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STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
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September 25, 2017 17-NWP-134

By certified mail

Mr. Doug S. Shoop, Manager
Richland Operations Office
United States Department of Energy
PO Box 550, MSIN: A7-50
Richland, Washington 99352

Mr. Ty Blackford, President and CEO
CH2M HILL Plateau Remediation Company
PO Box 1600, MSIN: H7-30
Richland, Washington 99352

Re: Dangerous Waste Compliance Inspection on August 17, 2017 at the 300 Area Process Trenches, 1301-N Liquid Waste Disposal Facility, 1325-N Liquid Waste Disposal Facility, 1324-N Impoundment and 1324-NA Percolation Pond, and 183-H Solar Evaporator Basins, RCRA Site ID: WA7890008967, NWP Compliance Index Nos. 17.600 through 17.604

Dear Mr. Shoop and Mr. Blackford:

Thank you for your staff's time during the inspection of the following Unit Groups on August 17, 2017. The Department of Ecology's (Ecology) compliance report of this inspection is enclosed. The report cites one area of non-compliance listed in the compliance problems section of the report. As of September 12, 2017, Ecology determined that area of non-compliance number one has been addressed.

- 300 Area Process Trenches – Compliance Index #17.600
- 1301-N Liquid Waste Disposal Facility – Compliance Index #17.601
- 1325-N Liquid Waste Disposal Facility – Compliance Index #17.602
- 1324-N Impoundment and 1324-NA Percolation Pond – Compliance Index #17.603
- 183-H Solar Evaporator Basins – Compliance Index #17.604

This report is a summary of observations and information gathered from the facility at the time of the inspection. Specific deficiencies, potential violations, or issues not discussed do not relieve your facility from complying with all applicable regulations.

If you have questions or need further information, please contact me at jared.mathey@ecy.wa.gov or (509) 372-7849.

Sincerely,

Jared Mathey
Dangerous Waste Compliance Inspector
Nuclear Waste Program

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SEP 27 2017
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mrb
Enclosure

cc: See page 2

cc w/enc electronic:

Dave Bartus, EPA
Jack Boller, EPA
Laura Buelow, EPA
Duane Carter, USDOE
Cliff Clark, USDOE
Michael Cline, USDOE
Doug Hildebrand, USDOE
Tony McKarns, USDOE
Allison Wright, USDOE
Randall Fox, CHPRC
Joel Williams, Jr., CHPRC
Jon Perry, MSA
Rose Ferri, YN
Ken Niles, ODOE
Shawna Berven, DOH
John Martell, DOH
Debra Alexander, Ecology
Jeff Ayres, Ecology
Joe Caggiano, Ecology
Kathy Conaway, Ecology
Dwayne Crumpler, Ecology
Suzanne Dahl, Ecology
Jackson Davis, Ecology
Dib Goswami, Ecology
Zelma Jackson, Ecology
Brian Johnson, Ecology
Stuart Luttrell, Ecology
Jared Mathey, Ecology
Nina Menard, Ecology
John Price, Ecology
Stephanie Schleif, Ecology
Ron Skinnarland, Ecology
Alex Smith, Ecology
Nancy Ware, Ecology
Cheryl Whalen, Ecology
CHPRC Correspondence Control
MSA Correspondence Control
Environmental Portal
Hanford Facility Operating Record

cc:

Matt Johnson, CTUIR
Jack Bell, NPT
Rose Longoria, YN
Susan Leckband, HAB
Administrative Record
NWP Central File
NWP Compliance Index Files: 17.600 to 17.604

Washington Department of Ecology
Nuclear Waste Program
Compliance Report

Sites:	**300 Area Process Trenches, 1301-N Liquid Waste Disposal Facility, 1325-N Liquid Waste Disposal Facility, 1324-N Impoundment and 1324-NA Percolation Pond, and 183-H Solar Evaporator Basins**
RCRA Site ID:	**WA7890008967**
Inspection Date:	August 17, 2017
Site Contacts:	Allison Wright, Department of Energy Richland Operations Office (USDOE-RL), Joel Williams Jr., CH2M Hill Plateau Remediation Company (CHPRC)
Phone:	(509) 376-4782 – Joel Williams, CHPRC FAX: N/A
Site Location:	Hanford Site, 100 and 300 Areas Benton County, WA
At This Site Since:	March 2, 1943 NAICS#: 562211, 541712, and 924110
Current Site Status:	See below

