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STATE OF WASHINGTON

DEPARTMENT OF ECOLOGY

3100 Port of Benton Blvd • Richland, WA 99354 • (509) 372-7950

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March 27, 2015 15-NWP-059

By certified mail

Ms. Stacy Charboneau, Manager
Richland Operations Office
United States Department of Energy
PO Box 550, MSIN: A7-50
Richland, Washington 99352

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

Re: Dangerous Waste Compliance Inspection on February 25, 2015 at the 207-A South Retention Basin, RCRA Site ID: WA7890008967, NWP Compliance Index No.: 15.516

Dear Ms. Charboneau and Mr. Ciucci:

Thank you for your time during the recent inspection to determine compliance with the Washington State Dangerous Waste Regulations (Chapter 173-303 Washington Administrative Code). These regulations establish a system for safe and responsible management of dangerous waste.

The Department of Ecology's (Ecology) Compliance Report (Report) of the referenced inspection is enclosed. Several areas at the 207-A South Retention Basin did not comply with the Dangerous Waste Regulations. These areas and the actions required to gain compliance are listed in the Compliance Problems section of the Report.

To achieve compliance, complete the actions required and return the completed Compliance Certificate to Ecology within 30 days of receipt of the Report.

Submit the Compliance Certificate, along with any requested documentation, to Nancy Ware at 3100 Port of Benton Boulevard, Richland, WA 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.

If you have questions or need further information, please contact me at nancy.ware@ecy.wa.gov or (509) 372-7912.

Sincerely,

Nancy Ware

Nancy Ware
Dangerous Waste Compliance Inspector
Nuclear Waste Program

tkb
Enclosure

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MAR 31 2015
EDMC

cc: See page 2

15-NWP-059
207-A South Retention Basin
RCRA Site ID: WA7890008967
NWP Compliance Index No.: 15.516
Inspection Date: February 25, 2015

cc electronic w/enc:
Dave Bartus, EPA
Jack Boller, EPA
Dennis Faulk, EPA
Cliff Clark, USDOE
Michael Collins, USDOE
Joel Williams, Jr., CHPRC
Jon Perry, MSA
Ken Niles, ODOE
Dwayne Crumpler, Ecology
Nina Menard, Ecology
Nancy Ware, Ecology
Environmental Portal
Hanford Facility Operating Record

cc w/enc:
Steve Hudson, HAB
Administrative Record
CHPRC Correspondence Control
NWP Central File
NWP Compliance Index File: 15.516

cc w/o enc:
Stuart Harris, CTUIR
Gabriel Bohnee, NPT
Russell Jim, YN
NWP Reader File

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MAR 31 2015
EDMC

Washington Department of Ecology
Nuclear Waste Program
Compliance Report

Site:	**207-A South Retention Basin**
RCRA Site ID:	**WA7890008967**
Inspection Date:	February 25, 2015
Site Contacts:	Joel Williams, Regulatory Inspection Lead, CH2MHILL Plateau Remediation Company (CHPRC)
Phone:	(509) 376-4782 FAX: N/A
Site Location:	200 East Area, Hanford Site Benton County, Washington
At This Site Since:	1977 NAICS#: 56221, 924110, 54171
Current Site Status:	Surface Impoundment/Closing Unit Group #9

Ecology

Lead Contact: Nancy Ware
Phone: (509) 372-7912 FAX: (509) 372-7971
Other Representatives: N/A
Report Date: March 27, 2015
Index: #15.516
Report By: Nancy Ware

Nancy Ware (Signed) 3/27/2015 (Date)

Site Location

The Hanford Site was assigned a single United States Environmental Protection Agency (EPA) identification number, and is considered a single Resource and Conservation Recovery Act of 1976, as amended, (RCRA) facility even though the Hanford Site contains numerous processing areas spread over large geographic areas. The Hanford Site is a tract of land approximately 586 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 37 unit groups at the Hanford Site. Individual DWMUs utilize only a very 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). The United States Department of Energy – Richland Office (USDOE-RL) oversees waste management and cleanup activities ongoing at the Hanford Site. CHPRC is contracted by the USDOE-RL to pursue RCRA permit and closure activities for the 207-A South Retention Basin.

Facility Background

The 207-A South Retention Basin (Basin) is a man-made surface impoundment located in the 200 East Area. The unit began operations in March 1977 and operated until April 1989. The basin is a surface impoundment under interim status regulations, comprised of three individual cells designed for the storage of the Hanford 242-A Evaporator process condensate. Each of the

three concrete cells was covered with an elastomeric coating to prevent the waste from penetrating through the concrete. Each cell is ~55 feet long by 10 feet wide by 7 feet deep and slopes at the bottom toward a drain. Liquid storage capacity for each cell is 210,000 gallons.

