



washington river
protection solutions

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March 15, 2016

WRPS-1600867

Mr. K. W. Smith, Manager
Office of River Protection
U.S. Department of Energy
Post Office Box 450
Richland, Washington 99352-0450

Dear Mr. Smith,

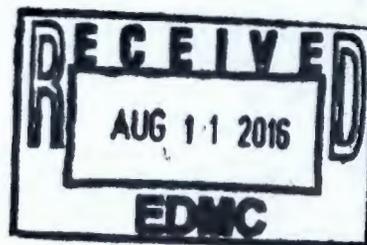
CONTRACT NUMBER DE-AC27-08RV14800 – WASHINGTON RIVER PROTECTION SOLUTIONS LLC SUBMITS NOTICE OF INTENT FOR THE LOW ACTIVITY WASTE PRETREATMENT SYSTEM

Washington River Protection Solutions LLC hereby submits to the U.S. Department of Energy, Office of River Protection (ORP) the Notice of Intent (NOI) for the Low Activity Waste Pretreatment System (Enclosure) for transmittal to the State of Washington, Department of Ecology (Ecology).

The NOI provides notice to Ecology and interested members of the Public for the siting of a new dangerous waste management facility in accordance with the requirements of *Washington Administrative Code* 173-303-281, "Notice of intent." The NOI also represents the first step in the Resource Conservation and Recovery Act of 1976 (RCRA) permitting process for the Low Activity Waste Pretreatment System (LAWPS) and was developed jointly with the ORP Environmental Compliance Division staff. Ecology was provided the opportunity to review the NOI and its comments have been incorporated.

The NOI includes the proposed location, facility description, justification of need for the LAWPS, a topographic map of the facility location, and 10-year Hanford Site compliance history. Notification must also be issued in print and broadcast media, which is followed by a public meeting. WRPS will support ORP Public Relations staff, as necessary, to coordinate the public involvement process with Ecology staff.

To support the current LAWPS project schedule, please transmit the NOI to Ecology as soon as is practical, but no later than April 7, 2016.



TSD-TS-2-8

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Mr. K. W. Smith
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March 15, 2016

WRPS-1600867

You may contact me at 376-4592, or your staff may contact Ms. J. A. Joyner at 376-7533 with any questions regarding this matter.

Sincerely,

(Signature Attached)

M. A. Lindholm
President and Project Manager

CPS:CLL

Enclosure: Notice of Intent for the Low Activity Waste Pretreatment System,
RPP-ENV-5921, Rev. 0 (130 pages)

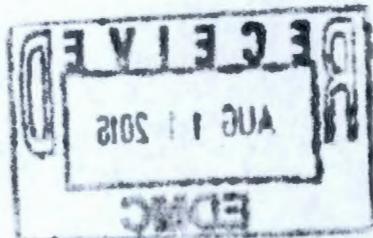
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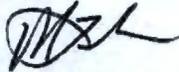
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Title: President & Project Manager

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Meaning: Sign as M. A. Lindholm

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DOCUMENT RELEASE AND CHANGE FORM		1a. Doc No: RPP-ENV-59251 Rev. 00 <small>mw 3/14/2016</small>	
Prepared For the U.S. Department of Energy, Assistant Secretary for Environmental Management By Washington River Protection Solutions, LLC., PO Box 850, Richland, WA 99352 Contractor For U.S. Department of Energy, Office of River Protection, under Contract DE-AC27-08RV14800		1b. Project Number: <input checked="" type="checkbox"/> N/A	
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a. Does the change introduce any new failure modes to the equipment? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Basis is required for Yes: _____			
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c. For Safety Significant equipment, does the change require a modification to Chapter 4 of the DSA and/or FRED? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A Basis is required for Yes: _____			
7. Description of Change and Justification (Use Continuation pages as needed)			
The Notice of Intent is required by Washington Administrative Code 173-303-281 for the siting and construction of a new dangerous waste treatment, storage, and disposal facility and services as notice to the State of Washington, Department of Ecology and the public.			
8. Approvals			
Title	Name	Signature	Date
Clearance Review	RAYMER, JULIA R	RAYMER, JULIA R	03/14/2016
Document Control Approval	WASHINGTON, MARGUERITE	WASHINGTON, MARGUERITE	03/14/2016
Originator	STRAND, CHRIS	STRAND, CHRIS	03/09/2016
Other Approver	BEAM, TOM	BEAM, TOM	03/09/2016
Other Approver	BORNEMAN, LUCINDA E	BORNEMAN, LUCINDA E	03/14/2016
Responsible Manager	JOYNER, JESSICA A	JOYNER, JESSICA A	03/14/2016
9. Clearance Review:			
Restriction Type:			
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11. TBDs or Holds N/A

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Notice of Intent Low Activity Waste Pretreatment System

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U.S. Department of Energy Contract DE-AC27-08RV14800

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Abstract: The NOI provides notice to the State of Washington, Department of Ecology (Ecology) and the Public for the siting of a new dangerous waste management facility. Notice is required to be filed at least 150 days before applying for a Resource Conservation and Recovery Act of 1976 (RCRA) permit. Includes a brief facility description, proposed location, justification of need for the facility, topographic map, and 10-year Hanford Site compliance history.

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APPROVED
By Julia Raymer at 4:13 pm, Mar 14, 2016

Release Approval

Date

DATE:
Mar 14, 2016



Release Stamp

Approved For Public Release

NOTICE OF INTENT

LOW ACTIVITY WASTE PRETREATMENT SYSTEM HANFORD FACILITY RICHLAND, WASHINGTON

U.S. DEPARTMENT OF ENERGY

March 2016

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 Low Activity Waste Pretreatment System Notice of Intent
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Metric Conversion Chart

Into metric units

Out of metric units

If you know	Multiply by	To get	If you know	Multiply by	To get
Length			Length		
inches	25.40	millimeters	millimeters	0.03937	inches
inches	2.54	centimeters	centimeters	0.393701	inches
feet	0.3048	meters	meters	3.28084	feet
yards	0.9144	meters	meters	1.0936	yards
miles (statute)	1.60934	kilometers	kilometers	0.62137	miles (statute)
Area			Area		
square inches	6.4516	square centimeters	square centimeters	0.155	square inches
square feet	0.09290304	square meters	square meters	10.7639	square feet
square yards	0.8361274	square meters	square meters	1.19599	square yards
square miles	2.59	square kilometers	square kilometers	0.386102	square miles
acres	0.404687	hectares	hectares	2.47104	acres
Mass (weight)			Mass (weight)		
ounces (avoir)	28.34952	grams	grams	0.035274	ounces (avoir)
pounds	0.45359237	kilograms	kilograms	2.204623	pounds (avoir)
tons (short)	0.9071847	tons (metric)	tons (metric)	1.1023	tons (short)
Volume			Volume		
ounces (U.S., liquid)	29.57353	milliliters	milliliters	0.033814	ounces (U.S., liquid)
quarts (U.S., liquid)	0.9463529	liters	liters	1.0567	quarts (U.S., liquid)
gallons (U.S., liquid)	3.7854	liters	liters	0.26417	gallons (U.S., liquid)
cubic feet	0.02831685	cubic meters	cubic meters	35.3147	cubic feet
cubic yards	0.7645549	cubic meters	cubic meters	1.308	cubic yards
Temperature			Temperature		
Fahrenheit	subtract 32 then multiply by 5/9ths	Celsius	Celsius	multiply by 9/5ths, then add 32	Fahrenheit
Energy			Energy		
kilowatt hour	3,412	British thermal unit	British thermal unit	0.000293	kilowatt hour
kilowatt	0.94782	British thermal unit per second	British thermal unit per second	1.055	kilowatt
Force/Pressure			Force/Pressure		
pounds (force) per square inch	6.894757	kilopascals	kilopascals	0.14504	pounds per square inch

06.2001

Source: *Engineering Unit Conversions*, M. R. Lindeburg, PE., Third Ed., 1990, Professional Publications, Inc., Belmont, California.

NOTICE OF INTENT FOR LOW ACTIVITY WASTE PRETREATMENT SYSTEM

1.0 INTRODUCTION

The Washington State Department of Ecology (Ecology) *Dangerous Waste Regulations*, Washington Administrative Code (WAC) 173-303-281, require that dangerous waste facility owners and/or operators submit a Notice of Intent (NOI) before submittal of a Part A permit application, Form 3, and/or dangerous waste permit application (Part B) for new or expanded dangerous waste treatment, storage, and/or disposal (TSD) units.

The NOI is to serve public notice for the proposed construction and operation of a Low Activity Waste Pretreatment System (LAWPS) on the Hanford Site to treat and store Double-Shell Tank (DST) System waste in order to process it to be sent to the Waste Treatment and Immobilization Plant (WTP) Low Activity Waste Facility for vitrification. Following vitrification, the immobilized low-activity waste (i.e., glass logs), as well as other waste streams, generated from the treatment of tank waste will be disposed of at the Integrated Disposal Facility (IDF).

The proposed operation and construction of the LAWPS is being pursued in accordance with [WAC 173-303](#), *Dangerous Waste Regulations* and the *Resource Conservation and Recovery Act of 1976 (RCRA)*, as amended.

The following identifies the operator of the LAWPS Facility and the contact:

Operator: U.S. Department of Energy, Office of River Protection (DOE-ORP)
Manager, Office of River Protection: Mr. Kevin W. Smith

Address: U.S. Department of Energy,
Office of River Protection (DOE-ORP)
Post Office Box 450
Richland, Washington 99352
Telephone: (509) 372-2315.

2.0 FACILITY DESCRIPTION AND GENERAL PROVISIONS

The Hanford Site is a single RCRA facility identified by the U.S. Environmental Protection Agency (EPA)/State Identification Number WA7890008967 that consists of multiple treatment, storage, and disposal (TSD) units that have or are conducting dangerous waste management activities. These TSD units are included in the Hanford Facility Dangerous Waste Part A Permit Application (DOE/RL-88-21, as amended). The LAWPS will be included in the Hanford Facility RCRA Permit. The following sections provide a description of the LAWPS, along with other general provisions specified in [WAC 173-303-281](#).

2.1 Location of Proposed Low-Activity Waste Pretreatment System

The proposed location of the LAWPS facility will be in the 200 East Area of the Hanford Site, Benton County, Washington. A small-scale map depicting the Hanford Site and the location of the LAWPS is provided as Figure 1. A site plan depicting the location of LAWPS is included as Figure 2.

DOE-ORP will be constructing the LAWPS facility in close proximity to WTP to perform a similar function to the WTP PT facility. The LAWPS facility will provide waste feed to the WTP LAW facility prior to the remainder of the WTP treatment facilities coming online.

2.2 Description of the Low-Activity Waste Pretreatment System

The LAWPS will provide treatment and storage of DST tank waste that will be transferred to the WTP LAW facility. The LAWPS facility will employ a cross-flow filtration (CFF) system to separate the solids from the liquid phase and an ion exchange (IX) system to remove soluble radioactive cesium (Cs) from the filtered liquid. In addition, the facility will have tanks, associated tank systems, transfer lines, and treatment capacity to remove Cs. Once Cs has been removed, the resulting liquid waste stream will be stored in lag tanks located within the LAWPS Facility. At the lag storage tanks, conformance with the waste acceptance criteria will be confirmed prior to the liquid feed being transferred to the WTP LAW Facility for vitrification. Waste will be transferred via in-ground, double-walled, waste transfer lines from the 241-AP Tank Farm. Both the solids removed by the CFF system and the Cs removed by the IX system are accumulated for transfer back to the DST system (Tank 241-AW-106). It is anticipated the process areas of the facility will be constructed below grade. Other support facilities and operations will be located above ground. An estimated one million gallons of waste feed will be processed by the LAWPS Facility annually.

2.3 Description of Need for Facility

Current capacity of the Hanford Site is insufficient to meet regional and federal dangerous waste management plans for treatment of waste currently held in underground storage tanks [[WAC 173-303-281\(3\)\(vii\)\(A\)](#)]. The construction and operation of the LAWPS will provide the capability and means to start treatment in a timely and appropriate manner that protects the environment and public. Construction of the LAWPS facility also supports the long-term solution for all tank waste.

2.4 Compliance with State Environmental Policy Act

Section E.1.3.3.2 of the *Final Tank Closure and Waste Management Environmental Impact Statement* (TC&WM EIS) ([DOE/EIS-0391](#), December 2012) discusses the LAWPS Facility. In the document, the LAWPS Facility was called the Interim Pretreatment System. Ecology was a cooperating agency on the TC&WM EIS for the purposes of ensuring that State Environmental Policy Act (SEPA) requirements were met. It is anticipated that the TC&WM EIS will provide the SEPA coverage for the LAWPS Facility.

2.5 Compliance with Siting Standards

The Hanford Site was established in 1943 to produce nuclear materials for national defense. Many production activities resulted in the disposal of wastes containing hazardous constituents and/or radioactive materials. As a result, in July 1989, EPA placed four sites (100, 200, 300, and 1100 Areas) of the Hanford Site on the National Priorities List (NPL) pursuant to the *Comprehensive Environmental Response, Compensation, and Liability Act* (CERCLA) (42 USC §9601 et seq.). In anticipation of the NPL listing, the DOE, EPA, and Ecology entered into the *Hanford Federal Facility Agreement and Consent Order* (also known as the Tri-Party Agreement or TPA) in May 1989. This agreement established a procedural framework and schedule for developing, implementing, and monitoring CERCLA response actions on the Hanford Site. The agreement also addresses RCRA compliance and permitting. The Hanford Site is a CERCLA site on the NPL and under [WAC 173-303-282\(2\)\(b\)\(iii\)](#) the applicability of the siting criteria does not apply if the facility is a CERCLA site. However, to provide context to this specific permitting activity, the siting criteria for placement of the LAWPS facility was evaluated and that information is identified below.

2.5.1 Criteria for elements of the natural environment

The following addresses measures that will be in place at the LAWPS to provide protection of the natural environment. Each element of the criteria identified in [WAC 173-303-282\(6\)](#) is addressed.

2.5.1.1 Earth

This section addresses the potential for the release of waste into the environment because of structural damage resulting from conditions of the earth at the LAWPS.

2.5.1.1.1 Seismic risk

The design of the LAWPS for seismic risk was evaluated in accordance with DOE Order 420.1C, *Facility Safety* and American Society of Civil Engineers/Structural Engineering Institute, 43-05, *Seismic Design Criteria for Structures, Systems, and Components in Nuclear Facilities* (ASCE/SEI 43-05).

No active faults, or evidence of a fault that has had displacement during Holocene times, have been found at the Hanford Site. The youngest faults recognized on the Hanford Site occur on Gable Mountain, over 4.5 kilometers (2.8 miles) north of the 200 East Area. These faults are of Quaternary age and are considered 'capable' (*Hanford Site National Environmental Policy Act (NEPA) Characterization, PNNL-6415*).

2.5.1.1.2 Subsidence

The proposed location of the LAWPS facility will be located in the 200 East Area of the Hanford Site, which is not considered an area subject to subsidence (*Hanford Site National Environmental Policy Act (NEPA) Characterization, PNNL-6415*).

2.5.1.1.3 Slope or soil instability

The LAWPS will not be located in an area of slope or soil instability, or in an area affected by unstable slope or soil conditions (*Hanford Site National Environmental Policy Act (NEPA) Characterization, PNNL-6415*).

2.5.1.2 Air

The LAWPS will not be an incineration unit. Therefore, no discussion of measures taken to reduce air emissions resulting from incineration is necessary.

2.5.1.3 Water

This section addresses the potential for contaminating water of the state in the event of a release of waste.

2.5.1.3.1 Surface water

The following sections address considerations for the protection of surface water.

2.5.1.3.1.1 Flood, Seiche, and Tsunami Protection

Three sources of potential flooding of the Hanford Site are considered: (1) the Columbia River, (2) the Yakima River, and (3) storm-induced run-off in ephemeral streams draining the Hanford Facility. No perennial streams occur in the central part of the Hanford Site. Figure 3 shows the 100-year flood plain of the Columbia River, Yakima River, and the Cold Creek probable maximum flood.

The flow of the Columbia River is controlled largely by several upstream dams that are designed to reduce major flood flows. Based on a U.S. Army Corps of Engineers study of the flooding potential of the Columbia River that considered historic data and water storage capacity of the dams on the Columbia River (COE 1989), the probable maximum flood has been estimated. The probable maximum flood for the Columbia River downstream of Priest Rapids Dam has been calculated to be 40,000 cubic meters per second. The flow is greater than the 500-year flood and although this flood would inundate parts of the 100 Areas located adjacent to the Columbia River, this flood would not impact the Central Plateau on the Hanford Site (*Hanford Site National Environmental Policy Act (NEPA) Characterization, PNNL-6415*).

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The maximum flood recorded in the Yakima River at Kiona, Washington, was 1,900 cubic meters per second during December 1933. The recurrence interval for the 1933 flood is estimated to be 170 years. The flood only impacted the southernmost part of the Hanford Site in the vicinity of the Horn Rapids Dam. Since that flood, there have been significant impoundments in the Yakima River Basin to support irrigation that reduces this threat. The overall magnitude of the flow between the Columbia River and Yakima River (40,000 cubic meters per second versus 1,900 cubic meters per second) renders the threat of flooding from the Yakima River to be insignificant in comparison to the Columbia River (*Hanford Site National Environmental Policy Act (NEPA) Characterization, PNNL-6415*).

The only other potential source of flooding of the Hanford Site is run-off from a large precipitation event in the Cold Creek watershed. This event could result in flooding of the ephemeral Cold Creek. Pacific Northwest National Laboratory (PNNL) has estimated this probable maximum flood using conservative values of precipitation, infiltration, surface roughness, and topographic features. The impact associated with the maximum flood in the Cold Creek watershed would be limited to portions of land along State Route 240 (*Hanford Site National Environmental Policy Act (NEPA) Characterization, PNNL-6415*).

The results from past hydrologic analysis associated with the potential flooding of the Columbia River, Yakima River, and Cold Creek watershed show that the LAWPS Facility would not be impacted.

The Hanford Site is not located in an area subject to seiche's or coastal flooding, including tsunami or storm surges.

2.5.1.3.1.2 Perennial surface water bodies

The LAWPS facility is not a land-based facility as defined in [WAC 173-303-282\(3\)\(h\)](#). The LAWPS Facility is proposed to be located over 7 kilometers (2.7 miles) from the Columbia River, the closest perennial water body.

2.5.1.3.1.3 Surface water supply

The LAWPS will not be located within an area designated as a watershed and will be located well in excess of 152.4 meters (500 feet) from the nearest surface water intake for domestic water in accordance with [WAC 173-303-282\(6\)\(c\)\(i\)\(C\)\(II\)](#).

2.5.1.3.2 Groundwater

The following sections address consideration for the protection of groundwater. The LAWPS will not be a land-based unit as defined by [WAC 173-303-282\(3\)\(h\)](#); therefore, compliance with the contingent groundwater protection program, [WAC 173-303-806\(4\)\(a\)\(xxi\)](#), is not required.

2.5.1.3.2.1 Depth to groundwater

The LAWPS will be located in the 200 East Area of the Hanford Site. The depth to groundwater in the 200 East Area is over 79 meters (259.2 feet).

2.5.1.3.2.2 Sole source aquifer

The LAWPS will not be located over an area designated as a 'sole source aquifer' under section 1424(e) of the *Safe Drinking Water Act of 1974*.

2.5.1.3.2.3 Groundwater management areas and special protection areas

The Hanford site is not within a groundwater protection area." as required under [WAC 173-303-282\(6\)\(c\)\(ii\)\(C\)](#) or special protection area as defined under [WAC 173 303-282\(6\)\(c\)\(ii\)\(E\)](#).

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The proposed construction and operation of the LAWPS will minimize groundwater impacts through the use of secondary containment systems and is not expected to result in an increased potential for release of mixed waste to the groundwater or to a special protection area.

2.5.1.3.2.4 Groundwater intakes

The LAWPS will not be located within 152.4 meters (500 feet) of any groundwater intake for domestic water in accordance with [WAC 173-303-282\(6\)\(c\)\(ii\)\(D\)\(I\)](#).

2.5.1.4 Plants and animals

The following sections address consideration to reduce the potential for dangerous waste contaminating plant and animal habitat in the event of a release of dangerous waste. The LAWPS will be well over 152.4 meters (500 feet) from any of the following types of areas.

2.5.1.4.1 Wetlands

The LAWPS will not be located near any wetlands.

2.5.1.4.2 Designated critical habitat

The LAWPS will not be located in an area designated as critical habitat for federally listed threatened or endangered species as defined by the *Endangered Species Act of 1973*.

2.5.1.4.3 State designated habitat

The LAWPS will not be located in an area designated by the Washington State Department of Wildlife as habitat essential to the maintenance or recovery of any state listed threatened or endangered species.

2.5.1.4.4 Natural area preserves

The LAWPS will not be located in any natural area acquired or voluntarily registered or dedicated under Chapter 79.70 Revised Code of Washington.

2.5.1.4.5 Wildlife refuge, preserve, or Bald Eagle protection area

The LAWPS will not be located in a state or federally designated wildlife refuge, preserve, or Bald Eagle protection area.

2.5.1.5 Precipitation

The LAWPS will be a non-land-based unit and will not be located in an area having a mean annual precipitation level of greater than 254 centimeters (100 inches) (*Hanford Site National Environmental Policy Act (NEPA) Characterization, PNNL-6415*).

2.5.2 Criteria for elements of the built environment

The following sections address the locational factors affecting protection of the built environment. Each element of the criteria for non-land-based facilities or units identified in [WAC 173-303-282\(7\)](#) is addressed.

2.5.2.1 Adjacent land use

This section addresses the setback criteria for adjacent land use. The LAWPS will be located approximately 12 kilometers (7.5 miles) from the closest Hanford Site property line.

2.5.2.2 Special land uses

This section addresses setback criteria for special land uses.

2.5.2.2.1 Wild and scenic rivers

The LAWPS will be located in the 200 East Area at least 7 kilometers (4.35 miles) from the Columbia River, which has been proposed as a wild and scenic river. The LAWPS will not be within the view shed of users of the Columbia River.

2.5.2.2.2 Parks, recreation areas, national monuments

The LAWPS will be located over 152.4 meters (500 feet) from the nearest state or federally designated park, recreation area, or national monument (e.g. Hanford Reach National Monument, 65 FR 37253).

