



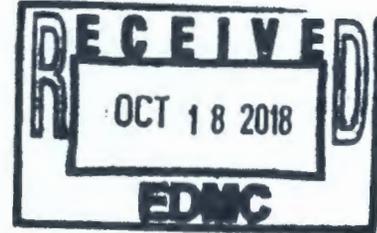
Department of Energy
 Richland Operations Office
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18-ESQ-0105

OCT 15 2018

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



Dear Ms. Smith:

RESPONSE TO DANGEROUS WASTE COMPLIANCE INSPECTION ON JUNE 5, 2018, AT THE 1301-N LIQUID WASTE DISPOSAL FACILITY, 1325-N LIQUID WASTE DISPOSAL FACILITY, 183-H SOLAR EVAPORATION BASINS, AND 300 AREA PROCESS TRENCHES, RESOURCE CONSERVATION AND RECOVERY ACT (RCRA) SITE ID: WA7890008967, NUCLEAR WASTE PROGRAM COMPLIANCE INDEX NOs.:18.634 THROUGH 18637

This is in response to the August 16, 2018, (18-NWP-135) letter regarding the compliance inspection of the 1301-N Liquid Waste Disposal Facility, 1325-N Liquid Waste Disposal Facility, 183-H Solar Evaporator Basins, and 300 Area Process Trenches, performed on June 5, 2018. Your letter was officially received on August 21, 2018. The letter was reissued and the official reissued letter receipt date was August 27, 2018. The U.S. Department of Energy Richland Operations Office (RL) and CH2M HILL Plateau Remediation Company (CHPRC) have reviewed the item identified as an alleged non-compliance with Dangerous Waste Regulations cited by the Washington State Department of Ecology (Ecology). A copy of the requested 183-H Operating Record Update is provided (Enclosure). In the Enclosure RL acknowledges that sampling for dissolved oxygen at Well 199-H4-89 was not performed in the third quarter of 2017. RL also contends that sampling for total chromium and nitrate at Well 199-H4-89 was not required by the RCRA permit during the first quarter of 2017.

In addition, RL would like to provide some additional information in regards to a CHPRC statement, which was quoted in Letter 18-NWP-135:

“We had purposely omitted mercury because the laboratory that we use analyzes it by method 7470 (cold vapor technique) not method 6010 or 6020 (inductively coupled plasma). We interpreted Table 3.2 of the Groundwater Monitoring Plan in both the 1301-N and 1325-N RCRA permit as only requiring those metals analyzed by an ICP method.

TS-2-7

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Mercury was typically analyzed semi-annually for the well networks of 1301-N and 1325-N in 2017. The data that you see in HEIS is the data that we pull, and since you have already pulled it we have not included it in this email.”

RL wants to ensure it is understood we sample for the metals required in the 1301-N and 1325-N permitted groundwater monitoring plan. The 6010 and 6020 inductively coupled plasma (ICP) methods allow analysis for about 31 metals, we are not sampling for all of the ICP metals. Rather RL is monitoring the metals (iron, manganese, and sodium) required by 40 CFR 265 using ICP methods.

The permitted groundwater monitoring plan states, “Groundwater Monitoring Plan for the 1301-N, 1325-N, and 1324N/NA Site (Hartman 1996b) describes the sampling and analysis plan for RCRA monitoring” and that “Groundwater monitoring will be done in according with the existing groundwater-monitoring program (Borghese, et. al 1996).” Borghese 1996, which proposed streamlined monitoring states, “phenols should be waived...,” “Lead, gross alpha, and gross beta are only required during the first year...,” and that “Metals and anions only required annually under 40 CFR 265.” The only metals that require annual sampling under 40 CFR 265 are the ones being analyzed. The metals listed in 40 CFR 265.92(b)(2) are iron, manganese, and sodium.

In February 2017, mercury was added to the metals being sampled at the request of Ecology (RL/Ecology meeting, February 16, 2017).

If you have any questions, please contact me, or your staff may contact Brian J. Stickney, Acting Assistant Manager for Safety and Environment, on (509) 376-9079.

Sincerely,


Doug S. Shoop
Manager

ESQ:ACM

Enclosure:
Update to 183-H Operating Record

cc: See page 3

Ms. Alexandra K. Smith
18-ESQ-0105

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cc w/encl:

Jack L. Boller, EPA
Noah S. Cruz, CHPRC
Jared W. Mathey, Ecology
Linda C. Petersen, CHPRC
John B. Price, Ecology
Steve A. Szendre, MSA

Administrative Record, H6-08: TS-2-7 (Hardcopy)

Ecology NWP Library (Hardcopy)
Environmental Portal, G3-35
HF Operating Record (J. K. Perry, MSA A3-01)

cc w/o encl:

Dave B. Bartus, EPA
Jack Bell, Nez Perce
Alyssa Buck, Wanapum
Kathy Conaway, Ecology
Laura J. Cusack, CHPRC
Dave R. Einan, EPA
Moses N. Jaraysi, CHPRC
Stephanie K. Johansen, CHPRC
Matt Johnson, CTUIR
Rose Longoria, YN
Kevin Schanilec, EPA
Kalli Shupe, CHPRC
Connie J. Simiele, CHPRC
Ron R. Skinnerland, Ecology

INTEROFFICE MEMORANDUM

CHPRC-03849

Date: September 17, 2018

To: CHPRC RCRA 183-H Solar Evaporator TSD Unit-Specific Operating Record

From:  W. R. Faight, Soil & Groundwater Remediation Project Groundwater Science Manager
 R. E. Fox, Soil & Groundwater Remediation Project Environmental Director

Subject: EVALUATION OF MONITORING OF TOTAL CHROMIUM, NITRATE, AND DISSOLVED OXYGEN IN 183-H SOLAR EVAPORATOR GROUNDWATER WELL DURING CALENDAR YEAR 2017

- References:**
1. Letter, J. Mathey, Ecology to D. S. Shoop, RL and T. Blackford, CHPRC, "Dangerous Waste Compliance Inspection on June 5, 2018 at the 1301-N Liquid Waste Disposal Facility, 1325-N Liquid Waste Disposal Facility, 183-H Solar Evaporator Basins, and 300 Area Process Trenches, RCRA Site ID: WA7890008967, NWP Compliance Index No's. 18.634 through 18.637," 18-NWP-135 – Reissue, 1803535, dated August 16, 2018.
 2. Letter, S. Dahl, Ecology to D. S. Shoop, RL and T. Blackford, CHPRC, "Approval of the Proposed Class 2 Modification 8C.2017.1F to the *Hanford Facility Resource Conservation and Recovery Act Permit, Dangerous Waste Portion, Revision 8C, for the Treatment, Storage, and Disposal of Dangerous Waste*, WA 7890008967 (Site-wide Permit), Part VI, Postclosure Unit 1, 300 Area Process Trenches (300 APT) and Postclosure Unit 2, 183-H Solar Evaporation Basins (183-H SEB)," 17-NWP-055, 1702514, dated May 24, 2017.
 3. Letter, S. Dahl, Ecology to B. T. Vance, et al, RL, "Transmittal of the Department of Ecology's Legal Copy of the *Hanford Facility Resource Conservation and Recovery Act Permit, Dangerous Waste Portion, Revision 8C, for the Treatment, Storage, and Disposal of Dangerous Waste* (Site-wide Permit), WA7890008967, Quarter Ending June 30, 2018, (8C.2018Q2)," 18-NWP-117, dated July 26, 2018.

During a State of Washington, Department of Ecology (Ecology), Nuclear Waste Program Inspection of the 183-H Solar Evaporator groundwater wells on June 5, 2018, a question arose about the performance of the analysis for total chromium, nitrate, and dissolved oxygen at well 199-H4-89 during the calendar year 2017.

As noted in Reference 1, well 199-H4-89 was not sampled for total chromium and nitrate in the first quarter of 2017. Monitoring at well 199-H4-89 began in June 2016, after operational acceptance of the well in April 2016.

The monitoring beginning in June 2016 was to support the *Atomic Energy Act* program, not due to requirements in the Hanford Facility Resource Conservation and Recovery Act (RCRA) Permit, found in Reference 3.

In November 2016, monitoring at well 199-H4-89 included *Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)* program requirements. In June 2017, RCRA monitoring began on this well, in accordance with Ecology's approval of the updated groundwater monitoring plan as stated in Reference 2.

Well 199-H4-89 was not part of the 183-H Solar Evaporator Basin well network until May 24, 2017, when Ecology approved the Class 2 permit modification to update the 183-H groundwater monitoring plan. The previous version of the groundwater monitoring plan was issued on August 13, 2013, by way of a modification to the RCRA Permit.

Monitoring at well 199-H4-89 was not a requirement in the RCRA Permit prior to May 24, 2017. Therefore, lack of a sample for total chromium and nitrate during the first quarter of 2017 is not a non-compliance with the RCRA Permit.

Sampling for dissolved oxygen at well 199-H4-89 was required in the RCRA Permit during the third quarter of 2017 but was not performed.

DOE and its contractors will comply with groundwater monitoring requirements in the 183-H Solar Evaporation Basins, Chapter 3.0 Groundwater Monitoring, as required in the RCRA Permit.

A copy of this memo will be placed in the 183-H Solar Evaporation Basins operating record.

Please attach the following metadata: 183-H; Groundwater Document Type; 199-H4-89; Dissolved Oxygen; 2017; Hanford RCRA Permit 8C; Ecology Compliance Inspection 18.636, 18-NWP-135

ref/slh

cc: CHPRC Correspondence Control, G3-15
S. L. Harrison, R3-60
B. J. Dodge, R3-50
A. R. Sherwood, R3-50
D. G. Singleton, X4-01
F. A Ruck, A6-01
L. C. Petersen, A6-01
N. S. Cruz, A6-01