosure plan contained in Section 8.0 contains information on postclosure requirements for soil column contamination, such as inspections, maintenance, and security measures. It is requested that the information on soil column postclosure actions be deleted from the text of Section 8.0 to reflect clean closure. This section will continue to reflect postclosure care requirements due to groundwater contamination. Attachment 1 of this notification form contains a strikeout version of Section 8.0 that reflects these changes. Attachment 2 contains a clean copy of Section 8.0 with the text to be deleted removed. These changes will also cause Permit Condition VI.1.B.p to be obsolete because they pertain to security control associated with contaminated soil rather than groundwater.

Attachment 1 and 2 also reflect typo/administrative/information changes made through a class 1 modification.

Because closure has been completed and certified, Sections 1.0 through 7.0 and all Appendices of Attachment 31 should be deleted. These sections pertain to requirements that were applicable during closure of the 300 Area Process Trenches. This will prompt two changes in Part VI, Chapter 1 of the Permit. In VI.1.A, the following should be placed at the end of the paragraph: "The 300 Area Process Trenches achieved closure in May 1998 in accordance with the closure plan contained in Attachment 31 and Permit Conditions contained in this Chapter. Therefore, enforceable portions of the plan currently consist of those associated with postclosure care. These portions are Sections 8.2, 8.4, and 8.5." Also, various Permit Conditions are now obsolete. In VI.1.B, the following should be placed before the listing of Permit Conditions: "Closure activities were completed at the 300 Area Process Trenches in May 1998. Therefore, the only Permit Conditions currently applicable to this unit during postclosure care are VI.1.B.b, VI.1.B.i, VI.1.B.q, and VI.1.B.r.

Modification Class: [1]	Class 1	Class [1]1	Class 2	Class 3
please check one of the Classes:				X

Relevant WAC 173-303-830, Appendix I Modification: Not explicitly listed.

Enter wording of the modification from WAC 173-303-830, Appendix I citation:

Not explicitly listed. A formal request to down grade this change to a Class [1]1 modification is requested by way of this notification.

Submitted by Co-Operator:	Reviewed by RL Program Office:	Reviewed and Approved by Ecology:
K. J. R. Clarke	Robert D. McLeod 8-20-98	7/22/98

[1]If the proposed modification does not match any modification listed in WAC 173-303-830 Appendix I, then the proposed modification should automatically be given a Class 3 status. This status may be maintained by the Department of Ecology, or down graded to [1]1, if appropriate.

Hanford Facility RCRA Permit Modification Notification Form

Unit:	Permit Part & Chapter:
300 Area Process Trenches	Part VI, Chapter 1 [Section 8.0 of Attachment 31]

Description of Modification:

Typographical errors in Section 8.0 of Attachment 31 have been corrected as follows:

Page 8-7, Section 8.5.6: Section 8.4.1 is incorrect. The correct section is 8.5.1.

Page 8-9, Section 8.8: The last sentence contains a typographical error on the figure number which should be Figure 7-4.

The following is an "other change" to the training plan of Attachment 31:

Page 8-7, Section 8.5.4, Training Director: delete this section as there are various organizations/individuals that are responsible for directing various aspects of training, depending on site contractor and type of training. This level of detail is not necessary in this plan. To eliminate the need to keep updating the section as organizations change, this section has been deleted.

Modification Class: please check one of the Classes:	Class 1	Class 1	Class 2	Class 3
	X			

Relevant WAC 173-303-830, Appendix I Modification: A.2.

Enter wording of the modification from WAC 173-303-830, Appendix I citation:

Correction of typographical errors. Changes in the training plan; other changes.

Submitted by Co-Operator:	Reviewed by RL Program Office:	Reviewed by Ecology:
	8-20-98	

Hanford Facility RCRA Permit Modification Notification Form

Unit:	Permit Part & Chapter:
300 Area Process Trenches	Part VI, Chapter 1 [Section 8.0 of Attachment 31]

Description of Modification:

The following changes represent administrative/informational changes to Attachment 31:

Page 8-3, Section 8.2.2, 2nd paragraph, last sentence: well inspection forms are used instead of a log book. The last sentence is revised to read as follows: "Problems and/or damage will be noted on the well inspection forms for tracking of repairs."

Page 8-4, Section 8.4, 2nd to last sentence: well inspection forms are used instead of a log book. The last sentence is revised to read as follows: "The maintenance plan is based on observations made and recorded in the well inspection forms during site inspections."

Page 8-4, Section 8.4.1, 1st sentence: well inspection forms are used instead of a log book. The 1st sentence is revised to read as follows: "...and/or problems noted in the well inspection forms during inspections..."

Page 8-4, Section 8.4.1, last sentence: well inspection forms are used instead of a log book. The last sentence is revised to read as follows: "Repairs to the four steel guard posts at each monitoring well will be made before the following inspection period and tracked on well inspection forms to completion."

