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(0073624H)

STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

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November 30, 2016

16-NWP-204

Mr. Kevin W. Smith, Manager  
Office of River Protection  
United States Department of Energy  
PO Box 450, MSIN: H6-60  
Richland, Washington 99352

Ms. Peggy McCullough, Project Director  
Bechtel National, Inc.  
2435 Stevens Center Place, MSIN: H4-02  
Richland, Washington 99354

Re: Approval of 24590-LAB-PCN-ENV-16-001, Class <sup>1</sup>1 Modification to the *Hanford Facility Resource Conservation and Recovery Act Permit, Dangerous Waste Portion, Revision 8C, for the Treatment, Storage, and Disposal of Dangerous Waste, Part III, Operating Unit Group 10, Waste Treatment and Immobilization Plant (WTP Permit), WA7890008967*

Reference: See page 2

Dear Mr. Smith and Ms. McCullough:

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

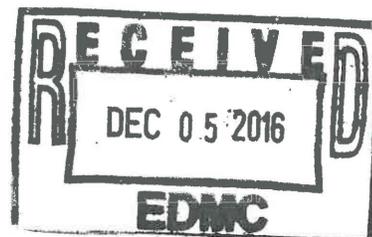
This modification provides the updated *IQRPE Structural Integrity Assessment Report for LAB RLD Ancillary Equipment, IA-3001891-002* for the Waste Treatment and Immobilization Plant Laboratory Radioactive Liquid Waste Disposal System.

These changes are listed on the enclosure and replaces the corresponding permit Independent Qualified Registered Professional Engineer (IQRPE) report in Appendix 11.11 of the WTP Permit.

If there are any questions regarding this letter, please contact John Richardson, Permit Writer, at [john.richardson@ecy.wa.gov](mailto:john.richardson@ecy.wa.gov) or (509) 372-7943.

Sincerely,

Suzanne Dahl  
Dangerous Waste Permit Manager  
Nuclear Waste Program



jlr/aa  
Enclosure  
cc: See page 2



Mr. Smith and Ms. McCullough  
November 30, 2016  
Page 2 of 2

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Reference: Letter 16-ECD-0051, received October 20, 2016, "Submittal of Hanford Facility  
Resource Conservation and Recovery Act Permit Modification Notification Form  
24590-LAB-PCN-ENV-16-001"

1240768

cc electronic w/enc:

Dave Bartus, EPA  
Dennis Faulk, EPA  
Mary Beth Burandt, USDOE  
Joanne Grindstaff, USDOE-ORP  
Bill Hamel, USDOE-ORP  
Lori Huffman, USDOE-ORP  
Gae Neath, USDOE-ORP  
Delmar Noyes, USDOE-ORP  
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Cliff Clark, USDOE-RL  
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Barry Curn, BNI  
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Roger Landon, BNI  
Sandi Murdock, BNI  
Dan Roberson, BNI  
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Ken Niles, ODOE  
Gail Laws, WDOH  
Robbie Biyani, Ecology  
Jennifer Cantu, Ecology  
Annette Carlson, Ecology  
Nitya Chandran, Ecology  
Tracy Gao, Ecology  
Mandy Jones, Ecology  
Yoana Lucatero, Ecology  
Dan McDonald, Ecology  
John Richardson, Ecology  
Oliver Wang, Ecology  
Nancy Ware, Ecology  
BNI Correspondence Control  
Environmental Portal  
Hanford Facility Operating Record  
USDOE-ORP Correspondence Control  
USDOE-RL Correspondence Control

cc w/enc:

Russell Jim, YN  
Steve Hudson, HAB  
Administrative Record: Waste Treatment Plant (TSD #H-0-8)  
NWP Central File  
NWP Library

cc w/o enc:

Rod Skeen, CTUIR  
Gabriel Bohnee, NPT



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**Hanford Facility RCRA Permit Modification Notification Form**  
**Part III, Operating Unit 10**  
**Waste Treatment and Immobilization Plant**

## Index

Page 2 of 3: Hanford Facility RCRA Permit, Part III, Operating Unit 10, Waste Treatment and Immobilization Plant  
 Update the integrity assessment for the ancillary equipment associated with the Lab RLD system components to be located in various rooms within the Analytical Laboratory at below grade elevation.