2.5.2.2.3 Wilderness area

The LAWPS will be located over 152.4 meters (500 feet) from any wilderness areas as defined by the *Wilderness Act of 1964*.

2.5.2.2.4 Farmland

No farming is allowed on the Hanford Site, and the LAWPS will be located over 152.4 meters (500 feet) from the nearest site boundary and, therefore, even further to the nearest identified prime farmland.

2.5.2.3 Residences and public gathering places

This section discusses factors affecting residences and public gathering places. The LAWPS will be located over 152.4 meters (500 feet) from residences and public gathering places.

2.5.2.3.1 Incineration

The LAWPS does not include any incineration processes, and is located more than one-quarter mile from residences and public gathering places.

2.5.2.3.2 Land use compatibility

The Hanford Site conforms to local land use zoning designation requirements.

2.5.2.3.3 Archeological sites and historic sites

The LAWPS will not be located in any known archaeological or historic sites.

2.6 Citizen Proponent Negotiations

The intent of the Citizen Proponent Negotiations as established in [WAC 173-303-902](#) are satisfied by DOE's use of multiple existing public forums to discuss the changes to the treatment processes being proposed. DOE routinely briefs organizations like the Hanford Advisory Board, Oregon Hanford Cleanup Board, state and local government representatives, as well as the Native American tribes.

3.0 TEN-YEAR COMPLIANCE HISTORY

Appendix B contains an informational summary of formal notices of violations and/or notices of penalties, in accordance with [WAC 173-303-281](#).

4.0 JUSTIFICATION OF NEED

The LAWPS is necessary to pretreat DST waste so it can be treated in the WTP LAW Facility and vitrified into glass logs.

5.0 Impact on Overall Capacity of the Hanford Facility and the State of Washington

Currently, there is no readily available capacity for the treatment of the Hanford tank waste, necessitating ongoing storage in the underground tanks as a less preferred management option. Operation of the WTP will provide the ability to treat Hanford tank waste for safe and compliant disposal. Due to anticipated

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March 2016

delays in availability of the WTP Pretreatment Facility, construction and operation of LAWPS will provide similar pretreatment capacity for a portion of the tank waste to support operations of the LAW facility, which will be ready for operation before PT is available. An earlier start of WTP operations for the LAW portion of the tank waste will allow vitrification to occur sooner than it would otherwise take place, resulting in safer long-term management of the waste stream. This supports the overall mission and goals of both DOE and Washington State to clean up the Hanford Site and advance site remediation.

6.0 REFERENCES

- 65 FR 37253, Establishment of the Hanford Reach National Monument, June 9, 2000.
- ASCE/SEI Standard 43-05, "Seismic Design Criteria for Structures, Systems, and Components in Nuclear Facilities," American Society of Civil Engineers.
- COE, 1989. *Water Control Manual for McNary Lock and Dam, Columbia River, Oregon and Washington*. U.S. Army Corps of Engineers, Walla Walla District, Walla Walla, Washington.
- DOE Order 420.1C, *Facility Safety*, U.S. Department of Energy, Washington D.C.
- DOE/RL-88-21, *Hanford Facility Dangerous Waste Part A Permit Application*, Vols. 1-3, U.S. Department of Energy, Richland Operations Office, Richland, Washington.
- DOE/EIS-0391, *Final Tank Closure and Waste Management Environmental Impact Statement*, December 2012. U.S. Department of Energy, Office of River Protection, Richland, Washington. Available at <http://www.hanford.gov/page.cfm/finaltcwmeis>.
- Ecology, EPA, and DOE, 2000, *Hanford Federal Facility Agreement and Consent Order*, Vols. 1 and 2, Washington State Department of Ecology, U.S. Environmental Protection Agency, U.S. Department of Energy, Olympia, Washington, updated periodically. Available at <http://www.hanford.gov/page.cfm/triparty/theagreement>.
- PNNL-6415, 2007, *Hanford Site National Environmental Policy Act (NEPA) Characterization*, as amended, Pacific Northwest National Laboratory, Richland, Washington. Available at http://www.pnl.gov/main/publications/external/technical_reports/pnnl-6415rev17.pdf.

Figure 1. Hanford Site

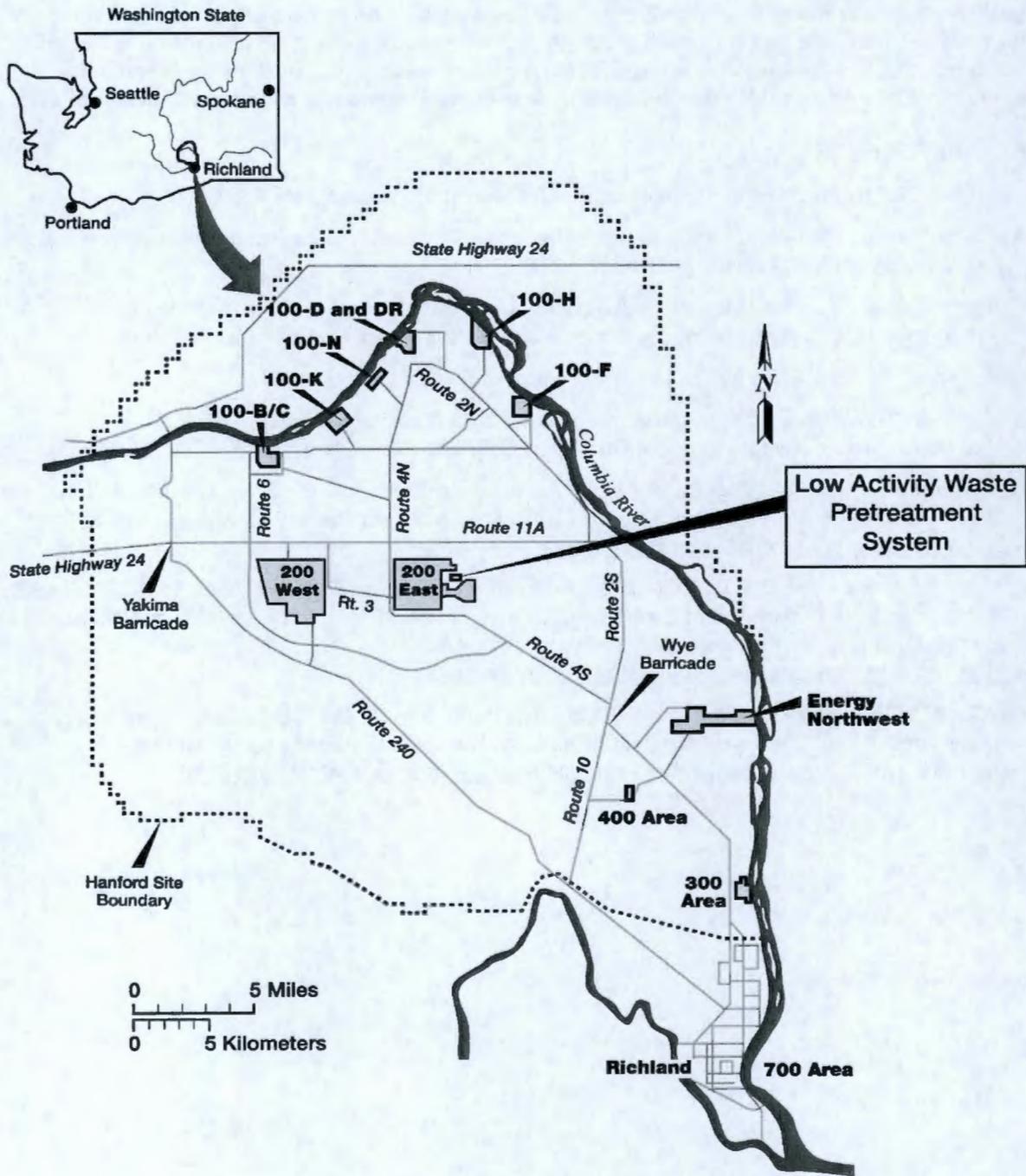
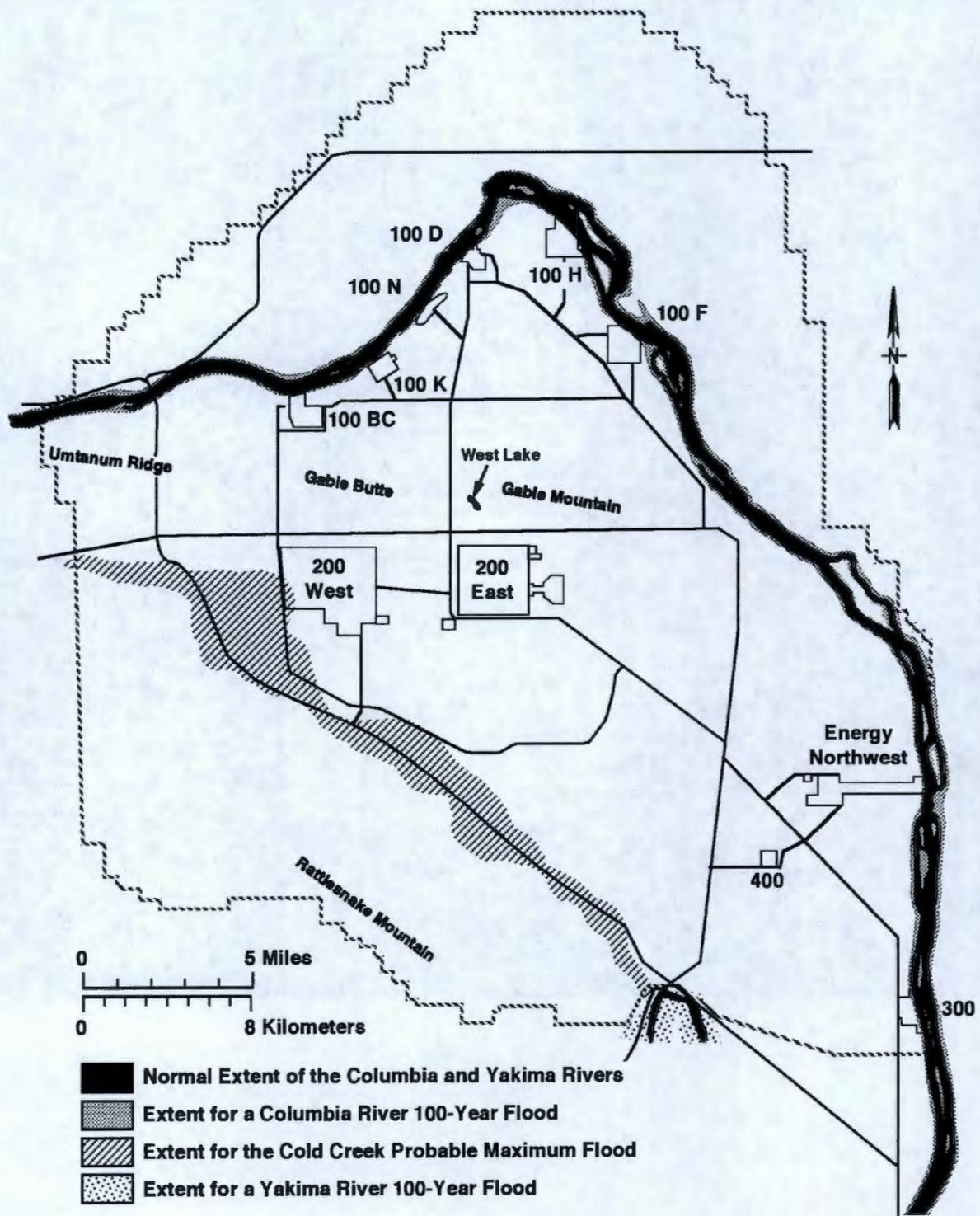
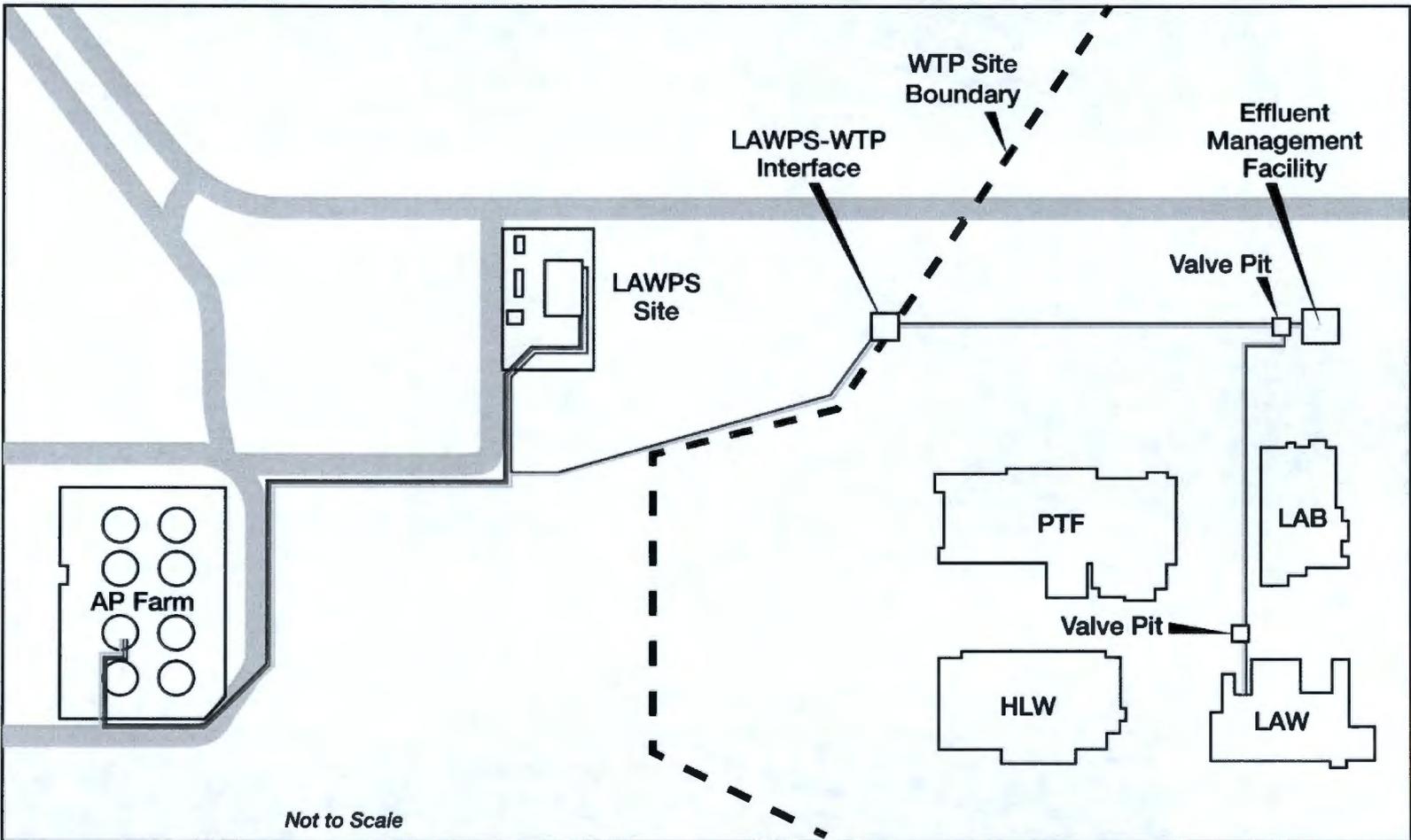


Figure 3. 100-Year Floodplain of the Columbia River and Yakima River and the Cold Creek Probable Maximum Flood



H96050316.4bR1

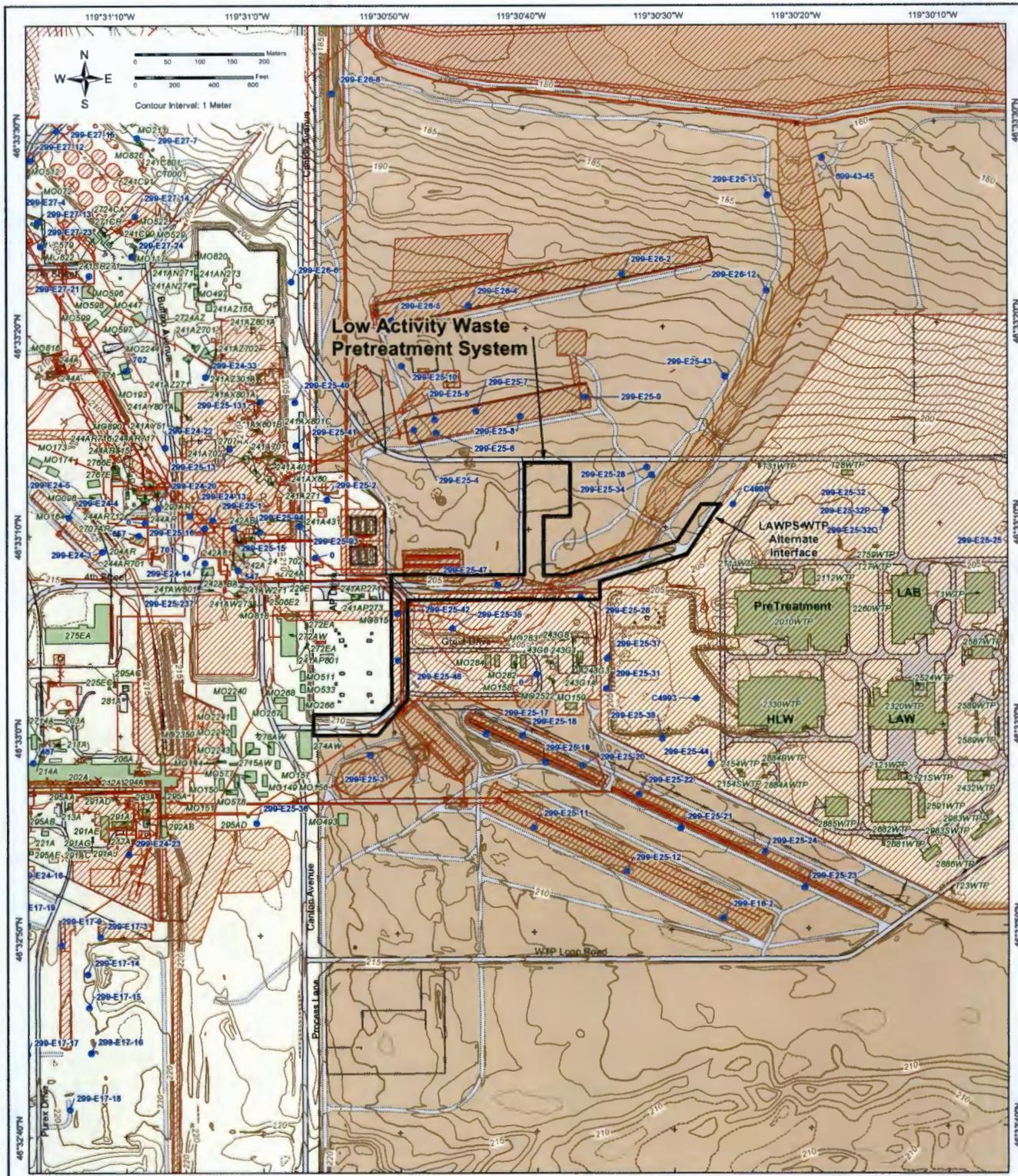
Figure 4. LAWPS Location Relative to the WTP Facility



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1
2

Appendix A
Location Map



The Hanford Site



Unit Location

Low Activity Waste Pretreatment System in the 200 East Area

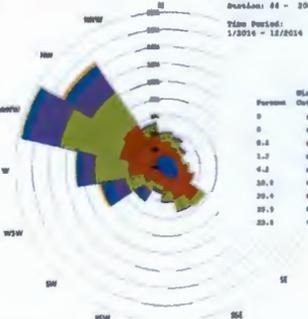
- Dangerous Waste Management Unit Boundary
- Contours at 1 Meter Intervals
- Depression Contours at 1 Meter Intervals
- Injection and Extraction Wells
- DOE Operating Areas
- Hanford Facility

Prepared for:
 US DEPARTMENT OF ENERGY
 RICHLAND OPERATIONS OFFICE

Created and Published by: Central Mapping Services
 Fluor Hanford, Richland, WA (509) 379-9078

INTENDED USE: REFERENCE ONLY
 Projection: Lambert Conformal Conic
 Coordinate System: Washington State Plane, South Zone, Meters
 Horizontal Datum: NAD83
 Vertical Datum: NAVD88
 Topographic Data: 1998, Bechtel Hanford, Inc.

- SWMUs and Known Releases
- Linear SWMUs and Known Releases
- Spot SWMUs and Known Releases
- Buildings
- Structures
- Concrete
- Major Roads
- Service Roads
- Railroads
- Fences



1
2
3

Appendix B
Formal Notices of Violations and/or Notices of Penalties

Hanford Site Compliance Violations and Response Summary

Wednesday, January 27, 2016

Document #: 2016-09

Doc Date: 1/25/2016

Agency: Ecology

Category: Notice of Violation

Title: NOTICE OF VIOLATION FROM DANGEROUS WASTE COMPLIANCE INSPECTION AT DOUBLE-SHELL TANKS SYSTEM ON JUNE 30, 2015

Summary

On 1/25/2016 the Washington State Department of Ecology (Ecology) issued letter 16-NWP-019 to the Department of Energy - Office of River Protection (DOE-ORP) and Washington River Protection Solutions (WRPS) based on their dangerous waste compliance inspection at the double-shell tanks (DST) system on 6/30/2015. Ecology's Compliance Report of the DSTs inspection was enclosed. The Compliance Report cites two alleged areas of non-compliance with the Dangerous Waste Regulations and two concerns. The areas of non-compliance and the actions required for a return to compliance are listed in the Compliance Problems section of the report. To return to compliance, the required actions must be completed and a response provided to Ecology within the time frames specified in the Compliance Problems section of the Compliance Report (within 60 days of receipt of the Compliance Report). The response must include all supporting documentation such as photographs, records, and statements explaining the actions taken and dates completed to return to compliance. 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.

The two alleged non-compliances with the dangerous waste regulations include the following:

1. Ecology was told during the inspection interviews that the last receipt of waste to the 204-AR WUS tank system had taken place. Ecology observed that more than one year has passed since the last receipt of waste. Ecology observed that DOE-ORP and WRPS have not submitted a demonstration to the Ecology Regional Administrator that shows the hazardous waste management unit or facility has the capacity to receive additional hazardous wastes and that they have taken, and will continue to take, all steps to prevent threats to human health and the environment, including compliance with all interim status requirements.

