



STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

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February 1, 2021

21-NWP-017

Brian T. Vance, Manager  
Richland Operations Office  
United States Department of Energy  
PO Box 550, MSIN: H5-30  
Richland, Washington 99352

Scott M. Sax, President and Project Manager  
Central Plateau Cleanup Company, LLC  
PO Box 1464, MSIN A7-01  
Richland, WA 99352

Re: Dangerous Waste Compliance Inspection on September 21, 2020, at the Purex Facility,  
RCRA Site ID: WA7890008967, Nuclear Waste Program (NWP) Compliance  
Index No.: 20.717

Dear Brian T. Vance and Scott M. Sax:

Thank you for your staff's time during the Purex Facility inspection on September 21, 2020. The Department of Ecology's (Ecology) compliance report of this inspection is enclosed. The report cites two areas of non-compliance and two concerns.

To return to compliance, complete the actions required in the compliance problems section of the report and respond to Ecology within the timeframes specified. Include all supporting documentation in your response, (such as photographs, records, and statements explaining the actions taken and dates completed). Submit this information to Phillip Buser at 3100 Port of Benton Boulevard, Richland, Washington 99354.

Failure to correct the deficiencies may result in an administrative order, a penalty, or both, as provided by the Hazardous Waste Management Act (Revised Code of Washington 70.105.080 and .095). Persons who fail to comply with any provision of this chapter are subject to penalties of up to \$10,000 per day per violation.

Specific deficiencies or violations not listed in the enclosed compliance report do not relieve your facility from having to comply with all applicable regulations.

Brian T. Vance and Scott M. Sax  
February 1, 2021  
Page 2 of 2

21-NWP-017  
Purex Facility  
RCRA Site ID: WA7890008967  
NWP Compliance Index No.: 20.717  
Inspection Date: September 21, 2020

If you have questions or need further information, please contact me at (509) 316-6323  
phillip.buser@ecy.wa.gov.

Sincerely,

Buser, Phillip (ECY)

Digitally signed by  
Buser, Phillip (ECY)  
Date: 2021.02.01  
10:02:59 -08'00'

Phillip Buser  
Dangerous Waste Compliance Inspector  
Nuclear Waste Program

tla  
Enclosure

cc electronic w/enc:

Dave Bartus, EPA  
Dave Einan, EPA  
Cheryl Williams, EPA  
Ben Harp, USDOE-ORP  
Duane Carter, USDOE-RL  
Michael Cline, USDOE-RL  
Kathy Higgins, USDOE-RL  
Doug Hildebrand, USDOE-RL  
Tony McKarns, USDOE-RL  
Allison Wright, USDOE-RL  
Danielle Collins, CPCCo  
Linda Petersen, CPCCo  
Jennifer Williams, CPCCo  
Jon Perry, HMIS  
Steve Szendre, HMIS  
ERWM Staff, YN  
Susan Leckband, HAB  
Jeff Burreight, ODOE  
Max Woods, ODOE  
Shawna Berven, WDOH  
John Martell, WDOH  
David Bowen, Ecology  
Phillip Buser, Ecology  
Kathy Conaway, Ecology

Katie Hall, Ecology  
Jared Mathey, Ecology  
Laura Morgan, Ecology  
John Price, Ecology  
Jonathan Rogers, Ecology, NWP  
Compliance Index File: 20.717  
Stephanie Schleif, Ecology  
John Temple, Ecology  
NWP RIM Coordinators, Ecology  
Environmental Portal  
TPA Administrative Record  
CPCCo Correspondence Control  
HMIS Correspondence Control  
USDOE-ORP Correspondence  
Control  
USDOE-RL Correspondence Control  
EPA Region 10 Hanford Field Office  
Correspondence Control

cc w/o enc:

Mason Murphy, CTUIR  
Jack Bell, NPT  
Laurene Contreras, YN

**Washington Department of Ecology  
Nuclear Waste Program  
Compliance Report**

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**Site:** PUREX  
**RCRA Site ID:** WA7890008967  
**Inspection Date:** September 21, 2020  
**Site Contacts:** Linda Petersen, Central Plateau Cleanup Company (CPCCo)  
Allison Wright, United States Department of Energy – Richland Operation Office (USDOE-RL)  
**Site Location:** Hanford Site, 200 East Area  
**At This Site Since:** 1943  
**NAICS#:** 562211, 924110, and 54171  
**Current Site Status:** Large Quantity Generator

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**Ecology**

**Lead Contact:** Phillip Buser **Phone:** (509) 316-6323

**Other Representatives:** N/A

**Report Date:** February 1, 2021

**Index #:** 20.717

**Report By:** \_\_\_\_\_

**Buser,  
Phillip (ECY)**

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Buser, Phillip (ECY)  
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(Signed)