Page 8-7, Section 8.5.5, first paragraph: delete "40 hours of" from the last sentence. Hazardous waste site operation training as provided by 29 CFR 1910.120 is not a 40 hour course. A similar change was made previously during closure activities in Section 7.7 through downgrading of a Class 3 to a Class 1 modification (approved by T.A. Wooley on May 13, 1998).

Page 8-7, Section 8.5.5, second bullet: delete "and the 200 East Area emergency control director by radio." This change reflects current emergency response to fires which is to notify the Hanford Fire Department only.

Page 8-8, Section 8.7: The telephone number listed is obsolete and has been deleted.

Page 8-9, Section 8.8, 2nd sentence: delete "closure plan" and replace with "postclosure plan".

Modification Class: please check one of the Classes:	Class 1	Class 1	Class 2	Class 3
	X			

Relevant WAC 173-303-830, Appendix I Modification: A.1.

Enter wording of the modification from WAC 173-303-830, Appendix I citation:

Administrative and informational changes

Submitted by Co-Operator:	Reviewed by RL Program Office:	Reviewed by Ecology:
[signature]	Robert D. McLeod 8-22-98	[signature] 7/22/98

Hanford Facility RCRA Permit

Part VI, Chapter 2

300 Area Process Trenches

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Section 8.0

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TABLES

8.0 POSTCLOSURE PLAN

Closure of a TSD unit with contamination remaining above clean closure levels but below MTCA (WAC 173-340-745) industrial HBLs is identified in the Hanford Facility Permit (Ecology 1994a) as modified closure (Section 6.1.2.3). RCRA postremediation care of the unit will be required for modified closure status.

The inspections, maintenance, and monitoring requirements are reflected in this section, which is intended for use as the 300 APT postclosure permit application. Unit care will meet the conditions for modified closure as presented in this chapter.

Condition II.K.3.c of the Hanford Facility RCRA Permit identifies the conditions of modified closure as postclosure care and requires a postclosure permit application. This chapter is intended to be used as a postclosure permit application.

8.1 MODIFIED CLOSURE CARE REQUIREMENTS

The conditions of modified closure status are intended to guide the unit through controlled and protective transition period(s) of naturally declining contamination levels. The period(s) will end in the termination of modified closure and the initiation of final closure. Until final closure, modified closure must meet the requirements of institutional controls and periodic assessments of WAC 173-340-440 and -410, respectively, as specified in the Hanford Facility Dangerous Waste Permit Conditions II.K.3.a and II.K.3.b and the Postclosure Permit Application.

8.1.1 Institutional Controls

The institutional controls are required under WAC 173-340-440 during a period of modified closure to ensure that control measures are maintained over time. These controls consist of physical measures and administrative and legal mechanisms. Physical barriers provide physical control of activities that may interfere with further remedial action or that may cause exposure to contamination at the site. As a legal mechanism, a restrictive covenant will be placed in the deed describing the institutional controls. The covenant will also prohibit site activities that interfere with cleanup, cause exposure to site contamination, or release hazardous substances. The covenant will also require that Ecology be notified of conveyance of interest in the property, or any proposal to use the site inconsistently with the covenant, and that Ecology be granted reasonable access for inspection. This covenant will be removed from the deed upon the termination of modified closure status and after a period of public notice and comment.

8.1.2 Periodic Assessments

Periodic assessments shall include a compliance monitoring plan in accordance with MTCA, WAC 173-340-410. Compliance monitoring will primarily involve protection and confirmation monitoring. This monitoring will ensure the continued effectiveness of modified closure in controlling site contamination levels and protecting human health and the environment during the modified closure period. This monitoring is necessary to confirm compliance by demonstrating that contaminant levels found at time of closure have not increased.

As allowed by WAC 173-340-410, such monitoring may be combined with other plans or submittals. Confirmation monitoring for groundwater may be combined with the current joint RCRA/CERCLA

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program for the 300 Area. Protection monitoring is used to confirm that human health and the environment are adequately protected during this period and may be addressed in safety and health plans.

Compliance monitoring will include routine visual inspections, maintenance, and groundwater monitoring similar to that identified in the following sections. The compliance monitoring plan will also include a timetable for performance of these activities. The plan shall provide for at least one assessment activity that will be performed after 5 years to ensure that contamination has remained at previous concentrations or has diminished in concentration. The plan will identify the nature and date of the assessment activity as an anticipated year of final closure. The requirements for the assessment activity will be contained in the CERCLA O&M Plan and its support documents.

The assessment activity could be composed of visual inspections of the site, evaluation of existing data from the groundwater monitoring system, and/or other activities. If the contamination levels are shown to be the same or less than at the time of closure, the permittees may request that Ecology reduce or eliminate compliance activities, including institutional controls.