Action Required: Within 60 days of receipt of this inspection report, DOE-ORP and WRPS must submit to Ecology either: 1) a closure schedule for the 204-AR WUS tank system; or 2) a demonstration that shows the hazardous waste management unit or facility has the capacity to receive additional hazardous wastes and that they have taken, and will continue to take, all steps to prevent threats to human health and the environment, including compliance with all interim status requirements.

2. Ecology observed inspection records that did not include the printed name of the inspector; records that did not include the date and time of the inspection; records that did not include a notation of the observations made; and records that did not include the date and nature of any repairs or remedial actions taken. Examples of observations of DST tank farm daily round records include the following:

- For the 241-AN Tank Farm Daily Rounds on 3/23/2015 the time of inspection was not recorded on inspection record. The printed name of inspector was not recorded on inspection record. There were no notations of observations made and they were not recorded on inspection record. The date and nature of any repairs or remedial

actions taken were not recorded on inspection record.

- For the 241-AZ Tank Farm Daily Rounds on 3/16/2015 the time of the inspection was not recorded on inspection record. The printed name of the inspector was not recorded on inspection record. There were no notations of observations made and they were not recorded on inspection record. The date and nature of any repairs or remedial actions taken were not recorded on inspection record.

- For the 241-SY Tank Farm Daily Rounds on 3/23/2015 the time of the inspection was not recorded on inspection record. The printed name of inspector was not recorded on the inspection record. There were no notations of the observations made and they were not recorded on inspection record. The date and nature of any repairs or remedial actions taken were not recorded on inspection record.

Action Required: Immediately upon receipt of the inspection report, DOE-ORP and WRPS must include the printed name, the handwritten signature, a notation of the observations made, and the date and nature of any repairs or remedial actions taken on inspection records. DOE-ORP and WRPS must submit to Ecology one week of daily round records within 30 days after completion of the one week of daily round inspections.

Ecology had the following two concerns:

1. The Part A application mentions "small temporary storage tanks", but does not describe the tanks. No DOE-ORP or WRPS personnel were able to identify what tanks were being referred to. The Part A application does not list any catch tanks as dangerous waste management units. However, in documents provided to Ecology during this inspection, Catch Tank 241-AZ-151, Catch Tank 241-AZ-301, and Catch Tank 241-EW-151 are described. It is a concern that all tanks and dangerous waste management units (DWMUs) storing mixed waste (MW) should be identified in the Part A application.

2. No integrity assessment of the Tank TK-1 in the 204-AR WUS tank system has ever been performed, and there is remaining MW in the tank. If DOE-ORP and WRPS provide a demonstration to Ecology and request a delay of closure for this unit, it is a concern that the liquid waste would be allowed to remain in the tank indefinitely without an integrity assessment of Tank TK-1.

Response(s)

Document #: 2016-07**Doc Date:** 1/12/2016**Agency:** Ecology**Category:** Notice of Violation**Title:** (CHPRC) NOTICE OF VIOLATION AT CENTRAL WASTE COMPLEX BASED ON DANGEROUS WASTE COMPLIANCE INSPECTION ON APRIL 1, 2015**Summary**

On January 12, 2016 Ecology issued letter 16-NWP-005 to DOE-RL and CHPRC. Ecology's Compliance Report for the CWC inspection was enclosed. The Compliance Report cites five areas of noncompliance with the Dangerous Waste Regulations (WAC 173-303) and nine concerns. The areas of noncompliance and the actions required for a return to compliance are listed in the Compliance Problems section of the report. To return to compliance, DOE-RL/CHPRC must complete the actions required and respond to Ecology within the specified timeframes in the Compliance Problems section of the report (within 60 days of receipt of the inspection report; on or before March 18, 2016). The response is to include all supporting documentation such as photographs, records, and statements explaining the actions taken and dates completed to return to compliance. 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.

The five areas of alleged noncompliance and actions required include the following:

1. CHPRC provided Ecology with documentation for the disposal of the three flammable storage modules DWMUs (FS-04, FS-08, and FS-13). However, neither DOE-RL nor CHPRC provided a closure plan and closure documentation notifying Ecology that partial closure of the flammable storage modules DWMUs (FS-04, FS-08, and FS-13) had occurred.

Action Required: For all future partial and final closures at DWMUs operating to interim status standards, USDOE-RL and CHPRC must notify Ecology in accordance with 40 CFR 265.112(d)(1) as incorporated by WAC 173-303-400(3)(a) and modified by WAC 173-303-400(3)(c)(vi)(A) upon the last receipt of DW or MW at a CWC DWMU. DOE-RL and CHPRC must place a notation in the CWC operating record listing the unauthorized partial closure of the Flammable Storage Modules DWMUs, including the date of last receipt of waste at FS-04, FS-08, and FS-13 and the date that the flammable storage modules were removed from the CWC Operating Unit. DOE-RL and CHPRC must submit to Ecology within sixty (60) days of receipt of this report documentation that the notation was included in the operating record.

2. During the April 1, 2015, Ecology inspection at CWC of DW containers in Building 2402-WB and Building 2403-WB, Ecology observed containers storing MW that were not in good condition (e.g., scaling and rusting of containers; rust on top rings and/or bottom bands; rusting along the vertical seam of containers; and chunks of rust of the same consistency and color as rust on the container which appeared to have separated from the container and were lying on the floor.)

Action Required: DOE-RL and CHPRC must transfer the hazardous waste from any container not in good condition to a container that is in good condition, or manage the waste in some other way that complies with the requirements of 40 CFR 265.171. Within 60 days of receipt of the report, DOE-RL and CHPRC must submit to Ecology documentation of all actions taken to meet the requirements of 40 CFR 265.171.

3. During the Ecology review of inspection records provided by CHPRC for the April 1, 2015, Ecology inspection at CWC, Ecology observed containers #ARD-023, #ARD-032, and #ARD-026, stored in Building 2403-WB were positioned next to each other in a manner that does not allow for inspection of at least one side of each container. Ecology observed rows of side-by-side containers stacked up to three tiers high. It is not possible to see the top of containers positioned on the third tier without a manual lift device, a pole mirror, or some other device. It is not possible to view the tops or the backside of any container positioned in the second tier, because the pallets and containers of the third tier block the view.

Action Required: Immediately upon receipt of the report, DOE-RL and CHPRC must perform weekly DW container inspections. The inspection record must include notation of any leaking containers and deterioration of DW containers. Within thirty (30) days of completing four weeks of weekly DW inspections, DOE-RL and CHPRC must submit to Ecology the four weeks of inspection records.

4. During the April 1, 2015, Ecology inspection at CWC, in the less-than-90-day accumulation area located within FS-23, Ecology observed Container #0074054 had no accumulation date marked on the container. During the course of Ecology's inspection, Ecology was told by CHPRC that CWC operations personnel had checked the container records for container #0074054, and on the day of Ecology's inspection had written the accumulation date of February 9, 2015 on container #0074054. Ecology observed that February 9, 2015, had been added to the container as the accumulation date.

Action Required: No further action is required.

5. During Ecology's review of inspection records provided by CHPRC for the April 1, 2015, Ecology inspection at CWC, Ecology observed inspection records that did not include the printed name of the inspector. In addition, Ecology observed inspection records where NCOs recorded inspecting multiple separate locations at the same time. Also, Ecology observed inspection records which did not include a notation of the observations made, or the date and nature of any repairs or remedial actions taken. A list of inspection record deficiencies is included as Attachment 2.

Action Required: Immediately upon receipt of the report, DOE-RL and CHPRC must include the printed name, the handwritten signature, a notation of the observations made, and the date and nature of any repairs or remedial actions taken on inspection records. Within thirty (30) days of completing four weeks of weekly DW container inspections, DOE-RL and CHPRC must submit to Ecology the four weeks of inspection records.

The Ecology Inspection/Compliance Report also contained the following nine concerns:

1. SW040-043, SWSD-PRO-OP-51714, Inspect CWC & Miscellaneous Buildings, Revision 9, Change 8, Appendix B, Weekly CWC RCRA 90-day AA Inspections, does not include any criteria to inspect or check container labels for an accumulation start date.

2. During inspection discussions, CHPRC personnel stated that DW inspections performed of containers prior to container acceptance for storage at CWC were used as the baseline for future weekly container inspections. Inspections performed of containers prior to container acceptance for storage at CWC should follow the same rigor as weekly DW inspections and should document the container condition in a manner that will allow NCOs to observe container deterioration.

3. When DW inspections are performed in a building storing approximately 300 containers with multiple labels, tags, and markings; it is unclear how inspecting NCOs can distinguish changes in deterioration of containers from the previous DW inspection unless the container condition is perfect; the container condition for each container is documented in writing with container identifier number and a detailed description of the container condition; or a photograph of the container is provided from the last week's inspection.

4. Ecology observed that DW container inspections were not always performed weekly (every seven days).

5. It is unclear how adequate DW weekly building and container inspections can both be performed in a period of 15 - 30 minutes. In some instances, inspection records of buildings storing DW containers indicated that the documented time of the inspection lasted less than 10 minutes. Weekly containers inspections must include identifying leaks and checking each container for deterioration caused by corrosion or other factors. Container inspections must include a complete and thorough inspection of the container, as well as a review of container labeling. Facility inspections of container storage areas includes a review of the secondary containment system, including the floor

coatings and sumps and of the building.

6. Because neither DOE-RL nor CHPRC provided Ecology with closure documentation for the partial closure of the Flammable Storage Module DWMU (FS-04, FS-08, and FS-13), it is unclear if the disposal of the modules was the sole activity or if clean closure of the area where these modules had been located was also addressed. During final closure of the Flammable Storage Modules DWMU, DOE-RL and CHPRC must identify any DW or hazardous material spills to these areas and include the areas where these individual modules were previously located in the CWC closure plan.
7. CHPRC told the Ecology inspectors that aerial shots are taken to perform inspection of the tops of boxes in storage in Outside Storage Area A and reviewed by operations personnel. CHPRC said that when aerial shots cannot be performed, operations personnel inspect the top of the boxes using a manlift. When Ecology reviewed the inspection records for the outside storage areas, Ecology observed that no aerial shots or review notes of the aerial shots were included with the inspection records.
8. It is not clear from reviewing inspection records that DOE-RL and/or CHPRC are performing complete and thorough container inspections on the containers in Outside Storage Area A. Due to the amount of time being spent on these inspections, it does not appear that personnel performing the inspections are looking under the container covers to inspect the containers.
9. When the DW job titles, descriptions, or position descriptions do not match, it is not possible to compare the training requirements listed in the DW training plan with the DW training records to determine that training requirements have been met for those individuals.

Response(s)

Document #: 2016-05**Doc Date:** 12/1/2015**Agency:** Ecology**Category:** Notice of Violation**Title:** (CHPRC) NOTICE OF VIOLATION OF DANGEROUS WASTE REGULATIONS BASED ON COMPLIANCE INSPECTION AT 241-CX TANK SYSTEM ON JUNE 30, 2015**Summary**

The Washington State Department of Ecology (Ecology) conducted a non-financial records review compliance inspection at the 241-CX Tank System on June 30, 2015. On December 1, 2015, Ecology issued letter 15-NWP-205 to DOE-RL and CHPRC. Ecology's compliance report for the 241-CX Tank System inspection is enclosed. This report cites one alleged violation of the Dangerous Waste Regulations and three areas of concern. The alleged violation and the actions required for a return to compliance are listed in the Compliance Problems section of the report and are summarized below. To return to compliance, DOE-RL/CHPRC must complete the actions required and respond to Ecology within the specified time frames in the Compliance Problems section of the report. Include all supporting documentation such as photographs, records, and statements explaining the actions taken and dates completed to return to compliance. 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.

The alleged regulatory noncompliance involved annual inspections of the 241-CX Tank System. Ecology observed on the Data Sheet 1 used for the July 9, 2014 inspection had initials "DS Old" rather than the full name of the inspector. The time of the annual inspections were not documented on the Data Sheet 1 for July 10, 2013 or July 9, 2014. Ecology also did not observe the date and nature of any repairs or remedial actions taken on the Data Sheet 1 or Data Sheet 2 for the July 10, 2013, or July 9, 2014, annual inspections.

Action Required: Within 30 days upon receipt of the compliance report, DOE-RL/CHPRC must note in their operating record the dates that inspection records were deficient and the description of the deficiency with WAC 173-303-320(2)(d) requirements and submit a copy of the documentation placed in the operating record to Ecology. DOE-RL/CHPRC must immediately start documenting the time of the inspection on the inspection records and within 60 days upon receipt of this compliance report, DOE-RL/CHPRC must also update and submit to Ecology, an inspection record with a space to document the time of the inspection that meets the requirements of WAC 173-303-320(2)(d).

The three areas of concern included the following:

1. Both the lids associated with the 241-CX-70 and 241-CX-72 tanks were not closed. It is unclear if the lids are a part of the tank system or just on top of the tank system. Since only annual inspections are conducted, it is unclear how long the lids were not closed. If maintenance or other inspections were conducted that prompted the removal of the lids, those procedures or documentation were not directly associated or referenced in the Data Sheets (1 or 2) utilized.
2. From the records provided, there appears to be no inspection schedule required for dangerous waste inspection under 40 CFR Part 265 Subpart J- Tank Systems for the 241-CX Tank System. There are Ecology letters noting a frequency other than the annual inspection completed in accordance with the 241-CX Tank System Technical Procedure. Documentation regarding the reasons for not scheduling other frequencies for inspections is referenced as 0302422, when the actual reference number 0059691 is stamped on the letter. The frequency of inspections will need review because the lids on 241-CX-70 and 241-CX-72 were noted as off during the July, 10, 2013 annual inspection.
3. Ecology observed that "yes" was marked for all of the items during the July 10, 2013, inspection of 241-CX-72. Ecology also observed the number "1" written next to the mark for "Site Security." Ecology noted the following observations made on the Data Sheet 2- Hot Semi Tanks 241-CX-70, -71, & -72 Surveillance- Comments Sheet for the Tank 241-CX-72 inspection. "Lid off tank make's area open to environment" with the initials DP next to the

comment. Personnel training should be reviewed for personnel who conduct and document observations made during inspections in accordance with WAC 173-303-320. The criteria item should have been marked "No." The observation was appropriately documented on the Data Sheet 2. The date and nature of repair or remedial action should have been documented on the Data Sheet 2.

Response(s)

Document #: 2016-04**Doc Date:** 12/1/2015**Agency:** Ecology**Category:** Notice of Violation**Title:** (CHPRC) NOTICE OF VIOLATION OF DANGEROUS WASTE REGULATIONS BASED ON COMPLIANCE INSPECTION AT HEXONE STORAGE AND TREATMENT FACILITY ON JUNE 30, 2015**Summary**

The Washington State Department of Ecology (Ecology) conducted a non-financial records review compliance inspection at the Hexone Storage and Treatment Facility on June 30, 2015. On December 1, 2015, Ecology issued letter 15-NWP-204 to the Department of Energy-Richland Operations Office (DOE-RL) and CH2M Plateau Remediation Company (CHPRC). Ecology's compliance report for the Hexone Storage and Treatment Facility inspection was enclosed. This report cites two areas allegedly not in compliance with the Dangerous Waste Regulations and five areas of concerns. The alleged regulatory non-compliances and actions required for a return to compliance are listed in the Compliance Problems section of the report and are summarized below. To return to compliance, DOE-RL/CHPRC must complete the actions required and respond to Ecology within the specified time frames in the Compliance Problems section of the report. All supporting documentation should be included such as photographs, records, and statements explaining the actions taken and dates completed to return to compliance. 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.

The two alleged violations of the dangerous waste regulations include the following:

1. The time of the annual facility inspections were not documented on Data Sheet 1 for October 3, 2013 and November 12, 2014.

Action Required: Within 30 days upon receipt of the compliance report, DOE-RL/CHPRC must note in their operating record the dates that inspection records were deficient and the description of the deficiency with WAC 173-303-320(2)(d) requirements and submit a copy of the documentation placed in the operating record to Ecology. DOE-RL/CHPRC must immediately start documenting the time of the inspection on the inspection records and within 60 days upon receipt of the compliance report, DOE-RL/CHPRC must also update and submit to Ecology data sheets with a space to document the time of the inspection that meets the requirements of WAC 173-303-320(2)(d).

2. The second page of Data Sheet 1 associated with the November 12, 2014 annual inspection was missing. The second page had the spaces for the printed name, signature, and date of the inspection.

Action Required: Within 30 days upon receipt of the compliance report, DOE-RL/CHPRC must note in their operating record the date and the description of the deficiency with WAC 173-303-380(1)(e) requirements and submit a copy of the documentation placed in the operating record to Ecology.

The following five areas of concern were identified in the Ecology compliance report:

1. According to CPSM-PRO-OP-50685, involvement of the Fire Protection Engineer is optional during annual inspections. The following is stated under Sections 1.3, Section 2.4, and Section 3.2: "Fire Protection Engineer (FPE) will be invited to accompany the surveillance whenever he is available. The FPE will be invited to accompany each surveillance but is not required to be present. The FPE will also review surveillance observations to verify that: (1) general combustible loading conditions are within allowable limitations and consistent with analyzed accidents, and (2) egress requirements are maintained for allowed surveillance pathways.

Considering the EPA waste code D001 is listed in the Part A Form for the Hexone Storage and Treatment Facility, a requirement to complete an ignitable and reactive inspection, at least annually, in accordance with the Washington State Dangerous Waste Regulations Chapter 173-303-395 Washington Administrative Code (WAC) should be

performed. According to WAC 173-303-395, "This inspection must be performed in the presence of a professional person who is familiar with the International Fire Code, or in the presence of the local, state, or federal Fire Marshal."

2. All 17 buildings listed on the November 12, 2014, surveillance Data Sheet 1 were documented as being inspected with the initials "DSO" and date "11-12-14." It is unclear if the "Housekeeping" deficiency pertained to the 276-S-141 or 276-S-142 tanks or one of the other fifteen buildings listed on Data Sheet 1. Completing a separate Data Sheet 1 for the Hexone Storage and Treatment Facility would clarify if deficiencies are related to the Hexone Storage and Treatment Facility or the other REDOX Complex buildings.

3. The missing second page of the Data Sheet 1 used for the November 12, 2014, annual inspection was not located. The training program should be reevaluated for any personnel who perform the job duty to ensure that records are managed and maintained as required by WAC 173-303-320(2)(d).

4. Although the housekeeping deficiency noted on Data Sheet 3 associated with the November 12, 2014, annual inspection of the Hexone Storage and Treatment Facility appears to be related to another building within the REDOX Facility, the date and nature of any repairs or remedial actions taken should be documented. Data Sheet 3 has a space for actions taken, which filled out properly would close out any concerns regarding the deficiency observed. If the deficiency relates to the Hexone Storage and Treatment Facility, DOE-RL and CHPRC would be required to document the date and nature of any repairs or remedial actions taken, in accordance with WAC 173-303-320(2)(d).

5. From review of the records provided to Ecology, there appears to be no inspection schedule for the 40 CFR Part 265 Subpart J- Tank Systems for the Hexone Storage and Treatment Facility. Additionally, no other inspection frequency was recorded other than the annual facility inspection completed as required in the Hexone Storage and Treatment Facility Technical Procedure, CPSM-PRO-OP-50685. Documentation regarding the reasons for not scheduling other tank inspections should be included in the facility operating record and made available upon request.

Response(s)

Document #: 2016-03**Doc Date:** 11/10/2015**Agency:** Ecology**Category:** Notice of Violation**Title:** (CHPRC) NOTICE OF VIOLATION AND CONCERNS REGARDING 400 AREA WMU
DANGEROUS WASTE COMPLIANCE INSPECTION ON JUNE 3, 2015**Summary**

On November 10, 2015, Ecology issued letter 15-NWP-200 to DOE-RL and CHPRC. Ecology's compliance report for the 400 Area Waste Management Unit inspection is enclosed. This report cites three areas of alleged noncompliance and seven areas of concern. These three areas of alleged noncompliance and the actions required for a return to compliance are listed in the Compliance Problems section of the compliance report. To return to compliance, DOE-RL/CHPRC must complete the actions required and respond to Ecology within 60 days of receipt of the compliance report that was sent by certified mail. The response must include all supporting documentation such as photographs, records, and statements explaining the actions taken and dates completed to return to compliance. 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.

The three areas of alleged noncompliance include the following:

1. The location of spill and emergency equipment is not specifically identified in the Permit, Part III, Operating Unit Group 16, Addendum J, Contingency Plan or the FFTF Building Emergency Plan, HNF-IP-0263.

ACTION REQUIRED: Within 60 days upon receipt of the compliance report, DOE-RL/CHPRC must request a permit modification, in accordance with WAC 173-303-830 to revise the Permit Part III, Operating Unit Group 16, Addendum J, Contingency Plan, which must include the specific location of the emergency response kit, spill kit, and spill control equipment. In addition the FFTF Building Emergency Plan, HNF-IP-0263 should include the specific location of the emergency response kit, spill kit, and spill control equipment.

2. Ecology reviewed several inspection records associated with the 400 Area WMU. Ecology observed numerous inspection logs with the printed initials of the inspector instead of the printed name of the inspector.

Action Required: Within 30 days upon receipt of the compliance report, DOE-RL/CHPRC must submit a record to the 400 Area WMU operating record identifying the following deficiencies observed on inspection logs:

- Missing times of inspections.
- Missing printed names and handwritten signatures of the inspector.
- Notations of the observations documented and missing dates and nature of any repairs or remedial actions taken.

Within 60 days upon receipt of the compliance report, DOE-RL/CHPRC must submit to Ecology a copy of the record (noted above), which was submitted to the operating record and revised inspection logs (e.g., space to record times of inspection and space for comments) in accordance with the Permit, Part III, Operating Unit Group 16, Addendum I, and Permit Condition II.0.

3. Ecology reviewed the DOE letter 14-AMRP-0309, dated October 23, 2014 and the attachment "Apparent Cause Evaluation Report, Calendar Year 2013 Ignitable/Reactive Waste Inspection Did Not Include the D-10 Tank Outside Storage Area, CR-2014-0018," which was provided to Ecology. Ecology observed under Section 3.4, "Extent of Condition," the following statement "Assessment WFMP-2012-WSA-11735 identified that the 400 Area WMU inspection was missed in 2011. The issues related to missing Ignitable/Reactive waste inspection drove an apparent cause analysis to ensure that corrective actions had sufficient breadth and depth."

