



OFFICE OF RIVER PROTECTION

P.O. Box 450, MSIN H6-60
Richland, Washington 99352

JUN 06 2016

16-ECD-0022

Ms. Alexandra K. Smith, Program Manager
Nuclear Waste Program
Washington State
Department of Ecology
3100 Port of Benton Blvd.
Richland, Washington 99354

Ms. Smith:

SUBMITTAL OF HANFORD FACILITY RESOURCE CONSERVATION AND RECOVERY ACT PERMIT MODIFICATION NOTIFICATION FORM 24590-LAW-PCN-ENV-14-001 REPLACE PIPING AND INSTRUMENTATION DIAGRAMS FOR LOW-ACTIVITY WASTE PRIMARY OFFGAS PROCESS SYSTEM AND MECHANICAL DATA SHEETS FOR THE SUBMERGED BED SCRUBBER CONDENSATE VESSELS

- References:
1. WA7890008967, "Dangerous Waste Portion of the Hanford Facility Resource Conservation and Recovery Act Permit for the Treatment, Storage, and Disposal of Dangerous Waste, Part III, Operating Unit 10, 'Waste Treatment and Immobilization Plant.'"
 2. BNI letter from M.G. McCullough to K.W. Smith, ORP, "Submittal of Hanford Facility Resource Conservation and Recovery Act Permit Modification Notification Form 24590-LAW-PCN-ENV-14-001," CCN: 285521, dated May 16, 2016.

This letter transmits Hanford Facility Resource Conservation and Recovery Act Permit Modification Notification Form 24590-LAW-PCN-ENV-14-001, attached, for the Washington State Department of Ecology review and approval. The form describes a requested Class 1 modification to Reference 1.

Modification Notification Form 24590-LAW-PCN-ENV-14-001 submits updated Piping and Instrumentation Diagrams for the Low-Activity Waste Primary Offgas Process System and Mechanical Data Sheets for the Submerged Bed Scrubber Condensate Vessels.

Washington State Department of Ecology comments resulting from review of this modification notification form and the associated information have been dispositioned.

Ms. Alexandra K. Smith
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If you have any questions, please contact me, or your staff may contact Jan B. Bovier,
Environmental Compliance Division, (509) 376-9630.



Robert G. Hastings, Assistant Manager
Technical and Regulatory Support

ECD:JBB

Attachment

cc w/attach:

B.L. Curn, BNI
B.G. Erlandson, BNI
S. Greagor, BNI
M. McCullough, BNI
S.K. Murdock, BNI
D.C. Robertson, BNI
Administrative Record (WTP H-0-8)
BNI Correspondence
Environmental Portal, LMSI

cc w/o attach:

J. Cox, CTUIR
R.S. Skeen, CTUIR
S.L. Dahl, Ecology
D. McDonald, Ecology
G.P. Bohnce, NPT
K. Niles, Oregon Energy
E.D. MacAlister, RL
R. Jim, YN

cc electronic:

J. Cantu, Ecology (2 hard copies)
A.S. Carlson, Ecology (6 hard copies, Public Review)
T.Z. Gao, Ecology
M.E. Jones, Ecology
J.K. Perry, MSA
A.C. McKarns, RL

Attachment
16-ECD-0022
(3 Pages Excluding Cover Sheet)

Hanford Facility RCRA Permit Modification Notification
Form 24590-LAW-PCN-ENV-14-001

Quarter Ending June 30, 2016

24590-LAW-PCN-ENV-14-001

Hanford Facility RCRA Permit Modification Notification Form

Unit: Waste Treatment and Immobilization Plant	Permit Part: Part III, Operating Unit 10
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Description of Modification:

The purpose of this Class 1 prime modification is to update and replace the following P&IDs and mechanical data sheets in Appendices 9.2 and 9.6 of the DWP:

Appendix 9.2			
Replace:	24590-LAW-M6-LOP-00001004, Rev. 0	With:	24590-LAW-M6-LOP-00001004, Rev. 1
	24590-LAW-M6-LOP-00002004, Rev. 0		24590-LAW-M6-LOP-00002004, Rev. 1
Appendix 9.6			
Replace:	24590-LAW-MVD-LOP-P0004, Rev. 1	With:	24590-LAW-MVD-LOP-00004, Rev. 6
	24590-LAW-MVD-LOP-P0005, Rev. 1		24590-LAW-MVD-LOP-00005, Rev. 6

This modification requests Ecology approval and incorporation into the permit the specific changes to the P&IDs and mechanical data sheets indicated by revision notes, clouds and bars. These documents include changes provided in applicable document change forms (e.g., DCN, SCN, SDDR, FCN, FCR, etc.). In addition, the P&IDs and mechanical data sheets include changes associated with the resolution to comments on change documents since the issuance of the last revision of the permitted documents.