8.2 INSPECTION PLAN

This section describes compliance monitoring activities, security equipment, and inspections for well conditions during a period of modified closure compliance monitoring. Table 8-1 lists the inspection items and the inspection frequency for the postclosure care period. These inspections may be implemented in checklist form. Such a checklist could specify entering checklist performance and results in the appropriate inspection logbook.

8.2.1 Security Control Devices

Each of the groundwater monitoring wells has a locked cap to prevent unauthorized access and is surrounded by four steel guard posts for visibility to prevent damage from vehicles. The overall well condition, locks, guard posts, and pumps will be inspected during each sampling event. Problems and/or damage will be noted on well inspection forms for tracking of repairs.

8.2.2 Well Condition

Inspection of groundwater monitoring wells will be carried out under internal procedure BHI-EE-01 (BHI 1995) or equivalent guidance. This procedure calls for a surface inspection of a well at each sampling event. The procedure also calls for a subsurface inspection of the well at a minimum of every 3 to 5 years. This routine subsurface inspection may consist of pulling and inspecting the pump, brushing the inner walls of the casing and screen, and conducting a down-hole television survey.

8.3 GROUNDWATER MONITORING PLAN

Groundwater monitoring, in accordance with MTCA, WAC 173-340, will be required as a condition of modified closure. The current joint RCRA/CERCLA program (Chapter 5.0) will be assessed to ensure that it meets site monitoring needs, and a revised groundwater monitoring plan will be prepared and submitted to Ecology for approval. This assessment will include an evaluation of the monitoring well network in relation to the groundwater flow direction and the constituents selected for analysis. Groundwater samples will be collected quarterly and semiannually under a final status compliance

monitoring program. The revised groundwater monitoring plan will meet the requirements of WAC 173-303-645, WAC 173-303-610(7), WAC 173-340-410, and WAC 173-340-820.

The objectives of this proposed compliance monitoring program will be to (1) obtain samples that are representative of existing groundwater conditions; (2) identify key monitoring constituents that were attributable to past operations of the 300 APT; (3) determine applicable groundwater protection standards (e.g., risk-based maximum concentration limits or background-based alternate concentration limit(s); and (4) determine whether referenced groundwater concentration limit(s) for a given parameter or parameters are exceeded. A DQO process will be used to guide the groundwater monitoring activities to be conducted for the 300 APT. The primary purpose of the DQO monitoring process will be to ensure that the type, quantity, and quality of groundwater monitoring data used in the decisionmaking process are appropriate for their intended applications.

Until final RCRA closure of the 300 APT, the regulators will continue to receive quarterly reports following current reporting requirements. The *Annual Report for RCRA Groundwater Monitoring Projects at Hanford Site Facilities* (DOE-RL 1994a), which includes the 300 APT, will also continue to be submitted to the regulators. The annual report interprets groundwater quality data (including statistical comparisons of upgradient and downgradient indicator parameters) and water levels, and reviews the adequacy of the network relative to changes in the groundwater system. If data indicate that the current network is no longer adequate, an amended groundwater monitoring plan will be prepared describing steps necessary to rectify inadequacies, including the installation of additional wells.

8.4 MAINTENANCE PLAN

This section provides a plan for maintenance of the unit during the compliance monitoring period required for modified closure. Elements of this maintenance plan include repair of security devices, and well replacement. The maintenance plan is based on observations made and recorded in the well inspection form during site inspections. Except where immediate action is required, maintenance action will be initiated within 90 days of inspection and discovery.

8.4.1 Repair of Security Control Devices

The responsible maintenance organization will be notified of any problems to the well locks or guard posts and/or problems noted in the well inspection form during inspections and/or well monitoring activities. Well repairs will be made as soon as possible after notification of damage. Repairs to the four steel guard posts at each monitoring well will be made before the following inspection period and tracked on well inspection forms to completion.

8.4.2 Well Replacement

Maintenance of groundwater monitoring wells will be carried out under internal procedure BHI-EE-01 (BHI 1995) or equivalent guidance. This procedure covers correction of problems found during routine inspection or that manifest themselves at other times. If field maintenance procedures are inadequate to solve problems identified during site inspection, management will decide whether to repair or replace the well.

Where monitoring well damage requires modification of the groundwater monitoring program, the monitoring plan will be amended in accordance with WAC 173-303-610 (8)(d).

- **Location, Integrity, and Inspection of Groundwater Wells**: Personnel will be shown the locations of the groundwater wells and instructed on how to inspect the cap and casing of each well to ensure that it is locked.

8.5.4 Training for Emergency Response

This section will demonstrate that personnel conducting postclosure activities at the 300 APT have been fully trained to respond effectively to emergencies and are familiar with emergency procedures and equipment. In addition, hazardous waste site operation training will be provided in accordance with 29 CFR 1910.120.