Action Required: DOE-RL self-disclosed the missed ignitable/reactive waste inspection and provided self-implemented corrective actions. DOE-RL/CHPRC have also completed the latest Annual Ignitable/Reactive

Dangerous Waste inspection for 2014 as noted in this compliance report. No further action required.

Ecology also identified the following seven concerns:

1. Ecology reviewed training records for a Sampler/Well Maintenance employee. Ecology did not identify the Dangerous Waste Training Plan (DWTP), PRC-STD-TQ-40236 training courses 301810, 301802, or 301813 as being completed as required by the DWTP for Samplers. On a training record dated July 16, 2015, the employee job title is listed as "CHPRC Well Maintenance." The requested training record was presented to Ecology as an electronic file. The training record is not clear on whether the employee is functioning as a sampler, well maintenance personnel, or both. Ecology was also told during the inspection that samplers are currently not at the 400 Area WMU. Before the employee can conduct sampling job duties, he must complete the required training as identified in the DWTP.

2. Ecology reviewed training records for a Waste Management Representative employee. Ecology found that the DWTP, PRC-STD-TQ-40236 does not identify Waste Management Representative as a job title/position. According to the DWTP, Table 3-1, "Job Titles/Positions at the Central Plateau Surveillance and Maintenance (CP S&M)," there is a Waste Service Provider. The DWTP has the Waste Service Provider marked for "work unescorted." The term Waste Management Representative is only mentioned one time under Table 6-1, "Training Courses" for a course title. The requirements associated with a Waste Management Representative are not clearly identified in the DWTP. Clarification on job duties and titles should be addressed within the DWTP and Addendum G in the Permit for the 400 Area WMU, to ensure personnel are properly trained.

3. The Permit Part III, Operating Unit Group 16, Addendum J, Contingency Plan and FFTF BEP HNF-IP-0263 are missing information. Both plans did not provide a description of emergency circumstances associated with waste sodium and NaK (e.g., fires and explosions) or a response to facility operation emergencies associated with the pressure in the argon gas system. Ecology observed in the CHPRC Technical Procedure, 2CP-SOP-F-05026, CPSM-PRO-OP-50663, "Response to Argon Cover Gas System Pressure Abnormal," Revision 0, Change 3, dated December 27, 2011 the steps to be taken in cases the pressure is high or low. These steps appear to not be specifically described or referenced in the Hanford Emergency Management Plan, Addendum J Contingency Plan, or Emergency Plan Implementing Procedures. The missing information or lack of references associated with emergency circumstances related to waste sodium and NaK should be specifically described or referenced in the Contingency Plan and FFTF BEP HNF-IP-0263.

4. The annual inspection of the argon gas system as noted in this compliance report is not specifically described in the FFTF S&M Plan. The criteria for reviewing and maintaining the argon gas system in the FFTF, other than what is checked weekly at the Dewar Pad and in Building 403 (FSF), is not clearly defined in the FFTF S&M Plan. Weekly inspections take place at the Dewar pad gauge and FSF containers, while annual inspections are conducted for the rest of the argon gas system associated with FFTF does not meet the intent of WAC 173-303-320, General Inspections. The constant need to replace the argon gas supply and the inventory of 6,000 to 15,300 gallons of radioactively contaminated sodium residual in FFTF leads to concerns regarding the inspection frequency and maintenance procedures for the argon gas system.

5. Details and concerns regarding the 400 Area WMU, Addendum H, Closure Plan are described in the Ecology compliance report No. 11.344. The 400 Area WMU closure plan was last revised on June 30, 2009. The Permit, Part III, Addendum H, Closure Plan, dated June 30, 2009 also does not mention or specifically describe elemental sodium or NaK. The concern listed in the compliance report No. 11.344 states "Permit Condition III16.K.1 states that the Permittees will close the 400 Area WMU Container Storage Units in accordance with Addendum H, Closure Plan. On review of the current permit closure plan, it does not appear to meet the complete requirements of a permit closure plan under WAC 173-303-61 0(3). As stated, the approved closure plan will become a condition of any permit. The department's decision must assure that the approved closure plan is consistent with subsections (2), (3), (4), and (6) of this section and other applicable requirements. The closure plan is not consistent and/or does not include requirements for WAC 173-303-610 (4), (5), (6). FFTF has permitted storage units that have not undergone

closure but which received their final quantity of waste several years ago prior to the Ecology inspection. The following inactive units were observed during the inspection: FSF- last used around 2006; ISA - last used around 2009. At the time of the Ecology inspection, DOE-RL and CHPRC did not have any plans to make future use of these units. The FSF seemed inoperable in its present state. The "Schedule for Closure", Section H4 of Addendum H, Closure Plan, does not meet the requirements for a longer period for closure, in WAC 173-303-610(3)(c)(ii), WAC 173-303-610(4)(a), or WAC 173-303-610(4)(b).

6. The 2013 Land Disposal Restriction (LDR) Report states the current inventory of mixed waste (MW) at the 400 Area WMU is 1.9 cubic meters with no projected generation of MW from 2014-2018. The 2013 LDR report further identifies characterization of the MW as completed and the treatment process to be utilized is deactivation and conversion to sodium hydroxide. The report also identifies the Tri-Party Agreement (TPA) Milestone M-92-09 as related to the waste in the 400 Area WMU and states "Treatment is planned to begin after 2018." The TPA Milestone M-92-09 states "Establish milestones and/or target dates if needed for acquisition of new facilities, modifications of existing facilities, and/or modification of planned facilities necessary for storage, treatment/processing, and disposal of Hanford site sodium" has a due date of September 30, 2018. DOE-RL/CHPRC have not addressed the differences between bulk sodium stored on the Hanford Site and the residual elemental sodium and NaK (debris sodium) that remains in core component pots (CCP), tubing, etc., being stored in the 400 Area WMU. The extraction of the elemental sodium and NaK from the CCPs, tubing, etc., was not completed before being placed in storage in the 400 Area WMU. How DOE-RL/CHPRC plan to extract the MW debris sodium and convert it to sodium hydroxide appears to have not been fully addressed. Furthermore, the treatment or transfer of the MW in the 400 Area WMU is directly related to the closure of the unit group. The DWMU FSF last receipt of MW was approximately 2006, while the DWMU ISA last receipt of MW was approximately 2009.

7. The Permit, Part III, Operating Unit Group 16, Addendum G, Personnel Training, is a matrix of job titles, positions, and training categories that do not clearly indicate compliance with WAC 173-303-330 or Permit Condition II.C for personnel training. The DWTP referred to in Addendum G is not the same title as the DWTP, PRC-STD-TQ-40236. DOE-RL/CHPRC should revise Addendum G and refer specifically to the DWTP, PRC-STD-TQ-40236.

Response(s)

Document #: 2016-02**Doc Date:** 11/4/2015**Agency:** Ecology**Category:** Notice of Violation**Title:** (WRPS) ECOLOGY NOTICE OF VIOLATION AND CONCERNS FROM SINGLE-SHELL TANK DANGEROUS WASTE COMPLIANCE INSPECTION ON MARCH 30-31, 2015**Summary**

On November 4, 2015, Ecology issued letter 15-NWP-196 to DOE-ORP and WRPS. The Ecology compliance report for inspection of the Single-Shell Tank Permit Closure Unit Group 4 is enclosed. The report cites four areas of alleged non-compliance with the Dangerous Waste Regulations and six concerns. The four areas of alleged non-compliance and their actions required to return to compliance are listed in the Compliance Problems section of the report. To return to compliance, DOE-ORP/WRPS must complete the actions required and respond to Ecology within 60 days of receipt of this letter and compliance report (actions due January 5, 2016). Include all supporting documentation such as photographs, records, and statements explaining the actions taken and dates completed to return to compliance. Failure to correct the areas of alleged non-compliance 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.

The four areas of alleged non-compliance with the Dangerous Waste Regulations included the following:

1. During the field inspection, Ecology observed there were no signs with the legend, "DANGER - Unauthorized Personnel Keep Out" or equivalent legend written in English at the following tank farm locations: east fence line of T Tank Farm, west fence line of T Tank Farm, north fence line of TY Tank Farm, north fence line of U Tank Farm, south fence line of U Tank Farm, south fence line of SX Tank Farm, east fence line of A Tank Farm, and east fence line of AX Tank Farm.

Action Required: Within 60 days of receipt of the compliance report, post in sufficient numbers to be seen from any approach to the active portions of all SST tank farms, signs bearing the legend, "DANGER - Unauthorized Personnel Keep Out" or an equivalent legend, written in English, and legible from a distance of twenty-five feet or more. Within 60 days of receipt of the report, submit to Ecology evidence that the signs were posted. The response must include the language used on the signs, the locations where the signs were posted, and a written verification that the signs are legible from a distance of twenty-five feet or more. Note that this should also be done on B, BX, BY, and C Tank Farms that did not have the perimeters walked during the field inspection. Additionally, within 60 days of receipt of the report, develop and submit to Ecology an inspection schedule (WAC 173-303-320(2)) for these new signs and conduct inspections according to that schedule.

2. Ecology observed inspection logs which did not contain the date of the inspection, the time of the inspection, the printed name of the inspector, the handwritten signature of the inspector, or the date and nature of any repairs or remedial actions taken. The deficiencies found during the inspection are identified on the inspection record deficiency table.

Action Required: Immediately upon receipt of the report, include the date and time of the inspection, the printed name and the handwritten signature of the inspector, notations for observations made, and the date and nature of any repairs or remedial actions taken on all dangerous waste inspection records that help prevent, detect, or respond to hazards to the public health or the environment. Be sure that the inspection records include the following equipment related to dangerous waste inspections: monitoring equipment, safety and emergency equipment, security devices, and operating and structural equipment. Also place a notation in the SST operating record for the inspections performed prior to the date of receipt of the inspection report, stating that all required information (i.e. the WAC 173-303-320(2)(d) requirements) was not included in the inspection record. Submit to Ecology within 60 days of receipt of the report, documentation that the notation was recorded in the operating record.

3. On the inactive waste site surveillance inspection records, Ecology observed a failure to remedy problems revealed

by inspections, on a schedule, which prevents hazards to the environment:

- Inspection record dated 1/20/2014 of 241-BX-106, stated "Open electrical conduit lines may allow water into pits or other areas - Conduits that are no longer in use need to be capped. This has been noted on several past checklists."
- Inspection record dated 3/7/2014 of 241-BY-109, stated "Pump pit is not foamed- Valve handle penetration are allowing liquid intrusion. (This was reported last year)"

Action Required: Within 60 days of receipt of the report, remedy problems revealed during the January 20, 2014 inspection of 241-BX-106 and the March 7, 2014 inspection of 241-BY-109. Within 60 days of receipt of the report, report to Ecology that these remedies have taken place.

4. Dangerous Waste Training Plan TFC-PLN-07, Rev. B, lists the following required training courses to be taken for personnel who perform Off-Site Shipping:

- 020081 - VEHICLE INSPECTION FOR TRAFFIC PERSONNEL
- 020380 - TRANSPORTATION SECURITY PLAN FOR SHIPPERS/WAREHOUSE- CBT
- 050410 - LOAD SECUREMENT FOR DRIVERS AND TRAFFIC PERSONNEL
- 351033 - OFF-SITE SHIPPER

In a follow up inspection meeting on July 1, 2015, Ecology asked if training course number 020380, "Transportation Security Plan for Shippers/Warehouse," had been assigned another course number, specifically number 351568. WRPS indicated that the course changed to number 351568 around five years ago when WRPS assumed the operation contract from CH2M HILL Plateau Remediation Company. Course 351568, "WRPS Transportation Security Plan for Shippers" does not appear as a required training course in Dangerous Waste Training Plan TFC-PLN-07, Rev. B, but it is required training for off-site shipping.

Action Required: Within 60 days of receipt of the report, update and submit to Ecology, a revision to TFC-PLN-07, Revision B, "Dangerous Waste Training Plan," to replace course number 020380, "Transportation Security Plan for Shippers/Warehouse" with training course number 351568, "WRPS Transportation Security Plan for Shippers."

Ecology also had the following six concerns:

1. There is a concern that complete training courses for the On-Site and Off-Site Shipper are incomplete and the authorized shipper is not properly trained for this position. In the Ecology records request, the inspector asked for dangerous waste training records for the position "Qualified Shipper" (i.e., authorized shipper). A review of authorized shipper personnel training records showed that the training courses required under the Advanced Waste Worker Category, were not complete and up to date. Specifically, required training courses for "Off-Site Shippers," include course numbers 020081, 020380, 050410, and 351033. The authorized shipper completed 020081 and 351033, but did not complete training courses 020380 and 050410. The authorized shipper did complete course number 351568, that replaced course number 020380, which was verified verbally during the inspection and in writing from the records request.

Training course number 351024, which applies to WRPS personnel who perform on-site shipping is not recorded as completed for the authorized shipper. On July 1, 2015, Ecology asked if the authorized shipper's job duties as of March 31, 2015, were that of an On-Site and/or Off-Site Shipper. The WRPS Manager of Waste Technical Services, said that the authorized shipper was the transportation safety officer. The Manager of Waste Technical Services explained that the authorized shipper did not routinely make shipments, but that he had the ability to do both on-site and off-site shipping if staff are not available. Ecology has a concern that the authorized shipper, as the transportation safety officer, is not properly trained for conducting duties he supervises or if he conducts these activities he is not properly trained.

2. It was difficult to determine if the corrective actions from the Interim Measures Maintenance Plan (IMMP) inspection records were performed. When management conducts their inspection they fill out a Management

Observation Program (MOP) record. The inspection findings are documented in the MOP and include actions required for resolution of any inspection concerns or issues. A Problem Evaluation Request (PER) is then issued to correct the inspection finding or issues. When Ecology reviewed the PER associated with the inspection concerns and issues found in WRPS-MOP-2014-2897, Ecology could not determine what actual work was performed. In order to verify that the corrective actions were completed, Ecology had to review WRPS-MOP-2015-0768 and follow up with WRPS-MOP-2015-0910. The process used by WRPS to document corrective actions from inspections needs to be updated so that the original inspection records that document the issues either contain, or directly reference another document that contains the date and nature of repairs or remedial actions taken. This concern was also noted on the April 27, 2004, Ecology Inspection Number 04.246.

3. There is a concern if the TY Tank Farm interim barrier has an inspection schedule meeting the requirements of WAC 173-303-320. From reviewing records, Ecology was unable to verify if a schedule exists and it appears the inspections that are performed are following another criteria; similar to that of the T Tank Farm Interim Barrier inspection schedule. The 241-TY interim surface barrier inspection records state the following, "This activity provides inspection criteria for the TY Farm Interim Surface Barrier. Requirements: RPP-PLAN-49651, Table 4-1." However during a July 1, 2015, follow-up inspection meeting with WRPS, Ecology was told that there was no inspection schedule for the TY interim surface barrier. No inspection schedule was provided to Ecology for the TY interim surface barrier; however, inspection records for the T interim surface barrier were provided. The interim barriers over the tank farms were installed in response to hazards from leaks from the SSTs. The barriers help prevent previously leaked waste from moving further down the soil column to the groundwater. The barriers were installed under a TPA process and after their installation, the barriers are required to be inspected and maintained under the general inspection criteria of WAC 173-303-320. Another related concern is that inspections of the T Tank Farm Interim Surface Barrier are not being performed on a frequency identified in the IMMP and based on the rate of possible deterioration of the barrier. Ecology's observations from review of the inspection records stated that "Previous repairs show signs of failure." Ecology reviewed the Inspection and Maintenance Guidance Manual for the T Farm Interim Surface Barrier Demonstration Project and it recommends that inspections be performed quarterly. However, the inspection records Ecology reviewed of the T Tank Farm Interim Surface Barrier were being performed semi-annually as noted on the inspection logs. Frequency of inspections should be performed quarterly as required in the Inspection and Maintenance Guidance Manual.

4. Section 3.1.1 from RPP-22393 Rev. 7, "241-C-102, 241-C-104, 241-C-107, 241-C-108, and 241-C-112 Tank Waste Retrieval Work Plan" states, "Portable diversion boxes will be added to the C-Farm retrieval system and will be used for the tanks in this work plan. The transfer lines to and from up to three tanks will be routed through a valving arrangement in each box to permit switching retrieval operations between the tanks." At the time C-102 was turned over to operations there were five SSTs connected to a single diversion box. Ecology has a concern that too many connections are being made to single diversion box exceeding its design criteria or that the tank waste retrieval work plans are not being updated to represent the actual configuration of the retrieval equipment.

5. There is unneeded complexity and difficulty in determining SST leak detection requirements as described in the RPP-9937, Rev. 3E, "Single Shell Tank System Leak Detection and Monitoring Functions and Requirements." When reviewing leak inspection records, Ecology observed that in many cases, tank level readings were marked as N/A, circled in red with a reference to a tracking list, or O/S circled in red. In many cases what looks to be a missed leak detection event or a broken leak detection device, is actually a leak detection performed by Liquid Observation Well (LOW) instead of an ENRAF, or a level reading that is not required by one document but required by another. Having multiple schedules for performing leak detection is confusing in itself; however the lack of simple clarity in RPP-9937 makes for difficulties in determining compliance with the document from both the regulator and the implementer of the document. Ecology's attempts at revising RPP-9937 have been underway for many years, and currently no substantive document revisions have been produced. RPP-9937 was written when the TPA Milestone M-045-05 required the completion of retrieval of all waste out of SSTs by September 30, 2018. At that time, the above language was acceptable to Ecology; however, since then, M-045-70, the new TPA milestone for completion of SST waste retrievals, has changed to December 31, 2040. Ecology has a concern that the leak and intrusion detection and response requirements in RPP-9937 are not reflective of the current length of time that SST waste will remain in unfit

for use tank systems. The current set of requirements in RPP-9937 are not sufficient to ensure that to the maximum extent practical given the limits of technology, that the groundwater quality will not be further degraded from releases from SSTs. Emphasis needs to be placed on revising RPP-9937 to produce a single document that concisely lists tank waste level monitoring requirements and contains clear responses to level readings that are out of range. There needs to be a set of response criteria when a significant change in levels readings is confirmed. Overall, the leak detection and tank waste level monitoring program needs to be significantly revised for improved functionality, compliance, and record keeping.

6. Obstructions to conducting drywell cap inspection should be remedied so all drywell cap inspections can be performed as required in the Interim Measure Maintenance Plan WRPS-0900388 R2 inspection schedule. If physical examination of drywell caps is not possible due to the installation of retrieval equipment, WRPS/DOE should revise the Interim Measure Maintenance Plan WRPS-0900388 R2 to update the inspection schedule for drywell caps in farms where retrieval activities prohibit their inspection. Ecology observed that some inspection records indicated problems during the inspection that needed to be remedied in order for the inspection of the drywell caps to take place. Several inspection records state "unable to verify status of drywell caps due to sand covering caps inside caissons." In some cases this problem has been reported for several years.

Response(s)

On December 2, 2015, WRPS met with Ecology to seek clarification on the SST inspection report. The following agreements were made:

1WRPS/DOE-ORP does not plan to respond officially to the 6 Concerns identified within the SST inspection report. Ecology agreed this was acceptable.

2In regard to the response to alleged violation #2, WRPS/DOE-ORP will respond identifying the correction of incomplete records and provide documentation of the Required Reading sent to all WRPS employees. WRPS/DOE-ORP will acknowledge that procedures and inspection sheets will need to be updated but it is not necessary to provide proof of completion or a schedule to Ecology. Ecology agreed this was acceptable and is interested in keeping an open communication on updated procedures/inspection sheets.

3The 60 day due date for responses to alleged regulatory violations in the Ecology SST inspection report will expire on January 9, 2016. Ecology is amenable to a short extension if necessary to get management signatures considering the holiday.

On January 7, 2016, DOE-ORP issued letter 15-ECD-0064 to Ecology. This letter responds to Ecology's Inspection Report (15-NWP-196) regarding a compliance inspection of the Single-Shell Tank System performed on March 30 and 31, 2015. The report requires a response within 60 days of receipt of the Report (Report dated November 4, 2015, and received on November 10, 2015). The DOE-ORP and WRPS have reviewed the four items of non-compliance with the Dangerous Waste Regulations identified by Washington State Department of Ecology in the report. The attached information provides responses to each of these four items. In addition, six concerns were noted in the inspection report. By agreement among the DOE-ORP, WRPS, and Ecology Nuclear Waste Program, in a meeting held December 2, 2015, the six concerns are not addressed herein.

Ecology also had the following concerns:

1. The language in the CAFO, RCRA-10-2013-0113, lists the requirement to immediately cease the placement of prohibited dangerous waste in the LLBG Trench 31/34 without first satisfying applicable treatment standards in accordance with 40 CFR 268.45. Ecology observed that the language in the LLBG Trench 31/34 Waste Analysis Plan (WAP) is not consistent with the CAFO's requirement or with the requirements of 40 CFR 268.45. The WAP should be updated to reflect that no dangerous waste or mixed waste will be placed in the LLBG Trench 31/34 without first satisfying the requirements of 40 CFR 268.45.
2. CHPRC-01908, Revision 0, "Low-Level Burial Grounds Trenches 31 & 34, Waste Analysis Plan," Section 2.5, "Discrepant Container Management," states containers no longer in good condition and not in compliance with 40 CFR 265.171 will be tracked in the Discrepant Container Management Program (DCMP) until the issues are resolved. Placing dangerous waste containers no longer in good condition into a program with no near-term schedule for correction/resolution of the issue is not consistent with the requirements of 40 CFR 265.171.
3. Information regarding requisite skills, education, other qualifications, and duties for each job position was not provided to Ecology upon request of the facility's Dangerous Waste Training Plan. Therefore, Ecology could not determine that the information was or was not complete and in accordance with the training requirements of WAC 173-303-330(2).

Response(s)

On 12/28/2015 Ecology sent an email to DOE-RL granting an extension of the due date to 1/22/2016 as requested by DOE-RL via email the same day. An extension was requested due to limited staffing around the Christmas holiday.

