0072709

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
3100 Port of Benton Blvd • Richland, WA 99352 • (509) 372-7950

April 16, 2007

Mr. Keith A. Klein, Manager
Richland Operations Office
United States Department of Energy
P.O. Box 550, MSIN: A7-50
Richland, Washington 99352

Mr. Pete J. Garcia Jr., Director
Safety and Engineering Division
United States Department of Energy
P.O. Box 550, MSIN: A5-17
Richland, Washington 99352

Ms. Jennifer L. Nuzum, Director
Environmental Protection
Fluor Hanford, Inc.
P.O. Box 1000, MSIN: H8-12
Richland, Washington 99352

Mr. Roby D. Enge, Director
Environment, Safety, Health and Quality
Pacific Northwest National Laboratory
P.O. Box 999, MSIN: K1-38
Richland, Washington 99352

Ms. Shirley J. Olinger, Acting Manager
Office of River Protection
United States Department of Energy
P.O. Box 450, MSIN: H6-60
Richland, Washington 99352

Mr. Charles G. Spencer, President
Washington Closure Hanford, LLC
2620 Fermi Avenue, MSIN: H4-24
Richland, Washington 99354

Mr. William S. Elkins, Project Director
Bechtel National, Inc.
2435 Stevens Center Place, H4-02
Richland, Washington 99354

Mr. Moussa N. Jaraysi, Vice President
Environmental Programs
CH2M HILL Hanford Group, Inc.
P.O. Box 1500, MSIN: H6-03
Richland, Washington 99352

Re: Modification of the *Hanford Facility Resource Conservation and Recovery Act Permit for the Treatment, Storage, and Disposal of Dangerous Waste (WA7890008967),* Revision 8B to Incorporate Modifications for the Integrated Disposal Facility

Dear Ladies and Gentlemen:

This letter transmits proposed modifications to the Integrated Disposal Facility (IDF), Part III, Operating Unit 11. The identified modifications are a result of findings from review of the unit-specific Permit and documentation. This documentation identifies that IDF has not yet received waste, and none is expected until 2009 or later.

This change has occurred due to the delay in building the Waste Treatment Plant, and the Demonstration Bulk Vitrification System. Therefore, the IDF has not begun "active life" or waste operations as defined in Washington Administrative Code (WAC) 173-303-040. The proposed changes allow CH2M HILL Hanford Group, Inc. to maintain the unit in a custodial-care phase until operations begin. The changes also require that Ecology will be notified 180 days before the United States Department of Energy (USDOE) expects to receive any mixed waste at the IDF.

Since the proposed changes relate to management of disposed mixed waste, Ecology has determined that alternative requirements are appropriate to maintain the unit during its custodial-care phase. The Statement of Basis explains the changes to the conditions in the Permit.

We appreciate your cooperation and again, encourage USDOE and contractor staff to discuss proposed changes with our unit managers to clarify any questions or concerns.

If there are any questions, contact me at 509-372-7894.

Sincerely,

Greta P. Davis

Greta P. Davis
RCRA Permitting Coordinator
Nuclear Waste Program

pll
Enclosures (4)

cc w/enc:
Cathie Louie, USDOE
Tony McKarns, USDOE
Woody Russell, USDOE
Felix Miera, CH2M
Theodore Wooley, CH2M
Suzette Thompson, FH
Stuart Harris, CTUIR
Gabriel Bohnee, NPT
Russell Jim, YN
Susan Leckband, HAB
Ken Niles, ODOE
Administrative Record: HSWP
Environmental Portal
HF OR Gen File

Statement of Basis

For Modification of the Hanford Facility Resource Conservation and Recovery Act, Dangerous Waste Permit for the Treatment, Storage, and Disposal of Dangerous Waste (WA7890008967) Part III, (Operating Unit #11,) Chapter 11, the Integrated Disposal Facility

Permittees

United States Department of Energy
(Owner/Operator)
Office of River Protection/Richland Operations Office
P.O. Box 550
Richland, Washington 99352

CH2M HILL, Hanford Group
(Co-Operator)
2440 Stevens Center Place
Richland, Washington 99354

The Washington State Department of Ecology prepared this Statement of Basis to explain proposed changes to the unit-specific permit for Hanford's Integrated Disposal Facility (IDF). This Statement of Basis follows Washington Administrative Code (WAC) 173-303-840(2)(f)(iv).

The IDF's unit-specific permit is formally Part III, (Operating Unit #11,) Chapter 11, of the "Hanford Facility Resource Conservation and Recovery Act (RCRA) , Dangerous Waste Permit for the Treatment, Storage, and Disposal of Dangerous Waste."

This modification deletes certain conditions and requirements given in sections of the IDF permit that relate to management of disposed mixed waste. Only the unit-specific conditions and permit sections that will change are reopened and subject to comment per WAC 173-303-830(3).

Ecology is following the process in WAC 173-303-830(3) and -840(10) for changes to the permit to add new conditions and modify several conditions to support the unit during the custodial care phase.

This Statement of Basis has five sections:

1.0 Hanford Facility Permit Background
2.0 IDF Permitting Process
3.0 IDF Life Cycle Phases
4.0 Procedures for Reaching a Final Decision on the Draft Permit
5.0 Proposed Modifications to the Hanford Facility Permit.

1.0 Hanford Facility Permit Background

Ecology issued the Permit for the Hanford Facility in 1994. The Permit provides standard and general facility conditions, and unit-specific conditions for the operation, closure, and post-closure of units that treat, store, or dispose of dangerous and/or mixed waste at Hanford.

Ecology modifies the Permit periodically to:

- Incorporate newly permitted units
- Reflect formal modifications
- Improve grammar, consistency, and presentation.

The types of changes Ecology can make to a dangerous waste permit are listed in WAC 173-303-830.

Ecology added the IDF unit to the Permit (*Unit-Specific Conditions for Final Status Operations (Part III)* on March 10th 2006. The permit modification was effective on April 9th 2006.

2.0 The IDF Permitting Process

Ecology granted the IDF final status for operation effective, April 9, 2006. The basis for permitting IDF is fully described in the IDF permit fact sheet. This Fact Sheet is available upon request and is online via http://www.ecy.wa.gov/programs/nwp/index.html (click Key Documents, then Integrated Disposal Facility).

3.0 IDF Life Cycle Phases

The IDF has not yet received waste, and none is expected for at least a few years. The IDF will receive immobilized low-activity wastes from the Waste Treatment Plant and the Demonstration Bulk Vitrification System, both of which have been delayed. The IDF has therefore not begun "active life" or waste operations as defined in WAC 173-303-040. "Active life", as defined, means the period from the first receipt of dangerous waste at the facility (unit) until the department receives certification of final closure.

Ecology has coined a new term to describe the current IDF phase: "custodial care." The custodial care phase is the period between the end of construction and 180 days before receipt of waste. During the custodial care phase, the Permittees will not put any dangerous or mixed waste (defined in WAC 173-303) in the IDF. The 180-day period is tied to existing IDF Permit condition III.11.I.1. This condition requires that;

- Before any wastes go to the IDF, the Permittees must submit all waste acceptance criteria for Ecology to review, approve, and incorporate into the Permit.
- The Permittees must maintain and monitor the IDF to ensure it retains its integrity as a permitted waste disposal unit.

4.0 Procedures for Reaching a Final Decision on the Draft Permit

The Washington State Hazardous Waste Management Act (Chapter 70.105 Revised Code of Washington) and regulations promulgated in Chapter 173-303 of the WAC regulate the management of dangerous waste in Washington. In accordance with WAC 173-303-800, facilities that treat, store, or dispose of dangerous waste must obtain a permit for these activities.

The Permittees have notified Ecology that IDF has not begun its active life and Ecology has determined that alternative requirements are appropriate to maintain the unit during the Custodial Care phase. Ecology has decided to modify the permit, based on the knowledge that the active life of the unit has not begun, and that Ecology will be notified within 180 days before the permittee intends to receive waste at the unit. The process to change the permit is in WAC 173-303-840 (10). Ecology is holding a 45-day public comment period for proposed permit modifications to Part III, (Operating Unit #11) Chapter 11, IDF, of the Permit. The comment period begins on April 23 and ends June 11, 2007.

The process for public notice and involvement for this permit change is in WAC 173-303-840(3). Comments must be postmarked, hand-delivered, or received by e-mail no later than close of business on Friday, June 8, 2007. Direct all written comments to:

Sterling L. Derrick
Department of Ecology
3100 Port of Benton Boulevard.
Richland, Washington 99354
E-mail: sder461@ecy.wa.gov

Ecology does not plan to hold a public hearing, but if strong public interest arises, Ecology will reconsider. To request a hearing contact Madeleine Brown at mabr461@ecy.wa.gov or Sterling L. Derrick, at the address above.

Ecology will consider all comments it gets during the public comment period, and will respond to them in a written summary before making a final decision. Ecology will then make a final permit decision, which will become effective 30 days after Ecology notifies the Permittees and all who commented. If Ecology's decision includes substantial changes to the Permit because of public comment, Ecology will hold a new public comment period.

All commenters and the Permittees will receive a copy of the Responsiveness Summary and a notification of the final permit decision. Ecology's final permit decision may be appealed within 30 days after Ecology issues the final permit decision notice.

Copies of the Permit for the Hanford Facility, including the proposed permit modifications, are available for review at the Hanford Public Information Repositories listed below. They are also in Ecology's Nuclear Waste Program office. To view them phone 509-372-7920. For additional information, call the Hanford Cleanup Hotline toll-free at 800-321-2008.

HANFORD PUBLIC INFORMATION REPOSITORIES

Portland
Portland State University
Branford Price Millar Library
Attn: Don Frank
503-725-4132
1875 SW Park Avenue
Portland, Oregon 97202

Richland
DOE Public Reading Room
Washington State University, Tri-Cities
Consolidated Information Center, Room 101-L
Attn: Janice Parthree
509 372-7443
2770 University Drive
Richland, Washington 99354

Spokane
Gonzaga University
Foley Center
Attn: Linda Pierce
509 -323-3834
East 502 Boone
Spokane, Washington

Seattle
University of Washington Government
Suzzallo Library
Publications Division,
Attn: Eleanor Chase 206-543-4664
Seattle, Washington

This Statement of Basis is also available on line at:
http://www.ecy.wa.gov/programs/nwp/.

If you need this publication in an alternate format, please call the Nuclear Waste Program at 509-372-7950. Persons with a hearing loss can call 711 for Washington Relay Service. Persons with a speech disability can call 877-833-6341.