Waste stored in the Basin originated from the 242-A Evaporator. As part of its processes, the 242-A Evaporator produced distilled liquids and concentrated waste. During the operation of the Basin, the concentrated waste was sent back to the double-shell tanks, and the distilled liquids went to the Basin. The distilled liquids are referred to as process condensate. By temporarily storing this process condensate in the Basin, the facility was able to sample and analyze the condensate before it was discharged to the 216-A-37-1 Crib for final disposition. The 242-A Evaporator process condensate was regulated as mixed waste because the waste was derived from a waste containing spent halogenated and non-halogenated solvents (F001, F002, F003, F004, and F005), and for the toxicity of ammonia (WT-02, state-only toxic dangerous waste). Although use of the 242-A Evaporator continues today, liquids from the evaporator have not been sent to the Basin since it stopped operation in April 1989.

Two Tri-Party Agreement (TPA) milestones were established to facilitate closure of the 207-A South Retention Basin. The first was M-037-02, which required USDOE-RL to submit a closure plan in accordance to the requirements of Washington Administrative Code (WAC) 173-303-610 by June 30, 2014. Ecology is currently reviewing the submitted closure plan to determine completeness with the closure requirements. The other milestone is M-037-10, which requires closure of this unit in accordance to an approved closure plan by September 30, 2020.

Inspection Summary

This inspection was an announced non-financial record review, which was performed as part of the complete annual inspection of the Hanford site by Ecology Nuclear Waste Program (NWP). The scope of the inspection was limited to a review of the facility's dangerous waste (DW) inspection schedule for the 207-A South Retention Basin and associated inspection records for the past three years - 2013, 2014, and 2015. No site inspection was performed.

I requested a copy of the facility's inspection schedule and inspection records for the past three years. Mr. Williams explained to me that an annual surveillance is performed on 207-A South Retention Basin. CHPRC is the operator of the facility, but Washington River Protection Solutions (WRPS) employees perform the annual surveillance through an inter-contractor work agreement. He provided me a copy of WRPS document, TFC-OPS-WM-C-25, Rev A-2, *Inactive Waste Site Surveillance Documentation, Record Generation, Changes, and Additions* and three copies of Form A-6003-181 (REV 3), *Inactive Waste Site Surveillance Checklist* (2013, 2014, 2015).

WAC 173-303-320(2) requires that:

> *The owner or operator must develop and follow a written schedule for inspecting all monitoring equipment, safety and emergency equipment, security devices, and operating and structural equipment that help prevent, detect, or respond to hazards to the public health or the environment. In addition: (b) the schedule must identify the types of problems which are to be looked for during inspections.*

TFC-OPS-WM-C-25, Rev A-2, *Inactive Waste Site Surveillance Documentation, Record Generation, Changes, and Additions,* outlines a schedule for annual surveillance in Section 1.0, *Purpose and Scope.* However, TFC-OPS-WM-C-25 fails to identify the types of problems to be looked for during inspection. At a minimum, the types of problems to look for during an inspection should include verification that:

- Signs are present, legible, and visible at 25 feet.
- No land subsidence has occurred.
- The elastomeric coating of each cell of the basin is not compromised.
- No liquids or debris are present in the cells.

WAC 173-303-320(2)(d) states:

> *The owner or operator must keep an inspection log or summary, including at least the date and time of the inspection, the printed name and the handwritten signature of the inspector, a notation of the observations made, an account of spills or discharges in accordance with WAC 173-303-145, and the date and nature of any repairs or remedial actions taken.*

The inspection records for 2013, 2014, and 2015 did not include the time of the inspection, just a name and date. A notation of the observations made during the inspection was included in the comments section of the surveillance checklist. However, no date and nature of any repairs or remedial actions taken were listed.

Review of the inspection records for all three years noted the same problem of "Polyurethane Sealant Failing in multiple places in the west basin." However, the records did not document that the problems were resolved at the time of discovery or placed on a schedule in accordance with WAC 173-303-320(3) which states:

> *The owner or operator must remedy any problems revealed by the inspection, on a schedule which prevents hazards to the public health and environment. Where a hazard is imminent or has already occurred, remedial action must be taken immediately.*

On the 1/15/2013 surveillance checklist, I observed a comment, "minimal amount of water in each Basin." The record does not indicate if this "water" was removed from each of the Basins or placed on a schedule to be removed. The waste that was stored in the Basin in the past was F-listed waste. If the elastomeric coating the Basin cells is failing and water has been documented in the cells (as documented on the 1/15/2013 surveillance checklist), the liquid has the potential to go to the groundwater. No groundwater monitoring is being performed at this time.

Compliance Problems

The DW inspection on February 25, 2015 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 last pages of this report are a 'Compliance Certificate' listing the violations and the actions required to gain compliance. This certificate must be returned to Ecology within 30 days of receipt. The certificate explains how to complete the form and return it to the Department of Ecology.

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

1) **WAC 173-303-320(2). The owner or operator must develop and follow a written schedule for inspecting all monitoring equipment, safety and emergency equipment, security devices, and operating and structural equipment that help prevent, detect, or respond to hazards to the public health or the environment. In addition: (b) The schedule must identify the types of problems which are to be looked for during inspections.**

Observation: TFC-OPS-WM-C-25, Rev A-2, *Inactive Waste Site Surveillance Documentation, Record Generation, Changes, and Additions,* fails to identify the types of problems to be looked for during inspection.

