



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

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September 5, 2013

13-NWP-096

CERTIFIED MAIL

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

Mr. David Olson, President & Project Manager
Washington River Protection Solutions LLC
PO Box 850, MSIN: H6-63
Richland, Washington 99352

1220354
Re: Response to United States Department of Energy-Office of River Protection (USDOE-ORP)
Letter 13-ECD-0040, Received April 25, 2013, Dangerous Waste Compliance Inspection at the
Hanford 242-A Evaporator, Resource Conservation and Recovery Act (RCRA) ID#
WA7890008967 on November 13, 2012

Dear Mr. Smith and Mr. Olson:

On November 13, 2012, the Department of Ecology (Ecology) inspected your site to determine compliance with the Dangerous Waste Regulations and Washington Administrative Code (WAC) Chapter 173-303. Ecology performed two follow-up dangerous waste inspections on July 9, 2013, and August 15, 2013, on requested 242-A Evaporator documents. These additional follow-up inspections were required for Ecology to verify and determine compliance with the Notice to Comply corrective actions cited in the, 242-A Dangerous Waste Inspection Report signed on March 27, 2013. Additional inspections take time and resources away from all parties. In the future, Ecology recommends you complete the inspection report's corrective actions and sign and submit the Notice to Comply Compliance Certificate.

Corrective Action No. 1 stated, "Immediately upon receipt of this inspection report, Operation and Maintenance (O&M) records associated with adding water to seal loops and floor drains in the 242-A condenser room, will be properly documented and maintained by USDOE."

On July 9, 2013, Ecology did an inspection review of 242-A Evaporator O&M records from March 27, 2013, to July 1, 2013. Specifically, these records were associated with adding water to seal loops and floor drains in the 242-A condenser room. Our review showed that the majority of O&M records were maintained during this period; however, datasheet O&M records showing the specific notes for the maintenance activities performed were missing for the weeks of April 29, 2013, May 27, 2013, and June 24, 2013. During this July inspection, Steve Killoy, Jeff Voogd, Michael Green, James Hamilton, and Paul Haigh, from Washington River Protection Solutions (WRPS) provided additional records from the Tracker Database, Round Sheets, and the 701 and 786 Task Sheets that demonstrated that the O&M activities were performed. The datasheet records are essential to determine if proper O&M is performed and recorded. These records contain notes on the specifics of the maintenance action (e.g., water volumes that differ from the standard procedure or if access to the condenser room was restricted). This type of information was not found on any other O&M documents that Ecology reviewed.



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All O&M records, which relate to maintaining and operating the dangerous waste management unit to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous substances to air, soil, ground water, or surface water, which could threaten human health, or the environment, need to be maintained by the facility as required by the current Permit Condition II.L.1. Ecology has determined Corrective Action No. 1 is complete.

Corrective Action No. 2 stated, "Within 30-days of receipt of this inspection report, develop an O&M preventative maintenance datasheet procedure for all 242-A's seal loop conductivity alarms and provide a copy of the procedure to Ecology for review and approval."

On March 11, 2013, Ecology received maintenance procedure 3-LDD-869 – Check, Clean, Replace 242-A Evaporator Level Probes based on our November 13, 2012 inspection request. This procedure addressed O&M preventative maintenance for all of 242-A's seal loop conductivity alarms in the condenser room. Under the Corrective Measures in the 242-A Dangerous Waste Inspection Report signed on March 27, 2013 states, "At a minimum, the procedure will include a schedule for maintaining these alarms and replacement when not functioning properly."

On August 15, 2013, Ecology held a compliance inspection meeting to determine if all actions required in Notice to Comply Corrective Action No. 2 were completed. On August 19, 2013, Ecology received an e-mail from James Hamilton, WRPS, stating that the frequency of maintenance procedure 3-LDD-869 was an annual frequency for all conductivity alarms referenced in the procedure. Ecology has determined Corrective Action No. 2 is complete.