5.0 Proposed Permit Modification to Part III, (Operating Unit #11,) Chapter 11, IDF of the Permit

Ecology proposes to modify Part III (Operating Unit #11,) Chapter 11 of the Permit by

- Deleting Chapter 6, Procedures to Prevent hazards, Chapter 7, Contingency Plan, Chapter 8, Personnel Training, Appendix 7A, building Emergency Plan, and Appendix 8A, Training Plan.
- adding conditions III.11.B.5 through III.11.B.5.g.i
- modifying conditions III.11.I.2.a.ii, III.11.I.2.a.iv, III.11.I.5.a, III.11.F.2.e, III.11.F.3.a, III.11.F.3.d, III.11.H.5.a

5.1 Emergency Management Requirements

Affected conditions and permit sections:

- Hanford Facility RCRA Permit - Conditions II.A.1, II.B.1 through II.B.5
- Chapter 7 - Contingency Plan
- Appendix 7A - Building Emergency Plan

Modification: Add unit-specific permit conditions III.B.5.a through III.B.5.a.iv. Delete requirements of the Building Emergency Plan & Contingency Plan and Sitewide conditions II.A.1 and II.B.1.

Basis: During the custodial care phase, no dangerous waste (defined in WAC 173-303) will go to the IDF. Therefore it is reasonable to designate IDF as an "Administrative Facility" or non-Hazardous Facility (unit) as defined in the Hanford Emergency Management Plan (DOE/RL-94-02). During waste management operations, section 4.2 of the plan and IDF unit-specific requirements require that the IDF have trained personnel to handle any unplanned spill, release, fire, or explosion of dangerous waste at the IDF.

During the custodial care phase, the emergency management would be the same as for an administrative facility. Facility Emergency Response Information Boards provide information for use in an emergency. The Permittees will maintain the boards and keep them current. In addition, U.S. Department of Energy's emergency plan implementing procedure "Recognizing and Classifying Emergencies" (DOE-0223, dated 5/06) establishes the emergency response actions for non-Hazardous facilities. The Permittees have identified and assigned a building warden. The building warden manages and controls all aspects of the initial response in an emergency.

The requirements for Permit Conditions II.A, II.B, Chapter 7.0, and Appendix 7A will resume at the end of the custodial care phase and go into effect before any waste goes to the IDF.

5.2 IDF Training Requirements

Affected conditions and permit sections:

- Hanford Facility RCRA Permit - Conditions II. C.; II.C.1; II.C.2
- Chapter 8 - Personnel Training
- Appendix 8A Training Plan.

Modification: Add conditions III.11.B.5.b through III.11.B.5.b.iv and delete compliance with sitewide conditions II.C through II.C 2, Chapter 8, and Appendix 8A. This will limit training requirements to Hanford General Emergency Training (HGET) and IDF unit-specific orientation training.

Basis: During the custodial care phase, no dangerous waste (defined in WAC 173-303) will go to the IDF. Workers will not need as much training. Requirements for training during the IDF's custodial care phase will be limited to HGET and IDF unit-specific orientation. It will not include requirements in Chapter 8.0 and Appendix 8A. The

Permittee will still maintain all personnel training documents in accordance with WAC requirements for training plans and training records [WAC 173-303-330(2) and (3)].

If the Permittees bring materials or chemicals into the IDF for maintenance, they will handle any spills or releases with properly trained personnel. The Permittees will follow Tank Farm Contractor and Analytical Technical Services documents for guidance (TFC-OPS-OPER-D-01, "Event Notification," and TFC-ESHQ-ENV-FS-C-01, "Environmental Notifications"). The requirements for Permit Condition II.C.1, II.C.2, Chapter 8.0, and Appendix 8A will resume at the end of the custodial care phase and go into effect before any waste goes to the IDF.

5.3 General Inspection, Monitoring and Leachate Collection Requirements

Affected conditions and permit sections:

- Hanford Facility RCRA Permit Condition - II.O.1
- Unit-specific conditions - III.11.F.1; III.11.F.1.c; III.11.F.2.a; III.11.F.2.d; III.11.F.3.c III.11.H.5
- Chapter 6: Procedures to Prevent Hazards

Modification: Add conditions III.11.B.5.c through III.11.B.5.c.iii to reduce liquid collection and monitoring requirements to quarterly and after storm events. Reduce sign inspections to quarterly.

Basis: Inspection, monitoring and leachate collection requirements are based on WAC 173-303-645(b) and(c) and are required only during operations or active life.

However, inspections, monitoring, and leachate collection will continue, to ensure the IDF retains its integrity as a waste disposal site. Note that storm events (see chapter 6) are any atmospheric disturbance with either wind gust of 35 miles per hour or greater, or precipitation of 0.5 inch or greater within a 24-hour period. The Permittees have developed a procedure specifically for the custodial care phase, and will guide IDF personnel on how to collect leachate, inspect, and monitor. The inspection monitoring and leachate collection requirements identified in II.O.1, III.11.F.1; III.11.F.1.c; III.11.F.2.a; III.11.F.2.d; III.11.F.3.c; III.11.H.5, Tables 6-2 and 6-3, Section 6.2.3.2.2 and Section 6.2.3.2.4 will resume at the end of the custodial care phase and go into effect before the IDF receives any waste.

Note that Section 6.2.3.2.2 fourth and sixth bullets will remain as written.

5.4 Rain water accumulation and discharge

Affected conditions: III.11.G, Construction Water Management

Modification: Add a new permit condition III.11.B.5.d through III.11.B.5.e.vi to manage discharge of rain water with best management practices.

Basis: Since IDF construction is complete, the liquid in the sumps is no longer construction water. During the custodial care phase, the sumps will only collect rain water. Permit conditions only address construction water management. Since precipitation (rain water) collected in sumps during the custodial phase does not meet the definition of either construction waste water or leachate, it requires a separate condition.

5.5 Waste Acceptance Criteria document deliverables

Affected Conditions:

- III.11.I.2.a.ii (performance assessment) due January 07
- III.11.I.2.a.iii (description of production processes and QA/QC requirements)
- III.11.I.5.a (risk budget tool) due April 07

Modification: USDOE and Ecology management have agreed that the due dates for these two documents will be as soon as possible after issuance of the Final Tank Closure and Waste management EIS but no later than July, 2010, and 180 days prior to the proposed receipt of waste at IDF. Note that performance assessment information from Permit condition III.11.I.2.a.ii. is required to support preparation of the risk budget tool in Permit condition III.11.I.5.a.

Basis: The parties agree that the TC & WM EIS must be completed before the IDF Risk Budget Tool can be developed. DOE will be restricted from receiving waste until the RBT has been submitted to Ecology and Ecology has issued a permit modification allowing the IDF to begin Active Life of the facility.

5.6 Leachate Management after Waste Placement

Affected Conditions:

- III.11.F.2.e and III.11.F.3.d

Modification: Add the words "After initial waste placement" at the beginning of both conditions to specify that after initial waste placement, liquids shall be considered to be leachate.

Basis: During the custodial care phase, liquids are considered to be rainwater and not leachate. After initial waste placement, liquids shall be considered to be leachate and managed as such.

5.7 Due date for the sub-surface liquids monitoring and operations plan (SLMOP)

Affected Condition:

- III.11.F.3.a

Modification: Add the words "At least 180 days prior to initial waste placement" at the beginning of the proposed condition.

Basis: To make it clear when the SLMOP is due.

5.8 Delete text.

Affected Condition:

- III.11.H.5

Modification: Delete the text of the condition and replace it with "Reserved"

Basis: Inspection requirements may change in the period up to initial waste placement. Removing this text assures that relevant text will be inserted at the time that the facility becomes active.

5.9 Soil Stabilization

Affected Conditions:

- III.11.B.5.f and III.11.B.5.f.i

Modification: New Conditions

Basis: Soil erosion may occur during the custodial care phase. This condition requires that soil erosion be stabilized.

5.10 Corrective Action

Affected Conditions:

- III.11.B.5.g and III.11.B.5.g.i

Modification: New Conditions

Basis: During the custodial care phase, the inspection frequency is reduced. This condition specifies that deficiencies noted during inspections are remedied with in 90 days.

PART III, OPERATING UNIT 11 UNIT-SPECIFIC CONDITIONS

Integrated Disposal Facility

This document sets forth the operating conditions for the Integrated Disposal Facility (IDF).

III.11.A COMPLIANCE WITH APPROVED PERMIT

The Permittees shall comply with all requirements set forth in the Integrated Disposal Facility (IDF) Permit conditions, the Appendices specified in condition III.11.A and the Amendments specified in Condition III.11.B through III.11.I. All subsections, figures, and tables included in these portions are enforceable unless stated otherwise:

OPERATING UNIT 11, ATTACHMENT 52:

Chapter 1.0	Part A Form, Revision 3, dated March 2005
Chapter 2.0	Topographic Map Description
Chapter 3.0	Waste Analysis Plan
Chapter 4.0	Process Information
Chapter 5.0	Ground Water Monitoring
~~Chapter 6.0 Procedure to Prevent Hazards~~ Reserved	
~~Chapter 7.0 Contingency Plan~~ Reserved	
~~Chapter 8.0 Personnel Training~~ Reserved	
Chapter 11.0	Closure and Post Closure Requirements
Chapter 13.0	Other Federal and State Laws
Appendix 4A	Design Report (as applicable to critical systems), Class 1 modification dated December 31, 2006
Appendix 4B	Construction Quality Assurance Plan
Appendix 4C	Response Action Plan
Appendix 4D	Technical specifications document (RPP-18-489 Rev 0), Class 1 modification dated December 31, 2006
~~Appendix 7A Building Emergency Plan (As applicable in Chapter 7)~~ Reserved	
~~Appendix 8A Training Plan~~ Reserved	

General and Standard Hanford Facility RCRA Permit, WA7890008967 (Permit) conditions (Part I and Part II Conditions) applicable to the IDF are identified in Permit Attachment 3 (Permit Applicability Matrix).

III.11.B AMENDMENTS TO THE APPROVED PERMIT

III.11.B.1 Portions of Permit Attachment 4, Hanford Emergency Management Plan that are not made enforceable by inclusion in the applicability matrix for that document, are not made enforceable by reference in this document.

III.11.B.2 Permittees must comply with all applicable portions of the Permit. The facility and unit-

specific recordkeeping requirements are distinguished in the General Information Portion of the Permit, and are tied to the Permit conditions.

III.11.B.3 The scope of this Permit is restricted to the landfill construction and operation as necessary to dispose of: 1) immobilized low activity waste from the WTP, and 2) the Demonstration Bulk Vitrification System and IDF operational waste as identified in Chapter 4.0. Future expansion of the RCRA trench, or disposal of other wastes not specified in this Permit, is prohibited unless authorized via modification of this Permit.

III.11.B.4 In accordance with WAC 173-303-806(11)(d), this Permit shall be reviewed every five (5) years after the effective date and modified, as necessary, in accordance with WAC 173-303-830(3).

III.11.B.5 **Permit Compliance Prior to IDF Active Life**

WAC 173-303-040 defines 'active life' as *the period from the initial receipt of dangerous waste at the facility until the department receives certification of final closure*. For purposes of this modification, the term 'Custodial Care Phase' is defined as *the period prior to the start of the active life of the facility*.