(Date)

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**Site Location**

The Hanford Site was assigned a single United States Environmental Protection Agency (EPA) identification number, and is considered a single *Resource Conservation and Recovery Act of 1976* (RCRA), as amended, facility even though the Hanford Site contains numerous processing areas spread over a large geographic area. The Hanford Site is a tract of land approximately 580 square miles and is located in Benton County, Washington. This site is divided into distinct Dangerous Waste Management Units (DWMUs) which are administratively organized into “unit groups.” A unit group may contain only one DWMU or many; currently, there are 30 unit groups at the Hanford Site. Individual DWMUs make up a small portion of the Hanford Site. Additional descriptive information on the individual DWMUs is contained in unit group permit applications and in Parts III, V, and VI of the Hanford Facility RCRA Permit, Dangerous Waste Portion, WA7890008967, Revision 8C (hereafter referred to as the Permit).

**Owner and Operator Information**

The USDOE is the owner and operator of the PUREX Plant and Storage Tunnels and oversees waste management and cleanup activities ongoing at the Hanford Site. CPCCo has a contract with the USDOE to co-operate the PUREX Plant and Storage Tunnels.

## **Facility Background**

In the 2019 Dangerous Waste Annual Report, the Hanford Site reported as a Large Quantity Generator of hazardous waste.

The DWMUs for the PUREX Plant (Closure Unit Group # 25) are identified in the October 1, 2008, *Washington State Department of Ecology, PUREX Plant, Revision 12, Dangerous Waste Permit Application Part A Form* (PUREX Plant Part A Form). The PUREX Storage Tunnels 1 and 2 DWMUs (Operating Unit Group # 2), are identified in the July 6, 2018, *Washington State Department of Ecology, PUREX Storage Tunnels, Dangerous Waste Permit Modification Part A Form* (PUREX Tunnels Part A Form). According to the PUREX Plant Part A Form, the canyon building (202-A) contains the majority of the DWMUs. The PUREX Plant does not have an approved Part B Permit Application.

Further information on the status of the PUREX Plant can be found in the *Hanford Federal Facility Agreement and Consent Order*, DOE/RL-89-10. The Consent Order, DOE/RL-89-10 is also known as the Tri-Party Agreement. The Tri-Party Agreement Action Plan, Section 8, Facility Disposition Process, as amended through November 15, 2016, describes PUREX as a “Tier I” and “Key Facility.” According to Section 8, PUREX follows a phased facility disposition process.

1. Transition.
2. Surveillance and Maintenance.
3. Disposition.

I observed the following in Table 8-1 “Status of ‘Key Facilities’ as of March 2010,” in the Tri-Party Agreement Action Plan, Section 8.

- Deactivated in accordance with *PUREX/U03 Deactivation Project Management Plan* (WHC-SP-1011D) and *PUREX Deactivation End Point Criteria* (WHC-SD-TPP-053).
- Surveillance and Maintenance performed in accordance with *Surveillance and Maintenance Plan for the PUREX Facility* (DOE/RL-98-35).
- Final disposition to be addressed using Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) remedial action coordinated with RCRA closure. Completion schedules to be established with Remedial Investigation/Feasibility Study (RI/FS) Work Plans and Remedial Design/Remedial Action (RD/RA) Work Plans in accordance with Action Plan Section 11.6 (M-85 milestones) and closure conditions/schedules established in the Hanford Facility Dangerous Waste Permit.

The Tri-Party Agreement Action Plan §8.1 states:

Notwithstanding any other provision of Section 8.0, EPA and Ecology reserve the right to require closure in accordance with Federal and State hazardous waste law, and the Agreement, and to require response or corrective actions in accordance with RCRA and CERCLA and the Agreement, at any time. During the facility disposition process, DOE shall comply with all applicable environmental, safety and health, and security requirements.

The Tri-Party Agreement Action Plan Appendix J, *Central Plateau Facilities*, identifies Washington State Department of Ecology, Nuclear Waste Program (Ecology) as the lead regulatory agency for most of the buildings under the PUREX Geographic Area section. Ecology requirements for the PUREX Storage Tunnels are in Part III of the Permit. Schedules for the PUREX Plant and Storage Tunnels are described in Appendix D *Milestones and Target Dates Including Designation of Lead Regulatory Agency* under the M-085 milestone series.