On 1/22/2016 DOE-RL issued letter 16-ESQ-0022 to Ecology. This letter responds to the letter dated 10/20/2015 (15-NWP- 187) regarding the LLBG Trench 31/34 Compliance Inspection performed on 7/14/2015. DOE-RL and CHPRC have reviewed the alleged violations, concerns, and requested actions described in the letter and respond through the enclosed documents. As with previous DOE-RL and CHPRC responses related to the T Plant Complex, Waste Receiving and Process Facility and other Hanford Site facilities, alleged issues related to training are more appropriately addressed through the Hanford Facility Dangerous Waste Permit reissuance and are not addressed in the enclosed materials.

Document #: 2015-22**Doc Date:** 9/30/2015**Agency:** Ecology**Category:** Notice of Violation**Title:** (CHPRC) ECOLOGY OPERATION AND MAINTENANCE GROUNDWATER MONITORING WELL NOTICE OF VIOLATION OF DANGEROUS WASTE REGULATIONS**Summary**

On September 30, 2015, Ecology issued letter 15-NWP-174 to DOE-RL and CHPRC. Enclosed is Ecology's compliance report for Groundwater Operation and Maintenance Dangerous Waste Compliance Inspections conducted on May 19, 20, 21, and 27, 2015 at the Hanford Site. This report cites six alleged violations with dangerous waste management units (DWMUs) that were not in compliance with the Dangerous Waste Regulations or the Hanford Facility Resource Conservation and Recovery Act Permit, Dangerous Waste Portion, Revision 8C and seven areas of concern. The six violations and the actions required for a return to compliance are listed in the Compliance Problems section of the inspection report. To achieve compliance, complete the actions required and respond to Ecology within 60 days of receipt of the inspection report (November 30, 2015). Include all supporting documentation such as photographs, records, and statements explaining the actions taken and dates completed to return to compliance. The following is a listing of observations and required actions.

Observation 1: Ecology reviewed the most recent pre-trip inspections for 2014 and all requested maintenance inspection records from 2010 through March of 2015 for the dangerous waste management unit groups described in the inspection report. Several deficiencies were noted regarding the date of inspection, time of inspection, printed name of inspector, signature of inspector, notation of observations, date and nature of any repairs of remedial actions taken.

Action Required 1: Note in the operating record the dates that inspection records were deficient with WAC 173-303-320(2)(d) requirements. Secondly, update and submit to Ecology for approval, example inspection logs (Appendix J and Kin SGRP-PRO-SMP-50043, and the Well Attributes Report Inspection Checklist) that meet the requirements of WAC 173-303-320(2)(d).

Observation 2: Ecology observed in the 2014 groundwater monitoring records for the Nonradioactive Dangerous Waste Landfill (NRDWL), that the average specific conductance exceeded the critical means value of 579 uS/cm on July 1, 2014, in Wells 699-25-34A, 699-25-34B, and 699-25-34D. From the 2014 groundwater monitoring records reviewed, Ecology did not observe that Wells 699-25-34A, 699-25-34B, and 699-25-34D were resampled with samples split in two and analyzed to determine whether the significant difference was a result of laboratory error.

Action Required 2: For NRDWL, the next time sampling results show there is an exceedance of the critical means value, immediately obtain additional ground-water samples from those downgradient wells where a significant difference was detected, split the samples in two, and analyze these samples to determine whether the significant difference was a result of laboratory error. Once the sampling results are known, follow the next required steps in 40 CFR 265 Subpart F or submit for approval by Ecology, an alternate groundwater monitoring system plan meeting the requirements under 40 CFR 265.90(d) and follow that approved plans requirements.

Observation 3: Ecology observed in the 2014 groundwater monitoring records for 216-A-29 Ditch, that the average specific conductance exceeded the critical mean value of 396 uS/cm on the sampling dates of April 9, 2014, April 16, 2014, April 23, 2014, October 3, 2014, and October 23, 2014 in Wells 299-E25-32P, 299-E25-35 and 299-E25-48. Ecology observed that the 2014 groundwater monitoring records did not show that additional groundwater samples from downgradient Wells 299-E25-32P, 299-E25-35 and 299-E25-48 were resampled with samples split in two and analyzed to determine whether the significant difference was a result of laboratory error.

Action Required 3: For 216-A-29 Ditch, the next time sampling results show there is an exceedance of the critical means value, immediately obtain additional groundwater samples from those downgradient wells where a significant difference was detected, split the samples in two, and analyze these samples to determine whether the significant

difference was a result of laboratory error. Once sampling results are known, follow the next required steps in 40 CFR 265 Subpart F or submit for approval by Ecology, an alternate groundwater monitoring system plan meeting the requirements under 40 CFR 265.90(d) and follow that approved plans requirements.

Observation 4: Ecology observed in the 2014 groundwater monitoring records for 216-A-29 Ditch, that Well 299-E26-12 was only sampled annually for specific conductance, pH, Total Organic Carbon, and Total Organic Halogen. Ecology observed in 2014, Well 299-E25-34 was only sampled annually for Total Organic Carbon and Total Organic Halogen and did not have analysis for at least four replicate measurements for samples taken during the first sampling period for pH and specific conductance.

Action Required 4: Submit a revised groundwater monitoring plan to Ecology for approval for 216-A-29 Ditch that includes at least semi-annually sampling for specific conductance, pH, Total Organic Carbon, and Total Organic Halogen for Wells 299-E26-12 and 299-E25-34 or submit to Ecology for approval, an alternant groundwater monitoring system plan meeting the requirements under 40 CFR 265.90(d) and follow that approved plans requirements.

Observation 5: After reviewing the 2014 groundwater monitoring records for 216-A-37-1 Crib, Ecology observed on July 7, 2014, that groundwater Well 299-E25-47 was only sampled annually with four replicate measurements for pH, specific conductance, Total Organic Carbon, and Total Organic Halogen.

Action Required 5: Sample semi-annually for pH, specific conductance, Total Organic Carbon, and Total Organic Halogen for monitoring wells in the 216-A-37-1 Crib.

Observation 6: After reviewing the 2014 groundwater monitoring records for 216-S-10 Pond and Ditch, Ecology observed on May 20, 2014, that groundwater Well 299-W26-14 was only sampled annually with four replicate measurements for pH, specific conductance, Total Organic Carbon, and Total Organic Halogen.

Action Required 6: Submit a revised groundwater monitoring plan to Ecology for approval for 216-S-10 Ditch that includes at least semi-annually sampling for pH, specific conductance, Total Organic Carbon, and Total Organic Halogen for monitoring Well 299-W26-14.

Ecology also had the following areas of concern with no actions identified:

Concern 1: Hanford Annual Groundwater Report - As written in letter number 15-NWP-099 on June 1, 2015, Ecology is moving forward with an agency initiated permit modification to the Hanford Facility RCRA Permit Rev. 8C to require that the Hanford Annual Groundwater Monitoring Report be submitted to Ecology by July 31st of every year. This modification will allow time for data to be analyzed and combine both CERCLA/RCRA groundwater monitoring reporting that Ecology has requested.

Concern 2: Critical Means Recalculation Frequency and Initial Mean Recalculation in Dangerous Waste Management Unit Groups Operating to Interim Status Standards - Based on the dangerous waste management unit groups inspected and given the number of samples taken every year, the critical means may be being updated too frequently.

Concern 3: Inspection Records - Management should ensure that inspectors properly fill out the forms and include their full hand written name, their signature, the date and time of the inspection, observations made, and the date and nature of any repairs or remedial actions taken.

Concern 4: Lack of Complete Pre-Trip Inspection Descriptions - Ecology has a concern that procedure SGRP-PRO-SMP-50043 Operational Monitoring Groundwater Sampling, is lacking in descriptions of the specific things that are done during pre-trip inspections. More specific details need to be added to Section 4.6 and/or Addendum K to better describe what is looked for during these inspections.

Concern 5: Conflicting Hanford Facility RCRA Revision 8C Permit Condition - Condition II.F in the Hanford Facility RCRA Permit, Revision 8C, states: "The Permittees will comply with the ground water monitoring requirements of WAC 173-303-645." Ecology has a concern that this condition directly conflicts with the fact that groundwater monitoring plans for 1324-N, 1324-NA, 1325-N, and 1301-N are written to interim status groundwater monitoring requirements in a final status groundwater monitoring plan. During the inspection, CHPRC SGRP Project Delivery said that draft plans for these units are now updated to final status standards, but that Ecology was currently making a decision to incorporate the plans into the Hanford RCRA Permit Revision 8C or Revision 9. The inspector believes for compliance with the II.F Condition, these plans should be incorporated into the Revision 8C permit as soon as they have been approved by Ecology.

Concern 6: Error in Hanford Facility RCRA Permit, Revision 8C - During my inspection, DOE-RL mentioned an error in Permit Condition II.F.2.a. This condition references WAC 173-160-030 which has nothing to do with the definition of a resource protection well. Ecology believes this condition should instead reference WAC 173-160-410(13), which defines (13) "Resource protection well" as a cased boring intended or used to collect subsurface information or to determine the existence or migration of pollutants within an underground formation. Resource protection wells include monitoring wells, observation wells, piezometers, spill response wells, remediation wells, environmental investigation wells, vapor extraction wells, ground source heat pump boring, grounding wells, and instrumentation wells. It should be noted that this same error is found in Section 2.0 in Attachment 8 of the Hanford Facility RCRA Permit, Revision 8C.

Concern 7: Well Tagging - Some state unique well identification tags may have been placed on the portions of the wells that were under locked protective casings. Due to not opening resource protection well caps or through inspecting areas under surface protective casings, Ecology was unable to do a complete check for state well identification tags during the inspections.

Response(s)

On 10/7/2015 DOE-RL issued letter 15-AMRP-0363 to Ecology. This letter transmits draft groundwater monitoring plans for 216-S-10 Pond and Ditch, 216-A-37-1 PUREX Plant Crib, 216-A-36B PUREX Plant Crib, and 183-H Solar Evaporation Basins for Ecology review. The U.S. Department of Energy Richland Operations Office, in collaboration with Ecology hydrogeology staff developed these Interim Status Groundwater Monitoring Plans and 2015 Groundwater

Monitoring Plan for the 183-H Solar Evaporation Basins. Meetings with Ecology staff were conducted on a monthly basis to develop these revised plans. DOE-RL requested comments within 30 days of receipt of this letter.

On 10/7/2015 DOE-RL issued letter 16-AMRP-0004 to Ecology. This letter transmits draft groundwater monitoring plans for LLBG WMA-1 and NRDWL for review by Ecology. The DOE-RL in collaboration with Ecology hydrogeology staff developed these Interim Status Groundwater Monitoring Plans. Meetings with Ecology staff were conducted on a monthly basis to develop these revised plans. DOE-RL requested comments within 30 days of receipt of this letter.

On 11/9/2015 Ecology issued letter 15-NWP-197 to DOE-RL. Ecology received for review the groundwater monitoring plans for LLBG WMA-1 and NRDWL on 10/7/2015. These Groundwater Monitoring Plans were developed in collaboration with Ecology staff during monthly meetings. Ecology finds these Groundwater Monitoring Plans to be of high quality. However, Ecology identified some problems that need to be addressed before the documents are finalized. Ecology's comments are enclosed in two files provided with this letter.

On December 3, 2015, DOE-RL issued letter 16-ESQ-0015 to Ecology. The DOE-RL letter responds to the Ecology letter dated September 30, 2015 (15-NWP-174) that requires DOE-RL response to the six alleged violations and the actions required for a return to compliance. DOE-RL is requesting a 60-day extension of the submittal deadline from December 4, 2015 to February 2, 2016. The extension is necessary to review proposed Tri-Party Agreement Change Requests that were discussed during the November 17, 2015, meeting with the Ecology inspector.

On December 10, 2015, Ecology issued letter 15-NWP-215 to DOE-RL and CHPRC in response to their request (16-ESQ-0015) to extend the due date 60-days to respond to the six areas of non-compliance and the actions required for a return to compliance determined by the findings in the groundwater operation and maintenance inspection report Ecology sent on September 30, 2015 (15-NWP-174). On December 3, 2015, Ecology approved, by e-mail, a 30-day extension past the December 4, 2015, response due date. The new extended response due date is January 18, 2016. In the meantime, Ecology expects DOE-RL/CHPRC to comply with all of the interim status groundwater monitoring requirements in 40 CFR 265 Subpart F, including conducting confirmation groundwater sampling for any potential exceedances and implementing the groundwater quality assessment program if exceedances are confirmed.

Document #: 2015-20**Doc Date:** 8/6/2015**Agency:** Ecology**Category:** Notice of Violation**Title:** (CHPRC) ECOLOGY NOTICE OF VIOLATION AT WASTE RECEIVING AND PROCESSING FACILITY BASED ON APRIL 29, 2015 DANGEROUS WASTE COMPLIANCE INSPECTION**Summary**

On August 6, 2015, Ecology issued letter 15-NWP-154 to DOE-RL and CHPRC. The letter transmits the Ecology compliance report for the WRAP inspection conducted on April 29, 2015. The compliance report cites one violation of the Dangerous Waste Regulations and one concern. The alleged violation involves the WRAP Facility Dangerous Waste Training Plan. Table 3-1, Job Titles/Positions at the WRAP, identifies job titles/positions for personnel that carry out job duties relating to the WRAP waste management duties. The list of job titles/positions fails to include personnel (as defined in WAC 173-303-040) who: (1) Prepare and/or maintain records as required in WAC 173-303; (2) Provide training required under the Dangerous Waste Training Plan; (3) Provide dangerous waste regulation interpretations which affect dangerous waste management operations; (4) Are responsible for notifications as required in WAC 173-303; and (5) Perform emergency response efforts required under WAC 173-303.

The concern involves WRP1-SV-1605, WRAP-PRO-OP-52204, Revision 1, "WRAP Layup Surveillance," Appendix D, "Weekly Waste Storage Area Inspection." This document states that checking "n/a" indicates either no waste containers are in storage; no spill pallets are in use; or no waste containers are in the ACMP. Inspection records reviewed for the period of October 2014 through March 2015 all have "n/a" markings on the records. It is unclear which one of the comments listed above apply (e.g., are there no waste containers in storage or are there waste containers in storage, but none in the ACMP). When marking "n/a" on the inspection record, the NCO should clarify which comment applies on the inspection record.

Response(s)

ADDENDUM - On September 15, 2015, Ecology issued letter 15-NWP-169 to DOE-RL and CHPRC. Dangerous waste compliance inspections were conducted by Ecology at:

- Trench 94 on November 18, 2014
- T Plant Complex on January 22, 2015
- Waste Receiving and Processing (WRAP) facility on April 29, 2015

In the inspection report for each facility, Ecology identified non-compliance with WAC 173-303-400, and by reference, WAC 173-303-330(2) for failure to include a list of all job titles/positions in the facility dangerous waste training plan. Ecology received a similar response from DOE-RL and CHPRC for the Trench 94 and T Plant violations, indicating that DOE-RL and CHPRC believes that the dangerous waste training plans for these units are compliant with this regulation. Ecology has preliminarily identified additional violations and concerns for compliance with WAC 173-303-330 during the recent Ecology compliance inspections at the:

- Central Waste Complex
- Single-Shell Tanks
- Double-Shell Tanks
- Low-Level Burial Grounds, Trenches 31 and 34

While Ecology maintains that identification of the training violations for Trench 94, T Plant, and WRAP are valid and appropriate, Ecology believes it is in the best interest of Ecology, DOE-RL, and DOE-RL contractors for Ecology to exercise enforcement discretion on these violations until a site-wide training inspection can be performed at a future date. Ecology is making this decision with the goal of preventing duplicative efforts and saving time and resources for all. The violations at these units will remain open violations and will be absorbed into the upcoming site-wide training inspection. No response or action is required for DOE-RL and CHPRC for the training violations at this time.

On 10/8/2015 DOE-RL issued letter 15-ESQ-0111 to Ecology. This letter responds to the Ecology letter dated 8/6/2015 (15-NWP-154) regarding the WRAP Compliance Inspection that was performed on 4/29/2015. WRAP is operated by CHPRC for DOE-RL. DOE-RL and CHPRC have reviewed the alleged compliance problem, concern, and requested actions described in the Ecology letter. The enclosed document recites the alleged compliance problem and concern as stated in the Ecology letter and provides a response to each of the Ecology statements in the Ecology compliance. The alleged compliance problem involves personnel training at WRAP. DOE-RL/CHPRC continues to operate WRAP in compliance with all applicable interim status standards of WAC 73-303-400(3) until a final status permit is issued or until closure of this dangerous waste management unit. The existing WRAP dangerous waste training plan is fully compliant with the regulatory requirements. DOE-RL/CHPRC disagree with Ecology's interpretation and based on EPA guidance, assert that the regulations intend to require training only for the following specific individuals:

- Training to individuals physically managing hazardous waste who have the opportunity to cause a release that could impact human health or the environment.
- Training to individuals who are in close proximity to hazardous waste activities that could be impacted should such a release occur.

The alleged concern involved clarification of the "N/A" entry on the WRAP inspection sheets. DOE-RL/CHPRC has reviewed the "N/A" markings on the inspection sheets in question and agrees that the description on WRP1-SV-1605 Appendix D regarding the meaning of 'N/A' could be confusing. Appendix D will be revised to clarify the meaning of "N/A" for each inspection item that may be marked with the "N/A."

Document #: 2015-19**Doc Date:** 7/20/2015**Agency:** Ecology**Category:** Notice of Violation**Title:** (CHPRC) ECOLOGY DANGEROUS WASTE COMPLIANCE INSPECTION AT LOW-LEVEL BURIAL GROUND GREEN ISLANDS AND NONRADIOACTIVE DANGEROUS WASTE LANDFILL**Summary**

On June 22, 2015 the Washington State Department of Ecology conducted a dangerous waste compliance inspection at the Low-Level Burial Ground Green Islands (LLBG-GI) and the Nonradioactive Dangerous Waste Landfill (NRDWL). On July 20, 2015, Ecology issued letter 15-NWP-134 to DOE-RL and CHPRC. The LLBG-GI Report has one concern listed. The NRDWL Report cites one violation that did not comply with the Dangerous Waste Regulations. For the LLBG-GI, the inspection record indicates the need to fix two items; however, no detail is provided to determine what needs to be fixed. More detail should be provided to document the specific problems found. When the items relate to compliance with WAC 173-303 requirements, the resolution of the problem and the date of the resolution must also be listed on the inspection record. For the NRDWL, the inspection records dated 1/6/2014, 4/2/2014, 7/8/2014, 10/6/2014, and 1/6/2015 did not include the time of the inspection. The inspection record dated 4/22/2015 reflects that the inspection record template was updated to include the time of inspection. The facility must document in their operating record that the inspection records listed above did not include the time of the inspection. Submit verification for the documentation placed into the operating record to Ecology within sixty (60) days of receipt of this inspection report.

To achieve compliance, the required action in the NRDWL Report must be completed and the Compliance Certificate must be returned to Ecology within 60 days of receipt of the Report (i.e., by September 20, 2015). 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.

Response(s)

On September 28, 2015, DOE-RL issued letter 15-AMRP-0325 to Ecology. This letter responds to a concern and a violation included in the compliance inspection reports transmitted by Ecology letter 15-NWP-134, dated July 20, 2015. The reports were the result of Dangerous Waste Compliance Inspections performed at the LLBG-GI and the NRDWL on June 22, 2015. Attachment 1 includes a table with responses to the LLBG-GI concern and the NRDWL violation. Attachment 2 contains information supporting the response to the LLBG-GI concern.

On October 21, 2015, Ecology issued letter 15-NWP-181 to DOE-RL and CHPRC. The Department of Ecology (Ecology) performed a compliance inspection at NRDWL on June 17, 2015. This compliance inspection focused on a non-financial record review of the inspection schedule and inspection records to determine compliance with the Dangerous Waste Regulations, Chapter 173-303-320 Washington Administrative Code (WAC), as incorporated by WAC 173-303-400. Ecology issued a violation for failure to include the time on inspection logs. On October 13, 2015, Ecology received documentation that the required action had been taken to resolve the violation. This letter acknowledges that the U.S. Department of Energy and CH2M HILL Plateau Remediation Company have returned to compliance for this violation.

On January 20, 2016, DOE-RL issued letter 16-AMRP-0078 to Ecology. DOE-RL requests that Ecology provide concurrence to the re-designation of seven waste containers in the Low-Level Burial Grounds (LLBGs) from mixed waste to radioactive, non-dangerous waste. Supporting information is contained in the attached "Mixed Waste Disposed of in the Low-Level Burial Grounds," DOE/RL-2014-43, Revision 1. Discrete areas of mixed waste disposed to the LLBGs have historically been referred to as "Green Islands." Regulatory justification for re-designation of seven Green Islands and their seven containers of mistakenly designated waste is summarized in Attachment 2. A description of all Green Islands in the LLBGs and a numbering system to identify each Green Island is shown in Table G-1 in Appendix G of DOE/RL-2014-43, Revision 1.

Document #: 2015-23

Doc Date: 6/17/2015

Agency: Ecology

Category: Notice of Violation

Title: (BNI) ECOLOGY NOTICE OF VIOLATION AT WTP MATERIAL HANDLING FACILITY
BASED ON MAY 6, 2015 UNANNOUNCED INSPECTION

Summary

On June 17, 2015, Ecology (Central Region Office) sent a letter to Bechtel National Incorporated (no letter number) regarding the dangerous waste compliance inspection conducted on May 6, 2015, at the Material Handling Facility. The letter was resent to DOE-ORP on June 29, 2015. The Ecology letter lists two alleged violations in the attached Notice to Comply. The first was addressed at the time of inspection and required container labeling to indicate "ignitable." No further action is needed for the first item. The second item requires labeling all used oil collection containers with the words "Used Oil." Also, the properly labeled container(s) must be photographed and included when the "Compliance Certificate" is signed and returned to Ecology.

The Ecology inspection report also identified several areas of concern and provided suggestions for consideration. These areas of concern included universal waste battery accumulation start dates, used oil and management, aerosol cans, and universal waste battery collection container.

Response(s)

On July 27, 2015, DOE-ORP issued letter 15-ECD-0035 to Ecology. Ecology identified two deficiencies that were observed during its inspection of waste generator activities at the MHF on May 6, 2015. Item 1 was corrected at the time of inspection and no further action is required. Item 2 is associated with used oil container labeling and has been corrected since the inspection. The 10-gallon used oil container for draining filters has been replaced with a lidded container for proper closure as needed and it has been labeled "Used Oil" as demonstrated in the photograph provided. No further corrective actions are required and the MHF is in compliance with WAC 173-303, Dangerous Waste Regulations, including WAC 173-303-630(3) for dangerous waste labeling and WAC 173-303-515(6) for used oil accumulation container labeling.