Action Required: Update TFC-OPS-WM-C-25 to include the types of problems which are to be looked for in the performance of general facility inspections. Submit to Ecology within thirty days of receipt of this inspection report the updated inspection schedule.

2) **WAC 173-303-320(2). The owner or operator must develop and follow a written schedule for inspecting all monitoring equipment, safety and emergency equipment, security devices, and operating and structural equipment that help prevent, detect, or respond to hazards to the public health or the environment. In addition: (d) The owner or operator must keep an inspection log or summary, including at least the date and time of the inspection, the printed name and the handwritten signature of the inspector, a notation of the observations made, an account of spills or discharges in accordance with WAC 173-303-145, and the date and nature of any repairs or remedial actions taken. The log or summary must be kept at the facility for at least five years from the date of inspection.**

Observation: The inspection records for 2013, 2014, and 2015 did not include the time of the inspection. Additionally, no date and nature of any repairs or remedial actions taken were listed.

Action Required: Effective upon receipt of this report, the time of the inspection, remedial actions and repairs which are made, and the date of remediation must be documented on the inspection record. The facility must document in their operating record that the previous inspection records were not dated, including the date period of the absent dates. Submit verification for the documentation placed into the operating record to Ecology within thirty days of receipt of this inspection report.

3) **WAC 173-303-320(3). The owner or operator must remedy any problems revealed by the inspection, on a schedule which prevents hazards to the public health and environment. Where a hazard is imminent or has already occurred, remedial action must be taken immediately.**

Observation: Inspection records for all three years noted the same problem of "Polyurethane Sealant Failing in multiple places in the west basin. Noted problems are not being resolved at the time of discovery or placed on a schedule in accordance with WAC 173-303-320(3). For the surveillance checklist of 1/15/2013, there is also a comment of a minimal amount of water in each Basin. The record does not indicate if this "water" was removed from each of the Basins or placed on a schedule to be removed.

Action Required: Problems found during an inspection must be corrected immediately or placed on a schedule for remedy. Submit to Ecology within thirty days of this report a schedule for remedy of the problems identified during inspections.

COMPLIANCE CERTIFICATE

Return this Completed Form within 30 days of receipt or Request an Extension

Use this form to report if the action(s) required to achieve compliance that were identified during the inspection on February 25, 2015 have been completed.

Complete the shaded portions and mail a copy of this form to Nancy Ware by April 27, 2015 at the following address: Washington Department of Ecology, Nuclear Waste Program, Attention: Nancy Ware, 3100 Port of Benton Boulevard, Richland, Washington 99352.

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 Nancy Ware 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: Nancy Ware at (509)372-7912

The problems listed below must be corrected to comply with Washington DW Regulations (Chapter 173-303 WAC), or other environmental laws or regulations. Note the date each action is completed and initial each item. Include required documentation, and make any other comments explaining the actions taken on a separate piece of paper.

1) **WAC 173-303-320(2). The owner or operator must develop and follow a written schedule for inspecting all monitoring equipment, safety and emergency equipment, security devices, and operating and structural equipment that help prevent, detect, or respond to hazards to the public health or the environment. In addition: (b) The schedule must identify the types of problems which are to be looked for during inspections.**

Compliance Item	Date Completed	Initials
Update TFC-OPS-WM-C-25 to include the types of problems which are to be looked for in the performance of general facility inspections. Submit to Ecology within thirty days of receipt of this inspection report the updated inspection schedule.		

2) **WAC 173-303-320(2). The owner or operator must develop and follow a written schedule for inspecting all monitoring equipment, safety and emergency equipment, security devices, and operating and structural equipment that help prevent, detect, or respond to hazards to the public health or the environment. In addition: (d) The owner or operator must keep an inspection log or summary, including at least the date and time of the inspection, the printed name and the handwritten signature of the inspector, a notation of the observations made, an account of spills or discharges in accordance with WAC 173-303-145, and the date and nature of any repairs or remedial actions taken. The log or summary must be kept at the facility for at least five years from the date of inspection.**

Compliance Item	Date Completed	Initials
Effective upon receipt of this report, the time of the inspection, remedial actions and repairs which are made, and the date of remediation must be documented on the inspection record. The facility must document in their operating record that the previous inspection records were not dated, including the date period of the absent dates. Submit verification for the documentation placed into the operating record to Ecology within thirty days of receipt of this inspection report.		

3) **WAC 173-303-320(3). The owner or operator must remedy any problems revealed by the inspection, on a schedule which prevents hazards to the public health and environment. Where a hazard is imminent or has already occurred, remedial action must be taken immediately.**

Compliance Item	Date Completed	Initials
Problems found during an inspection must be corrected immediately or placed on a schedule for remedy. Submit to Ecology within thirty days of this report a schedule for remedy of the problems identified during inspections.		

The Department of Ecology is an equal opportunity agency and does not discriminate on the basis of race, creed, color, disability, age, religion, national origin, sex, marital status, disabled veteran's status, Vietnam Era veteran's status, or sexual orientation. If you have special accommodation needs or require this document in alternative format, please contact Nancy Ware at (509) 372-7912 (Voice) or use the Washington State Relay operator by dialing either 711 or 1-800-833-6388 (TTY).