According to the *Surveillance and Maintenance Plan for the Plutonium-Uranium Extraction (PUREX) Facility* DOE/RL-98-35, Revision 3, dated January 10, 2008 (PUREX Surveillance and Maintenance Plan), construction of the PUREX Facility began in 1952. The facility began recovery of plutonium, uranium, and neptunium from irradiated fuel elements in 1956. The fuel came from the 100 N Reactor and other single-pass reactors on the Hanford Site. Between 1956 and 1992, the PUREX Plant progressed through a series of operating and stand-by statuses:

- Recovery Operation: 1956-1972.
- Wet Stand-by Mode: 1972-1978.
- Cold Start-up Tests and Resumed Operations: 1978-1983.
- Recovery Operation: 1983-1988.
- Transitioning to Cold Stand-by Mode: 1988-1992.
- Cold Stand-by Mode: September 1992-December 1992.

The Transition Phase was from December 1992 through 1998. The Surveillance and Maintenance Phase began in 1998 and is still in effect.

The PUREX Plant and Storage Tunnels can be organized into three categorical systems.

- Tank Systems: 45 tanks, vessels, and ancillary equipment are identified in the PUREX Plant Part A Form.
- Containment Building: Includes the canyon deck and F cell. According to the *Calendar Year 2015 Hanford Site Mixed Waste Land Disposal Restrictions Summary Report*, DOE/RL-2016-08 Revision 0, dated March 14, 2016 (2015 LDR Report), the PUREX Plant containment building currently stores one cubic meter of concrete debris contaminated with chromium.
- Storage Tunnels (Miscellaneous Units): According to the PUREX Storage Tunnels Permit Operating Unit Group # 2, Tunnel 1 contains eight railcars of mixed waste)and Tunnel 2 contains twenty eight railcars of mixed waste. Cadmium and lead contaminated mixed waste was removed from the containment building and stored in PUREX Storage Tunnel 2. Tunnel 1 has a storage capacity of 8 railcars and Tunnel 2 has a storage capacity of 40 railcars. According to the 2015 LDR Report, the Storage Tunnels are currently storing 2,800 cubic meters of mixed waste.

The PUREX Plant (Tank Systems and Containment Building) and Storage Tunnels (Miscellaneous Units) DWMUs are located in the following structures:

- 202-A: PUREX Canyon Building.
- 203-A: Acid Pump House/Acid Storage and Handling Facility.
- 204-A: U Cell/Acid Storage Vault.
- 211-A: Bulk Cold Chemical Tank Farm.
- 218-E-14: PUREX Storage Tunnel 1.
- 218-E-15: PUREX Storage Tunnel 2.
- 276-A: R Cell.
- Aqueous Makeup Unit (AMU).

### **Compliance Background**

#### **PUREX White Powder**

White Powder was discovered in the 2015 annual surveillance and confirmed in the 2016 compliance inspection:

- November 16, 2016, Ecology sent letter 16-NWP-198 with the 2016 compliance inspection report (Index # 16.559) citing a violation that USDOE and CPCCo failed to determine whether or not a white powder found at or near inspection Paths 3, 4, and 7 in the PUREX Plant Building 202-A during the CPCCo 2015 annual surveillance, was designated in accordance with Washington Administrative Code (WAC) 173-303-070(3).
- February 8, 2017, Ecology received letter 17-ESQ-0028 from USDOE-RL, which stated the white powder was not within a Treatment, Storage, and /or Disposal Facility (TSDF) Unit boundary and is in a “safe and stable condition, has not been released to the environment, and does not constitute a threat to human health and the environment.”
- April 19, 2017, Ecology sent response letter 17-NWP-045, which stated, “The cited area of non-compliance has not returned to compliance.”
- August 31, 2017, Ecology sent letter 17-NWP-114 with the 2017 compliance inspection report (Index # 17.589) citing a violation of WAC 173-303-070(3) for failure to designate the white powder solid waste.
- August 31, 2017, Ecology issued Administrative Order #15343 that required:
  1. The submittal of designation records for the white powder identified at or near Tour Paths 3, 4, and 7 during the May 7, 2015, May 21, 2015, and December 19, 2016 CPCCo inspections of the PUREX Plant.
  2. The submittal of a plan to recover and manage any of this solid waste that may be designated as dangerous waste in accordance with WAC 173-303.
  3. If any of the white powder designates as dangerous waste, within 60 days of designation, recover and manage the dangerous waste in accordance with WAC 173-303.
- August 31, 2017, Ecology issued Notice of Penalty #15342 for failure to designate the white powder.

