

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

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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 within 90 days.