



STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

3100 Port of Benton Blvd • Richland, WA 99354 • (509) 372-7950

March 16, 2009

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

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

Re: Approval of 24590-WTP-PCN-ENV-06-010, Class <sup>1</sup> Modification to the *Hanford Facility Resource Conservation and Recovery Act (RCRA) Permit, Dangerous Waste Portion, Revision 8C, for the Treatment, Storage, and Disposal of Dangerous Waste, Part III, Operating Unit 10 (Waste Treatment and Immobilization Plant), WA7890008967*

Reference: Letter 09-ESQ-001 received February 18, 2009, from S. J. Olinger, USDOE-ORP, to J. A. Hedges, Ecology, "Submittal of Hanford Facility Resource Conservation and Recovery Act (RCRA) Permit Modification Notification Form 24590-WTP-PCN-ENV-06-010." 0080457

Dear Ms. Olinger and Mr. Elkins:

The Department of Ecology approves the referenced Class <sup>1</sup> Modification. The approved Hanford Facility RCRA Permit Modification Notification Form is enclosed.

The modification provides the source Engineering Specification (24590-WTP-3PS-MKE0-T0001, Revision 5) for the Wet Electrostatic Precipitators. This replaces the corresponding permit Engineering Specification in Appendix 7.7.

If there are any questions, contact me at 509-372-7899 or Jerry Hensley at 509-372-7907.

Sincerely,

*E. Fredenburg*

Ed Fredenburg  
Acting Tank Waste Disposal Project Manager  
Nuclear Waste Program

trw/jc  
Enclosure

cc: See page 2

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cc electronic w/enc:

Dave Bartus, EPA  
John Eschenberg, USDOE  
Lori Huffman, USDOE  
Tony McKarns, USDOE  
Gae Neath, USDOE  
Don Sommer, USDOE  
William Taylor, USDOE  
Julie Colby, BNI  
Barry Curn, BNI  
Brad Erlandson, BNI  
Peggy Fisher, BNI  
Dennis Klein, BNI  
Sandi Murdock, BNI  
Phil Peistrup, BNI  
Suzette Thompson, FHI

cc w/enc:

**Administrative Record: Tank Waste Treatment Requirements**  
Environmental Portal  
Hanford Operating Record General File  
USDOE-ORP Correspondence Control

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Quarter Ending March 31, 2009

24590-WTP-PCN-ENV-06-010

**Hanford Facility RCRA Permit Modification Notification Form**

**Part III, Operating Unit 10**

**Waste Treatment and Immobilization Plant**

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Replace Permit Specification 24590-WTP-3PS-MKE0-TP001 (Engineering Specification for Wet Electrostatic Precipitators) in Appendix 7.7 of the Dangerous Waste Permit.

Submitted by Co-Operator:

Reviewed by ORP Program Office:

D. A. Klein

12/18/08

D. A. Klein

Date

S. J. Olinger

2/13/09

S. J. Olinger

Date

Quarter Ending March 31, 2009

24590-WTP-PCN-ENV-06-010

### Hanford Facility RCRA Permit Modification Notification Form

Unit:

**Waste Treatment and Immobilization Plant**

Permit Part &amp; Chapter:

**Part III, Operating Unit 10**Description of Modification:

The purpose of this Class 1 prime modification is to update 24590-WTP-3PS-MKE0-T0001, *Engineering Specification for Wet Electrostatic Precipitators*.

The following specification is being submitted to replace the specification currently in Appendix 7.7.

## Appendix 7.7

Replace:	24590-WTP-3PS-MKE0-TP001, Rev. 0	With:	24590-WTP-3PS-MKE0-T0001, Rev. 5
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This modification requests Ecology approval and incorporation into the permit the specific changes to this specification that are identified by revision bars shown on the specification that have been issued since the last revision of the specification. Revisions are the result of ongoing design (changes from vendor preliminary data to vendor detailed design) and incorporate general criteria from a design verification review. The following identifies the significant changes that have been revised on the attached specification sections.

- Section 1.5.C.3, clarified that other work includes furnishing Buyer installation and testing parts
- Section 1.5.C.3.d, removed the word "spare"
- Section 2.3.B.1-9, changed drawing references to source documents from permit versions
- Section 2.3.B.11, added reference to drawing for End Prep Detail for Field Butt Welds
- Section 3.2.F, clarified the application of the quality assurance requirements were commercial grade for vessel internals except for the vessel and components affecting the confinement function and added reference to the general design requirements for power supply
- Section 3.3.A.4, deleted reference to section 2.3.A.1; clarified that Appendix B applies to LAW WESPs and Appendix C applies to HLW WESPs
- Section 3.4.F.2, removed Buyer commitment to provide offgas misting capabilities in the upstream offgas line; added requirement for Seller to provide misting capabilities in the LAW WESPs but not the HLW WESPs and to coordinate with the Buyer to determine final misting capabilities
- Section 3.4.F.4, added requirement to limit misting water use to 500 gallons per day and flushing water to 500 gallons per day
- Section 3.4.G.1, Modified specification to require purge air around electrical components
- Section 3.7.A.2.b and d, deleted system control requirements for water flushing/misting and purge air
- Section 3.7.3 and 4, required Seller to provide control system for WESP only; deleted requirement to provide support utility system controls
- Section 6.1.B, deleted vacuum test requirements for all vessels
- Section 6.1.D, changed lifting lug test requirement to 125 percent of the measured dry weight of the components
- Section 6.1.F, removed the word "continuous" to clarify that the four day (96 hour) run includes flushes
- Section 6.1.F.1, added requirement to perform two flushing operations at 48 and 96 hours of operation; clarified that the Buyer will determine successful operation based on inspection data
- Section 6.1.F.2, clarified that LAW misting operations are allowed during test
- Section 6.1.F.4 - .8, substituted "96 hour test" for "continuous run"
- Section 6.1.F.8, clarified gas distribution confirmation is using nominal offgas flows for the LAW WESPs and maximum flows for the HLW WESPs
- Appendix A, changed non contact and external structural metal components from 304L or 316L to 304 ss or 316 ss

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The following is a list of outstanding change documents that have not been incorporated into this modification:

- 24590-WTP-3PN-MKE0-00005
- 24590-WTP-SDDR-M-05-00686
- 24590-WTP-SDDR-M-06-00355, Rev. 1

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

Enter Relevant WAC 173-303-830, Appendix I Modification citation number:

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

In accordance with WAC 173-303-830(4)(d)(i), this modification notification is requested to be reviewed and approved as a Class <sup>1</sup>1 modification. WAC 173-303-830(4)(d)(ii)(A) states, "Class 1 modifications apply to minor changes that keep the permit current with routine changes to the facility or its operation. These changes do not substantially alter the permit conditions or reduce the capacity of the facility to protect human health or the environment. In the case of Class 1 modifications, the director may require prior approval."

Modification Approved:  Yes  No (state reason for denial)

Reason for denial:

Reviewed by Ecology:

*E. Fredenburg* 3/16/09  
Ed Fredenburg Date

<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>1, if applicable.