- October 6, 2017, USDOE-RL appealed Administrative Order #15343 and Notice of Penalty #15342.
- June 26, 2018, the Pollution Control Hearings Board (PCHB) granted Ecology's Motion for Summary Judgement in PCHB Case #17-084.
- September 24, 2018, USDOE-RL sent Ecology letter 18-AMRP-0154, which stated USDOE-RL will remove the white powder under its CERCLA authority pursuant to a Non-Time Critical Removal Action. They committed to doing this during their next annual surveillance.
- October 2, 2018, Ecology received a penalty payment of \$16,000 for Notice of Penalty #15342.
- December 11, 2018, Ecology sent letter 18-NWP-190 to USDOE-RL concerning the Department of Energy plan to remove the white powder; specifically stating, "We would like to clarify, that in accordance with the USDOE/RL-98-35 Rev. 3, Surveillance and Maintenance Plan for the PUREX Facility, Washington Administrative Code 173-303, Administrative Order Docket No. 15343, and the Pollution Control Hearings Board Order on Summary Judgment dated June 26, 2018 (Reference 2), removal of the white powder from the PUREX Canyon that has been designated as dangerous waste must be under these authorities. The PUREX Canyon has no CERCLA decision governing operations at this time."
- January 29, 2019, USDOE-RL sent letter 19-AMRP-0050 to Ecology which specified their plan for removing the white powder from the PUREX Plant:
  - Resolve Ecology's comments on the Engineering Evaluation/Cost Analysis (EE/CA) for the PUREX Complex (DOE/RL-2016-15, Draft B), USDOE-RL will submit the EE/CA to Ecology for approval as a primary document.
  - The EE/CA will be published for public review and comment in accordance with the National Contingency Plan (40 Code of Federal Regulations [CFR] 300.415).
  - RL will issue a Non-Time-Critical Removal Action (NTCRA) Action Memorandum and Removal Action Work Plan for the removal of the white powder. These documents will be provided to Ecology for information prior to issuance.
  - Once these CERCLA documents are finalized, USDOE-RL and its Contractor will implement the removal of the white powder. It is our plan to complete the removal during Fiscal Year 2019.
- March 6, 2019, Ecology sent letter 19-NWP-038, which acknowledged the payment of the \$16,000 penalty confirming Penalty Docket #15342 is completed and closed out Corrective Action 2 from Administrative Docket Order No. 15343 (affirmed June 26, 2018, PCHB No. 17-084).
- Due to a request for a 15-day extension of a public comment period, on August 20, 2019, Ecology received letter 19-AMRP-0072 from USDOE-RL with a revised completion date for Corrective Action 3 (i.e. removal of white powder) until 45 days after the approval/issuance of the Action Memorandum for the PUREX Complex: Hazard Abatement of White Powder from 202-A Building.

## **PUREX Tunnel Collapse**

On May 9, 2017 a part of the structure north of Tunnel 2 collapsed leading to the following events:

- May 9 and 10, 2017, seven Environmental Report Tracking System notices were sent to Ecology about the incident indicating a “loss of confinement.”
- May 9, 2017, Ecology issued Administrative Order Docket No. 14156 requiring the following:
  - Corrective Action 1: Starting immediately, determine the cause of breach in PUREX Storage Tunnel 1 and assess if there is an immediate risk of further failures in PUREX Storage Tunnels 1 and 2. By July 1, 2017, submit to the Department of Ecology, Nuclear Waste Program a structural integrity evaluation for both PUREX Storage Tunnels 1 and 2.
  - Corrective Action 2: Starting immediately, develop corrective actions to ensure the safe storage of the waste in the PUREX Storage Tunnels 1 and 2 in light of the above described failure in PUREX Storage Tunnel 1, until a decision on permanent disposition of the PUREX Storage Tunnels 1 and 2 is determined as part of closure under the Dangerous Waste Regulations.
  - By August 1, 2017, submit a draft report detailing the corrective actions to ensure the safe storage of the waste in the PUREX Storage Tunnels 1 and 2 to the Department of Ecology, Nuclear Waste Program for comment and approval.
  - Corrective Action 3: By October 1, 2017, submit a draft permit modification to the Hanford Facility Resource Conservation and Recovery Act Permit, Dangerous Waste Portion Revision 8C to modify parts of the Permit.
- May 10, 2017, the collapse area north of Tunnel 2 was filled with approximately 50 dump truck loads of fill material.
- September 14, 2017, Ecology Amended Administrative Order Docket No. 14156 to include PUREX Tunnel 2 to the scope of Corrective Action 3, which requires permit modifications to:
  - Update Preparedness and Prevention Addendum to control and mitigate run-on.
  - Update Process Information Addendum to include a structural integrity evaluation.
  - Update the Closure Addendum to include any interim actions needed for safe storage and to address final closure under the Dangerous Waste Regulations and coordinate with future CERCLA remedial actions.
- August 1, 2018, Ecology received a draft report (see 17-AMRP-0222) detailing the corrective actions that will be taken to address tunnel deterioration including the project to fill both Tunnel 1 and 2 with grout.
- November 7, 2018, Ecology received the 15-day report (see 19-AMRP-0022) concerning the collapse. The report stated there was no evidence of mixed waste release.
- April 26, 2019, Ecology was notified that the grouting project was completed.