Ecology

Lead Contact:	Jared Mathey Phone: (509) 372-7949 FAX: (509) 372-7971
Other Representatives:	Jackson Davis, (Ecology Compliance Support) Brian Johnson (Ecology Project Support)
Report Date:	September 25, 2017
Index Numbers:	300 Area Process Trenches – Compliance Index #17.600 1301-N Liquid Waste Disposal Facility – Compliance Index #17.601 1325-N Liquid Waste Disposal Facility – Compliance Index #17.602 1324-N Impoundment and 1324-NA Percolation Pond – Compliance Index #17.603 183-H Solar Evaporator Basins – Compliance Index #17.604
Report By:	Jared Mathey (Signed) 9/25/17 (Date)

Inspection Summary

This inspection was an announced inspection. Ecology notified USDOE-RL and CHPRC on August 1, 2017, by e-mail that a Focused Compliance Inspection – Closure/Post-Closure (FCI-CPC) inspections would take place on August 17, 2017, for the 300 Area Process Trenches, 1301-N Liquid Waste Disposal Facility, 1325-N Liquid Waste Disposal Facility, 1324-N Impoundment and 1324-NA Percolation Pond, and the 183-H Solar Evaporator Basin. All the listed inspections focused on compliance with the unit group's operating record under final permit status requirements.

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, as amended, (RCRA) 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 583 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 36 unit groups at the Hanford Site. Individual DWMUs utilize 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).

Facility Backgrounds

300 Area Process Trenches

The 300 Area Process Trenches (300 APT) became active and operating in 1975. The 300 APT effluent received dangerous waste liquid discharges from research and development laboratories in the 300 Area and from the fuels fabrication process. The effluent had no discharge outlet from the process trenches and either infiltrated the soil column or evaporated. The estimated annual quantity of both regulated and non-regulated wastewater that was discharged to the unit was estimated at 120 million gallons per year. This estimate was made because facility records were unavailable for dangerous waste volumes discharged to the trenches. The process trenches were designed to percolate up to 3,000,000 gallons of wastewater per day.

In 1985, the 300 APT received RCRA permit interim status. Administrative controls were implemented to eliminate discharges of dangerous wastes to the unit group. The waste consisted of state-only toxic, dangerous waste (WT02), discarded chemical product (U210), corrosive waste (D002), chromium (D007), spent halogenated solvents (F001, F002, and F003), and spent non-halogenated solvent (F005). All wastewater discharges to the 300 APT were discontinued in December 1994. Closure actions were implemented and completed. On July 9, 1998, the U.S. Department of Energy (USDOE) submitted to Ecology a certification of closure for the 300 APT. Ecology accepted the certification of closure of the 300 APT on August 10, 1998. The 300 APT then moved into post-closure status. Groundwater monitoring is used to meet the corrective action requirements at the 300 APT.

1301-N Liquid Waste Disposal Facility

The 1301-N Liquid Waste Disposal Facility received waste from 1963 to 1985. The 1301-N Liquid Waste Disposal Facility was operated as a liquid waste disposal facility for mixed waste process and cooling wastewater from N Reactor. The 1301-N Liquid Waste Disposal Facility also received dangerous waste from laboratories and may have received waste from spills within the N Reactor Building. The 1301-N Liquid Waste Disposal Facility, also known by the Waste Information Data System (WIDS) number 116-N-1, is an inactive Treatment, Storage, and Disposal (TSD) unit that has undergone dangerous waste closure activities.

1325-N Liquid Waste Disposal Facility

The 1325-N Liquid Waste Disposal Facility was operated as a liquid waste disposal facility for mixed waste process and cooling waste water from N Reactor. The 1325-N Liquid Waste Disposal Facility also received dangerous waste from laboratories and may have received waste from spills within the N Reactor Building. The 1325-N Liquid Waste Disposal Facility, (also known by WIDS number 116-N-3), is an inactive Treatment, Storage, and Disposal unit that has undergone dangerous waste

closure activities. In April 2005, USDOE submitted to Ecology a certification of closure. The 1325-N Liquid Waste Disposal Facility is currently in the Permit as a Closure Unit Group.