Permit Conditions III.11.B.5.a through III.11.B.5.g establish applicable requirements for Emergency Management, Personnel Training, Inspections, Rainwater Management, and Liner System Maintenance during the IDF Custodial Care Phase.

Upon completion of the IDF Custodial Care Phase this Permit shall be modified to remove Permit Conditions III.11.B.5 through III.11.B.5.g.

The *Integrated Disposal Facility Care and Custody Management Plan* document will be kept in the Hanford Facility Operating Record, Unit-Specific file for IDF.

Prior to initiating Active Life of the facility, the Permittee shall submit a class III permit modification request to the Department for review and revision of the permit. The request shall include updated versions of the unit specific Contingency Plan, Building Emergency Plan, Personnel Training Plan, Dangerous Waste Training Plan, and Procedures to Prevent Hazards. No waste disposal shall take place until a final permit modification decision has become effective, and then only in compliance with such a decision.

Where information regarding treatment, management, and disposal of the radioactive source, byproduct material and/or special nuclear components of mixed waste (as defined by the *Atomic Energy Act of 1954*, as amended) has been incorporated into this document, it is not incorporated for the purpose of regulating the radiation hazards of such components under the authority of this permit or Chapter 70.105 of the *Revised Code of Washington* and its implementing regulations.

III.11.B.5.a Emergency Management Amendments During the IDF Custodial Care Phase

During the IDF Custodial Care phase, Permittees will comply with Permit Conditions III.11.B.5.a.i through III.11.B.5.a.iv, which specifies compliance requirements for Emergency Management.

III.11.B.5.a.i The Permittee is not required to comply with the following Site-Wide conditions while the IDF is in the Custodial Care Phase.

1. Permit Condition II.A, Facility Contingency Plan
2. Permit Condition II.B, Preparedness and Prevention

III.11.B.5.a.ii Permittees will comply with Permit Attachment 4, *Hanford Emergency Management Plan* (DOE/RL-94-02) as applicable for a facility that does not contain dangerous waste.

III.11.B.5.a.iii Permittees will use Facility Emergency Response Information Boards to provide information for use in the event of an emergency.

III.11.B.5.a.iv Permittees will have a Building Warden who will manage and control all aspects of the initial facility response when an emergency occurs.

III.11.B.5.b Personnel Training Amendments During the IDF Custodial Care Phase.

III.11.B.5.b.i The Permittee is not required to comply with the following Site-Wide Permit condition while the IDF is in the Custodial Care Phase: Permit Condition II.C, Personnel Training

III.11.B.5.b.ii Permittees will comply with Permit Conditions III.11.B.5.b.iii and III.11.B.5.b.iv., which specify compliance requirements for Personnel Training.

III.11.B.5.b.iii Permittees shall provide HGET Training and IDF specific orientation training.

III.11.B.5.b.iv When materials/chemicals are brought to IDF for maintenance purposes, any spills or releases will be handled in accordance with applicable regulations by properly trained personnel.

III.11.B.5.c Inspection Amendments During the IDF Custodial Care Phase

III.11.B.5.c.i The Permittee is not required to comply with the following Permit condition while the IDF is in the Custodial Care Phase: Site-Wide Permit Condition II.O.1, Facility Inspections

III.11.B.5.c.ii Permittees will comply with Permit Condition III.11.B.5.c.iii which specifies compliance requirements for Inspections.

III.11.B.5.c.iii During Custodial Care phase, the Permittee shall follow the following inspection schedule:

Landfill Inspections

Requirement description	Inspection frequency	Types of problems
-665(4)(b)(i) Run-on and run-off control	Quarterly and after storms*	Deterioration, malfunction, or improper operation
-665(4)(b)(ii) Wind dispersal control systems	Quarterly and after storms*	Proper functioning
-665(4)(b)(iii) Leachate collection and removal systems	Quarterly and after storms*	Presence of liquid; proper functioning
-665(4)(c)(i) Leak detection system sump	Quarterly and after storms*	Amount of liquids removed
Secondary leak detection system sump**	Monthly**	Presence of unexpected liquid volume**

*A storm is any atmospheric disturbance with either a wind gust of 35 miles per hour or greater, or precipitation of 0.5 inch or greater within a 24-hour period.

**Note that the secondary leak detection system is not a design requirement of WAC 173-303-665, however, DOE is adding the design feature pursuant to its authority under the Atomic Energy Act of 1954 (AEA) and not for the purposes of compliance with the dangerous waste regulations.

WAC 173-303-320(2) Inspection Schedule

Requirement Description	Inspection Frequency	Types of Problems
Security devices: "Danger unauthorized personnel keep out" signs	Quarterly	Signs are posted and legible
Areas subject to spills	Daily when waste management activities having a potential for a spill to occur	Evidence of spills

III.11.B.5.d Rainwater Management

III.11.B.5.d.i During the custodial care phase and prior to waste placement, it is anticipated that liquids, e.g., rainwater, (i.e., not leachate) will accumulate in the cell, liners, sumps, and on the tank liners. Permittees shall manage the discharge of such water in accordance with the pollution prevention and best management practices required by State Waste Discharge Permit Number ST 4511.

III.11.B.5.e Liquid Collection in the Leachate Collection and Removal System (LCRS), Leak Detection System (LDS), and Secondary Leak Detection System (SLDS) during the IDF Custodial Care Phase

III.11.B.5.e.i Permittees shall manage the liquid in the LCRS system in a manner that does not allow the fluid head to exceed 30.5 cm above the flat 50-foot by 50-foot LCRS sump HDPE bottom liner except for rare storm events as discussed in Chapter 4.0, Section 4.3.6.1 and the LCRS sump trough [(WAC 173-303-665(2)(h)(ii)(B). Liquid with a depth greater than 30.5 cm above the LCRS liner will be removed at the earliest practicable time after detection (not to exceed 5 working days).

III.11.B.5.e.ii Accumulated liquid of pumpable quantities in the LDS and SLDS will be managed in a manner that does not allow the fluid head to exceed 30.5 cm above the LDS liner or SLDS liner [WAC 173-303-665(2)(h)(i)(C)(iii)]. Liquid with a depth greater than 30.5 cm above a liner will be removed at the earliest practicable time after detection (not to exceed 5 working days).

III.11.B.5.e.iii In addition, a flow meter will be used to check if the amount of actual liquid pumped corresponds to the amount accumulated in the leachate collection tank. This check will verify the proper function of the leachate collection and removal sump pumps with each use. In addition, evaluations on the leachate transfer lines for freeze and thaw damage also will be conducted when appropriate.

III.11.B.5.e.iv The Permittee will inspect for liquids after significant rainfall events.

III.11.B.5.e.v The Permittee will annually verify monitoring gauges and instruments are in current calibration; calibration will be performed annually or more frequently at intervals suggested by the manufacturer (refer to Chapter 4.0, §4.3.7.4)

III.11.B.5.e.vi The Permittees will monitor liquids in the Leachate Collection and Removal System and Leak Detection System to ensure the action leakage rate (Chapter 4.0, Appendix 4A) is not exceeded. The Leachate Collection and Removal System will be inspected per Condition III.11.B.5.c.iii .

III.11.B.5.f Soil Stabilization

III.11.B.5.f.i During custodial care and prior to waste placement, the Permittee shall apply soil stabilization materials as needed to prevent soil erosion in and around the landfill.

III.11.B.5.g Corrective action as a result of Inspections

III.11.B.5.g.i During custodial care and prior to waste placement, the Permittee shall inspect the facility as required by this permit and start corrective actions for identified deficiencies within 90 days.

III.11.C DESIGN REQUIREMENTS

III.11.C.1 IDF is designed in accordance with WAC 173-303-665 and WAC 173-303-640 as described in Chapter 4.0. Design changes impacting IDF critical systems shall be performed in accordance with Conditions III.11.D.1.d.i and III.11.D.1.d.ii.

IDF Critical Systems[1] include the following: The leachate collection and removal system (LCRS), leachate collection tank (LCT), leak detection system (LDS), liner system (LS), and closure cap. H-2 Drawings for the LCRS, LCT, LDS, and LS are identified in Appendix 4A, Section 3 of this Permit. Drawings for the closure cap will be provided pursuant to Condition III.11.C.1.b.

III.11.C.1.a The Permittees shall construct and operate the IDF in accordance with all specifications contained in RPP-18489 Rev 0. Critical systems, as defined in the definitions section of the Site-Wide RCRA Permit, are identified in Appendix 4A, Section 1 of this Permit.

III.11.C.1.b Landfill Cap

At final closure of the landfill, the Permittees shall cover the landfill with a final cover (closure cap) designed and constructed [WAC 173-303-665(6), WAC 173-303-806(4)(h)] to: Provide long-term minimization of migration of liquids through the closed landfill; Function with minimum maintenance; Promote drainage and minimize erosion or abrasion of the cover; Accommodate settling and subsidence so that the cover's integrity is maintained; and have a permeability less than or equal to the permeability of any bottom liner system or natural sub soils present.

III.11.C.1.c Compliance Schedule

Proposed conceptualized final cover design is presented in Chapter 11 (Closure and Financial Assurance). Six months prior to start of construction of IDF landfill final cover (but no later than 6 months prior to acceptance of the last shipment of waste at the IDF), the Permittees shall submit IDF landfill final cover design, specifications and CQA plan to Ecology for review and approval. No construction of the final cover may proceed until Ecology approval of the final design is given, through a permit modification.

III.11.C.1.d The Permittees shall notify Ecology at least sixty (60) calendar days prior to the date it expects to begin closure of the IDF landfill in accordance with WAC 173-303-610(c).

III.11.C.2 Design Reports

III.11.C.2.a New Tank Design Assessment Report

Permittees shall generate a written report in accordance with WAC 173-303-640(3)(a), providing the results of the leachate collection tank system design assessment. The report shall be reviewed and certified by an Independent Qualified Registered Professional Engineer (IQRPE)[1] in accordance with WAC-173-303-810(13)(a).

[1] "Independent qualified registered professional engineer," as used here and elsewhere with respect to Operating Unit 11, means a person who is licensed by the state of Washington, or a state which has reciprocity with the state of Washington as defined in RCW 18.43.100, and who is not an employee of the owner or operator of the facility for which construction or modification certification is required. A qualified professional

engineer is an engineer with expertise in the specific area for which a certification is given.

III.11.C.2.b Compliance Schedule

Permittees shall submit the leachate collection tank design assessment report to Ecology along with the IQRPE certification, prior to construction of any part of the tank system including ancillary equipment.

III.11.D CONSTRUCTION REQUIREMENTS

III.11.D.1 Construction Quality Assurance

III.11.D.1.a Ecology shall provide field oversight during construction of critical systems. In cases where an Engineering Change Notice (ECN) and/or Non Conformance Report (NCR) is required, Ecology and the Permittees shall follow steps for processing changes to the approved design per Conditions III.11.D.1.d.i and III.11.D.1.d.ii.