The last two inspections are summarized below:

**17.589** – April 25, 2017 Inspection – PUREX Plant and Storage Tunnels. The Inspector observed the following violation:

- Violation – WAC 173-303-070(3) Designation procedures – failure to designate. Inspector did not receive documentation determining whether the white powder observed at or near PUREX Plant Tour Paths 3, 4, and 7, designates as dangerous waste.

**19.657** – February 27, 2019. No areas of non-compliance

### **Inspection Summary**

Due to the COVID-19 pandemic, no site visit was performed as a part of this inspection. Instead, on September 21, 2020, I requested records to review to assess compliance through a Non-Financial Records Review (NRR).

My NRR focused on personnel training records. I requested the most current Dangerous Waste Training Plan for the PUREX Facility. I received PRC-STD-TQ-40236, *Central Plateau Risk Management Dangerous Waste Training Plan*, Revision 2, Change 2, dated December 11, 2019. I reviewed the training plan and observed the following training requirements for the following positions.

#### **Environmental Compliance Officer (ECO)**

<b>Course Number</b>	<b>Course Title</b>	<b>Frequency</b>	<b>Training Type</b>
000001	Hanford General Employee Training	Annual	General Hanford Facility Training/Contingency Plan Training
290200	Central Plateau Risk Management (CPRM) Orientation	Annual	General Hanford Facility Training/Contingency Plan Training
600100	Environmental Compliance Officer Core (On-the-Job Training)	Initial	Operations Training

**Field Work Supervisor (FWS)**

<b>Course Number</b>	<b>Course Title</b>	<b>Frequency</b>	<b>Training Type</b>
000001	Hanford General Employee Training	Annual	General Hanford Facility Training/Contingency Plan Training
290200	CPRM Orientation	Annual	General Hanford Facility Training/Contingency Plan Training
02006G*	Waste Management Awareness (Classroom)	Initial	Operations Training
035100*	Container Management Initial (Classroom)	Initial	Operations Training
035110	Container Management Refresher (Computer Based Training)	Annual	Operations Training

\*FWS and Maintenance Craft may take course 02006G or 035100. Course 02006G does not require periodic refresher training.

**Maintenance Crafts**

<b>Course Number</b>	<b>Course Title</b>	<b>Frequency</b>	<b>Training Type</b>
000001	Hanford General Employee Training	Annual	General Hanford Facility Training/Contingency Plan Training
290200	CPRM Orientation	Annual	General Hanford Facility Training/Contingency Plan Training
02006G*	Waste Management Awareness (Classroom)	Initial	Operations Training
035100*	Container Management Initial (Classroom)	Initial	Operations Training
035110	Container Management Refresher (Computer Based Training)	Annual	Operations Training

\*FWS and Maintenance Craft may take course 02006G or 035100. Course 02006G does not require periodic refresher training.

**Nuclear Chemical Operator (NCO)**

<b>Course Number</b>	<b>Course Title</b>	<b>Frequency</b>	<b>Training Type</b>
000001	Hanford General Employee Training	Annual	General Hanford Facility Training/Contingency Plan Training
290200	CPRM Orientation	Annual	General Hanford Facility Training/Contingency Plan Training
035100	Container Management Initial (Classroom)	Initial	Operations Training
035110	Container Management Refresher (Computer Based Training)	Annual	Operations Training
290004	CPRM NCO Waste Handler Qualification	Every 2 Years	Operations Training

**Waste Shipper**

<b>Course Number</b>	<b>Course Title</b>	<b>Frequency</b>	<b>Training Type</b>
290200	CPRM Orientation	Annual	General Hanford Facility Training/Contingency Plan Training
020078	Advanced Mixed Waste Shipper Certification Training (Classroom)	Every 3 Years	Operations Training
020159	Advanced Hazardous Waste Shipper Certification Training (Classroom)	Initial	Operations Training

I received a Training Activity Sheet for Course 000019, Hanford General Employee Training (HGET) Refresher. I observed that Course 000001, Hanford General Employee Training (HGET) Initial was identified as both a Training Equivalent course and a Prerequisite course. I also observed that the retraining frequency was listed as 16 months.

I requested the names and position titles (according to the Dangerous Waste Training Plan) for all personnel which have performed any work at the PUREX Plant from October 1, 2018 until September 18, 2020. I received a list including two Environmental Compliance Officers (ECO), six Field Work Supervisors (FWS), four Maintenance Crafts, 15 Nuclear Chemical Operators (NCO), one Waste Shipper and 143 Non-CPRM Facility Personnel or Visitors. For this report, I am not reviewing the Non-CPRM facility personnel.