1324-N Impoundment and 1324-NA Percolation Pond

The 1324-N Surface Impoundment (also known by WIDS number 120-N-2) and 1324-NA Percolation Pond (also known by WIDS number 120-N-1) are two units included in the 100-NR-1 operable unit (OU). These RCRA units, and adjacent non-RCRA ponds, comprised the cascading corrosive effluent treatment and disposal system for 163-N Demineralization Plant and 183-N Filtered Water Plant. 1324-NA operated continuously from 1977 until 1991 while 1324-N operated from 1986 until 1988. Reports on quantities of effluent discharged to 1324 N & NA vary through the life of the combined units but conservative estimates are approximately 1.5 billion pounds of corrosives waste (D002) treated and disposed annually. The 1324-N Impoundment and 1324-NA Percolation Pond are currently in the Permit as a Closure Unit Group.

183-H Solar Evaporator Basins

The 183-H Solar Evaporation Basins were four concrete basins used for waste treatment and disposal from 1973 to 1985. The waste discharged to the basins originated in the 300 Area Fuel Fabrication Facility and included solutions of neutralized chromic, hydrofluoric, nitric, and sulfuric acids. In addition, nonradioactive dangerous waste was discharged to the basins on a non-routine basis. The 183-H Solar Evaporation Basins received mixed waste that consisted primarily of liquid neutralized acid process waste that was designated Extremely Hazardous Waste (EHW) because of toxicity (WT01). The basins also received various nonradioactive waste (listed discarded chemical products), resulting in designation for cyanides (P030), vanadium oxide (P120), and formic acid (U123). Approximately 3.6 million pounds of waste a year was treated. These deactivated water treatment basins received a maximum of approximately 400,000 gallons of wastewater a year. The basins had a tank treatment design capacity of 700 gallons of wastewater a day treated by evaporation, and a tank storage design capacity of 2,167,000 gallons across all four basins. The basins have not received waste since November 1985.

Dangerous waste closure activities were completed and a certification of closure was submitted July 26, 1996. Post-closure groundwater monitoring is being conducted as a part of the interim remediation action for the 100-HR-3 Groundwater Operable Unit under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA).

Inspection

At 8:48 a.m. on August 17, 2017, Mr. Jackson Davis, Mr. Brian Johnson, and I met at a small gravel parking lot north of the 325 Building and adjacent to Stevens Drive for the inspection in-brief. The following representatives from the USDOE-RL and CHPRC were present for the inspection in-brief.

- Mr. Joel Williams, CHPRC - Regulatory Inspection Lead
- Mr. Randall Fox, CHPRC - Groundwater Environmental Manager
- Mr. Sean Sexton, CHPRC – Environmental Compliance Officer/Groundwater
- Ms. Allison Wright, USDOE-RL– Environmental Safety and Quality

I explained I was there for a Focused Compliance Inspection – Closure/Post-Closure (FCI-CPC) inspection of the 300 Area Process Trenches, 1301-N Liquid Disposal Facility, 1325-N Liquid Waste Disposal Facility, 1324-N Impoundment and 1324-NA Percolation Pond, and the 183-H Solar

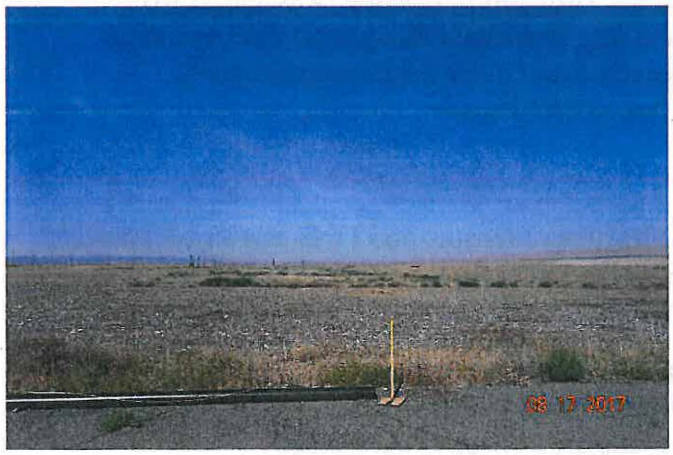
Evaporator Basins. I explained that the focus of this inspection would be to review the operating record requirements out of the permit for each Unit Group. Mr. Sexton, gave a safety briefing. I explained I wanted to go to the location where each of the units once operated and take a photo of that location for the inspection.