III.11.D.1.b Permittees shall implement the Construction Quality Assurance Plan (CQA plan) (Appendix 4B of the permit) during construction of IDF.

III.11.D.1.b.i The Permittees will not receive waste in the IDF until the owner or operator has submitted to Ecology by certified mail or hand delivery a certification signed by the CQA officer that the approved CQA plan has been successfully carried out and that the unit meets the requirements of WAC173-303-665 (2)(h) or (j); and the procedure in WAC 173-303-810 (14)(a) has been completed. Documentation supporting the CQA officer's certification shall be furnished to Ecology upon request.

III.11.D.1.c Construction inspection reports

III.11.D.1.c.i Permittees shall submit a report documenting the results of the leachate tank installation inspection. This report must be prepared by an independent, qualified installation inspector or a professional independent, qualified, registered, professional engineer either of whom is trained and experienced in the proper installation of tank systems or components. The Permittees will remedy all discrepancies before the tank system is placed in use. This report shall be submitted to Ecology 90 days prior to IDF operation and be included in the IDF Operating Record. [WAC-173-303-640(3)(h)].

III.11.D.1.d ECN/NCR Process for Critical Systems

Portions of the following conditions for processing engineering change notices and non-conformance reporting were extracted from and supersede Site Wide General Permit Condition II.L.

III.11.D.1.d.i Engineering Change Notice for Critical Systems

During construction of the IDF, the Permittees shall formally document changes to the approved designs, plans, and specifications, identified in Appendices 4A, 4B, 4C, and 4D of this permit, with an Engineering Change Notice (ECN). The Permittees shall maintain all ECNs in the IDF unit-specific Operating Record and shall make them available to Ecology upon request or during the course of an inspection. The Permittees shall provide to Ecology copies of proposed ECNs affecting any critical system within five (5) working days of initiating the ECN. Identification of critical systems is included in Condition III.11.C.1 and Appendix 4A of this permit. Within five (5) working days, Ecology will review a proposed ECN modifying a critical system and inform the Permittees whether the proposed ECN, when issued, will require a Class 1, 2, or 3 Permit modification.

III.11.D.1.d.ii Non-conformance Reporting for Critical Systems

III.11.D.1.d.ii.a During construction of the IDF, the Permittees shall formally document with a Nonconformance Report (NCR), any work completed which does not meet or exceed the standards of the approved design, plans and specifications, identified in Appendices 4A, 4B, 4C and 4D of this permit, The Permittees shall maintain all NCRs in the IDF unit-specific Operating Record and shall make them available to Ecology upon request, or during the course of an inspection.

III.11.D.1.d.ii.b The Permittees shall provide copies of NCRs affecting any critical or regulated system to Ecology within five (5) working days after identification of the nonconformance. Identification of critical systems is included in Condition III.11.C.1 and Appendix 4A of this permit. Ecology will review a NCR affecting a critical system and notify the Permittees within five (5) working days, in writing, whether a Permit modification is required for any nonconformance, and whether prior approval is required from Ecology before work proceeds, which affects the nonconforming item.

III.11.D.1.d.iii As-Built Drawings

Upon completing construction of IDF, the Permittees shall produce as-built drawings of the project, which incorporate the design and construction modifications resulting from all project ECNs and NCRs, as well as modifications made pursuant to WAC 173-303-830. The Permittees shall place the drawings into the Operating Record within twelve (12) months of completing construction.

III.11.D.2 The Permittees shall not reduce the minimum frequency of destructive testing less than one test per 500 feet of seam, without prior approval in writing from Ecology

III.11.E GROUND WATER AND GROUND WATER MONITORING

Ground water shall be monitored in accordance with WAC 173-303 and the provisions contained in the Ecology-approved facility ground water monitoring plan (Chapter 5.0). All wells used to monitor the ground water beneath the unit shall be constructed in accordance with the provisions of WAC-173-160.

III.11.E.1 Ground Water Monitoring Program

III.11.E.1.a Prior to initial waste placement in the IDF landfill, the Permittees shall sample all ground water monitoring wells in the IDF network twice quarterly for one first year to determine baseline conditions. For the first sampling event (and only the first), samples for each well will include all constituents in 40 CFR 264 Appendix IX. Thereafter, sampling will include only those constituents as specified in Chapter 5.0, Table 5-2: chromium (filtered and unfiltered the first year to compare results), specific conductance, TOC, TOX, and pH. Other constituents to be monitored but not statistically compared include alkalinity, anions, ICP metals, and turbidity. These will provide important information on hydrogeologic characteristics of the aquifer and may provide indications of encroaching contaminants from other facilities not associated with IDF.

III.11.E.1.b After the baseline monitoring is completed, and data is analyzed, the Permittees and Ecology shall assess revisions to Chapter 5.0, Table 5-2. Subsequent samples will be collected semi-annually and will include constituents listed in Table 5-2 as approved by Ecology. All data analysis will employ Ecology approved statistical methods pursuant to WAC 173-303-645. Changes to Chapter 5.0 will be subject to the permit modification procedures under WAC 173-303-830.

III.11.E.1.c All constituents used as tracers to assess performance of the facility through computer modeling should be sampled at least annually to validate modeling results. Groundwater monitoring data and analytes to be monitored will be reviewed periodically as defined in Chapter 5.0 of this permit.

III.11.E.1.d Upon Ecology approval of the leachate monitoring plan, leachate monitoring and groundwater monitoring activities should be coordinated as approved by Ecology to form an effective and efficient means of monitoring the performance of the IDF facility.

III.11.E.1.e Ground water monitoring data shall be reported to Ecology on an annual basis beginning on March 1 after the issue date of this permit and annually on March 1after that.

III.11.F LEACHATE COLLECTION COMPONENT MANAGEMENT

Permittees shall design, construct, and operate all leachate collection systems to minimize clogging during the active life and post closure period

III.11.F.1 Leachate Collection and Removal System (LCRS)

III.11.F.1.a At least 120 days prior to initial waste placement in the IDF, the Permittees shall submit a Leachate monitoring plan to Ecology for review, approval, and incorporation into the permit. Upon approval by Ecology, this plan will be incorporated into the Permit as a class 1' modification. The Permittees shall not accept waste into the IDF until the requirements of the leachate monitoring plan have been incorporated into this permit.

III.11.F.1.b Leachate in the LCRS (primary sump) shall be sampled and analyzed monthly for the first year of operation of the facility and quarterly thereafter (pursuant to WAC 173-303-200). Additionally, leachate shall be sampled and analyzed to meet waste acceptance criteria at the receiving treatment storage and disposal facility.

III.11.F.1.c Permittees shall manage the leachate in the LCRS system in a manner that does not allow the fluid head to exceed 30.5 cm above the flat 50-foot by 50-foot LCRS sump HDPE bottom liner except for rare storm events as discussed in Chapter 4.0, Section 4.3.6.1 and the LCRS sump trough [(WAC 173-303-665(2)(h)(ii)(B). Liquid with a depth greater than 30.5 cm above the SLDS liner will be removed at the earliest practicable time after detection (not to exceed 5 working days).

III.11.F.1.d After initial waste placement, Permittees shall manage all leachate from the permitted cell as dangerous waste (designated with Dangerous Waste Number F039) in accordance with WAC 173- 303.

III.11.F.2 Monitoring and Management of Leak Detection System (LDS/ secondary sump)

III.11.F.2.a Permittees shall manage the leachate in the LDS system in a manner that does not allow the fluid head to exceed 30.5 cm above the LDS liner (WAC 173-303-665(2)(h)(ii)(B).

III.11.F.2.b Permittees shall monitor and record leachate removal for comparison to the Action Leakage Rate (ALR) as described in Appendix 4C, Response Action Plan. If the leachate flow rate in the LDS exceeds the ALR, the Permittees shall implement the Ecology approved response action plan (Appendix 4C).

III.11.F.2.c Leachate from the LDS (secondary sump) shall be sampled semi-annually if a pumpable quantity of leachate is available for sampling.

III.11.F.2.d Accumulated liquid of pumpable quantities in the LDS will be managed in a manner that does not allow the fluid head to exceed 30.5 cm above the LDS liner [WAC 173-303-665(2)(h)(i)(C)(iii)]. Liquid with a depth greater than 30.5 cm above the LDS liner will be removed at the earliest practicable time after detection (not to exceed 5 working days).

III.11.F.2.e After initial waste placement, permittees shall manage all leachate from the permitted cell as F039 dangerous waste in accordance with WAC 173- 303.

III.11.F.3 Monitoring and Management of the Secondary Leak Detection System (SLDS)

III.11.F.3.a At least 180 days prior to initial waste placement, the Permittees shall submit to Ecology for approval a sub-surface liquids monitoring and operations plan (SLMOP) for the SLDS to include the following: monitoring frequency, pressure transducer configuration, liquid collection and storage processes, sampling and analysis and response actions. The SLMOP shall be approved by Ecology prior to placement of waste in the IDF, and incorporated into the Permit as a Class 1' modification.

III.11.F.3.b Permittees shall monitor and manage the SLDS (tertiary sump) pursuant to the approved sub-surface liquids monitoring and operations plan.

III.11.F.3.c Accumulated liquid of pumpable quantities in the SLDS will be managed in a manner that does not allow the fluid head to exceed 30.5 cm above the SLDS liner [WAC 173-303-665(2)(h)(i)(C)(iii)]. Liquid with a depth greater than 30.5 cm above the SLDS liner will be removed at the earliest practicable time after detection (not to exceed 5 working days).

III.11.F.3.d After initial waste placement, permittees shall manage all leachate from the permitted cell as dangerous waste in accordance with WAC 173- 303.

III.11.G CONSTRUCTION WATER MANAGEMENT

III.11.G.1 During construction, it is anticipated that liquids will accumulate on top of all liners and sumps. Permittees shall manage the construction wastewater in accordance with State Waste Discharge Permit ST 4511.

III.11.G.2 Liquid accumulation within the LCRS, LDS, and SLDS prior to initial waste placement will be considered construction wastewater (i.e., not leachate).

III.11.H LANDFILL LINER INTEGRITY MANAGEMENT & LANDFILL OPERATIONS

III.11.H.1 Permittees shall design, construct, and operate the landfill in a manner to protect the liners from becoming damaged. Temperature: Waste packages with elevated temperatures shall be evaluated and managed in a manner to maintain the primary (upper) liner below the design basis temperature for the liner (e.g.,160 F). Weight: Waste, fill material and closure cover shall be placed in a manner that does not exceed the allowable load bearing capacity of the liner (weight per area 13,000 lb/ft^2). Puncture: At least 3 feet of clean backfill material shall be placed as an operations layer over the leachate collection and removal system to protect the system from puncture damage.