I requested training records of all dangerous waste training courses taken for all personnel identified in the CPRM Dangerous Waste Training Plan, which have performed work at the PUREX Facility from October 1, 2018 until September 18, 2020. I reviewed the training records for each person and observed the following training courses and completion dates.

### **Environmental Compliance Officers**

Jeanne Elkins

- Course 000001 taken on July 2, 2019.
- Course 000019 taken on October 8, 2020.
- Course 02006G taken on August 2, 2020.
- Course 600100 taken on December 20, 2018.

Daniel Turlington

- Course 000019 taken on September 17, 2020.
- Course 290200 taken on April 28, 2020.
- Course 600100 taken on January 5, 2011.

### **Field Work Supervisors**

Brian Cordray

- Course 000019 taken on June 26, 2019.
- Course 02006G taken on June 13, 2001.
- Course 290200 taken on March 18, 2020.

William Doremus

- Course 000019 taken on March 2, 2020.
- Course 02006G taken on August 7, 2001.
- Course 290200 taken on February 20, 2020.
- Course 035100 taken on September 17, 2007.

Roy Plunkett

- Course 000019 taken on September 20, 2019.
- Course 02006G taken on February 28, 1991.
- Course 290200 taken on April 2, 2020.
- Course 035100 taken on September 18, 1997.

Justin Roberts

- Course 000019 taken on July 26, 2019.
- Course 02006G taken on October 27, 2009.
- Course 290200 taken on August 22, 2019.

Chad Robertson

- Course 000019 taken on August 26, 2019.
- Course 02006G taken on March 31, 2008.
- Course 290200 taken on March 30, 2020.

Leon Stredwick

- Course 000019 taken on March 12, 2020.
- Course 02006G taken on July 17, 2009.
- Course 290200 taken on March 3, 2020.
- Course 035100 taken on October 19, 2017.

**Maintenance Crafts**

Herbert Hammond

- Course 000019 taken on March 10, 2020.
- Course 02006G taken on May 3, 1995.
- Course 290200 taken on August 12, 2019.

Steven Hutchinson

- Course 000001 taken on May 20, 2019.
- Course 000019 taken on September 9, 2020.
- Course 02006G taken on June 5, 2019.
- Course 290200 taken on September 21, 2020.

Eric Vanklinken

- Course 000019 taken on September 30, 2019.
- Course 02006G taken on April 3, 2017.
- Course 290200 taken on September 23, 2019.

Shaun Vanklinken

- Course 000019 taken on January 20, 2020.
- Course 02006G taken on May 24, 2017.
- Course 290200 taken on January 30, 2020.

## **Nuclear Chemical Operators**

### Jason Ballinger

- Course 000019 taken on October 8, 2019.
- Course 02006G taken on July 18, 2000.
- Course 290200 taken on October 8, 2019.
- Course 035100 taken on October 28, 2001.
- Course 035110 taken on September 28, 2020.
- Course 290004 taken on March 2, 2020.

### Darren Barichello

- Course 000019 taken on September 24, 2020.
- Course 02006G taken on March 20, 1995.
- Course 290200 taken on September 24, 2020.
- Course 035100 taken on September 19, 2007.
- Course 035110 taken on September 17, 2020.
- Course 290004 taken on October 1, 2019.

### Cheryl Emineth

- Course 000019 taken on December 31, 2019.
- Course 02006G taken on November 3, 1993.
- Course 290200 taken on January 13, 2020.
- Course 035100 taken on August 27, 2003.
- Course 035110 taken on January 22, 2020.
- Course 290004 taken on November 13, 2019.

### Brian Floberg

- Course 000019 taken on March 16, 2020.
- Course 02006G taken on July 21, 2009.
- Course 290200 taken on March 17, 2020.
- Course 035100 taken on March 5, 2018.
- Course 035110 taken on February 19, 2020.
- Course 290004 not completed.

Dale Harder

- Course 000019 taken on November 18, 2019.
- Course 02006G taken on July 14, 1998.
- Course 290200 taken on March 19, 2020.
- Course 035100 taken on May 14, 2008.
- Course 035110 taken on November 14, 2019.
- Course 290004 taken on December 13, 2018.

Anthony Hoffman

- Course 000019 taken on July 17, 2019.
- Course 02006G taken on December 28, 1993.
- Course 290200 taken on October 21, 2019.
- Course 035100 taken on August 27, 2003.
- Course 035110 taken on October 8, 2020.
- Course 290004 taken on November 13, 2019.