First, we drove to the 300 Area Process Trenches where I observed a set of large aboveground tanks. I asked what the aboveground tanks were for and Mr. Sexton told me they were used to store polyphosphate product that is being used in the remediation test for the 300 Area Process Trenches. I took a photo of the polyphosphate tanks and the location where the 300 Area Process Trenches used to operate.

DSC01751 - Polyphosphate Storage Tanks

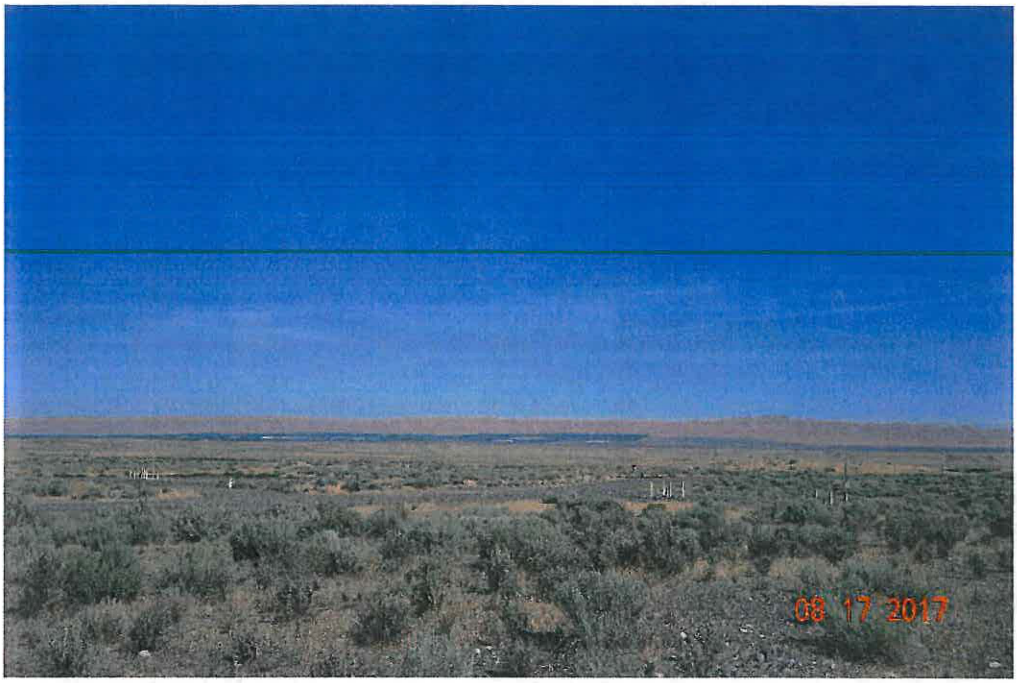
DSC01752 - 300 Area Process Trenches previous location

We then arrived at the location where 183-H Solar Evaporator Basins used to operate. I observed that the areas previously excavated, as seen in the 2015 inspection (Compliance Index #15.529), were now filled and the location was generally flat. I observed that other than the groundwater wells present, the area contained no aboveground structures.



DSC01753 and DSC01754 - Previous location of 183-H Solar Evaporator Basins

Next, we arrived at the location where the 1301-N Liquid Disposal Facility used to operate. I observed that the area contained no aboveground structures except the required groundwater wells. The area was generally flat with gravel over the area where the facility was situated.



DSC01755 - Previous location of the 1301-N Liquid Disposal Facility

We arrived at the location where the 1325-N Liquid Disposal Facility used to operate. I observed that, the area contained no aboveground structures except for the required groundwater wells..

DSC01756 - Previous location of the 1325-N Liquid Disposal Facility

We then observed the location of the 1324-N Impoundment and 1324-NA Percolation Pond. I observed that the location contained no aboveground structures except for the required groundwater wells. We completed the field work and left for Building 2753 in 200 Area East.