III.11.H.1.a All equipment used for construction and operations inside of the IDF shall meet the weight limitation as specified in condition III.H.1. Only equipment that can be adequately supported by the operations layer as specified in condition III.H.1 (e.g., will not have the potential to puncture the liner) shall be used inside of the IDF. All equipment used for construction and operations outside of the IDF shall not damage the berms. Changes to any equipment will follow the process established by condition II.R of the site wide permit. Within 120 days from the effective date ~~is~~ for the permit, a process for demonstrating compliance with this condition shall be submitted for review by Ecology. This process will be incorporated into appropriate IDF operating procedures prior to IDF operations.

III.11.H.2 The Permittees shall construct berms and ditches to prevent run-on and run-off in accordance with the requirements of Section 4.3.8 of this permit. Before the first

placement of waste in the IDF, the Permittees shall submit to Ecology a final grading and topographical map on a scale sufficient to identify berms and ditches used to control run-on and run-off. Upon approval, Ecology will incorporate these maps into the permit as a class 1' modification.

III.11.H.3 The Permittees shall operate the RCRA IDF Cell (Cell1) in accordance with WAC 173-303-665(2) and the operating practices described in Chapters 3, 4, 6, 7, 8 and Appendix 4A, Section 1, subsection 7, except as otherwise specified in this Permit.

III.11.H.4 The Permittees shall maintain a permanent and accurate record of the three-dimensional location of each waste type, based on grid coordinates, within the RCRA IDF Cell (Cell1) in accordance with WAC 173-303-665(5).

~~III.11.H.5 The Permittees shall inspect the landfill in accordance with WAC 173-303-665(4)(b) and Chapter 6.0 of this permit, except as otherwise specified in this Permit~~Reserved

III.11.I WASTE ACCEPTANCE CRITERIA

The only acceptable waste form approved for disposal at the RCRA cell of IDF are IDF operational waste, Immobilized Low Activity Waste (ILAW) in glass form from the Waste Treatment Plant (WTP) Low Activity Waste (LAW) Vitrification facility and ILAW from the Bulk Vitrification Research Demonstration and Development facility (up to 50 boxes). Specifics about waste acceptance criteria for each of these wastes are detailed below.

No other waste forms may be disposed at the RCRA cell of IDF unless authorized via a Final Permit modification decision ~~request~~. Requests for Permit modifications must be accompanied by an analysis adequate for Ecology to comply with SEPA, as well as by a risk assessment and groundwater modeling to show the environmental impact. Permit Condition III.11.I.65 outlines the process by which waste sources in the IDF are modeled in an ongoing risk budget and a ground water impact analysis.

III.11.I.1 Six months prior to IDF operations Permittees shall submit to Ecology for review, approval, and incorporation into the permit, all waste acceptance criteria (WAC) to address, at a minimum, the following: physical/chemical criteria, liquids and liquid containing waste, land disposal restriction treatment standards and prohibitions, compatibility of waste with liner, gas generation, packaging, handling of packages, minimization of subsidence.

III.11.I.1.a All containers/packages shall meet void space requirements pursuant to WAC 173-303-665(12).

III.11.I.1.b Compliance Schedule

III.11.I.1.b.i Six months prior to IDF operations, the Permittees shall submit to Ecology for review, approval, and incorporation into the permit any necessary modifications to the IDF ~~WAP~~ Waste Acceptance Plan (Appendix 3A of the permit application, DOE/RL-2003-12, Rev 1).

III.11.I.2 ILAW Waste Acceptance Criteria

The only ILAW forms acceptable for disposal at IDF are: (1) approved glass canisters that are produced in accordance with the terms, conditions, and requirements of the WTP portion of the Permit, and (2) the 50 bulk vitrification test boxes as specified in the DBVS test plans.

To assure protection of human health and the environment, it is necessary that the appropriate quality of glass be disposed at IDF. The LDR Treatment Standard for eight

metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium and silver), when associated with High Level Waste, is HLVIT (40 CFR 268). Because these metals are constituents in the Hanford Tanks Waste, the LDR standard for ILAW disposed to IDF is HLVIT.

For any ILAW glass form(s) that DOE intends to dispose of in IDF, DOE will provide to Ecology for review, an ILAW Waste Form Technical Requirements Document (IWTRD). The IWTRD will contain:

III.11.I.2.a WTP ILAW Waste Acceptance Criteria

III.11.I.2.a.i A description of each specific glass formulation that DOE intends to use including a basis for why each specific formulation is proposed for use, which specific tank wastes the glass formulation is proposed for use with, the characteristics of the glass that are key to satisfactory performance (e.g., VHT, PCT, and TCLP and/or other approved performance testing methodologies that the parties agree are appropriate and necessary), the range in key characteristics anticipated if the specific glass formulation is produced on a production basis with tank waste, and the factors that DOE must protect against in producing the glass to ensure the intended glass characteristics will exist in the actual ILAW.

III.11.I.2.a.ii A performance assessment that provides a reasonable basis for assurance that each glass formulation will, once disposed of in IDF in combination with the other waste volumes and waste forms planned for disposal at the entire Integrated Disposal Facility, be adequately protective of human health and the environment; and will not violate or be projected to violate all applicable state and federal laws, regulations and environmental standards.

Within ~~30~~ 60 days of a request by Ecology, the Permittees shall provide a separate model run using Ecology's assumptions and model input.

III.11.I.2.a.iii A description of production processes including management controls and quality assurance/quality control requirements that assure that glass produced for each formulation will perform in a reasonably similar manner to the waste form assumed in the performance assessment for that formulation.

III.11.I.2.a.iv The Permittees shall update the IWTRD consistent with the above requirements for review by Ecology consistent with their respective roles and authority as provided under the TPA. Ecology comments shall be dispositioned through the Review Comment Record (RCR) process and will be reflected in further modeling to modify the IDF ILAW waste acceptance as appropriate. The initial IWTRD shall contain glass formulation data as required by III.11.I.2.a.i, and shall be submitted no later than January, 2007, or if later than this date, as agreed to by Ecology. The performance assessment required by III.11.I.2.a.ii, and the quality assurance/quality control requirements process required by III.11.I.2.a.iii shall be submitted for Ecology review as soon as possible after issuance of the Final Tank Closure and Waste Management EIS , and at least 180 days prior to the date DOE expects to receive waste at IDF, but in no case later than July, 2010 (or a later date if agreed to be Ecology). At a minimum, the Permittees shall submit updates to the IWTRD to Ecology every five years or more frequently if either of the following conditions exist:

- The Permittees submits a permit modification request allowing additional waste forms to be disposed of at IDF,
- The WTP of other vitrification facility change their glass formulations from those previously included in the ITRWD.

III.11.I.2.a.v The Permittees shall not dispose of any WTP ILAW not described and evaluated in the IWTRD.

III.11.I.3 ILAW Waste Acceptance Criteria Verification

III.11.I.3.a Six months prior to disposing of ILAW in the IDF, the Permittees will submit an ILAW verification plan to Ecology for review and approval. This plan will be coordinated with WTP, Ecology, and the Permittees personnel. This plan will outline the specifics of verifying ILAW waste acceptance through WTP operating parameters, and/or glass sampling. The Plan will include physical sampling requirements for batches, glass formulations, and/or feed envelopes.

III.11.I.4 Demonstration Bulk Vitrification System (DBVS) Bulk Vitrification Waste Acceptance Criteria

III.11.I.4.a Bulk Vitrification waste forms that are acceptable to be disposed of at IDF are up to 50 boxes of vitrified glass produced pursuant to the DBVS RD&D Permit from processing Hanford Tank S-109 tank waste.

III.11.I.4.b If Bulk Vitrification is selected as a technology to supplement the Waste Treatment Plant, the IDF portion of the Permit will need to be modified to accept Bulk Vitrification Full Scale production waste forms. This modification will need to be accompanied by appropriate TPA changes (per M-062 requirements) and adequate risk assessment information sufficient for the Department of Ecology to meet its SEPA obligations.

III.11.I.4.c DBVS Waste Acceptance Verification will occur on 100% of the waste packages. Pursuant to the DBVS RD&D Permit, a detailed campaign test report will be produced and submitted to Ecology detailing results of all testing performed on each waste package that is produced. IDF personnel shall review these reports to verify that the waste packages meet IDF Waste Acceptance Criteria.

III.11.I.4.d The Permittees shall not dispose of any waste forms that do not comply with all appropriate and applicable treatment standards, including all applicable Land Disposal Restrictions (LDR).

III.11.I.5 Modeling – Risk Budget Tool

III.11.I.5.a The Permittees must create and maintain a modeling - risk budget tool, which models the future impacts of the planned IDF waste forms (including input from analysis performed as specified in conditions III.11.I.2.a through III.11.I.2.a.ii above) and their impact to underlying vadose and ground water. This model will be submitted for Ecology review as soon as possible after issuance of Final Tank Closure and Waste Management EIS, and at least 180 days prior to the date DOE expects to receive waste at IDF but in no case later than July 2010 (or a later date if agreed to by Ecology). The model shall be updated at least every 5 years. ~~This model will be updated at least every 5 years beginning no more than one year after the issuance date of this permit and provided to Ecology for review.~~ The model will be updated more frequently if needed, to support permit modifications or SEPA Threshold Determinations whenever a new waste stream or significant expansion is being proposed for the IDF. This modeling-risk budget tool shall be conducted in manner that is consistent with state and federal requirements, and represents a cumulative risk analysis of all waste previously disposed of in the entire IDF (both cell 1 and cell 2) and those wastes expected to be disposed of in the future for the entire IDF. The groundwater impact should be modeled in a concentration basis and should be compared against various performance standards including but not limited to drinking water standards (40 CFR 141 and 40 CFR 143). Ecology will review modeling assumptions, input parameters, and results and will provide comments to the Permittees. Ecology comments shall be dispositioned through the Review Comment Record (RCR)

process and will be reflected in further modeling to modify the IDF ILAW waste acceptance as appropriate.

III.11.I.5.a.i The modeling-risk budget tool will include a sensitivity analysis reflecting parameters and changes to parameters as requested by Ecology.

III.11.I.5.a.ii If these modeling efforts indicate results within 75% of a performance standard [including but not limited to federal drinking water standards (40 CFR 141 and 40 CFR 143)], Ecology and the Permittees will meet to discuss mitigation measures or modified waste acceptance criteria for specific waste forms.

III.11.I.5.a.iii When considering all the waste forms to be disposed of in IDF, the Permittees shall not dispose of any waste that will result (through forward looking modeling or in real groundwater concentrations data) in a violation of any state or federal regulatory limit, specifically including but not limited to drinking water standards for any constituent as defined in 40 CFR 141 and 40 CFR 143.

III.11.I.6 The Permittees shall not dispose of any waste that is not in compliance with state and federal requirements as identified in Chapter 13.0.

