



STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

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February 26, 2013

13-NWP-018

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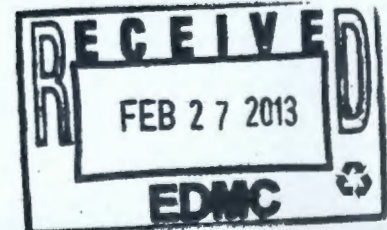
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Re: United States Department of Energy letter dated January 10, 2013, *Class 1 Modifications to the Hanford Facility Resource Conservation and Recovery Act (RCRA) Permit, Quarter Ending December 31, 2012*

Dear Madam and Gentlemen:

The Department of Ecology (Ecology) reviewed the referenced Quarterly Class 1 and Class 1 prime modifications. The modifications specific to the 400 Area Waste Management Unit, the Waste Treatment Plant, and Attachment 4 of the Permit (the Hanford Emergency Management Plan) are accepted. Please note that the signed modification forms for Attachment 4 were not identified in the cover for the referenced letter, but were found attached. The modifications requested specific to removing Mission Support Alliance, LLC from the permit, changing text in condition II.F.2.d, and some of those modifying text for the Integrated Disposal Facility portion of the permit are denied pursuant to WAC 173-303-830(4)(a)(i)(C). The explanations for the denials follow.



Page numbers and identifiers are as provided in the referenced letter.

**Attachment 4, Hanford Emergency Management Plan**

The following modifications applicable to Attachment 4, Hanford Emergency Management Plan, DOE/RL-94-02 are considered reviewed and approved:

Page 2 of 15	Section 1.3.4	Class 1
Page 3 of 15	Section 1.3.4	Class 1
Page 4 of 15	Section 1.3.4	Class 1
Page 5 of 15	Section 2.2	Class 1
Page 6 of 15	Section 2.2	Class 1
Page 7 of 15	Section 2.2	Class 1
Page 8 of 15	Section 2.2	Class 1
Page 9 of 15	Section 2.2	Class 1
Page 10 of 15	Section 3.2.3	Class 1
Page 11 of 15	Section 3.4.1.2	Class 1
Page 12 of 15	Section 5.1.2.1	Class 1
Page 13 of 15	Table 3-1	Class 1
Page 14 of 15	Table 3-1	Class 1
Page 15 of 15	Section 14.3.7	Class 1

**400 Area Waste Management Unit**

The following modifications are applicable to Part III, Operating Unit 16, 400 Area Waste Management Unit, are considered reviewed and approved:

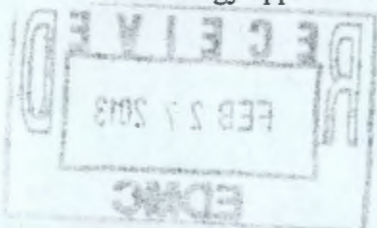
Page 2 of 3	Hanford Facility RCRA Permit III.16 Conditions	Class 1
Page 3 of 3	Addendum C, Sections C.1.1 and C.1.1.1	Class 1

**Waste Treatment Plant**

The following modifications applicable to the Waste Treatment Plant (WTP) Permit are considered reviewed and approved:

Class 1 Modification 24590-LAW-PCN-ENV-12-002, updates the General Arrangement Drawings for the Low Activity Waste (LAW) Facility in Appendix 9.4. Ecology concurred with the permit modification on November 21, 2012.

Class 1 Modification 24590-PTF-PCN-ENV-12-004, updates the Piping and Instrumentation Diagrams (P&IDs) for the Pretreatment Facility Treated Low-Activity Waste Evaporation System vessels, condensers, separator, reboilers, utility racks, and vessel pulse jet mixers in Appendix 8.2. Ecology approved the modification on November 5, 2012.



Class <sup>1</sup> Modification 24590-PTF-PCN-ENV-12-006, updates WTP Piping and Instrumentation Diagram (P&IDs) for the Pretreatment Facility Treated Low-Activity Waste Concentrate Storage Process System and Waste feed Receipt Process System in Appendix 8.2. Ecology approved the modification on October 9, 2012.

Two sets of modification forms were included without prior approval signature of Ecology. The following describes Ecology's responses to these requests:

### **General Facility Conditions**

The Part II General Facility conditions are responded to as follows:

Pages 2 of 8 through 7 of 8, regarding removal of Mission Support Alliance, LLC (MSA) as a permittee, are denied.