DSC01757 - Previous location of the 1324-N Impoundment and 1324-NA Percolation Pond

Documents Review

At 11:00 a.m., in Conference Room 112, we began the document review portion of the inspection. We were joined by Ms. Sherry Lynch - CHPRC, Project and Data Management Manager.

Contingency Plan Implementation

I asked if any implementation of the contingency plan for 1301-N, 1325-N, 1324-N and NA, 183-H, and 300 Area Process Trenches had occurred. Mr. Fox said the individual unit group contingency plans were never implemented while CHPRC was managing the site for any of the units mentioned. Mr. Williams said the contingency plan has never been implemented for any of the units mentioned.

Annual Hanford Groundwater Report

I asked if I could verify the 2016 Annual Groundwater Report in the operating record. Ms. Lynch showed me the 2016 Hanford Site RCRA Groundwater Monitoring Report for 2016 in the Integrated Document Management System, which is the operating record.

Down Well Camera Inspection Records

I asked if any groundwater down well camera inspections have been performed in the last five years for 1301-N, 1325-N, 1324-N and NA, 183-H, and 300 Area Process Trenches. Mr. Fox told me he would need to have someone look into it and get back to me. Later during the inspection, Mr. Sexton came back and explained that in the last five years there have been no down well camera inspections for any of the units I asked about. Mr. Sexton said that they are working on putting videos into the Integrated Document Management System, but that currently, the operating record for these type inspections is updated with a memo that the camera inspection occurred.

Waste Minimization Plan Certification

I asked if I could verify the 2014 Waste Minimization Plan Certification for 1301-N, 1325-N, 1324-N and NA, 183-H, and 300 Area Process Trenches in the operating record. Mr. Fox said that there was no waste minimization plan certification in the operating record for any of these units for 2014. I explained that I would include in my records request that the operating record be updated to record that the waste minimization plan certification was not conducted for 2014. Mr. Fox called Mr. Paul Martin and put him on speaker on his phone. I asked Mr. Martin if he could update the operating record to show that the waste minimization plan certification was not conducted for 2014. Mr. Martin said that he could make that operating record entry.

1301-N Groundwater Monitoring Operating Records

I requested to see 2016 groundwater operating records for Well 199-N-105A as required in Chapter 3.0 Groundwater Monitoring of the Permit for the 1301-N Liquid Waste Disposal Facility. Ms. Lynch showed me the following groundwater monitoring records conducted on the following dates in the Integrated Document Management System.

Sample Delivery Group WC1481 - Anions

- Fluoride – September 22, 2016
- Chloride – September 22, 2016
- Nitrate – September 22, 2016
- Sulfate – September 22, 2016

Sample Delivery Group SL240-DP – Inductively Coupled Plasma Metals

- Arsenic – December 19, 2016
- Barium – December 19, 2016
- Cadmium – December 19, 2016
- Chromium – December 19, 2016
- Iron – December 19, 2016
- Manganese – December 19, 2016
- Mercury – December 19, 2016
- Selenium – December 19, 2016
- Sodium – December 19, 2016
- Silver – December 19, 2016

Sample Delivery Group GEL 406592

- Alkalinity - September 22, 2016

Groundwater Sample Report Dailies 45607

- pH – March 9, 2016
- Specific Conductance – March 9, 2016
- Depth to water table – March 9, 2016

Groundwater Sample Report Dailies 47065

- pH – September 22, 2016
- Specific Conductance – September 22, 2016
- Depth to water table – September 22, 2016

Sample Delivery Group GEL 392922

- Total Organic Carbon – March 9, 2016
- Total Organic Halogen – March 9, 2016

Sample Delivery Group GEL 406592

- Total Organic Carbon – September 22, 2016
- Total Organic Halogen – September 22, 2016

I observed that all groundwater monitoring required in Chapter 3.0 Groundwater Monitoring of the Permit was conducted in 2016 and maintained in the operating record (Integrated Document Management System) for the 1301-N Liquid Waste Disposal Facility.

1325-N Groundwater Monitoring Operating Records

I requested to see 2016 groundwater operating records for Well 199-N-32 as required in Chapter 3.0 Groundwater Monitoring of the Permit for the 1325-N Liquid Waste Disposal Facility. Ms. Lynch showed me the following groundwater monitoring records conducted on the following dates in the Integrated Document Management System.