Document #: 2015-17**Doc Date:** 6/11/2015**Agency:** Ecology**Category:** Notice of Violation**Title:** (CHPRC) ECOLOGY NOTICE OF VIOLATION AT T-PLANT BASED ON 1/22/2015
DANGEROUS WASTE COMPLIANCE INSPECTION (RAID 2015-026)**Summary**

On June 11, 2015, Ecology issued letter 15-NWP-110 to DOE-RL and CHPRC. The Ecology compliance report for the January 22, 2015 inspection of the T-Plant Complex is enclosed. This report cites violations in several areas that were not in compliance with the Dangerous Waste Regulations. These violations and the actions required for compliance are listed in the Compliance Problems section of the report. To achieve compliance, DOE-RL/CHPRC must complete the actions required and return the completed Compliance Certificate to Ecology within 60 days of receipt of the Report. 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.

The alleged compliance problems included the following:

1. Observation: Documentation provided for containers #0047674, #0077122, #0079701, #221T-12-000004, and #221T-96-000009 listed that a receipt date for storage at the facility was "N/ A" because the waste was generated at T Plant.

Action Required: Record the dates of storage for containers #0047674, #0077122, #0079701, #221T-12-000004, and #221T-96-000009 into the operating record. Submit to Ecology within 60 days of receipt of this report, documentation showing that the dates of storage have been added to the operating record.

2. Observation: Training records for the Environmental Manager and the CHPRC SPOC were requested during the January 22, 2015 inspection, and were not provided to Ecology when requested. CHPRC responded to the Ecology request by providing the names of the Decommissioning, Waste, Fuels, and Remediation Services Environmental Compliance and Records Director and a Senior Regulatory Advisor. CHPRC indicated that their positions are not related to dangerous waste management duties at T Plant and are thus not included in the T Plant Dangerous Waste Training Plan.

During the inspection the Decommissioning, Waste, Fuels, and Remediation Services Environmental Compliance and Records Director stated that the training plan is two-phased; there is a Hanford site-wide training plan for all Hanford employees and a unit-specific training for T Plant employees. At a minimum, training for all employees must include familiarization with emergency equipment and emergency procedures. Records of required training must be maintained in accordance with WAC 173-303-330(3).

Action Required: Upon receipt of this inspection report, DOE-RL and CHPRC will respond to Ecology representative's future requests by providing all facility records required by WAC 173-303, Dangerous Waste Regulations to Ecology.

3. Observation: D0-040-016, Revision 9, Perform Weekly and Daily Surveillance of WMA 's states, weekly inspections are conducted at all T Plant WMAs and WAAs once each calendar week regardless of the activities being performed. No documentation of inspection for the week of 3/2/2014 through 3/8/2014 was included in the inspection records provided to Ecology.

Action Required: Place a notation in the T Plant operating record that the weekly inspection for this time frame was not performed. Submit to Ecology within 60 days of receipt of this report, documentation that the notation was recorded in the operating record.

4. Observation: For the 214-T Building inspection performed on 10/7/2014, the inspector identified "crack in floor"

with a listed disposition of "floors to be repainted after CWC." Weekly Appendix A data sheets through 11/12/2014 revealed the same notations. The weekly Appendix A data sheet for 11/20/2014 listed the condition of "Containment system are free of cracks, gaps, deterioration" as "SAT." The data sheet failed to include the date and nature of any repairs or remedial actions taken. The data sheet for the inspection during the week of 12/9/2014 listed the condition of "Containment system are free of cracks, gaps, deterioration" as "UNSAT." The problem is not noted on the following weekly inspection log. This data sheet did not include the date and nature of any repairs or remedial actions taken.

Action Required: Place a notation in the T Plant operating record listing the date and nature of any repairs or remedial actions taken. Submit to Ecology within 60 days of receipt of this report, documentation that the notation was recorded in the operating record.

5. Observation: T Plant DW Training Plan, Table 3-1 -Job Titles/Positions at T Plant, identifies job titles/positions for personnel that carry out job duties relating to the T Plant waste management duties. The list of job titles/positions fails to include personnel (as defined in WAC 173-303-040) who:

- Prepare and/or maintain records as required in WAC 173-303.
- Provide training required under the DW training plan.
- Provide DW regulation interpretations which affect DW management operations.
- Are responsible for notifications as required in WAC 173-303.
- Perform emergency response efforts required under WAC 173-303.

Action Required: Revise PRC-STD-TQ-40228, T Plant Dangerous Waste Training Plan to include the job title/position for all personnel who perform DW tasks associated with T Plant. Develop for each job title/position a description which includes the requisite skills, education, other qualifications, and duties. Submit to Ecology within 60 days of receipt of this report, an updated DW training plan that reflects these revisions.

6. Observation: Containers #0077128 and #0079701 located in Building 214-T storage were labeled with the DOT Class 9 shipping labels. Ecology observed no other risk labels on the two containers that indicated the major risk(s) associated with the waste.

Action Required: Label containers #0077128, #0079701, and all other containers in storage at T Plant with the major risk(s). Submit to Ecology within 60 days of receipt of this report, documentation showing that the major risk(s) labeling has been added to the containers.

In addition to the alleged compliance problems summarized above, Ecology has the following concerns:

1. It is not clear that there is an established method used consistently to account for the amount of MW in the 221-T tank system in the Annual Hanford LDR report. DOE-RL and CHPRC should establish a standard method for reporting this amount consistently and accurately year after year.

2. HNF-9921, Revision 6, T Plant Complex Waste Analysis Plan, Section 2.5, Discrepant Container Management, states that the following are discrepant issues and will be tracked in the Discrepant Container Management Program until the issues are resolved. Included in the list of issues are indications of bulging, containers with unknown contents, containers holding waste prohibited under Section 1.2, containers no longer in good condition and not in compliance with 40 CFR 265.171, inconsistent inventory between container contents and the record, and unexpected liquids were found. WAC 173-303-630(2) states, if a container holding dangerous waste is not in good condition (e.g., severe rusting, apparent structural defects) or if it begins to leak, the owner or operator must transfer the dangerous waste from the container to a container that is in good condition or manage the waste in some other way that complies with the requirements of chapter 173-303 WAC. The requirement of this section is to move the DW to a compliant container if a container is not in good condition or manage the waste in some other compliant manner. Placing containers of DW into a program indefinitely without a near-term schedule for correcting the problem does

not resolve the non-compliance. The facility WAP should not direct the facility to be out of compliance with the requirements of WAC 173-303-630(2).

3. TPLN-PRO-OP-51748, D0-040-016, Revision 9, Perform Weekly and Daily Surveillance of WMA 's, Section 1.1 states, daily inspections are conducted at all T Plant Waste Management Areas (WMAs) [also known as Dangerous Waste Management Units (DWMU)] and Waste Accumulation Areas (WAAs) and shall be performed on a daily basis during normal working hours. Inspections will not be performed on facility closure days. The daily inspection fulfills the requirements listed in WAC 173-303-320(2)(d) and TSR- SAC 5.6.4. It is unclear what is meant by Waste Accumulation Areas (WAAs) in a TSDF. WAC 173-303-040 defines "storage" as the holding of dangerous waste for a temporary period and states that accumulation of dangerous waste, by the generator on the site of generation, is not storage as long as the generator complies with the applicable requirements of WAC 173-303-200 and 173-303-201." If DW or MW is considered accepted into the TSD storage as stated in Section 2.4 of the WAP upon generation, it should be managed under the storage requirements listed in WAC 173-303-280 through -395 and any other requirements listed by reference in these sections. Accumulation of DW or MW should follow the applicable requirements of WAC 173-303-200 and WAC 173-303-201.

Response(s)

On 8/13/2015 DOE-RL issued letter 15-ESQ-0100 to Ecology. This letter responds to the Ecology letter dated June 11, 2015, (15-NWP-110) regarding the T Plant Complex Compliance Inspection that was performed on January 22, 2015. The T Plant Complex is operated by CH2M HILL Plateau Remediation Company (CHPRC) for the U.S. Department of Energy (DOE) Richland Operations Office (RL). RL and CHPRC have reviewed the identified compliance problems, concerns, and requested actions described in the Ecology letter and has provided responses in Enclosure 1 and the requested documents in Enclosures 2, 3, and 4.

Many of the potential compliance issues and concerns are directly related to ongoing discussions with the Washington State Department of Ecology (Ecology). Examples include training plans, major risk labeling, floor repairs, and waste analysis plans issues that are the specific topics of the discussions that are part of the on-going Hanford Facility RCRA permit renewal effort being led by Ecology. RL and CHPRC believe imposed actions that conflict with and/or are not in coordination with these other efforts should be left in the purview of the work groups to resolve. RL and CHPRC believe they are compliant with regulatory requirements related to Ecology concerns that have been raised and have provided the basis for that belief in Enclosure 1.

RL and CHPRC will discuss these compliance issues and concerns with Ecology and provide additional information as needed on these topics. It is RL's and CHPRC's expectation that most of the issues that are the basis for Ecology's compliance issues and concerns are being, or will be resolved through the permitting process and use of the Tier 1/Tier 2 issue resolution processes.

ADDENDUM - On September 15, 2015, Ecology issued letter 15-NWP-169 to DOE-RL and CHPRC. Dangerous waste compliance inspections were conducted by Ecology at:

- Trench 94 on November 18, 2014
- T Plant Complex on January 22, 2015
- Waste Receiving and Processing (WRAP) facility on April 29, 2015

In the inspection report for each facility, Ecology identified non-compliance with WAC 173-303-400, and by reference, WAC 173-303-330(2) for failure to include a list of all job titles/positions in the facility dangerous waste training plan. Ecology received a similar response from DOE-RL and CHPRC for the Trench 94 and T Plant violations, indicating that DOE-RL and CHPRC believes that the dangerous waste training plans for these units are compliant with this regulation. Ecology has preliminarily identified additional violations and concerns for compliance with WAC 173-303-330 during the recent Ecology compliance inspections at the:

- Central Waste Complex
- Single-Shell Tanks
- Double-Shell Tanks
- Low-Level Burial Grounds, Trenches 31 and 34

While Ecology maintains that identification of the training violations for Trench 94, T Plant, and WRAP are valid and appropriate, Ecology believes it is in the best interest of Ecology, DOE-RL, and DOE-RL contractors for Ecology to exercise enforcement discretion on these violations until a site-wide training inspection can be performed at a future date. Ecology is making this decision with the goal of preventing duplicative efforts and saving time and resources for all. The violations at these units will remain open violations and will be absorbed into the upcoming site-wide training inspection. No response or action is required for DOE-RL and CHPRC for the training violations at this time.

On November 9, 2015, Ecology issued letter 15-NWP-199 to DOE-RL and CHPRC. The Ecology dangerous waste compliance inspection was conducted at the T Plant Complex on January 22, 2015. During this inspection, several areas did not comply with the Dangerous Waste Regulations. The areas of non-compliance were provided to DOE-RL/CHPRC in the Compliance Report, NWP Index No. 15.513, dated June 11, 2015. This letter provides notification that Ecology is closing out four of the six areas of non-compliance.

Ecology reviewed the responses provided in letter 15-ESQ-0100 and enclosures for the other two identified areas of noncompliance. As a result of that review, Ecology has adjusted the actions required to return to compliance below.

1. WAC 173-303-380(1): Failure to maintain required records in the facility operating record. No further action is required.
2. WAC 173-303-380(3)(a): Failure to furnish records upon request. No further action is required.
3. WAC 173-303-400, and by reference, WAC 173-303-320(2)(d): Failure to document a weekly inspection. Returned to compliance - no further action required.
4. WAC 173-303-400, and by reference, WAC 173-303-320(2)(d): Failure to list the date and nature of any repairs or remedial actions. After reviewing the DOE-RL and CHPRC response, Ecology understands that no repair or remedial action for the crack in containment system occurred, and the containment system repair remains incomplete. Stating that the information documented on an inspection record is "erroneous" does not remedy the non-compliance or result in a return to compliance. The observation and required actions are amended as follows:

Observation: Ecology observed that the inspector documented the condition of "Containment systems are free of cracks, gaps, deterioration" as "SAT" on the 11/20/2014 inspection record. Ecology observed the response provided by DOE-RL/CHPRC on 8/13/2015 states that floor repairs have not been completed.

Required Action: Place a notation in the T Plant operating record documenting that the inspection record for 11/20/2014 recorded an observation of the containment system as SAT for 214-T, and that the recorded observation was incorrect. Submit a copy of the documentation placed in the T Plant operating record, including the date the documentation was placed into the operating record, to Ecology within 15 days of receipt of this letter.

5. WAC 173-303-400, and by reference, WAC 173-303-330(2): Failure to include the job title/position for all personnel who perform dangerous waste tasks associated with T Plant in the T Plant Dangerous Waste Training Plan. Ecology issued letter, 15-NWP-169, sent September 15, 2015. In the letter, Ecology stated the following, which includes the T Plant training plan area of non-compliance: "The violations at these units will remain open violations and will be absorbed into the upcoming site-wide training inspection. No response or action is required for

DOE-RL and CHPRC for the training violations at this time."

6. WAC 173-303-400, and by reference, WAC 173-303-630(3): Failure to label dangerous waste containers with the major risk. No further action required.

Failure to correct the areas of non-compliance 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 upto \$10,000 per day per violation.

On December 3, 2015, Ecology issued letter 15-NWP-206 to DOE-RL and CHPRC. Ecology conducted a dangerous waste compliance inspection at the T Plant Complex on January 22, 2015, to determine compliance with the Washington State Dangerous Waste Regulations (Chapter 173-303 Washington Administrative Code). The regulations establish a system for safe and responsible management of dangerous waste. During this inspection, several areas did not comply with the Dangerous Waste Regulations. The areas of non-compliance were provided in the Compliance Report, NWP Compliance Index No. 15.513, dated June 11, 2015. Compliance Problem No. 4 listed in the report identified the failure to include the date and nature of any repairs or remedial actions taken on the October 7, 2014, 214-T Building inspection record. The action required to address this non-compliance remained open. After reviewing the information submitted by DOE-RL and CHPRC in their response to Ecology letter 15-NWP-199, Ecology is satisfied that the action taken is sufficient to close out this non-compliance.

On 1/4/2016 DOE-RL issued letter 16-ESQ-0017 to Ecology. This letter responds to two of Ecology's letters regarding areas of potential non-compliance that were identified during the T Plant Complex Compliance Inspection that was performed on January 22, 2015 (i.e., 15-NWP-199 and 15-NWP-206). The following is the response to the open potential non-compliance issues that were identified in 15-NWP-199:

- **Non-Compliance 4** - "Place a notation in the T Plant operating record documenting that the inspection record for 11/20/2014 recorded an observation of the containment system as SAT for 214-T, and that the recorded observation was incorrect. Submit a copy of the documentation placed in the T Plant operating record, including the date the documentation was placed into the operating record, to Ecology within 15 days of receipt of this letter."

DOE Response: On November 12, 2015, Ecology was provided with a copy of the requested information identifying that an entry was made in the T Plant Operation Logbook on November 11, 2015, correcting the observation that was made in the inspection sheet dated November 20, 2014, from "SAT" (satisfactory) to "UNSAT" (unsatisfactory). Ecology letter 15-NWP-206 acknowledges the receipt of this information and states that Ecology is satisfied that the action taken is sufficient to close out this issue.

The following is the response to the open potential non-compliance issues that were identified in 15-NWP-199 and 15-NWP-206:

- **Non-Compliance Issue 5** - "Failure to include the job title/position for all personnel who perform dangerous waste tasks associated with T Plant in the T Plant Dangerous Waste Training Plan. Ecology issued letter 15-NWP-169, sent September 15, 2015. Ecology stated the following, which includes the T Plant training plan area of noncompliance: The violations at these units will remain open violations and will be absorbed in the upcoming site-wide training inspection. No response or action is required for DOE-RL and CHPRC for the training violations at this time."

DOE Response: The U.S. Department of Energy Richland Operations Office and CH2M HILL Plateau Remediation Company will be discussing this compliance issue with Ecology with the expectation that this compliance issue is being, or will be resolved, through the permitting process and use of the Tier 1/Tier 2 issue resolution processes.

Document #: 2015-16**Doc Date:** 5/12/2015**Agency:** Ecology**Category:** High Priority Violation**Title:** (WRPS) ECOLOGY NOTICE OF HIGH PRIORITY VIOLATION (HPV) FOR THE 222-SE
(TABLE 1.5 ENGINE)**Summary**

This letter serves as notice that the Department of Ecology (Ecology), after consultation with the U.S. Environmental Protection Agency (EPA), has determined the operation of the 222-SE Engine (located at the 222-S Laboratory) in excess of 100 hours in a calendar year to be a High Priority Violation (HPV). This issue was discovered on February 11, 2015. This HPV meets Criterion 4 of the EPA memorandum, "Revision of U.S. Environmental Protection Agency's Enforcement Response Policy for High Priority Violations of the Clean Air Act: Timely and Appropriate Enforcement Response to High Priority Violation- 2014," EPA, dated August 25, 2014. As required by the EPA memorandum, Ecology has taken steps to enter the information into the EPA's national database, Integrated Compliance Information System (ICIS).

Response(s)

On 9/3/2015 DOE-ORP issued letter 15-ECD-0041 to Ecology providing a status update on 222-S Laboratory engine 222-SE that was the subject of the "Notice of High Priority Violation" dated 5/12/2015. The purpose of the letter is to provide Ecology with an update on the 222-SE diesel engine's configuration status. Washington River Protection Solutions (WRPS) is performing facility modifications that will allow the 222-SE engine to be made unavailable for use by 9/8/2015. The engine will be taken out of service by removal of the starter batteries and installing a tag reading, "Caution, Do Not Operate," in accordance with WRPS procedure established per DOE 0 422.1, "Conduct of Operations." Information showing these activities were conducted prior to this date will be sent to Ecology by email upon completion. Additionally, WRPS is preparing to replace the 222-SE engine with a new engine. A Notice of Construction Application for this activity was submitted to Ecology on 6/10/2015. The

new engine is a 333 horsepower diesel engine that meets the emission standards in 40 CFR part 60, subpart 1111, and the Tier 4 Final Requirements.

Document #: 2015-15**Doc Date:** 5/11/2015**Agency:** WDOH**Category:** High Priority Violation**Title:** (CHPRC) WDOH NOTICE OF HIGH PRIORITY VIOLATION (HPV) FOR THE 291-A-1 PUREX STACK EMISSION UNIT (EU) 369**Summary**

This letter serves as notice that the Washington State Departments of Health and Ecology, after consultation with the U.S. Environmental Protection Agency (EPA), have determined the operation of the 291-A-1 PUREX Stack (EU 369) without continuous sampling of stack emissions, as required, to be a High Priority Violation (HPV). The issue was self-identified by the Permittee on March 10, 2015, and the ventilation system was not shut down until March 17, 2015.

This HPV meets Criterion 4 and 5 of the EPA memorandum, "Revision of U.S. Environmental Protection Agency's Enforcement Response Policy for High Priority Violations of the Clean Air Act: Timely and Appropriate Enforcement Response to High Priority Violation- 2014", EPA, dated

August 2014 (enclosed). As required by the EPA memorandum, we have taken steps to enter the information into the EPA's national database, Integrated Compliance Information System (ICIS).

Response(s)

On November 13, 2015, WDOH issued letter AIR 15-1110 to DOE-RL. WDOH inspected emission unit 291-A-1 to determine compliance with the Radioactive Air Emissions License (FF-01) and Washington Administrative Code (WAC) 246-247, "Radiation Protection - Air Emssions." The inspection consisted of a physical walk-through of the EU and a review of applicable records. Two issues were identified during the inspection; however, those issues were addressed in a letter dated September 1, 2015 (AIR 15-829). Audit 985 (Inspection 2015-032) is closed upon receipt of this letter and the issues will be tracked as documented in AIR 15-502 and AIR 15-829. A copy of the inspection report is available, upon your request.

Document #: 2015-13**Doc Date:** 3/27/2015**Agency:** Ecology**Category:** Notice of Non-Compliance**Title:** (CHPRC) ECOLOGY NOTICE OF NON-COMPLIANCE AT 207-A SOUTH RETENTION BASIN FROM FEBRUARY 25, 2015 INSPECTION**Summary**

On March 27, 2015, Ecology issued letter 15-NWP-059 to DOE-RL and CHPRC. 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 attached to the letter. To achieve compliance, DOE-RL and CHPRC must complete the actions required and return the completed Compliance Certificate to Ecology within 30 days of receipt of the Report (by April 26, 2015). 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. The following observations and required actions were identified by Ecology in the Notice of Non-Compliance:

Observation 1: 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 the inspection. CHPRC operates the facility, but WRPS performs the annual surveillance through an inter-contractor work agreement.

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.

Observation 2: 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 the inspection 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 the inspection report.

Observation 3: 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 receipt of the inspection report a schedule for remedy of the problems identified during inspections.

Response(s)

On May 12, 2015, DOE-RL issued letter 15-AMRP-0178 to Ecology. This letter responds to Ecology's letter dated March 27, 2015. The actions requested by Ecology have been completed as follows:

1. 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 30 days of receipt of this inspection report the updated inspection schedule.

DOE/CHPRC Response: TFC-OPS-WM-C-25 is a procedure for performance of inspections of inactive waste sites managed by WRPS and is not the appropriate place to incorporate requirements for inspections performed under WAC 173-303-320. A checklist that identifies the type of problems at 207-A South Retention Basin to be looked for during inspections and the frequency of inspection has been developed and is attached. As noted in the Ecology inspection report, the basin is empty and has not received waste for 28 years. Samples of the concrete and elastomeric coating have not identified dangerous waste constituents above MTCA method B cleanup levels, so the type of problems to be looked for are quite limited.

2. Effective upon receipt of this report, the time of the inspection, remedial actions and repairs which are made, and the date of the 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 30 days of receipt of this inspection report.