Ancillary equipment assessed is associated with the following plant items and/or components:

- Ancillary equipment associated with the Hot Cell Drain Collection Vessel (RLD-VSL-00165)
- Ancillary equipment associated with the Lab Area Sink Drain Collection Vessel (RLD-VSL-00164)
- Ancillary equipment that comprises the Lab RLD Disposal System C3 Rad Lab Collection
- Ancillary equipment associated with the Lab RLD Disposal System C3/C5 Collection and Leak Detection Boxes
- Ancillary equipment associated with the Lab RLD Disposal System C5 Drain Collection Headers

Submitted by Co-Operator:

Reviewed by ORP Program Office:

Roger J. Landon      9/13/16  
 Roger J. Landon      Date

J. F. Grindstaff      10/14/16  
 J. F. Grindstaff      Date

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|  |  |
|--|--|
| <b>Hanford Facility RCRA Permit Modification Notification Form</b> |  |
| Unit:<br><b>Waste Treatment and Immobilization Plant</b>           | Permit Part:<br><b>Part III, Operating Unit 10</b> |

**Description of Modification:**

The purpose of this Class 1 prime modification is to update the Integrity Assessment of the LAB RLD System. The following document is submitted to replace the document currently in Appendix 11.11

## Appendix 11.11

|         |                           |      |                      |
|---------|---------------------------|------|----------------------|
| Replace | CCN 200253/IA-3001891-001 | With | AREVA IA-3001891-002 |
|---------|---------------------------|------|----------------------|

This modification requests Ecology approval and incorporation into the permit the above referenced integrity assessment report. The report has been updated by the Independent Qualified Registered Professional Engineer (IQRPE). The report reflects the IQRPE's review of the following final design documents:

- Mechanical System Data Sheet, Facility and Vendor Fabrication Drawings, Specifications, Material Requisition, and System Description produced in accordance with the following references:
  - ASME B31.3 Code, *Process Piping*, American Society of Mechanical Engineers, 1996
  - ASME Boiler and Pressure Vessel (B&PV) Code, Section III, Division 1, Rules for Construction of Nuclear Facility Components, Subsection NC, and Appendix F, American Society of Mechanical Engineers, 1995
  - ASME Boiler and Pressure Vessel Code, Section III, Division 1, Subsection NF, Appendix N and F, Rules for Construction of Nuclear Power Plant Components (20010)
  - ASME Boiler and Pressure Vessel (B&PV) Code, Section IX, Welding and Brazing Qualifications
  - ASME B16.5 Code, *Piping Flanges and Flanged Fittings* (1988)
  - Uniform Building Code (UBC), 1997 Edition, International Conference of Building Officials
- 24590-LAB-PHC-RLD-00101, Rev 0, *RPP-WTP Engineered Support Calculation for LAB-RLD-H00394*
- 24590-LAB-PHC-P33T-00001, Rev 0, *Pipe Support Calculation*
- 24590-LAB-SSC-S15T-00013, Rev 0, *Leak Detection Box Support Design Calculation*
- 24590-WTP-PHC-P50-00001, Rev 1, *RPP/WTP Support Standards Calculations*

Updates to the integrity assessment report for the Analytical Laboratory (Lab) Radioactive Liquid Waste Disposal (RLD) ancillary equipment are summarized below:

The documents listed in the "References" row and under the "Source of Information" column were updated. These documents were reviewed to assess the design of the Lab RLD ancillary equipment.

For each item of "Information Assessed" in the integrity assessment report, the items listed under the "Source of Information" column were reviewed and found to furnish adequate design controls and requirements to ensure that the design fully satisfies the requirements of Washington Administrative Code, WAC-173-303-640, *Dangerous Waste Regulations*.

This PCN updates information in Appendix 11.11 to reflect current design. This DWP component may be re-evaluated to confirm design adequacy. If the re-evaluation results in future design changes, the changes will be reviewed by Ecology in subsequent permit modifications.

In accordance with Permit Condition III.10.C.2.e, this permit modification sent to Ecology may include page changes to the Permit, attachments, and permit application supporting documentation.

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24590-LAB-PCN-ENV-16-001

|                                     |         |          |         |         |
|-------------------------------------|---------|----------|---------|---------|
| WAC 173-303-830 Modification Class: | Class 1 | Class 11 | Class 2 | Class 3 |
| Please mark the Modification Class: |         | X        |         |         |

Enter relevant WAC 173-303-830, Appendix I Modification citation number: NA  
 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 11 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/Concur: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> Denied (state reason below)<br>Reason for denial: | Reviewed by Ecology:<br><br>S. Dahl | Date<br>11/30/16 |
|--|---|------------------|