Sample Delivery Group WC1431 - Anions

- Fluoride – September 6, 2016
- Chloride – September 6, 2016
- Nitrate – September 6, 2016
- Sulfate – September 6, 2016

Sample Delivery Group GEL 392919 – Inductively Coupled Plasma Metals

- Arsenic – March 9, 2016
- Barium – March 9, 2016
- Cadmium – March 9, 2016
- Chromium – March 9, 2016
- Iron – March 9, 2016
- Manganese – March 9, 2016
- Selenium – March 9, 2016
- Sodium – March 9, 2016
- Silver – March 9, 2016

Sample Delivery Group SL2405 – Inductively Coupled Plasma Metals

- Mercury – December 14, 2016

Sample Delivery Group GEL 405615

- Alkalinity - September 9, 2016

Groundwater Sample Report Dailies 46904

- pH – September 9, 2016
- Specific Conductance – September 9, 2016
- Depth to water table – September 9, 2016

Groundwater Sample Report Dailies 47883

- pH – December 14, 2016
- Specific Conductance – December 14, 2016
- Depth to water table – December 14, 2016

Sample Delivery Group GEL 392924

- Total Organic Carbon – March 9, 2016
- Total Organic Halogen – March 9, 2016

Sample Delivery Group GEL 405615

- Total Organic Carbon – September 9, 2016
- Total Organic Halogen – September 9, 2016

I observed that all groundwater monitoring required in Chapter 3.0 Groundwater Monitoring of the Permit was conducted in 2016 and maintained in the operating record for the 1325-N Liquid Waste Disposal Facility.

1324-N Impoundment and 1324-NA Percolation Pond Groundwater Monitoring Operating Records

I requested to see 2016 groundwater operating records for Well 199-N-77 as required in Chapter 3.0 Groundwater Monitoring of the Permit for the 1324-N Impoundment and 1324-NA Percolation Pond. Ms. Lynch showed me the following groundwater monitoring records conducted on the following dates in the Integrated Document Management System.

Sample Delivery Group WC1017 - Anions

- Fluoride – April 26, 2016
- Chloride – April 26, 2016
- Nitrate – April 26, 2016
- Sulfate – April 26, 2016

Sample Delivery Group DN0050 – Inductively Coupled Plasma Metals

- Arsenic – November 9, 2016
- Barium – November 9, 2016
- Cadmium – November 9, 2016
- Chromium – November 9, 2016
- Iron – November 9, 2016

- Manganese – November 9, 2016
- Selenium – November 9, 2016
- Sodium – November 9, 2016
- Silver – November 9, 2016

Sample Delivery Group SL2400 – Inductively Coupled Plasma Metals

- Mercury – December 13, 2016

Sample Delivery Group SL2293

- Alkalinity - September 13, 2016

Groundwater Sample Report Dailies 46927

- pH – September 13, 2016
- Specific Conductance – September 13, 2016
- Depth to water table – September 13, 2016
- Turbidity – September 13, 2016

Groundwater Sample Report Dailies 47880

- pH – December 13, 2016
- Specific Conductance – December 13, 2016
- Depth to water table – December 13, 2016
- Turbidity – December 13, 2016

Sample Delivery Group SL2134

- Total Organic Carbon – March 9, 2016
- Total Organic Halogen – March 9, 2016

Sample Delivery Group SL2293

- Total Organic Carbon – September 13, 2016
- Total Organic Halogen – September 13, 2016

I observed that all groundwater monitoring required in Chapter 3.0 Groundwater Monitoring of the Permit was conducted in 2016 and maintained in the operating record for the 1324-N Impoundment and 1324-NA Percolation Pond.

183-H Groundwater Monitoring Operating Records

I requested to see 2016 groundwater operating records for Well 199-H4-12A as required in PNNL-11573. Ms. Lynch showed me the following groundwater monitoring records conducted on the following dates in the Integrated Document Management System.

Note: PNNL-11573 was the applicable groundwater monitoring plan in the Permit at the time the 2016 sampling occurred.

Sample Delivery Group GEL 390771

- Chromium – February 3, 2016
- Technetium-99 – February 3, 2016

Sample Delivery Group WC1678

- Nitrate – November 15, 2016
- Fluoride – November 15, 2016

Sample Delivery Group GEL 397141

- Uranium – May 10, 2016

I observed that all groundwater monitoring required in PNNL-11573 was conducted in 2016 and maintained in the operating record for the 183-H Solar Evaporator Basins.