Robert Korhuniak

- Course 000019 taken on February 11, 2020.
- Course 02006G taken on March 5, 2018.
- Course 290200 taken on October 9, 2019.
- Course 035100 taken on March 5, 2018.
- Course 035110 taken on February 11, 2020.
- Course 290004 taken on June 6, 2018.

Deborah Older

- Course 000019 taken on March 10, 2020.
- Course 02006G taken on August 21, 2017.
- Course 290200 taken on March 10, 2020.
- Course 035100 taken on August 21, 2017.
- Course 035110 taken on May 30, 2019.
- Course 290004 taken on December 4, 2018.

James Petty

- Course 000019 taken on February 26, 2020.
- Course 02006G taken on February 2, 1999.
- Course 290200 taken on February 26, 2020.
- Course 035100 taken on April 17, 2002.
- Course 035110 taken on February 25, 2020.

- Course 290004 not completed.

Jose Ramos

- Course 000019 taken on October 21, 2019.
- Course 02006G taken on August 11, 1993.
- Course 290200 taken on January 9, 2020.
- Course 035100 taken on April 17, 2002.
- Course 035110 taken on October 10, 2020.
- Course 290004 taken on December 3, 2018.

Michael Reid

- Course 000019 taken on August 29, 2019.
- Course 02006G taken on January 5, 1996.
- Course 290200 taken on March 3, 2020.
- Course 035100 taken on August 13, 1998.
- Course 035110 taken on December 5, 2019.
- Course 290004 taken on November 28, 2018.

Scott Snook

- Course 000019 taken on October 13, 2020.
- Course 02006G taken on January 30, 2017.
- Course 290200 taken on October 23, 2019.
- Course 035100 taken on January 30, 2017.
- Course 035110 taken on February 24, 2020.
- Course 290004 taken on March 11, 2019.

Jose Villarreal

- Course 000019 taken on September 3, 2019.
- Course 02006G taken on February 4, 1999.
- Course 290200 taken on September 3, 2019.
- Course 035100 taken on July 8, 1994.
- Course 035110 taken on October 8, 2020.
- Course 290004 not completed.

Noah Wilkerson

- Course 000019 taken on August 1, 2019.
- Course 02006G taken on September 29, 1993.
- Course 290200 taken on March 18, 2020.
- Course 035100 taken on June 1, 1995.
- Course 035110 taken on March 18, 2020.
- Course 290004 taken on November 12, 2019.

Blan Windsor

- Course 000019 taken on October 9, 2019.
- Course 02006G taken on April 20, 1999.
- Course 290200 taken on October 1, 2020.
- Course 035100 taken on May 24, 1996.
- Course 035110 taken on October 1, 2020.
- Course 290004 taken on May 31, 2018.

**Waste Shipper**

Trevor Beaver

- Course 000019 taken on August 29, 2019.
- Course 020078 taken on June 6, 2019.
- Course 020159 taken on June 6, 2019.

### Compliance Problems

The Dangerous Waste inspection on September 21, 2020, found the following compliance problems.

Each problem is covered in three parts:

- (1) **Citation from the regulations**
- (2) **Specific observations** from the inspection that highlight the problem
- (3) **Required actions** needed to fix the problem and achieve compliance

The problems listed below must be corrected to comply with Washington Dangerous Waste Regulations (Chapter 173-303 WAC), or other environmental laws or regulations. Complete the required actions listed below and respond to Ecology at the following address within the times specified below. Include all supporting documentation such as photographs, records, and statements explaining the actions taken and dates completed to return to compliance.

Attention: Phillip Buser  
Washington Department of Ecology  
Nuclear Waste Program  
3100 Port of Benton Blvd  
Richland, WA 99354

You may request an extension of the deadlines to achieve compliance. Make the request in writing, including the reasons an extension is necessary and proposed date(s) for completion, and send it to Phillip Buser before the date specified above. Ecology will provide a written approval or denial of your request.

**If you have any questions about information in this Compliance Report, please call:  
Phillip Buser at (509) 316-6323**

This does not relieve you of your continuing responsibility to comply with the regulations at all times.