III.11.I.6.a In accordance with DOE's authority under the Atomic Energy Act of 1954, as amended and other applicable law, prior to disposing of any mixed immobilized low-activity waste (ILAW) in the IDF, DOE will certify to the State of Washington that it has determined that such ILAW is not high-level waste and meets the criteria and requirements outlined in DOE's consultation with the U.S. Nuclear Regulatory Commission beginning in 1993 (Letter from R.M. Bernero, USNRC to J. Lytle, USDOE, dated March 2, 1993; Letter from J. Kinzer, USDOE, to C. J. Paperiello, USNRC, Classification of Hanford Low-Activity Tank Waste Fraction, dated March 7, 1996; and Letter from C.J. Paperiello, USNRC, to J. Kinzer, USDOE, Classification of Hanford Low-Activity Tank Waste Fraction, dated June 9, 1997). While the requirement to provide such certification is an enforceable obligation of this permit, the provision of such certification does not convey, or purport to convey, authority to Ecology to regulate the radioactive hazards of the waste under this permit.

III.11.I.7 IDF Operational Waste Acceptance Criteria

IDF operational activities (including decontamination, cleanup, and maintenance) will generate a small amount of waste. Waste that can meet IDF waste acceptance without treatment will be disposed of at the IDF. All other IDF operational waste will be managed pursuant to WAC 173-303-200.

PART III UNIT-SPECIFIC CONDITIONS FOR FINAL STATUS OPERATIONS

OPERATING UNIT 11

Integrated Disposal Facility

This page intentionally left blank.

PART III UNIT-SPECIFIC CONDITIONS FOR FINAL STATUS OPERATIONS

OPERATING UNIT 11

Integrated Disposal Facility

Chapter 6.0 Procedures to Prevent Hazards

Figure

Tables

This section has been identified as
"Official Use Only" (OUO)
and is available to view by appointment at
the Nuclear Waste Program
Resource Center
3100 Port of Benton
Richland, Washington.

Please contact Valarie Peery at
(509) 372-7920
for a viewing appointment.

PART III UNIT-SPECIFIC CONDITIONS FOR FINAL STATUS OPERATIONS

OPERATING UNIT 11

Integrated Disposal Facility

Chapter 7.0 **Contingency Plan**

Appendix

Table

This page intentionally left blank.

7.0 CONTINGENCY PLAN [G]

The WAC 173-303 requirements for a contingency plan are satisfied in the following documents: portions of the *Hanford Emergency Management Plan* [Attachment 4 of the HF RCRA Permit (DW Portion)] and portions of the *Building Emergency Plan for the Integrated Disposal Facility* (Appendix 7A).

The unit-specific building emergency plan also serves to satisfy a broad range of other requirements [e.g., Occupational Safety and Health Administration standards (29 CFR 1910), *Toxic Substance Control Act of 1976* (40 CFR 761) and U.S. Department of Energy Orders]. Therefore, revisions made to portions of this contingency plan document that are not governed by the requirements of WAC 173-303 will not be considered as a modification subject to WAC 173-303-830 or HF RCRA Permit (DW Portion) Condition I.C.3.

Table 7-1 identifies which portions of the building emergency plan are written to meet WAC 173-303 contingency plan requirements. In addition to the building emergency plan portions identified in Table 7-1, Section 12.0 of the building emergency plan is written to meet WAC 173-303 requirements identifying where copies of the *Hanford Emergency Management Plan* and the building emergency plan are maintained on the Hanford Facility. Therefore, revisions to Section 12.0 and the portions identified in Table 7-1 are considered a modification subject to WAC 173-303-830 or the HF RCRA Permit (DW Portion), Condition I.C.3.

This page intentionally left blank.

Table 7-1. Hanford Facility Documents Containing Contingency Plan Requirements of WAC 173-303-350(3)

Requirement	Hanford Emergency Management Plan (DOE/RL-94-02): Attachment 4 of the HF RCRA Permit (DW Portion)	Building Emergency Plan[1] (*ILAW Document Number*)
-350(3)(a) - A description of the actions which facility personnel must take to comply with this section and WAC 173-303-360.	X[2] Section 1.3.4	X[2] Sections 7.1, 7.2 through 7.2.5, and 7.3[3] Sections 4.0, 8.2, 8.3, 8.4, 11.0
-350(3)(b) - A description of the actions which shall be taken in the event that a dangerous waste shipment, which is damaged or otherwise presents a hazard to the public health and the environment, arrives at the facility, and is not acceptable to the owner or operator, but cannot be transported pursuant to the requirements of WAC 173-303-370(5), Manifest system, reasons for not accepting dangerous waste shipments.	X[2] Section 1.3.4	X[2,4] Section 7.2.5.1
-350(3)(c) - A description of the arrangements agreed to by local police departments, fire departments, hospitals, contractors, and state and local emergency response teams to coordinate emergency services as required in WAC 173-303-340(4).	X Sections 3.2.3, 3.3.1, 3.3.2, 3.4, 3.4.1.1, 3.4.1.2, 3.4.1.3, 3.7, and Table 3-1	
-350(3)(d) - A current list of names, addresses, and phone numbers (office and home) of all persons qualified to act as the emergency coordinator required under WAC 173-303-360(1). Where more than one person is listed, one must be named as primary emergency coordinator, and others must be listed in the order in which they will assume responsibility as alternates. For new facilities only, this list may be provided to the department at the time of facility certification (as required by WAC 173-303-810 (14)(a)(I)), rather than as part of the permit application.		X[5] Section 3.1, 13.0
-350(3)(e) - A list of all emergency equipment at the facility (such as fire extinguishing systems, spill control equipment, communications and alarm systems, and decontamination equipment), where this equipment is required. This list must be kept up to date. In addition, the plan must include the location and a physical description of each item on the list, and a brief outline of its capabilities.	X Hanford Fire Department: Appendix C	X Section 9.0

Table 7-1. Hanford Facility Documents Containing Contingency Plan Requirements of WAC 173-303-350(3)

Requirement	Hanford Emergency Management Plan (DOE/RL-94-02): Attachment 4 of the HF RCRA Permit (DW Portion)	Building Emergency Plan[1] (*ILAW Document Number*)
-350(3)(f) - An evacuation plan for facility personnel where there is a possibility that evacuation could be necessary. This plan must describe the signal(s) to be used to begin evacuation, evacuation routes, and alternate evacuation routes.	X[6] Figure 7-3 and Table 5-1	X[7] Section 1.5

An 'X' indicates requirement applies.

[1] Portions of the *Hanford Emergency Management Plan* not enforceable through Appendix A of that document are not made enforceable by reference in the building emergency plan.

[2] The *Hanford Emergency Management Plan* contains descriptions of actions relating to the Hanford Site Emergency Preparedness System. No additional description of actions are required at the site level. If other credible scenarios exist or if emergency procedures at the unit are different, the description of actions contained in the building emergency plan will be used during an event by a building emergency director.

[3] Sections 7.1, 7.2 through 7.2.5, and 7.3 of the building emergency plan are those sections subject to the Class 2 "Changes in emergency procedures (i.e., spill or release response procedures)" described in WAC 173-303-830, Appendix I Section B.6.a.

[4] This requirement only applies to TSD units that receive shipments of dangerous or mixed waste defined as offsite shipments in accordance with WAC 173-303.

[5] Emergency Coordinator names and home telephone numbers are maintained separate from any contingency plan document, on file in accordance with HF RCRA Permit (DW Portion) General Condition II.A.4. and are updated, at a minimum, monthly.

[6] The Hanford Facility (sitewide) signals are provided in this document. No unit/building signal information is required unless unique devices are used at the unit/building.

[7] An evacuation route for the TSD unit must be provided. Evacuation routes for occupied buildings surrounding the TSD unit are provided through information boards posted within buildings.

PART III UNIT-SPECIFIC CONDITIONS FOR FINAL STATUS OPERATIONS

OPERATING UNIT 11

Integrated Disposal Facility

Appendix 7A Building Emergency Plan

CH2M HILL HANFORD GROUP, INC.	Document:	RPP-22957 Revision 3
BUILDING EMERGENCY PLAN FOR THE INTEGRATED DISPOSAL FACILITY	Page:	iii of iv
	Effective Date:	

This plan covers the following: Integrated Disposal Facility and the administrative building located in the 200 East Area of the Hanford Site.

Approved:

Facility Management, Operations Manager Date

Environmental Compliance Officer Date

Hanford Fire Department Date

CH2M HILL Hanford Group, Inc. Date
Emergency Preparedness

This document is reviewed at least annually and updated if necessary by Facility Management unless Hanford Facility RCRA Permit coordination requirements provide otherwise. The Building Emergency Director has the authority to carry out the provisions in this plan.

TABLE OF CONTENTS

ATTACHMENT

FIGURE

This section has been identified as
"Official Use Only" (OUO)
and is available to view by appointment at
the Nuclear Waste Program
Resource Center
3100 Port of Benton
Richland, Washington.

Please contact Valarie Peery at
(509) 372-7920
for a viewing appointment.

PART III UNIT-SPECIFIC CONDITIONS FOR FINAL STATUS OPERATIONS

OPERATING UNIT 11

Integrated Disposal Facility

Chapter 8.0 Personnel Training

Appendix

~~This page intentionally left blank.~~

8.0 PERSONNEL TRAINING [H]

This chapter discusses personnel training requirements based on WAC 173-303 and the HF RCRA Permit (DW Portion). The HF RCRA Permit (DW Portion), Condition II.C (Personnel Training), contains training requirements applicable to Hanford Facility personnel and non-Facility personnel. Compliance with these requirements at the IDF is demonstrated by information contained both in Chapter 8.0 of DOE/RL-91-28, Attachment 33 of the HF RCRA Permit, and this chapter. This chapter supplements Chapter 8.0 of DOE/RL-91-28.

8.1 OUTLINE OF INTRODUCTORY AND CONTINUING TRAINING PROGRAMS [H-2]

The introductory and continuing training programs are designed to prepare personnel to manage and maintain the TSD unit in a safe, effective, and environmentally sound manner. In addition to preparing personnel to manage and maintain TSD units under normal conditions, the training programs ensure that personnel are prepared to respond in a prompt and effective manner should abnormal or emergency conditions occur. Emergency response training is consistent with the description of actions contained in Chapter 7.0, "Contingency Plan".

Introductory training includes general Hanford Facility training and TSD unit-specific training. General Hanford Facility training is described in DOE/RL-91-28, Section 8.1, and is provided in accordance with the HF RCRA Permit (DW Portion), Condition II.C.2. TSD unit-specific training is provided to Hanford Facility personnel allowing personnel to work unescorted. Hanford Facility personnel cannot perform a task for which they are not properly trained, except to gain required experience while under the direct supervision of a supervisor or coworker who is properly trained. Hanford Facility personnel assigned the job title of Emergency Coordinator and alternates to this position performing tasks described in WAC 173-303-360 (e.g., Building Emergency Directors) are thoroughly familiar with applicable contingency plan documentation, operations, activities, location, and properties of all waste handled, location of all records, and the unit/building layout.

Continuing training meets the requirements for WAC 173-303-330(1)(b) and includes general Hanford Facility training and TSD unit-specific training. General Hanford Facility training is the same as described for introductory training. TSD unit-specific training provides an annual review of emergency response training and an annual review of training necessary to ensure TSD unit operations are in compliance with WAC 173-303.