In your response letter to Ecology (Letter 13-ECD-0040), you stated, disagreement with both "alleged" violations:

- Violation No. 1 – ... "because the steam condensate system is not designed to manage dangerous waste, has not managed dangerous waste, and is not projected to manage dangerous waste and therefore is not subject to Permit conditions, including I.E.10.c."
- Violation No. 2 – ... "because steam condensate does not designate as a dangerous waste as discussed in WAC 173-303-070, WAC 173-303-090, WAC 173-303-100 nor does it meet the definition of "hazardous substances" as defined by WAC 173-303-040. Therefore, the steam condensate system is not subject to Permit Condition II.L.1 "Proper Design and Construction," WAC 173-303, and specifically WAC 173-303-283(3) "Performance standards" as the steam condensate system does not recycle, reuse, reclaim, transfer, store, treat, or dispose of dangerous waste. Furthermore, DOE maintains specific authority for worker and public safety..."

Ecology's compliance concern and inspection occurred because you did not properly maintain the safety system associated with the steam condensate diversion drain line in the condenser room. Permit Condition II.L.1, addresses this directly when it requires you to "maintain ... the Facility to minimize the possibility of ... any unplanned sudden or non-sudden release of hazardous substances to air ... which could threaten human health, or the environment." The permit condition was not followed as determined by our inspection of your safety system. During evaporation campaigns, mixed waste is fed from Double Shell Tank 241-AW-102 into the 242-A Evaporator, where steam heats the waste to evaporate a portion of it. The steam system is an

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integral part of the 242-A Evaporator treatment unit, whose very purpose is to heat waste in order to evaporate a portion of it. The steam system provides the heat, without which there would be no evaporation or treatment of the waste. The steam system is therefore not only an integral part of the 242-A Evaporator's dangerous waste management unit; it is the mechanism by which evaporation by heat is conducted.

The 242-A Evaporator steam system is subject to the permit, and Permit Condition II.L.1, which requires that the safety mechanisms related to the steam system be maintained to minimize the possibility of a release, because failure to do so could result in a release of tank waste vapors into the condenser room. This Condition does not identify worker safety. This Condition relates to properly operating and maintaining your permitted dangerous waste management unit to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous substances to air, soil, ground water, or surface water, which could threaten human health or the environment.

Ecology maintains the violations cited in its March 27, 2013, Inspection Report are correct and through the subsequent inspections on July 9, 2013, and August 15, 2013, Ecology determines that there are no outstanding issues remaining from the November 13, 2012 inspection. We may reinspect your facility to verify it remains in compliance.

Ecology compliance recommends you submit a permit modification request per WAC 173-303-830 to update the Revision 8C 242-A Evaporator Part III Operating Unit 4 permit chapter to clarify permit text on equipment systems that will be properly operated and maintained to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous substances to air, soil, ground water, or surface water, which could threaten human health, or the environment as required under Permit Condition II.L.1. The modification is necessary for compliance with the permit and it will make it clear for the permittee and the inspector what areas are required to be properly operated and maintained.

If there are any questions, please contact me at kathy.conaway@ecy.wa.gov or (509) 372-7890.

Sincerely,



Kathy Conaway
Compliance Lead
Nuclear Waste Program

jm/tkb

cc: See page 4

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cc electronic:

Dave Bartus, EPA
Jack Boller, EPA
Mary Burandt, ORP
Lori Huffman, ORP
Ron Koll, ORP
Michael Green, WRPS
James Hamilton, WRPS
Steve Killoy, WRPS
Brian Von Bargaen, WRPS
Jeff Voogd, WRPS
Ken Niles, ODOE
John Martell, Department of Health
Gabriel Boothe, Department of Health
Kathy Conaway, Ecology

cc: Stuart Harris, CTUIR
Gabriel Bohnee, NPT
Russell Jim, YN
Steve Hudson, HAB
Administrative Record: 242-A Evaporator ✓
Environmental Portal

2013-09-05 10:00 AM