DOE/CHPRC Response: The checklist developed in response to action 1 above includes the requisite information from WAC 173-303-320(2) including the information listed by Ecology in the first sentence of action 2. The verification of entry of the requested information into the operating record is provided in the documentation attached with this correspondence. The required action states that documentation must be placed in the operating record stating that previous inspection records were not dated. It is assumed that Ecology intended to say that the inspection records did not identify the time of inspection, since the inspection records provided to Ecology had the inspection date but not the time. (See the discussion of the observation in your compliance report for this item.) Therefore, the documentation in the operating record reflects the omission of the time of inspection rather than the date.

3. Problems found during an inspection must be corrected immediately or placed on a schedule for remedy. Submit to Ecology within 30 days of this report a schedule for remedy of the problems identified during inspections.

DOE/CHPRC Response: The checklist provided in response to action 1 above provides a mechanism to ensure that problems found during the inspection are corrected immediately or placed on a schedule for remedy. This action is tied to action 1 since the inspection checklist will identify the problems to be looked for. In regards to the items noted in previous inspection reports, no remedial action is necessary. Deterioration of the elastomeric coating will not cause or lead to the release of dangerous waste constituents to the environment or a threat to human health since the basin cells have not received dangerous waste for 28 years, sampling and analysis confirms that residual concentrations are below cleanup levels, and there is no evidence of leaks from the basin. Similarly, the presence of water in the basin would not lead to the release of dangerous waste constituents to the environment or a threat to human health.

It is the intent of DOE-RL to revise the 207-A South Retention Basin closure plan submitted to Ecology last year for review. The revised plan would include removal of the basin and that action might be completed this year. If that is the case, future inspections would not need to be performed. Applying all interim status requirements to Treatment, Storage, and Disposal Units that are not operating and are awaiting approval of closure plans and closure funding is challenging. In many cases the interim status requirement adds no additional protection to human health and the environment. As noted in the Hanford Federal Facility Agreement and Consent Order, interaction with CERCLA remedies adds another complexity to the problem. It is hoped that the Parties can work together through the structure of the existing compliance order to find approaches that are protective without diverting cleanup funds to activities that do not move us more quickly to our common goal of Hanford Site cleanup.

On June 2, 2015, Ecology issued letter 15-NWP-102 to DOE-RL and CHPRC. As stated in DOE-RL's response letter (15-AMRP-0178), it is the intention of DOE-RL to revise and provide Ecology a closure plan. A revised 207-A South Retention Basin closure plan that provides the closure activities, a closure schedule, and inspection plan for Closure (incorporated into the site-wide permit via a permit modification) could address Violations 1 and 3. Ecology notes that these items will remain violations and are subject to enforcement until resolved through the below cited corrective actions.

Violation 1 - Types of Problems to be Looked for During the Performance of General Facility Inspections

In accordance with Hanford Site-wide RCRA Permit Condition I.A, general inspections at 207-A South Retention Basin are subject to the requirements of Washington Administrative Code (WAC) 173-303-400, Interim status facility standards. DOE-RL must continue to maintain compliance with all applicable interim status standards of WAC 173-303-400(3) at the 207-A South Retention Basin until a final status permit is issued or until Closure of the unit group. Until a complete closure plan is submitted to Ecology and approved to begin closure, 207-A South Retention Basin must meet interim status requirements of WAC 173-303-320, General Inspection.

ACTION REQUIRED: Within 60 days of receipt of this letter, Ecology requires that DOE-RL and CHPRC submit a written response that identifies all actions the facility has taken or will take to correct the violation by updating the checklist (Attachment 1 of letter 15-AMRP-0178) to include these problems to be looked for during an inspection. Or within 60 days of receipt of this letter, DOE-RL and CHPRC must submit a closure plan for the 207-A South Retention Basin to Ecology. The closure plan must ultimately be incorporated into the site-wide permit according to the requirements of WAC 173-303-830, Permit changes.

Violation 2 - Inspection Log - Date and Time Inclusion

The DOE-RL and CHPRC response to Violation 2, inclusion of date and time on inspection logs, is acceptable. The documentation provided to add a note to the operating record for missing information on prior inspection records is sufficient, and closes out this violation.

Violation 3 - Remedy of Problems Noted on Inspection Logs

In the DOE-RL and CHPRC response letter (15-AMRP-0178), there is an indication that sampling and analysis confirms that residual concentrations are below cleanup levels, and there is no evidence of leaks from the basin. The sampling and analysis data referred to was not submitted to Ecology in the DOE-RL and CHPRC response; nor was any documentation that there is no evidence of leaks from the 207-A South Retention Basin included. If DOE-RL has sampling and analysis data and other documentation on the concrete, elastomeric coating, or groundwater that you would like Ecology to consider, the information should be submitted to the NWP Ecology Clean-Up Section for consideration.

ACTION REQUIRED: Within 60 days of receipt of this letter, Ecology requires that DOE-RL and CHPRC submit a written response that identifies all actions the facility has taken or will take to correct the violation to remedy problems identified during an inspection. Or within 60 days of receipt of this letter, DOE-RL and CHPRC must submit a closure plan for the 207-A South Retention Basin to Ecology. The closure plan must ultimately be incorporated into the site-wide permit according to the requirements of WAC 173-303-830, Permit changes.

Failure to comply with these requirements within 60 days could result in an administrative order and a penalty of up to \$10,000 per day for each violation.

On 6/25/2015, DOE-RL issued letter 15-AMRP-0228 to Ecology submitting a permit modification request, temporary authorization request, closure plan, and State Environmental Policy Act (SEPA) Checklist for closure of the 207-A South Retention Basin. The closure plan was developed in a cooperative effort with the Washington State Department of Ecology. The result of that effort is a closure plan for the 207-A South Retention Basin that is acceptable to Ecology and DOE-RL. Since field actions to implement the closure plan are expected to begin prior to approval of the permit modification request, a temporary authorization request to begin closure is included with this letter. The 30 day advance notice of the upcoming public comment period for the permit modification was provided on June 1, 2015, to regional stakeholders as required by section 10.5.3 of the Tri-Party Agreement Action Plan. Within seven days of this letter, a notice of the permit modification request will be sent to newspapers and the mailing list announcing the date of the 60 day comment period and public meeting.

On 7/24/2015 Ecology issued letter 15-NWP-141 to DOE-RL and CHPRC. DOE-RL and CHPRC requested that Ecology issue a Temporary Authorization (TA) related to a Class 3 Permit Modification request for the closure of the 207-A South Retention Basin (SRB) treatment, storage, and/or disposal unit (Letter 15-AMRP-0228, "Submittal of Permit Modification Request, Temporary Authorization Request, and Closure Plan for the 207-A SRB Treatment, Storage, and Disposal Unit"). Ecology reviewed the TA request, draft closure plan, and State Environmental Policy Act checklist that provided the information and justification for removal and closure of the 207-A SRB. Ecology found the following, pursuant to Washington Administrative Code (WAC) 173-303-830(4)(e)(ii), WAC 173-303-830(4)(e)(iii)(B)(I), and WAC 173-303-840(10): (1) The authorized activities are in compliance with the applicable standards of WAC 173-303-280 through 173-303-395 and WAC 173-303-600 through 173-303-680; and (2) As part of the Class 3 Permit Modification process, the TA is necessary, per WAC 173-303-830(e)(iii)(B)(I), to facilitate timely implementation of closure or corrective action activities.

Ecology requires the following activities to be conducted by the Permittees under the TA:

- The TA allows the removal of the 207-A SRB, which includes concrete, the elastomeric coating on the concrete, the Hypalon liner beneath the concrete, potentially contaminated soils around the concrete edge of the basin (if any), and any associated piping and drains around the concrete edge.
- Collection of soil samples below the basin footprint to verify that cleanup standards have been met.
- Laboratory analysis of samples.
- Analytical results will be input into the data analysis portion of the Visual Sample Plan, to determine sampling assumptions were met.
- Demonstrate that the analytical results are less than the Model Toxics Control Act (MTCA) Method B, WAC 173-340, soil cleanup levels for unrestricted land use, which meet standards for clean closure.
- Remove any contaminated environmental media present which exceeds MTCA Method B soil cleanup levels, if identified during initial sampling.
- If necessary, resample prior to backfilling, in order to confirm that MTCA Method B soil cleanup levels have been met.
- Solid wastes generated will be disposed of at the Environmental Restoration Disposal Facility or at an active or interim status Resource Conservation and Recovery Act dangerous waste management unit at the Hanford Site.
- Liquid wastes generated (if any) will be required to be containerized and sampled for laboratory analysis in order to characterize liquid waste prior to disposal.
- All wastes must remain at the Hanford Site.

Pursuant to WAC 173-303-830(4)(e), Ecology approves the TA activities described above for 180 days, effective July 27, 2015, through January 23, 2016. This permit modification is not complete, and Ecology has not approved the closure plan. According to WAC 173-303-830(4)(e)(ii)(C), the Permittees are required to notify all persons on the facility mailing list about this TA request within 7 days of submitting the request to Ecology. This notice was completed by the Permittees on June 30, 2015, by listserv notice. The public comment period for the proposed Class 3 Permit Modification began on June 30, 2015, and ends on August 28, 2015.

When Ecology reviews the public comments, it may result in changes to the permit modification, affecting the areas for which this TA is being approved. The final permit modification decision will replace this TA and be incorporated in the Hanford Facility Resource Conservation and Recovery Act Permit, Dangerous Waste Portion, Revision 8C, for

the Treatment, Storage, and Disposal of Dangerous Waste, WA7890008967.

On 8/4/2015 Ecology issued letter 15-NWP-151 to DOE-RL and CHPRC regarding the three alleged violations of the WAC 173-303 regulations at the 207-A South Retention Basin TSD Unit [i.e., (1) failure to identify the types of problems to be looked for during inspections, (2) failure to include the time on inspection logs, and (3) failure to record the remedy of problems identified on the inspection logs]. On 6/2/2015 Ecology closed out alleged violation 2. On 6/25/2015 DOE-RL submitted to Ecology a permit modification request, temporary authorization request, and a closure plan for the TSD Unit (Letter 15-AMRP-0228). Ecology received and reviewed these submittals. On 7/24/2015 Ecology approved the request for Temporary Authorization to begin closure of the TSD unit (Letter 15-NWP-141). DOE-RL's request to begin closure of the TSD Unit satisfies any corrective action necessary to address alleged violations 1 and 3. Ecology acknowledges that DOE-RL has returned to compliance with alleged violations 1 and 3.

On 1/21/2016 Ecology issued letter 16-NWP-015 to DOE-RL and CHPRC. Ecology issued a Temporary Authorization (TA) to DOE-RL and CHPRC (15-NWP-141). This TA authorized closure activities for the 207-A South Retention Basin. The effective dates of this TA were 7/27/2015 to 1/23/2016. Ecology is currently processing the Class 3 Permit Modification request. However, the Class 3 Permit Modification will not become effective before the original TA expires on 1/23/2016. Therefore, Ecology is reissuing the TA for an additional 180 days, under Washington Administrative Code 173-303-830(4)(e)(iv)(B). The reissued TA does not permit any activities outside of those originally authorized for closure of the 207-A South Retention Basin operable unit. The provisions of the reissued TA are the same as in the original TA. The reissued TA will be in effect from 1/24/2016 until 7/22/2016, or until the Class 3 Permit Modification becomes effective, whichever occurs first. The Class 3 Permit Modification decision will replace this TA.

Document #: 2015-11**Doc Date:** 3/12/2015**Agency:** EPA**Category:** Notice of Violation**Title:** (MULTIPLE) EPA NOTICE OF VIOLATION OF RCRA AT THE CWC, CCRC, AND MIXED WASTE TRENCHES 31 AND 34**Summary**

The U.S. Environmental Protection Agency (EPA, Region 10) issued a Notice of Violation (NOV) letter to the Department of Energy-Richland Operations Office (DOE-RL) dated March 12, 2015 (OCE-127). This NOV is to inform DOE-RL of alleged violations of the Resource Conservation and Recovery Act, as amended (RCRA). These violations were identified as a result of inspections performed by the EPA on April 1-2, May 19-21 and July 14-15, 2014 at the Hanford Facility. The purpose of the inspections was to determine facility compliance with its dangerous waste permit, dangerous waste generator standards, universal waste management standards, and used oil management standards (WAC 173-303). The inspections were performed pursuant to EPA's inspection authority under Section 3007 of RCRA, 42 U.S.C. § 6927.

From the observations made during the inspections, the following alleged RCRA violations were identified:

Violation 1 - "Container Management at Central Waste Complex (CWC) Inside Storage Areas." Pursuant to Permit Condition I.A.1, the storage of dangerous waste in Buildings 2403WA and 2403WB in the CWC is subject to the requirements of WAC 173-303-400 as those units were reportedly operating under interim status at the time the Permit was issued. WAC 173-303-400(3)(a) requires, among other things, compliance with the container management standards of 40 CFR § 265 Subpart I, including 40 CFR § 265.171. 40 CFR § 265.171 requires that if a container of dangerous waste is not in good condition, the owner or operator must transfer the dangerous waste from this container to a container that is in good condition, or manage the waste in some other way that complies with the requirements of 40 CFR Part 265. During the April 2014 inspection, it was revealed that:

- a. Numerous containers of dangerous waste in Building 2403WA were not in good condition, in that they were heavily corroded. These drums were the drums in which the waste had originally been buried and subsequently recovered.
- b. Numerous containers of dangerous waste in Building 2403WB were not in good condition, in that they were heavily corroded. These drums were the drums in which the waste had originally been buried and subsequently recovered.

Violation 2 - "Container Management at CWC Outside Storage Areas." The June 26, 2013 Consent Agreement and Final Order (CAFO), Docket number RCRA 10-2013-0113, at Section 4.4.C requires, among other things, that the CWC Outside Storage Area A be operated in compliance with all applicable final facility standards pursuant to WAC 173-303-600(1). WAC 173-303-600(1) requires, among other things, compliance with the container management standards at WAC 173-303-630.

- a. WAC 173-303-630(2) states that if a container begins to leak, the owner or operator must transfer the dangerous waste from the container to a container that is in good condition or manage the waste in some other way that complies with the requirements of chapter 173-303 WAC. During the April 2014 inspection, it was revealed that Container 231-Z-DR-11 was not in good condition, in that this container of dangerous waste was leaking, with the leakage being collected in two 5-gallon containers. The contents of the leaking container 231-Z-DR-11 had not been transferred to a container in good condition or managed in a manner that otherwise complies with the requirements of chapter 173-303 WAC since the leak started on or about December 20, 2011. As indicated below, the container was not being managed in a manner that complies with the requirements of chapter 173-303 WAC.
- b. WAC 173-303-630(3) states that the owner or operator must label containers of dangerous waste in a manner which adequately identifies the major risk(s) associated with the contents of the container. During the April 2014 inspection, it was revealed that the two 5-gallon containers that contained leakage from container 231-Z-DR-11 did

not have labels identifying the major risk(s) associated with the contents of the containers. The containers were not marked with the words "Hazardous Waste," "Dangerous Waste," or any other indication as to the nature of their contents or the risks associated with their contents.

c. WAC 173-303-630(6) states that, at least weekly, the owner or operator must inspect areas where containers are stored, looking for leaking containers and for deterioration of containers and the containment system caused by corrosion, deterioration, or other factors.

i. During the April 2014 inspection, it was revealed that in Outside Storage Area A in the CWC, many retrieved burial boxes were completely covered with tarps, which would preclude the ability of DOE inspectors to assess the condition of the container during weekly inspections. Among other things, it was impossible for anyone inspecting the container to determine if these containers were deteriorating, and leaks were not able to be detected unless the leakage happened to escape from the under the tarp.

ii. During the April 2014 inspection, record reviews revealed that the inspection checklists used for outside storage areas at the CWC did not establish that all of the areas, including Area A, were inspected on a weekly basis. For example, on the checklists dated September 6, 2013; January 9, 2014; January 16, 2014; January 23, 2014; February 5, 2014; March 13, 2014; and March 26, 2014, the inspector stated that a single "Outside Storage Area" was inspected. On other occasions, the plural "Outside Storage Areas" was used; however, in all cases, the checklist did not indicate which areas were inspected nor, if observations were noted, in which area(s) such observations were found.

Violation 3 - "Contingency Planning." WAC 173-303-350(3)(f) requires, among other things, evacuation routes and alternate evacuation routes where there is a possibility that evacuation could be necessary. During the April 2014 inspection, it was revealed that no evacuation routes were contained in the CWC contingency plan; rather, the CWC Building Emergency Plan stated that evacuation routes will be determined on a case-by-case basis depending on the situation and communicated to affected staff by radio or bull horns.

Violation 4 - "Universal Waste Lamp Containers." WAC 173-303-573(20)(c)(ii) requires, among other things, that a container holding universal waste lamps from a large quantity generator must be closed, structurally sound, compatible with the contents of the battery, and must lack evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions. During the May 2014 inspection, it was revealed that, at the 400 Area Centralized Consolidation and Recycling Center (CCRC):

a. A container holding universal waste lamps that were dangerous waste, the universal waste UW bulb container, was not closed, in that the container was not long enough to encompass the lamps therein such that the ends of the bulbs were sticking out of the box and held in place with masking tape.

b. A container holding universal waste lamps that were dangerous waste was not closed, was not structurally sound, and was damaged such that the contents of the container could leak under reasonably foreseeable conditions, in that there was a large hole in its side.

Violation 5 - "Tank Testing and Secondary Containment." WAC 173-303-800 requires the owner and operator of a dangerous waste facility that treats, stores or disposes of dangerous waste to obtain a permit. Subject to certain conditions, WAC 173-303-200(1) allows certain generators to accumulate dangerous waste in tanks for ninety days or less provided that, among other things, the generator complies with WAC 173-303-640(2) through (10). During the July 2014 inspection, facility representatives indicated that the leachate collection tanks at Low-Level Burial Ground (LLBG) Mixed Waste Trenches 31 and 34 were being operated as less than 90-day accumulation tanks.

a. WAC 173-303-640(2)(a) states that, for each existing tank system, the owner or operator must determine that the tank system is not leaking or unfit for use and must obtain and keep on file at the facility a written assessment

reviewed and certified by an independent, qualified registered professional engineer, in accordance with WAC 173-303-810 (13)(a), that attests to the tank system's integrity. During the July 2014 inspection, records reviewed indicated that an engineer with CHPRC, an operator of the facility, reviewed and certified the most recent integrity assessments in 2013 for the leachate collection tanks at LLBG Mixed Waste Trenches 31 and 34, rather than an independent engineer. An employee of the operator of a facility is not an independent qualified registered professional engineer as that term is defined at WAC 173-303-040.

b. WAC 173-303-640(2)(e) requires, among other things, that the owner or operator must develop a schedule for conducting integrity assessments over the life of the tank to ensure that the tank retains its structural integrity and will not collapse, rupture, or fail. The schedule must be based on the results of past integrity assessments, age of the tank system, materials of construction, characteristics of the waste, and any other relevant factors. During the July 2014 inspection, it was revealed that neither of the leachate collection tanks at LLBG Mixed Waste Trenches 31 and 34 had a schedule for conducting integrity assessments. According to CHPRC unit manager for LLBG Mixed Waste Trenches 31 and 34, no such schedule existed.

c. WAC 173-303-640(4)(c)(iv) requires, among other things, that spilled or leaked waste and accumulated precipitation must be removed from the secondary containment system within twenty-four hours, unless the owner or operator can demonstrate that removal of the released waste or accumulated precipitation cannot be accomplished within twenty-four hours. At the time of the July 2014 inspection, record reviews revealed that liquid remained in the secondary containment for the leachate collection tanks at LLBG Mixed Waste Trenches 31 and 34 for greater than twenty-four hours. For example, frozen water in the containment for Tank 31 had turned to liquid on February 13, 2014, but was not removed until approximately March 20, 2014. Also, liquid water remained in the containment for Tank 34 from February 12, 2014 to July 20, 2014.

The EPA also identified the following areas of concern:

1. WAC 173-303-573(22) states that large quantity handlers of universal waste lamps may accumulate universal waste for no longer than one year from the date the universal waste is generated, unless such activity is solely for the purpose of accumulation of such quantities of universal waste as necessary to facilitate proper recovery, treatment, or disposal. However, the handler bears the burden of proving that such activity was solely for the purpose of accumulation of such quantities of universal waste as necessary to facilitate proper recovery, treatment, or disposal. During the May 2014 inspection, the Manager of the CCRC, stated that individual generation sites throughout the facility accumulate universal waste lamps for up to a year after the time of generation, prior to delivering the lamp(s) to the CCRC, where the lamps may be accumulated for up to one additional year.
2. The annual LDR Report is intended, among other things, to document each mixed waste at the Hanford facility which is subject to Land Disposal Restrictions (LDR) and is being stored prior to treatment necessary to satisfy applicable LDR treatment standards.
 - a. Pursuant to the March 29, 2000 Final Determination, DOE's annual LDR Reports must include a Storage Report that provides, among other things, a "specific identification and description for each and all mixed wastes at Hanford," including but not limited to the applicable waste codes and state-only waste designations. A review of the LDR Report dated April 11, 2013 revealed that neither applicable waste codes nor state-only designations were included in the Report.
 - b. Pursuant to the March 29, 2000 Final Determination, DOE's annual LDR Reports must include "a schedule for processing backlogged and currently generated mixed wastes." A review of the LDR Report dated April 11, 2013

revealed that schedules were not included for processing backlogged mixed wastes, such as those observed in CWC buildings during the April 2014 inspection.

3. During the April 2014 inspection, it was revealed that the lighting in Building 2403WA was not functional, such that flashlights were necessary for entry into the building, even though a work order had apparently been initiated for this repair.
4. During the April 2014 inspection, it was revealed that spill control and decontamination equipment in the CWC MO-289 trailer, which services the CWC area, was not in service from approximately December 5, 2013 to February 5, 2014. It was not clear that spill control equipment was readily available elsewhere on the facility.
5. During the April 2014 inspection, it was revealed that several areas of the Hanford facility had their own Building Emergency Plan (BEP). It was not clear how different BEPs would work together if an emergency originated in one area and spread to a second area.
6. During the April 2014 inspection, record reviews revealed that if a problem was identified during a weekly inspection at the CWC, and a repair order tracking number had been assigned, subsequent weekly inspections would indicate that the problem had been resolved because the repair order action tracking number had been assigned, whether or not the problem had actually been physically resolved. The subsequent inspection checklist therefore was not accurate. WAC 173-303-630(6) requires that inspection logs include a notation of the date and nature of any repairs or remedial actions taken.
7. During the July 2014 inspection, it was revealed that if a problem was noted during a weekly inspection at Trenches 31 and 34, it was difficult to determine exactly when the problem was resolved and what had been done to resolve it because it appeared that a repair order tracking number can be assigned to multiple problems identified during a given inspection, and/or the people conducting the inspections were not consistent in continuing to document that an issue still persisted prior to resolving it. WAC 173-303-630(6) requires that inspection logs include a notation of the date and nature of any repairs or remedial actions.