8.2 DESCRIPTION OF TRAINING PLAN

In accordance with HF RCRA Permit (DW Portion), Condition II.C.3, the unit-specific portion of the *Hanford Facility Dangerous Waste Permit Application* must contain a description of the training plan. The plan is written to comply with WAC 173-303-330 and is found in Appendix 8A. Written training plan documentation is maintained outside of the *Hanford Facility Dangerous Waste Permit Application* and the HF RCRA Permit. Therefore, changes made to the written training plan documentation are not subject to the HF RCRA Permit modification process. The training plan will be maintained as part of the operating records of the facility and will be available to regulators upon request.

This page intentionally left blank.

PART III UNIT-SPECIFIC CONDITIONS FOR FINAL STATUS OPERATIONS

OPERATING UNIT 11

Integrated Disposal Facility

Appendix 8A Dangerous Waste Training Plan

~~This page intentionally left blank.~~

CH2M HILL Hanford Group, Inc.	Manual	Management Plan
	Document	IDF-PLN-07, REV A-2
DANGEROUS WASTE TRAINING PLAN	Page	1 of 10
	Issue Date	May 14, 2003
	Effective Date	May 26, 2003
FUNCTIONAL AREA MANAGER:		P.C.Miller
DOCUMENT OWNER:		S. A. Davis

1.0 PURPOSE AND SCOPE

This document outlines the dangerous waste training plan (DWTP) developed for the Integrated Disposal Facility(IDF) operated by the River Protection Project (RPP) Tank Farms Contractor

This plan applies to IDF personnel employed by the CH2M HILL Hanford Group, Inc., the visitors CH2M HILL Hanford Group, Inc. brings onto the Hanford facility, and any subcontractors conducting work on behalf of CH2M HILL Hanford Group, Inc. The Hanford facility constitutes the Hanford site as defined by the Hanford facility Resource Conservation and Recovery Act (RCRA) permit issued by Ecology.

2.0 RESPONSIBILITIES

2.1 Management

The waste management facility manager has overall responsibility for training at the IDF under his control that includes but is not limited to: (5.1.1)

- Determine training requirements and training compliance for Hanford facility personnel, subcontractors, and visitors who obtain access or work within the IDF unit.
- Identify training requirements to contractors working in or around IDF units.

2.2 Training Manager

- Ensure instructors have satisfactory instructional skills and are technically knowledgeable through: current qualification/certification or specialized training, license/certificate or a degree in the technical area, or other appropriate training or experience (see DOE/RL-91-28 Chapter 8.0). (5.1.1)
- Conduct informal job analysis and identify training commensurate with personnel duties and responsibilities.
- Design and develop training programs.
- Develop and instruct training courses.
- Develop and maintain On-The-Job training requirements.
- Maintain the RPP-IDF training records.

2.3 Environmental Organization Responsibilities:

- Consult with training organization and IDF management in the development and evaluation of current training programs.
- Assist IDF manager in determining training requirements and RCRA compliance for personnel.
- Maintain current knowledge of RCRA training requirements pertaining to Hanford facility personnel.

2.4 Contracted Services (e.g., Fluor Federal Services (FFS) and Waste Management)

Contracted personnel who are classified as Hanford facility personnel have the following responsibilities:

- Ensure that employees are trained to meet RPP-IDF training requirements.
- Maintain employee training records and provide them if requested by RPP-IDF.

2.5 CH2M HILL Waste Services Responsibilities

- Provide daily Federal Register review, regulatory interpretation, and application of DOT regulations. As new requirements are identified, this information is distributed to the HAZMAT employees
- Maintain the authorized shippers list by reviewing shippers' qualifications through training records and verifying receipt of "request for authority" forms signs by requestor's management. This list is updated and distributed monthly
- Maintain a database, tracks shipping activities, and changes to the authorized shipper's list
- Conduct DOT compliance verification inspection and verification on HAZMAT, HW, RAM, and RMW shipments
- Provide information to training records regarding course completion.

3.0 PROCESS

3.1 Training Program

The introductory and continuing training programs are designed to prepare employees to operate and maintain the tank farms in a safe, effective, efficient, and environmentally sound manner. In addition to preparing employees to operate and maintain the tank farms under normal conditions, the training program ensures that employees are prepared to respond in a prompt and effective manner should abnormal or emergency conditions occur.

Introductory training includes general Hanford facility training and TSD unit-specific training.

General Hanford facility training is described in DOE/RL-91-28, Section 8.0, and provided in accordance with the Hanford Facility RCRA Permit (DW Portion), Condition II.C.

TSD unit-specific training is provided to Hanford facility personnel, allowing personnel to work unescorted and, in some cases, is required for escorted access. Hanford facility personnel cannot perform a task for which they are not properly trained, except to gain required experience while under the direct supervision of a supervisor or coworker who is properly trained.

The IDF Dangerous Waste training program is implemented. Incumbent personnel will complete new requirements within six months of the requirements being identified. Training of new employees is completed within the first six months of assignment. Training for personnel assigned to new positions is completed within six months of reassignment. Personnel who have not completed training are permitted to work at the IDF only under the supervision of a trained employee. IDF operations management is responsible for ensuring that personnel are trained and required qualifications are maintained. (5.1.3)

Continuing training meets the requirements for WAC 173-303-330(1)(b) and includes general Hanford facility training and TSD unit-specific training. (5.1.2)

3.2 Emergency Response Training

Federal and state regulations require that personnel be able to respond effectively to emergencies. In accordance with WAC 173-303-330(1)(d), personnel are trained on aspects applicable to operations. The following table indicates requirements from WAC 173-303-330(1)(d) applicable to IDF operations. (5.1.1, 5.1.4)

Elements of WAC 173-303-330(1)(d)	Applicability to TSD Units (1) and < 90-day Accumulation Areas (2)	
	(1)	(2)
Procedures for using, inspecting, repairing, and replacing emergency and monitoring equipment	YES	YES
Key parameters for automatic waste feed cut-off systems	YES	NO
Communications or alarm systems	YES	YES
Response to fires or explosions	YES	YES
Response to groundwater contamination incidents	YES	YES
Shutdown of operations	YES	YES

3.3 Dangerous Waste Worker Categories

Employee duties at the IDF are categorized within four worker categories. In the event personnel duties and responsibilities overlap between categories, the employee will complete the training requirements for each category. These categories are: (5.1.1, 5.1.5)

1. All Employees

2. Waste Worker
3. Advanced Waste Worker
4. Waste Worker Supervisor/Manager

Each employee is assigned a job title (from salaried nonexempt or bargaining unit classifications) or position (from exempt classifications). Job or position descriptions include requisite skills, work experience, education and other qualifications, and a list of duties and/or responsibilities for each job title or position. The work experience, education, and other qualifications required for each position are maintained by IDF Human Resources. As a minimum, "all employees" require a high school diploma or equivalent. Personnel filling exempt, management, or engineering positions normally require a college degree with two or more years of industry experience. (5.1.5)

Only names of Hanford facility personnel who carry out job duties relating to TSD unit waste management operations at IDF are maintained. Names are maintained in electronic data storage within the Integrated Training Electronic Matrix (ITEM). A list of Hanford facility personnel assigned to IDF is available upon request.

In the following sections, brief job titles and position descriptions of employees associated with dangerous waste management at IDF are listed within the appropriate waste worker category. (5.1.5)

3.3.1 All Employees

Hanford facility personnel included in this position are not categorized into one of the other three worker positions. Non-Hanford facility personnel included within this position are those personnel that require access to portions of the Hanford facility not accessible to the public.

Personnel in the "all employees" position are prohibited from performing duties or responsibilities associated with the management of waste in accumulation/storage containers on the Hanford facility. These personnel have the responsibility to report spills and releases that they discover in addition to taking any evacuation or take cover actions in response to specific incidents that may occur.

Most of the Hanford facility personnel categorized as "all employees" will be administrative and technical/professional personnel which include secretaries, clerks, and support organizations who perform walk-downs or provide oversight. Most non-Hanford facility personnel will be categorized as "all employees" since these personnel generally tour, provide oversight, or are brought on the Hanford facility for interviews. Other non-Hanford facility personnel who gain access to the Hanford facility to complete work in controlled areas that will not directly involve the management of dangerous or mixed waste, will be categorized as "all employees."

All employees are required to complete Hanford General Employee Training (HGET) with an annual refresher (HGET core).

3.3.2 Waste Workers

Hanford facility personnel or non-Hanford facility personnel with waste management duties and responsibilities who require unescorted access and are limited to the initial generation of

dangerous or mixed waste and placing that waste into a pre-approved container, or who conduct dangerous or mixed waste inspections, are categorized as waste workers.

The pre-approved container can include those in a satellite accumulation area, <90-day accumulation area, or temporary storage and disposal unit.

These personnel could generate dangerous or mixed waste while working on a non-RCRA system (e.g., building maintenance) or working on a temporary storage and disposal unit when conducting maintenance. These personnel could also include operators who conduct daily inspections on tank systems to ensure they are operating properly, and operators who conduct daily inspections on ancillary equipment.

The work may be unsupervised or completed under the supervision of qualified unit/building personnel (e.g., the person in charge or field work supervisor). In addition, a waste worker must fulfill the roles of an "all employee." Hanford facility personnel categorized as waste workers may be assigned duties and responsibilities for:

- Placing waste they generate into pre-approved containers and filling out log sheets, where applicable
- Completing radiological surveys of dangerous or mixed waste
- Loading packaged containers onto trucks or movement of containers
- Responding to a spill or release of known contents where the duties and responsibilities are limited to containing the spill/release, returning the drum to an upright position, and placing the known spilled material or waste into a pre-approved container
- Applying container markings or labels based on direction received from others
- Responding to regulatory agency compliance inspectors' questions about waste management practices
- Performing an inventory of dangerous or mixed waste
- Conducting inspections of dangerous or mixed waste.

Personnel who function as waste workers may include, but are not limited to, the following:

- Maintenance and craft personnel
- Operators
- Health physics technicians
- Transporters
- Contractor crafts
- Technical support staff.

The list of employees currently filling this position is maintained by the ITEM.

3.3.3 Advanced Waste Worker

Hanford facility personnel are categorized as advanced waste workers if their duties and responsibilities concerning dangerous or mixed waste exceed that of waste workers (therefore, an advanced waste worker may fulfill the roles of a waste worker.) Examples of these duties and responsibilities can include determining container markings, sampling of waste, designation of waste material(s), and classification of waste materials prior to shipment.

The list of employees currently filling this position is maintained by the ITEM.

3.3.4 Waste Worker Supervisor/Manager

Various types of managers and non-managers are included in this position. Hanford facility personnel assigned to unit/buildings can be categorized as waste worker supervisor/managers if they direct waste worker or advanced waste worker activities relating to dangerous waste management and compliance activities. Managers and non-managers who direct waste workers and advanced waste workers have many similar duties and responsibilities relating to dangerous or mixed waste management and are required to take the same courses.