Significant changes to the P&IDs are summarized below:

- Modified and added notes.
- Incorporated changes from change documentation identified in the Notes section on each drawing.
- Removed call-outs of pipe diameters under flow valves FV-1050 and FV-2050 in Grid E6.
- Revised flow valves FV-1050 and FV-2050 in Grid E6 to close on loss of power or melter plenum high pressure to isolate air flow to the wet electrostatic precipitators. Designation of failure position for these flow valves was changed from fail-open (FO) to fail-closed (FC).
- Modified and added valve position switches to flow valves FV-1140 and FV-2140 in Grid F3.
- Added high-high alarms to liquid level indicators LI-1060 and LI-2060 in Grid E3.
- Revised instrumentation to indicate density correction for flow control loops in Grid E6.
- Updated symbols for radar level transmitters LT-1060 and LT-2060 in Grid E3 to show that these are foundation fieldbus devices.
- Provided safety interlock signals PDSHH-1410A and PDSHH-1528/1529 to FC-1050 and PDSHH-2410A and PDSHH-2528/2529 to FC-2050 in Grids F6, F7 and F8.
- Revised manual valves LOP-V-10052 and LOP-V-10068 to a position of normally opened (NO) / locked opened (LO) in Grid F4.
- Changed isolation valves from a gate valve to a ball valve for ISA-V-40187 and ISA-V-69659 in Grid E6; ISA-V-68968 and ISA-V-69438 in Grid G6; ISA-V-68969 and ISA-V-69439 in Grid E5; ISA-V-68970 and ISA-V-69437 in Grid D7.
- Revised the line number for nozzle N31 in Grids E4 and E5.
- Updated references to off-sheet P&IDs.

Significant changes to the mechanical data sheets are summarized below:

- Updated reference document numbers for the P&IDs.
- Revised the tag numbers of the eductors (mixers).
- Updated Design Data such as quality levels, volumes (maximum operating and total), internal pressures (vessel operating), external pressures (vessel operating, vessel design, and coil/jacket design), and temperatures (vessel operating). Added Design Data for the average dose rates, actual weights (empty, operating, and test), seismic base moments, hydrostatic test pressures and fabrication specs.

Quarter Ending June 30, 2016

24590-LAW-PCN-ENV-14-001

- Updated Materials of Construction Data for the pipes and forgings. Added data for the eductors.
- Revised Remarks section.
- It should be noted that mechanical data sheets currently included in the DWP are 24590-LAW-MVD-LOP-P0004 and -P0005, Rev. 1 (dated 3/14/05). These "P" permit version of the data sheets were the most current version at the time when these sheets were submitted for incorporation into the DWP. The source documents for these data sheets were 24590-LAW-MVD-LOP-00004 and -00005, Rev. 5 (dated 2/06/05). The version of the mechanical data sheets being submitted in this PCN is Rev. 6 (dated 10/20/14). See approval page (last page) of the data sheets for the history of versions and dates.

This PCN updates information in Appendices 9.2 and 9.6 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.

The following outstanding change documents have been submitted to Ecology pursuant to Permit Condition III.10.C.9.h and are maintained in the WTP Operating Record:

24590-LAW-M6-LOP-00001004, Rev. 1 and 24590-LAW-M6-LOP-00002004, Rev. 1

- 24590-LAW-M6N-LOP-00095 – provided to Ecology in milk run (CCN 267880)
- 24590-LAW-M6N-LOP-00099 – provided to Ecology in milk run (CCN 275855)
- 24590-LAW-M6N-M80T-00033 – provided to Ecology in milk run (CCN 275837)
- 24590-LAW-M6N-LOP-00104 – provided to Ecology in milk run (CCN 287545)

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.

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

Enter relevant WAC 173-303-830, Appendix I Modification citation number: N/A

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 type="checkbox"/> Yes <input type="checkbox"/> Denied (state reason below) Reason for denial:	Reviewed by Ecology: _____ S. Dahl Date
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