- Condition 1.A.1 states that "MSA is identified as a Permittee for activities subject to the Conditions of this Permit where its agents, employees, or subcontractors have operational and/or management responsibilities and control."
- Ecology reviewed the USDOE/MSA contract, and determined that MSA has operational and/or management responsibilities and control for several aspects of the Hanford facility.
  - Waste sites assigned to MSA, and subject to corrective action in accordance with permit condition II.Y.
  - Implementation of the Contingency Plan and/or other emergency response.
- In addition, the modification was misclassified. The classification for a change in operational control is WAC 173-303-830(2)(b) and WAC 173-303-830, Appendix I, A.7, as a Class <sup>1</sup>, requiring prior director approval, not as A.1, Administrative and Informational change, as was proposed in the modification request.

Page 8 of 8, regarding the modification of condition II.F.2.d, is denied.

- Ecology requires that the additional text "incorporated by reference into this Permit" be added to the proposed modification text.
- The additional text properly incorporates the referenced Hanford Federal Facility Agreement and Consent Order (HFFACO) requirements and schedules into the permit and is required by WAC 173-303-810(8).
- In addition, this text is required by the Introduction for the current permit (Revision 8C): "The Permittees will comply with all terms and conditions set forth in this Permit and those portions of the Attachments that have been specifically incorporated into this Permit."
- It is recommended that the modification be re-proposed with the additional text included.

### **Integrated Disposal Facility**

The Integrated Disposal Facility (IDF) Permit Modifications (*Ecology notes that there were 10 pages included for the IDF modification package, although the header identified a total of 9 pages*) are responded to as follows:

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Page 4

Page 2 of 9, regarding changes to the modification approval dates is denied as the associated modifications are not all approved by Ecology.

Page 3 of 9 and 4 of 9 regarding changes to permit conditions III.11.I.2.a.3 is denied.

- Ecology recommends that the last two sentences in the third paragraph of III.11.I.2.a.3 be changed to read:

At a minimum, the Permittees shall submit an update to the Immobilized Low-Activity Waste (ILAW) Waste Form Technical Requirements Document (IWTRD) at least every five years with next being due December 31, 2014. An update must be submitted to Ecology more frequently if any of the following conditions exist:

- The Permittees submit a permit modification request allowing additional waste forms to be disposed of at IDF.
  - The WTP or other vitrification facility change their glass formulations from those previously included in the IWTRD.
  - An unanticipated event or condition occurs that Ecology determines would warrant an update to the IWTRD.
- Resubmit modification as a Class <sup>1</sup>1, per WAC 173-303-830, Appendix I A(5)(a): Changes in interim compliance dates with prior approval of the Director.

Page 5 of 9 regarding section 4.3.6.1 System Operation and Design modifications is denied.

- Ecology does not agree with the addition of "during Active Life".

Page 6 of 9 regarding section 6.2.3.2.2 Leak Detection System is denied.

- First modified sentence, "During pre-active life, the leak detection system will be monitored quarterly and after storms (Table 6.2) for the amount of liquid removed." is acceptable as a class 1 change.
- The remainder of the proposed modifications are denied. Therefore, the entire page is denied.
- Ecology does not agree with the addition of "during Active Life".
- It is recommended that the modification be re-proposed with only the acceptable text included.

Page 7 of 9 regarding section 6.2.3.2.3 Wind Dispersal Control System is denied.

- The modification was incorrectly identified as a Class 1 modification. It should be a Class 2 modification per WAC 173-303-830, Appendix I, B(4), Changes in frequency or content of inspection schedules.
- Ecology recommends resubmittal as a Class 2 modification.

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Page 8 of 9 regarding section 6.2.3.2.4 Leachate Collection and Removal System modifications, a Class 1 modification, is accepted. A copy of the signed modification form is attached.

Page 9 of 9 regarding Table 6.2, Landfill Inspections during Pre-Active Life, is denied.

- The modification was incorrectly identified as a Class 1 modification. It should be a Class 2 modification per WAC 173-303-830, Appendix I, B(4), Changes in frequency or content of inspection schedules.
- Ecology recommends resubmittal as a Class 2 modification.
- Ecology proposes the following changes for consideration:
  - The first footnote (\*) referring to wind gusts of 35 miles per hour change to a metric reading.
  - The third footnote (\*\*\*) change Table 6.2A to Table 6.3.

Page 10 regarding Table 6.3, a Class 1 modification, is accepted. A copy of the signed modification form is attached.

If you have any questions, please contact Andrea Prignano at 509-372-7911.