The following staff has duties and responsibilities that meet this description:

- Emergency coordinator and/or alternate(s) (e.g., building emergency directors and some building wardens)
- Environmental Compliance Officer and Waste Management manager for IDF
- Immediate managers of waste workers and advanced waste workers (e.g., field work supervisors, Radiological Control first-line managers and operations engineers/managers).

The list of employees currently filling this position is maintained by the ITEM.

3.4 Matrix of Training Requirements for Each Waste Worker Category

The following training requirements are maintained in the ITEM. Based on training assessments, oversight, and acting within federal and state regulations, IDF management may change the training requirements. For this reason, a current course listing is available upon request.

Course descriptions with retrain frequencies are linked to the courses in the ITEM. Continuing training (retraining) courses are linked in the ITEM database to the initial training course. If the continuing training is not kept current, the system will show the initial course as delinquent. (5.1.5)

3.4.1 All Employees

NOTE: Select link for course description (5.1.5)

000001

HANFORD GENERAL EMPLOYEE TRAINING - FULL

3.4.2 Waste Worker

[ ] Option 01 Waste Worker Core, Individual performs duties as a Waste Worker at the River Protection Project Tank Farms Contractor.

000001	HANFORD GENERAL EMPLOYEE TRAINING - FULL
03E060	RPP/TANK FARM FACILITY EMERGENCY HAZARDS CHECKLIST
350560	RPP WASTE HANDLING, SEGREGATION AND PACKAGING
XXXXX	Integrated Diposal Facility Orientation

[ ] Option 02 The course covers federal, state and company policy regarding the management of containerized waste, both regulated (dangerous) and non-regulated.

035100	CONTAINER WASTE MANAGEMENT INITIAL

3.4.3 Advanced Waste Worker

[ ] Option 01 Advanced Waste Worker Core, Individual performs duties as an Advanced Waste Worker at the RPP Tank Farms Contractor.

000001	HANFORD GENERAL EMPLOYEE TRAINING - FULL
035100	CONTAINER WASTE MANAGEMENT INITIAL
03E060	RPP/TANK FARM FACILITY EMERGENCY HAZARDS CHECKLIST
350560	RPP WASTE HANDLING, SEGREGATION AND PACKAGING
XXXXXX	Integrated Diposal Facility Orientation

[ ] Option 02 Waste Designator, Individual performs Waste Designation duties at the RPP Tank Farms Contractor

035010	WASTE DESIGNATION
035012	WASTE DESIGNATION QUALIFICATION
035020	FACILITY SAMPLING AND ANALYSIS

[ ] Option 03 Hazardous Waste Shipper, Individual performs Hazardous Waste Shipping duties at the RPP Tank Farms Contractor. Note: Need to select Option 04 "Radioactive Materials Shipper" if Individual will be performing duties as a "Mixed Waste Shipper".

020159	ADVANCED COURSE 2 - HAZARDOUS WASTE SHIPPER CERTIFICATION TRAINING

[ ] Option 04 Radioactive Materials Shipper, Individual performs Radioactive Material Shipping duties at

the RPP Tank Farms Contractor. Note: Need to select Option 03 "Hazardous Waste Shipper" if Individual will be performing duties as a "Mixed Waste Shipper".

020069 ADVANCED COURSE 3 - RADIOACTIVE MATERIALS SHIPPER CERTIFICATION TRAINING

3.4.4 Waste Worker Supervisor/Manager

[ ] Option 01 Waste Worker Supervisor/Manager Core, Individuals that direct Waste Worker or Advanced Waste Worker activities relating to dangerous or mixed waste management and compliance activities.

000001 HANFORD GENERAL EMPLOYEE TRAINING - FULL
035050 ENVIRONMENTAL REGULATIONS AT HANFORD (CLASSROOM)
03E060 RPP/TANK FARM FACILITY EMERGENCY HAZARDS CHECKLIST
350560 RPP WASTE HANDLING, SEGREGATION AND PACKAGING
XXXXXX Integrated Diposal Facility Orientation

[ ] Option 02 Waste Shipper/Supervisor, Individual performs Waste Shipping / Supervision duties at the RPP Tank Farms Contractor

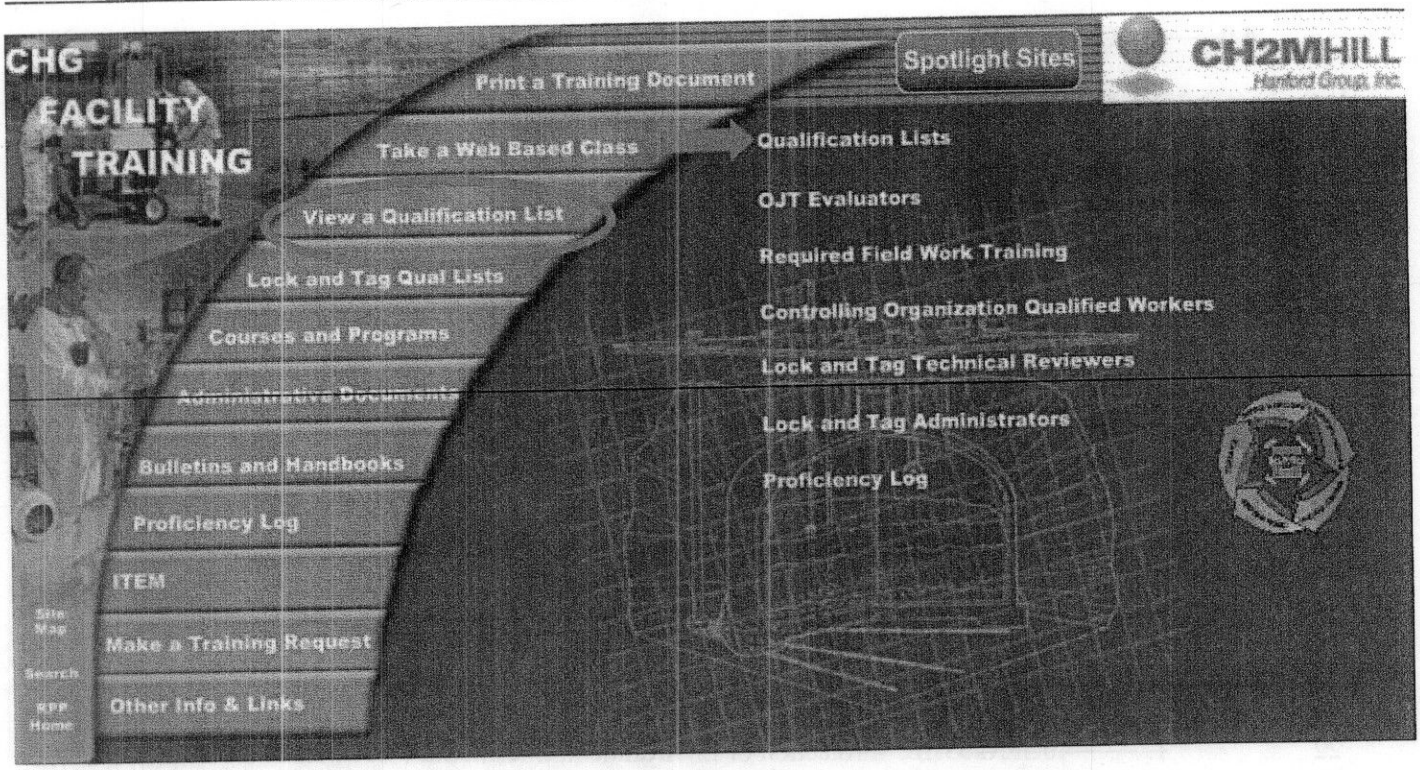
020078 ADVANCED COURSE 4 - MIXED WASTE SHIPPER CERTIFICATION TRAINING
020159 ADVANCED COURSE 2 - HAZARDOUS WASTE SHIPPER CERTIFICATION TRAINING
035100 CONTAINER WASTE MANAGEMENT INITIAL

[ ] Option 03 Waste Designator/Supervisor, Individual performs Waste Designation / Supervision duties at the RPP Tank Farms Contractor

035010 WASTE DESIGNATION
035012 WASTE DESIGNATION QUALIFICATION
035020 FACILITY SAMPLING AND ANALYSIS

3.5 Job-Specific Facility Training

The IDF-specific and job-specific qualifications and/or certifications are maintained according to contractual and regulatory requirements. IDF management uses qualification lists to ensure personnel they assign to work in the tank farms meet current training requirements. The qualification lists, generated using the PeopleSoft® database, are updated on a daily basis and are posted to the IDF Training Web Page.



3.6 Training Records

Training records, as described in WAC 173-303-330, consist of documentation that show training has been completed. Training records associated with personnel identified in the DWTP are maintained in accordance with DOE/RL-91-28 Chapter 8.0. Hanford Facility training records include both electronic data storage and hard copies. Course completion documentation for personnel is maintained in both hard copy and electronic formats. (5.1.5)

The course completion documentation will contain the course number, course title, and date of completion. Copies of the training record files for IDF Dangerous Waste management employees are stored at IDF Training. The originals are sent to Fluor Hanford, Inc. (FH) Training and are initially maintained in Richland, Washington. Original hard copy training records are transferred periodically to the Records Holding Facility in Richland, Washington. After approximately one year, the original hard copy training records are archived at the permanent record storage center in Renton, Washington. Course completion documentation of former employees are maintained in accordance with DOE/RL-91-28 Chapter 8.0 and Hanford Facility RCRA Permit, General Facility Condition II.I.1, Regarding Facility Operations Record.

When a training record is requested during an inspection, an electronic data storage record will initially be provided. If the electronic data storage record does not satisfy the inspection concern, a hard copy training record will be provided. Training records of former employees may not be available through computers at IDF and may require a representative from FH Training to access the PeopleSoft® system for this information.

4.0 DEFINITIONS

No terms or phrases unique to this procedure are used.

5.0 SOURCES

5.1 Requirements

1. WAC 173-303-330 "Dangerous Waste Regulations," Section 330(1) and (1)(a), Personnel Training. (S/RID)

2. WAC 173-303-330 "Dangerous Waste Regulations," Section 330(1)(b). (S/RID)

3. WAC 173-303-330 "Dangerous Waste Regulations," Section 330(1)(c). (S/RID)

4. WAC 173-303-330 "Dangerous Waste Regulations," Section 330(1)(d). (S/RID)

5. WAC 173-303-330 "Dangerous Waste Regulations," Section 330(2). (S/RID)

5.2 References

1. 40CFR265.16, "Protection of Environment, Interim Status Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities," Personnel Training.

2. DOE/RL-91-28 Rev 4, "Dangerous Waste Portion Of The Resource Conservation and Recovery Act Permit for the Treatment, Storage, and Disposal of Dangerous Waste," Chapter 8, Personnel Training.