- **Response to Fires**: The 300 APT will have no existing structures and may be covered with a soil cover. As such, there is no need for fire equipment. However, if personnel are at the unit when a brushfire breaks out, they will notify the Hanford Fire Department.

- **Response to Groundwater Contamination**: Based on the current groundwater monitoring program, groundwater contamination beneath the 300 APT does not constitute an emergency situation, nor will it become so as a result of closure. Therefore, emergency response training in this regard is not warranted at this time.

8.5.5 Implementation of Training Program

Surveillance personnel will undergo the required training programs outlined in Section 8.5.1 as they pertain to monitoring requirements. Surveillance personnel will not be allowed to perform inspections at the 300 APT until the required training programs have been completed.

8.6 PROCEDURES TO PREVENT HAZARDS

As required under 40 CFR 265.14 and WAC 173-303-310, the closure plan will describe procedures to prevent hazards from occurring at the closed unit. This section describes procedures to be used for ensuring proper security at the site including surveillance measures.

8.6.1 Security

Security will be maintained through routine surveillance, and physical barriers that will remain in effect during the period of postclosure care required for modified closure.

8.6.1.1 24-Hour Surveillance System. The 300 APT unit is located within the 300 Area of the Hanford Site. The 300 Area will remain an industrial, operational area of the Hanford Site for the foreseeable future. Operational areas will be under 24-hour surveillance by Hanford Patrol protective force personnel.

8.5 PERSONNEL TRAINING

This section describes the training of personnel required to maintain the 300 APT in a safe and secure manner during postclosure care as required by 40 CFR 265.16, WAC 173-303-330, and Condition II.C.2 of the Hanford Facility Dangerous Waste Permit.

8.5.1 Outline of the Training Program

This section outlines the introductory and continuing training programs necessary to conduct the postclosure activities at the 300 APT in a safe manner. This section also includes a brief description of how training will be designed to meet job tasks as required in 40 CFR 265.16(a).

Surveillance Personnel: The following outline provides information on classroom and on-the-job training that surveillance personnel will complete before conducting independent site surveillance at the 300 APT:

- Security inspections
- Location, integrity, and inspection of groundwater wells.

8.5.2 Job Description

This section provides the job description(s) for postclosure activities at 300 APT as required by 40 CFR 265.16(d)(1) and WAC 173-303-330(2)(a).

Site Surveillance: Personnel with training in the following areas will conduct the inspections:

- Control devices
- Damage

8.5.3 Training Content, Frequency, and Techniques

The training of personnel requires the following job-specific training areas, as appropriate.

- **Emergency Preparedness Training**: This training will include a review of emergency procedures that consists of listening to standard emergency signals, and reporting procedures.

- **The RCRA Groundwater Monitoring Scope, Organization, and Quality Assurance Plan**: This training will include the documentation requirements included in the chain of custody to the laboratory, how to correct mistakes made on field data sheets, and any applicable manifests or shipping orders required for shipping samples to the laboratory.

- **Groundwater Field Sampling Procedures**: This training will include pump description and operation of the three types of pumps (used by the field personnel), operational procedures for the generators and the pumps used to gather groundwater samples, and special requirements for collecting and packaging samples containing volatile organic materials that require acid preservatives or special filtering. Training also will be given in the areas of field data record preparation and chain of custody to the laboratory.

- **Site Security Inspections**: Personnel will be instructed on how to inspect for obvious signs of a security breach. Signs may include downed barricades.

8.7 CLOSURE CONTACT

The following office will be the official contact for the 300 APT during the postclosure care period:

Office of Environmental Assurance,
Permits, and Policy
U.S. Department of Energy
Richland Operations Office
P.O. Box 550
Richland, Washington 99352

8.8 CERTIFICATION OF MODIFIED CLOSURE CARE COMPLETION AND FINAL CLOSURE

The sole source of regulatory direction for modified closure is Section II, K of the Hanford Facility Dangerous Waste Permit. The permit describes this period as a postclosure period. Completion of the postclosure period will end the period of modified closure and will allow final closure with regulator concurrence.

No later than 60 days after completion of the modified postclosure care period, the DOE-RL will submit to Ecology a certification of completion of postclosure care. This certification, stating that postclosure care for the unit was performed in accordance with the approved postclosure plan, will be signed by both the DOE-RL and an independent registered professional engineer. The certification will be submitted by registered mail or an equivalent delivery service. Documentation supporting the independent registered professional engineer's certification will be supplied upon request of the regulatory authority. The DOE-RL and the independent professional engineer will certify with a document similar to Figure 7-4.

Table 8-1. Inspection Schedule for the 300 Area Process Trenches.

Inspection item	Inspection frequency
Security control devices: well caps, and locks	Quarterly
Well condition	Semiannually
Subsurface well condition	3 to 5 years

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