Sincerely,



Ron Skinnarland  
Manager, Waste Management Section  
Nuclear Waste Program

cc w/encs (2):

Cliff Clark, USDOE  
Lori A. Huffman, USDOE  
Paul Harrington, USDOE-ORP  
Tony McKarns, USDOE  
Brad Erlandson, BNI  
Moussa Jaraysi, CHPRC  
Kirk Peterson, MSA  
Jon Perry, MSA  
Eric Damberg, PNNL  
Roger Landon, WCH  
Steven Killoy, WRPS

Stuart Harris, CTUIR  
Gabriel Bohnee, NPT  
Russell Jim, YN  
Steve Hudson, HAB  
Ken Niles, ODOE

Administrative Record: HSWP

Environmental Portal  
USDOE-ORP Correspondence Control  
USDOE-RL Correspondence Control

**Hanford Facility RCRA Permit Modification Notification Form**

Unit: <b>Integrated Disposal Facility</b>	Permit Part <b>Part III, Operating Unit 11</b>
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Description of Modification:  
Chapter 6.0, Section 6.2.3.2.4:

**6.2.3.2.4 Leachate Collection and Removal System**

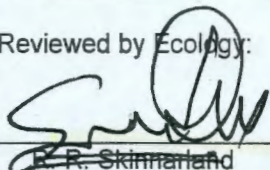
During pre-active life, the Leachate Collection and Removal System is inspected quarterly and after storms (Table 6.2) for the presence of liquids, and that the system is functioning properly.

During active-life (Table 6.3), Liquids in the Leachate Collection and Removal System and Leak Detection System are monitored daily to ensure the action leakage rate (Chapter 4.0, Appendix 4A) is not exceeded and will be inspected per Table 6.2. In addition, a flow meter is used to check if the amount of actual leachate 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 will be conducted when appropriate.~~

WAC 173-303-830 Modification Class <sup>1 2</sup>	Class 1	Class <sup>1</sup>	Class 2	Class 3
Please mark the Modification Class:	X			

Enter relevant WAC 173-303-830, Appendix I Modification citation number: A.1  
 Enter wording of WAC 173-303-830, Appendix I Modification citation:  
 Administrative and information changes. Clarification for pre-active life inspections.

Modification Approved: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (state reason for denial) Reason for denial:	Reviewed by Ecology:  R. P. Skinnerland	Date 2-25-13
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<sup>1</sup> Class 1 modifications requiring prior Agency approval.

<sup>2</sup> If the proposed modification does not match any modification listed in WAC 173-303-830 Appendix I, then the proposed modification should automatically be given a Class 3 status. This status may be maintained by the Department of Ecology, or down graded to a Class <sup>1</sup>, if appropriate.

**Hanford Facility RCRA Permit Modification Notification Form**

Unit: <b>Integrated Disposal Facility</b>	Permit Part <b>Part III, Operating Unit 11</b>
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Description of Modification:  
Chapter 6.0, Table 6.3:

**Table 6.3. Landfill Inspections during Active Life**

Requirement Description	Inspection Frequency	Types Of Problems
-665(4)(b)(i) Run-on and run-off control	Weekly and after storms*	Deterioration, malfunction, or improper operation
-665(4)(b)(ii) Wind dispersal control systems	Weekly and after storms*	Proper functioning
-665(4)(b)(iii) Leachate collection and removal systems	Weekly and after storms*	Presence of leachate; proper functioning
-665(4)(c)(i) Leak detection system sump	Weekly and after storms*	Amount of liquids removed
Secondary leak detection system sump**	Monthly**	Presence of unexpected liquid volume**
Security devices: "Danger unauthorized personnel keep out" signs	Weekly	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

\*A storm is 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.

\*\*Note: 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. Therefore, formation regarding the design, construction, and operation of the secondary leak detection system is provided for information only. Pursuant to AEA, DOE has sole and exclusive responsibility and authority to regulate the source, special nuclear and by-product material component of radioactive mixed waste at DOE-owned nuclear facilities. Source, special nuclear and by-product materials, as defined by AEA, are not subject to regulation under RCRA or the Hazardous Waste Management Act, by the State of Washington and are not be subject to State dangerous waste permit, orders, or any other enforceable instrument issued there under. DOE recognizes that radionuclide data may be useful in the development and confirmation of geohydrologic conceptual models. Radionuclide data contained herein is therefore provided as a matter of comity so the information may be used for such purposes.

WAC 173-303-830 Modification Class <sup>1 2</sup>	Class 1	Class 1	Class 2	Class 3
Please mark the Modification Class:	X			

Enter relevant WAC 173-303-830, Appendix I Modification citation number: A.1

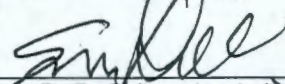
Enter wording of WAC 173-303-830, Appendix I Modification citation:

Administrative and information changes. Clarification for pre-active life inspections.

Modification Approved:  Yes  No (state reason for denial)

Reason for denial:

Reviewed by Ecology:

  
 R. R. Skinnarland-~~Stah~~ Date 2/22/13

<sup>1</sup> Class 1 modifications requiring prior Agency approval.

<sup>2</sup> If the proposed modification does not match any modification listed in WAC 173-303-830 Appendix I, then the proposed modification should automatically be given a Class 3 status. This status may be maintained by the Department of Ecology, or down graded to a Class 1, if appropriate.