300 Area Process Trenches Groundwater Monitoring Operating Records

I requested to see 2016 groundwater operating records for Well 399-1-10B as required in WHC-SD-EN-AP-185, *Groundwater Monitoring Plan for the 300 Area Process Trenches*, Revision 0A, dated July 10, 1996. Ms. Lynch showed me the following groundwater monitoring records conducted on the following dates in the Integrated Document Management System.

Note: WHC-SD-EN-AP-185, *Groundwater Monitoring Plan for the 300 Area Process Trenches*, Revision 0A, dated July 10, 1996 was the groundwater monitoring plan applicable in the Permit at the time the 2016 sampling occurred.

Sample Delivery Group SL2115

- Uranium – February 8, 2016

Sample Delivery Group ALS1606129

- Uranium – June 7, 2016

Sample Delivery Group SL2100

- Cis-1,2-Dichloroethylene – January 13, 2016
- Tetrachloroethylene – January 13, 2016

Sample Delivery Group SL2216

- Cis-1,2-Dichloroethylene – June 7, 2016
- Tetrachloroethylene – June 7, 2016

Groundwater Sample Report 46220

- pH – June 7, 2016
- Specific Conductance – June 7, 2016
- Turbidity – June 7, 2016
- Temperature – June 7, 2016

Groundwater Sample Report 46873

- pH – September 6, 2016

- Specific Conductance – September 6, 2016
- Turbidity – September 6, 2016
- Temperature – September 6, 2016

I observed that all groundwater monitoring required in WHC-SD-EN-AP-185, *Groundwater Monitoring Plan for the 300 Area Process Trenches*, Revision 0A, dated July 10, 1996 was conducted in 2016 and maintained in the operating record for the 300 Area Process Trenches.

Training

I asked what was the current dangerous waste training plan for 1301-N, 1325-N, 1324-N and NA, 183-H, and 300 Area Process Trenches. Mr. Fox showed me PRC-STD-TQ-40236, *Central Plateau Project Surveillance and Maintenance Dangerous Waste Training Plan*, Revision 1, Change 2, dated May 7, 2013. After reviewing the document, I asked questions about the plan, but later observed that this training plan document did not apply to 1301-N, 1325-N, 1324-N and NA, 183-H, and 300 Area Process Trenches. Mr. Fox then opened up the Permit and showed me the following references to training.

- 1301-N and 1325-N – Post-Closure Plan – Section 5.4
- 1324-N and NA, – Post-Closure Plan – Section 5.5
- 183-H – Section 5 Personal Training During Post-Closure
- 300 Area Process Trenches – Section 8.3 in Chapter 8.0 Post-Closure Plan

1301-N, 1325-N, and 1324-N and NA are currently classified as in closure, so none of the training requirements in the post-closure plan are currently applicable to any of these units. Other than Permit Attachment 5 – Hanford Facility Personnel Training Program, I observed that there were no other specific training requirements applicable to 1301-N, 1325-N, and 1324-N and NA in the Permit.

I observed the following in the 183-H Solar Evaporator Basins - Section 5 – Personal Training During Post-Closure of the Permit.

> *This section describes the training of the groundwater sampling and analysis task leader and sampling personnel required to complete post-closure care requirements as contained in this post-closure plan.*
>
> *The training of the sampling and analysis task leader and sampling personnel will receive either classroom instruction or on-the-job training. Sampling and analysis personnel will be trained to perform these functions in accordance with the Hanford Analytical Services Quality Assurance Requirements Documents (DOE-RL 1996c). A person successfully completing the required training courses will be qualified as a groundwater sampler and/or task leader. All personnel will undergo training and at least an annual review for required course.*

I observed in Permit Chapter 8.0, Post-Closure Plan, the following in Section 8.3 of the 300 Area Process Trenches contained information on job descriptions, training content, training frequency, training techniques, and training for emergency response.

Note: See Inspection Report, Compliance Index 16.553 for more details on training deficiencies for the 300 Area Process Trenches and 183-H Solar Evaporator Basins.