- 1) **WAC 173-303-400(3), as referenced by the Hanford Facility Resource Conservation and Recovery Act Permit, Dangerous Waste Portion Revision 8C - Condition I.A Effect of Permit.**

**WAC 173-303-330(1) *Training program.*** The facility owner or operator must provide a program of classroom instruction or on-the-job training for facility personnel. This program must teach personnel to perform their duties in a way that ensures the facility's compliance with this chapter 173-303 WAC, must teach facility personnel dangerous waste management procedures (including contingency plan implementation) relevant to the positions in which they are employed, must ensure that facility personnel are able to respond effectively to emergencies, and must include those elements set forth in the training plan required in subsection (2) of this section. In addition:

**(c) This program must be successfully completed by the facility personnel:**

**(i) Within six months after these regulations become effective; or**

**(ii) Within six months after their employment at or assignment to the facility, or to a new position at the facility, whichever is later.**

**(d) Employees hired after the effective date of these regulations must be supervised until they complete the training program; and**

**AND**

**WAC 173-303-200(9) *Personnel training.*** (a) **Training program.** The generator must provide a program of classroom instruction or on-the-job training for facility personnel. This program must teach personnel to perform their duties in a way that ensures the facility's compliance with this chapter, must teach facility personnel dangerous waste management procedures (including contingency plan implementation) relevant to the positions in which they are employed, must ensure that facility personnel are able to respond effectively to emergencies, and must include those elements set forth in the training plan required in (b) of this subsection. In addition:

**(iii) This program must be successfully completed by the facility personnel:**

**(A) Within six months after these regulations become effective; or**

**(B) Within six months after their employment at or assignment to the facility, or to a new position at the facility, whichever is later.**

**(iv) Employees hired after the effective date of these regulations must be supervised until they complete the training program;**

**Observations:** I reviewed the training courses completed by facility personnel and compared them to the requirements of PRC-STD-TQ-40236, *Central Plateau Risk Management Dangerous Waste Training Plan*, Revision 2, Change 2, dated December 11, 2019.

I observed that Jose Villarreal, NCO, has not completed Course 290004, CPRM NCO Waste Handler Qualification. This course has a re-train frequency of two years. I observed the earliest listed training record of Mr. Villarreal to be June 25, 1990 for course 000001, HGET.

I observed that James Petty, NCO, has not completed Course 290004, CPRM NCO Waste Handler Qualification. This course has a re-train frequency of two years. I observed the earliest listed training record of Mr. Petty to be February 2, 1999 for course 02006G, Waste Management Awareness (Classroom).

I observed that Brian Floberg, NCO, has not completed Course 290004, CPRM NCO Waste Handler Qualification. This course has a re-train frequency of two years. I observed the earliest listed training record of Mr. Floberg to be July 21, 2009 for course 02006G, Waste Management Awareness (Classroom).

**Action Required:** Within 60 days of receipt of this compliance report, USDOE and CPCCo must do the following:

- Have Nuclear Chemical Operators Jose Villarreal, James Petty, and Brian Floberg take Course 290004, CPRM NCO Waste Handler Qualification and Biennially thereafter.
- **Have Nuclear Chemical Operators Jose Villarreal, James Petty, and Brian Floberg be supervised while conducting Nuclear Chemical Operator work until completing the training program.**

2) **WAC 173-303-400(3), as referenced by the Hanford Facility Resource Conservation and Recovery Act Permit, Dangerous Waste Portion Revision 8C - Condition I.A Effect of Permit.**

**WAC 173-303-330 *Personnel training.* (2) Written training plan. The owner or operator must develop a written training plan which must be kept at the facility and which must include the following documents and records: (b) A written description of the type and amount of both introductory and continuing training required for each position;**

**Observations:** During my review of PRC-STD-TQ-40236, *Central Plateau Risk Management Dangerous Waste Training Plan*, Revision 2, Change 2, dated December 11, 2019, I observed that the Waste Shipper job position did not include a requirement to take Course 000001 - Hanford General Employee Training.

**Action Required:** Within 60 days of receipt of this compliance report, USDOE and CPCCo must update PRC-STD-TQ-40236, *Central Plateau Risk Management Dangerous Waste Training Plan*, Revision 2, Change 2, dated December 11, 2019 to include that the Waste Shipper is now required to include Course 000001 – Hanford General Employee Training.

### **Concerns**

- 1) In the training courses provided, I observed Hanford General Employee Training was given the course number 000019 rather than 000001 when taken as an annual refresher. This is not reflected in PRC-STD-TQ-40236, Revision 2, Change 2, *Central Plateau Risk Management Dangerous Waste Training Plan*, therefore should be updated to include Course 000019 Hanford General Employee Training Refresher as a subset to Course 000001 Hanford General Employee Training.
- 2) During my review of training records provided for the PUREX Facility NRR, I also reviewed training records for the B Plant Facility through another NRR. I observed two different formats for the training records provided (one for each facility). I observed personnel working at both facilities had discrepancies for course completion dates. I observed Roy Pluckett, Jason Ballinger, Darren Barichello, Cheryl Emineth, Anthony Hoffman, and Jose Ramos showed different course completion dates for Course 02006G, Waste Management Awareness (Classroom). CPCCo should look at accuracy of course completion dates to prevent future inspections from identifying false training violations.

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