1301-N Inspection Records

I requested to see Appendix K Groundwater Well Pre-Trip Inspection records for the sampling events conducted on March 9, 2016, September 22, 2016, and December 19, 2016, for Well 199-N-105A in the operating record. Mr. Sexton showed me Appendix K Groundwater Well Pre-Trip Inspection records for Well 199-N-105A conducted on March 3, 2016, September 6, 2016, and December 6, 2016.

1325-N Inspection Records

I requested to see Appendix K Groundwater Well Pre-Trip Inspection records for the sampling events conducted on March 9, 2016, September 6, 2016, September 9, 2016, and December 14, 2016, for Well 199-N-32 in the operating record. Mr. Sexton showed me Appendix K Groundwater Well Pre-Trip Inspection records for Well 199-N-32 conducted on March 3, 2016, September 6, 2016, and December 6, 2016.

1324-N and NA Inspection Records

I requested to see Appendix K Groundwater Well Pre-Trip Inspection records for the sampling events conducted on March 9, 2016, April 26, 2016, September 13, 2016, and December 13, 2016, for Well 199-N-77 in the operating record. Mr. Sexton showed me Appendix K Groundwater Well Pre-Trip Inspection records for Well 199-N-77 conducted on March 3, 2016, September 6, 2016, and December 6, 2016.

183-H Inspection Records

I requested to see Appendix K Groundwater Well Pre-Trip Inspection records for the sampling events conducted on February 3, 2016, May 10, 2016, and November 15, 2016, for Well 199-H4-12A in the operating record. Mr. Sexton showed me Appendix K Groundwater Well Pre-Trip Inspection records for Well 199-H4-12A conducted on February 2, 2016, May 3, 2016, and November 8, 2016.

300 Area Process Trenches Inspection Records

I requested to see Appendix K Groundwater Well Pre-Trip Inspection records for the sampling events conducted on June 7, 2016 and September 6, 2016, for Well 199-H4-12A in the operating record. Mr. Sexton showed me Appendix K Groundwater Well Pre-Trip Inspection records for Well 199-H4-12A conducted on May 3, 2016 and August 31, 2016.

Compliance Problems

The Dangerous Waste inspections on August 17, 2017, 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 within 60 days of receipt of this inspection report. Include all supporting documentation such as photographs, records, and statements explaining the actions taken and dates completed to return to compliance.

Attention: Jared Mathey
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 Jared Mathey 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:
Jared Mathey at (509) 372-7949

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

Violations

Waste Minimization Certification

1) 17.600 - 300 Area Process Trenches
   17.601 - 1301-N Liquid Waste Disposal Facility
   17.602 - 1325-N Liquid Waste Disposal Facility
   17.603 - 1324-N Impoundment and 1324-NA Percolation Pond
   17.604 - 183-H Solar Evaporator Basins

Hanford Facility Resources Conservation and Recovery Act Permit Revision 8C - Condition II.Z Waste Minimization - In accordance with WAC 173-303-380(1)(q), and Section 3005(h) of RCRA, 42 U.S.C. 6925(h), the Permittee must place a certification in the Hanford Facility Operating Record, Unit-Specific Files on an annual basis that:

II.Z.1.a A program is in place to reduce the volume and toxicity of hazardous waste generated to the degree determined by the Permittee to be economically practicable; and,

II.Z.1.b The proposed method of treatment, storage or disposal is that practicable method currently available to the Permittee, which minimizes the present and future threat to human health and the environment.
II.Z.2 The Permittee will maintain each such certification of waste minimization in the operating record as required by Permit Condition II.I.1.

Observations: During the inspection, I asked if I could see the 2014 Waste Minimization Plan Certification for 1301-N, 1325-N, 1324-N and NA, 183-H, and the 300 Area Process Trenches. A CHPRC employee told me that there was no waste minimization plan certification in the operating record for any of these units in 2014.

Action Required: No further action required. On September 12, 2017, CHPRC submitted an update to their operating record, dated August 23, 2017 and September 12, 2017 that explained that the Annual Waste Minimization Certifications were missing for 2008 through 2014 for all of CHPRCs Treatment, Storage, and Disposal Unit Groups, including 1301-N, 1325-N, 1324-N and NA, 183-H, and the 300 Area Process Trenches.

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