The above violations may subject DOE to enforcement action under Section 3008 of RCRA, 42 U.S.C. § 6928, including an action to assess civil penalties. Within fifteen (15) days of receipt of the NOV, EPA requests that DOE submit a written response that identifies all actions the Facility has taken or will take to correct the violations described above and the time frame for completing such action. EPA also requests that DOE include a written response concerning the Areas of Concern listed above.

Response(s)

On March 25, 2015, DOE-RL legal counsel contacted the EPA and requested a 15-day extension to the due date for responses to the EPA Notice of Violations. A 15-day extension was granted by the EPA. The new due date is April 17, 2015.

On March 31, 2015, DOE-RL issued letter 15-ESQ-0050 to EPA requesting that the due date for a response to the EPA NOV letter dated March 12, 2015, be extended to 60 days from the date of receipt of the EPA letter (received by DOE-RL on March 18, 2015) to May 17, 2015.

On April 20, 2015, DOE-RL issued letter 15-ESQ-0064 to EPA. The letter provides responses to the EPA NOV letter including 5 alleged violations of applicable regulations and 7 areas of concern. Alleged violations include container management at CWC Inside Storage Areas, container management at CWC Outside Storage Areas, contingency planning deficiencies, universal waste lamp container management at the CCRC, and tank testing and secondary containment management at mixed waste trenches 31 and 34. The 7 areas of concern include accumulation time frames for universal waste, waste volumes reported in Land Disposal Restriction reports, lighting in the 2403-

WA building not functional, spill control and decontamination equipment in CWC MO-289 trailer was not in service, Building Emergency Plan deficiencies, inspection checklist inaccuracies, and corrective action tracking deficiencies.

ADDENDUM - On August 27, 2015, EPA issued letter OCE-101 to DOE-RL regarding 60-day notice of unacceptability for CERCLA offsite acceptability determination at 2403-WA and 2402-WB Buildings at the CWC. The letter was received by DOE-RL by certified mail on September 2, 2015. The purpose of this letter is to update the EPA's acceptability determination for dangerous waste management units within the CWC, specifically the 2403-WA and 2402-WB Buildings, to receive wastes generated at other DOE sites and onsite pursuant to CERCLA. In particular, this letter serves as EPA's initial determination that the 2403-WA and 2402-WB Buildings do not meet the criteria for acceptability stated in 40 Code of Federal Regulations (CFR) § 300.440(b), and will therefore not be considered acceptable for receipt of CERCLA wastes.

EPA previously issued an Acceptability Determination applicable to the CWC on February 27, 1995. A second Acceptability Determination was issued on March 5, 2002, which updated the CWC Acceptability Determination and included a similar determination for the LLBG. In a separate communication, EPA recently addressed the acceptability of a number of dangerous waste management units within the CWC and the LLBG.

EPA conducted an inspection of the CWC April 1-2, 2014. During the April 2014 inspection, it was revealed that: (1) numerous containers of dangerous waste in Building 2403-WA were not in good condition, in that they were heavily corroded. These drums were the drums in which the waste had originally been buried and subsequently recovered; and (2) numerous containers of dangerous waste in Building 2402-WB were not in good condition, in that they were heavily corroded. These drums were the drums in which the waste had originally been buried and subsequently recovered. These two violations were part of EPA's March 12, 2015 Notice of Violation.

Since the previous determinations of acceptability noted above included the 2403-WA and 2402-WB Buildings, these dangerous waste management units may continue in the interim to receive CERCLA waste after the date of this letter. This determination of unacceptability becomes effective sixty (60) calendar days from issuance of this notice (October 27, 2015). If DOE does not either request an informal conference or submit written comments, the 2403-WA and 2402-WB Buildings shall be unacceptable to receive CERCLA waste on the 60th calendar day after this letter. The 2403-WA and 2402-WB Buildings will then remain unacceptable until such time as EPA informs DOE otherwise. EPA will notify DOE in writing whether or not the information provided is sufficient to support a determination of acceptability. Unless EPA determines that information provided by DOE and Ecology is sufficient to support a determination of acceptability, the facility becomes unacceptable on the 60th calendar day after the date of this letter.

In a separate letter, EPA notified DOE-RL of its offsite acceptability determination for dangerous waste management units within the CWC and the LLBG at the Hanford Facility to receive wastes generated at other DOE sites and onsite pursuant to CERCLA. The purpose for this update is to ensure that this Offsite Acceptability Determination is specific to individual dangerous waste management units within the CWC and LLBG, and to reflect the current regulatory status and acceptability of the various dangerous waste management units within these two areas of the Hanford facility. EPA has previously made an acceptability determination under the Offsite Rule regarding the following dangerous waste management units within the CWC and the LLBG operating unit groups: Flammable and Alkali Metal Waste Storage Modules; CWC Shipping and Receiving Area; 2402-W, WC through WL Waste Storage Buildings; 2403-WB through WD Waste Storage Buildings; 2404-WA through WC Waste Storage Buildings; LLBG Trench 31; and LLBG Trench 34. EPA has determined that these dangerous waste management units within the CWC and the LLBG appear to be in substantial compliance with applicable federal and state environmental regulations. EPA has determined that there are no documented releases from any of these dangerous waste management units within the CWC and LLBG unit groups. Therefore, these dangerous waste management units are currently acceptable under the Offsite Rule to receive CERCLA waste from offsite DOE sites and from onsite CERCLA actions. Buildings 2403-WA and 2402-WB are not included in this list, and are addressed under separate cover as discussed above.

EPA's National Enforcement Investigation Center (NEIC) conducted an inspection at the Hanford Solid Waste Operating Complex (SWOC) on March 14 through March 25, 2011. NEIC identified a number of apparent violations of applicable dangerous waste rules, including a finding that eighteen (18) Treatment, Storage and/or Disposal (TSD) units within the SWOC complex did not have authorization to operate, and that the closure plan for those units lacked required details. EPA referred these issues to Ecology for resolution for a subset of the 18 TSD units. To date, Ecology has not provided a response to EPA's referral. Therefore, EPA cannot make a determination that the following dangerous waste management units within the CWC and the LLBG are in substantial compliance with applicable federal or state environmental regulations: CWC East Outside Storage Area (Outside Storage Area D); CWC Shipping and Receiving Area (Outside Storage Area E); CWC Tank D-10 Storage Area (Outside Storage Area F); LLBG Trench 31 Storage and Treatment Pad; LLBG Trench 34 Storage and Treatment Pad. Until such time as EPA can make an affirmative determination that these dangerous waste management units are in substantial compliance with applicable federal and state environmental regulations, they will not be considered acceptable for receipt of CERCLA waste.

On October 1, 2015, DOE-RL issued letter 15-ESQ-0121 to EPA in response to the 60-day notice of unacceptability regarding the CERCLA offsite acceptability determination for the 2403-WA and 2402-WB buildings at the CWC. The EPA letter contained acceptability determinations for the CWC Buildings 2403-WA and 2402-WB, and stated that within 10 days of receipt of the letter, DOE-RL could request an informal conference to discuss the basis for EPA's determination. On September 3, 2015, DOE-RL staff requested an informal conference via electronic mail, and it is scheduled for October 8, 2015. The attachment to DOE-RL letter 15-ESQ-0121 contains information DOE-RL plans to discuss at the informal conference.

In a separate letter, EPA provided CERCLA offsite acceptability determinations for the CWC East Outside Storage Area, CWC Shipping and Receiving Area, CWC Tank D-10 Storage Area, and LLBG Trench 31 and 34 Storage and Treatment Pads. In that letter, EPA stated it was waiting for a response back from Ecology related to closure plans, and until EPA can make an affirmative determination that these units were in substantial compliance with applicable federal and state environmental regulations, they will not be considered acceptable for receipt of CERCLA waste.

The attachment to DOE-RL letter 15-ESQ-0121 provides information for the informal conference on CERCLA offsite acceptability determinations made by the EPA in their letters. A conclusion was reached following a discussion of relevant facts; arguments related to the definition of "onsite" at Hanford; CERCLA; DOE's jurisdiction to carry out CERCLA Section 104 response actions at Hanford; offsite rule only applying to movement of hazardous wastes off Hanford; definition of Hanford as a "facility" under CERCLA and "onsite" encompassing the facility; Tri-Party Agreement expedites remediation and furthers Congressional intent; onsite argument; procedural argument; offsite rule process; failure to cite a proven, specific, and relevant violation under the offsite rule; failure to cite a proven, specific, and relevant violation under the offsite rule and circumvention of the offsite rule process by immediately denying receipt of waste.

DOE-RL concluded that the purpose of the offsite rule is to prevent a TSD facility from itself becoming a new CERCLA site. That is why the offsite rule defines "relevant" violations as ones that could allow a release to the environment. When promulgating the offsite rule, EPA stated that a relevant violation "will generally be Class I violations by high priority violators (HPVs). Guidance for determining what is a Class I violation or HPV can be found in the Revised RCRA Enforcement Response Policy (OSWER Directive No. 9900.0-1A). Class I violations are defined as:

"Deviations from regulations, or provisions of compliance orders, consent agreements, consent decrees, or permit conditions which could result in a failure to:

(a) Assure that hazardous waste is destined for and delivered to authorized treatment, storage or disposal facilities (TSDFs); or

(b) Prevent releases of hazardous waste or constituents, both during the active and any applicable post-closure

periods of the facility operation where appropriate; or

(c) Assure early detection of such releases; or

(d) Perform emergency clean-up operation or other corrective action for releases"

There has not been a suggestion in either of the EPA letters that the alleged violations could cause a release to the environment. EPA has not made a legally definitive finding that a relevant violation has occurred, has not been specific as to the alleged violation, has not followed the offsite rule policy, has not allowed due process to occur and has interpreted this policy in an arbitrary way. DOE respectfully suggests EPA rescind the referred to letters.

On October 21, 2015, EPA issued a letter to DOE-RL regarding the 60-day Notice of Unacceptability for CERCLA Offsite Acceptability Determination at the 2403-WA and 2402-WB Buildings at the Central Waste Complex.

The EPA letter is in response to the written information provided to EPA on October 1, 2015 in response to EPA's 60-day Notice of Unacceptability and during the initial teleconference on this issue held on October 8, 2015. To allow EPA time to address the various written and verbal comments, EPA is extending, pursuant to 40 CFR 300.440(d)(8), the 60-day response period provided for by 40 CFR 300.440(d)(6) for a period of three months until January 27, 2016. During the period of this extension, or until EPA issues a written determination that the information provided in written and verbal comments is not sufficient to show that the facility is operating in physical compliance with respect to the relevant violations cited in the initial notice of unacceptability, and that all relevant releases have been eliminated or controlled, as required in 40 CFR 300.440(b)(2) such that a determination of acceptability would be appropriate, the 2403-WA and 2402-WB Buildings within the Hanford Central Waste Complex will be considered to remain eligible to receive CERCLA offsite wastes.

Document #: 2015-10**Doc Date:** 3/12/2015**Agency:** Ecology**Category:** Notice of Violation**Title:** (CHPRC) ECOLOGY NOTICE OF VIOLATION AND CONCERNS REGARDING DANGEROUS WASTE COMPLIANCE INSPECTION AT B-PLANT ON AUGUST 19, 2014**Summary**

On August 19, 2014, Ecology conducted a dangerous waste compliance inspection at B-Plant. Ecology alleges eight violations of the dangerous waste regulations and identified six areas of concern. The alleged violations and concerns are documented in Ecology letter 15-NWP-047 to DOE-RL and CHPRC, dated March 12, 2015. Failure to correct the violations 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). Failure to comply with any provision of these chapters are subject to penalties of up to \$10,000 per day per violation. Ecology requested completion and submittal of the enclosed Compliance Certificate, along with any requested documentation within the specified timeframes.

The following actions are required:

1. Within 60 days of receipt of the inspection report DOE and CHPRC must determine whether or not the solid waste in the 211-B Chemical Tank Farm System and TK-2-1 is designated as a dangerous waste or mixed waste in accordance with WAC 173-303-070(3). Solid waste determined to be dangerous waste or mixed waste must be managed in accordance with WAC 173-303.
2. Within 90 days of receipt of the inspection report, DOE and CHPRC must place applicable emergency equipment in accordance with WAC 173-303-340(1) at the B Plant Complex. The locations and description of the emergency equipment must be included in the revised building emergency plan.
3. Within 90 days of receipt of the inspection report, DOE and CHPRC must revise and submit the current Building Emergency Plan or submit a Building Emergency Plan specifically for the B Plant Complex in accordance with WAC 173-303-350(2) for Ecology's review. The Building Emergency Plan must contain the applicable content in accordance with WAC 173-303-350(3) for each facility addressed in the plan.
4. Within 90 days of receipt of the inspection report, DOE and CHPRC must include descriptions of evacuation routes and alternative evacuation routes in the Building Emergency Plan for the B Plant Complex. The Building Emergency Plan must be submitted to Ecology for review.
5. Within 30 days of receipt of the inspection report, DOE and CHPRC must label the five tanks located at 221-BB, 221-BF, and 276-BA, in accordance with WAC 173-303-640(5)(d). DOE and CHPRC must submit to Ecology supporting photographs that labeling has been completed within the 30 days upon receipt of this report.
6. Within 365 days of receipt of the inspection report, DOE and CHPRC must submit a written closure plan for the DWMUs in the 221-B Canyon Building, in accordance with WAC 173-303-610 to Ecology; the closure plan must be maintained in the facility's operating record. Additionally, within 120 days of receipt of this inspection report, DOE and CHPRC must submit a separate written closure plan for tanks BCP, BCS, 221-BF-A, and 221-BF-B, ISO East and any other identified DWMUs outside the 221-B in accordance with WAC 173-303-610 to Ecology; the closure plan must be maintained in the facility's operating record.
7. DOE and CHPRC must immediately upon receipt of the report, begin to conduct inspections of tanks BCP, BCS, 221-BF-A, 221-BF-B and ISO East in accordance with 40 CFR Part 265.195(a), 265.195(b)(2), and 265.195(b)(3) as incorporated by reference in WAC 173-303-400(3)(a). Within 30 days of receipt of the inspection report, the start date and two weeks of inspection logs documenting the daily inspections must be submitted to Ecology.
8. Upon receipt of the inspection report all future annual LDR Reports must correctly inventory and document the volume and/or weight of mixed waste stored in the B Plant Complex DWMUs, in accordance with the Hanford

Federal Facility Agreement and Consent Order milestone "M-026-01, W, X and Intervening Years".

The following concerns and suggestions were provided by Ecology:

1. HNF-3208, S&M Plan, and the 2009 Land Disposal Restrictions Full Report (DOE/RL-2010-27), have different total container counts for Cell 4's inventory. According to HNF-3208 and DOE/RL-2010-27 there is a total of 43 containers with 7 of the containers designated as MW. Appendix A of the S&M Plan identifies a total of 33 containers and does not provide information regarding which containers are MW or LLW.
2. B Plant Complex DWMUs tank system waste is documented in the Potential Mixed Waste Table Appendix C of the 2009 LDR Report and Table 1-4 of the 2010 through 2013 LDR Reports. The possibility of MW generated after 1987 may not be accounted for in the annual LDR report. Some of the tank system waste may not meet the criteria to remain in the Potential Mixed Waste Table, the waste associated with the tank systems should be reevaluated to possibly be accounted for as a current inventory of mixed waste.
3. S&M personnel that conducted the 2013 annual surveillance inspection for the B Plant Complex did not complete or document Datasheet 3 for the surveillance of the DWMUs, which is dictated in the B Plant Annual Facility and Grounds Surveillance Technical Procedure. The Data Sheet 3 (B Plant RCRA Treatment, Storage and Disposal Facility Surveillance) should be used to inspect the DWMUs at the B Plant Complex and documented in accordance with Annual Inspection Procedures.
4. According to the Preclosure Work Plan and S&M Plan the B Plant Complex DWMU tank (TK-10-1) appears to be actively managing in-leakage liquid from the 221-B canyon building. DOE and CHPRC have not provided documentation of secondary containment upgrades for Cell 10 to meet the requirements of §265.193; have not provided documentation regarding an integrity assessment conducted on tank TK-10-1 or alternative measures to meet tank integrity assessments under §265.191.
5. Ecology observed in Table 6-1 of the S&M Plan that DOE and CHPRC did not identify WAC 173-303-360, Emergencies. This particular section of the DW regulations establishes requirements for emergency coordinators and emergency procedures. Under the DW Regulations column, Ecology has identified WAC 173-303-280, Notice of Intent, is incorrect; WAC 173-303-280 references general requirements for dangerous waste management facilities.
6. The S&M Plan Appendix A summarizes the inventories of vessels, containers, and the containment building. As identified earlier in the inspection report, the Appendix A inventory in the S&M Plan is discrepant with other documents such as the 2013 LDR Report and the Preclosure Work Plan. Not only are the total container amounts discrepant, there appears to be vessel volumes and weight discrepancies between each document.

Response(s)

On May 12, 2015, DOE-RL issued letter 15-AMRP-0147 to Ecology. This letter and the attached information are in response to Ecology letter 15-NWP-047, dated March 12, 2015, which provided a Compliance Report of the August 19, 2014, inspection of the B Plant Complex. Agreements regarding the approach and timing for addressing Resource Conservation and Recovery Act (RCRA) compliance at B Plant were made by the Parties almost 20 years ago in accordance with the Tri-Party Agreement (TPA) and are documented in the TPA and associated documents. Given this history and context, the B Plant inspection report requests actions that are not consistent with the TPA and documents approved under it. The attachment to this letter provides specific responses to the eight items identified in the report as "compliance problems" and the additional six "concerns and suggestions." The requested action for "compliance problem" number 8 (Land Disposal Restriction Report), has been completed. Some of the other compliance problems identified in the report are directly related to ongoing Hanford Emergency Management Plan Work Group discussions/negotiations as part of the longer term Hanford Facility RCRA permit renewal effort being led by Ecology. Examples of specific topics of the ongoing

discussions/negotiations include incident reporting, contingency plans, spill response, and training. DOE-RL and CHPRC do not believe it is appropriate to impose actions as identified in the Ecology compliance report in lieu of completion of the discussions. The proposed actions conflict with and/or are not in coordination with these other efforts and DOE-RL believes that the remedies for these issues be left in the purview of the work groups to resolve. Other observations in the report conflict with decisions made and documented in existing TPA compliance agreements. Taking actions as described in the Ecology compliance report would add significant costs without commensurate improvement in the protection of human health and the environment. In fact, some of the actions required by the Ecology compliance report, such as an immediate resumption of tank inspections could put employees at significant new risk due to exposure to physical hazards, asbestos, beryllium, and radiological conditions. These additional costs in time, money, and schedule could also impact other activities associated with Hanford cleanup. The circumstances associated with complex legacy nuclear facilities such as B Plant were not contemplated in the development of the regulations. Highly radioactive wastes in structures like the canyon facilities that pre-date RCRA, or integrating RCRA with CERCLA, or management of non-operating facilities that will not be dispositioned until Federal funding is available based on site and national priorities and congressional budget allocations, are examples of circumstances not addressed in the normal regulatory landscape for typical operating TSDs. DOE remains committed to implement RCRA requirements in accordance with agreements made by the Parties until the Parties reach new or revised agreements per the TPA process.

On October 19, 2015, Ecology issued letter 15-NWP-178 to DOE-RL and CHPRC in response to areas of alleged noncompliances from the B-Plant complex dangerous waste compliance inspection conducted on August 19, 2014 and DOE-RL letter 15-AMRP-0147 that responded to Ecology's inspection report.

During the inspection at the B Plant Complex, Ecology alleges several areas did not comply with the Dangerous Waste Regulations. The areas of alleged noncompliance were provided to DOE-RL and CHPRC in the Compliance Report, dated March 12, 2015. DOE-RL and CHPRC were required to correct these areas of alleged noncompliance within the specified timeframes and to return the completed Compliance Certificate by March 16, 2016. As of October 19, 2015, Ecology has determined that one out of eight areas of alleged noncompliance has returned to compliance.

Ecology has reviewed the responses provided in DOE-RL letter 15-AMRP-0147 for the seven remaining areas of alleged noncompliance. As a result of that review, Ecology has adjusted the actions required to return to compliance, as follows.

1. DOE-RL and CHPRC must provide supporting documentation that at the end of the transition phase, end point actions required for the 211-B Chemical Tank Farm System were completed. Include documentation that the chemical constituents remaining in the tanks and vessels of the 211-B Chemical Tank Farm System were not characterized as hazardous materials, dangerous waste, or mixed waste.

ACTION: DOE-RL and CHPRC have agreed that Tank TK-2-1 is storing dangerous waste or mixed waste. DOE-RL and CHPRC must identify Tank TK-2-1 as housed within the B Plant Complex Containment Building or identify Tank TK-2-1 in the B Plant Complex vessel lists in the Pre-closure Work Plan and Part A Application for the B Plant Complex.

2. The DOE-RL and CHPRC response and demonstration that none of the hazards posed by waste handled at the facility could require a particular kind of equipment indicates that the hazards posed by the waste handled at the facility do not require any special fire or spill equipment. During periods when personnel are at the facility performing work activities such as annual surveillance, ventilation system maintenance, etc., fire extinguishers and spill response kits are available from project vehicles and fire and spill hazards are minimal due to actions taken during deactivation and ongoing controls imposed by nuclear safety documents and fire permits. The Building Emergency Plan for Surveillance & Maintenance (HNF-IP-0263-CP S&M) and subsequent revisions contradict the statement above. Specifically, the statement above indicates fire extinguishers and spill response kits are available

from project vehicles while the Building Emergency Plan for Surveillance and Maintenance indicates spill response kits are located as needed with each active less than 90 Day Waste Storage Area or Satellite Accumulation Area.

ACTION: DOE-RL and CHPRC must accurately define the location of fire, emergency response, or spill equipment related to operations at the B Plant Complex in the Surveillance and Maintenance Building Emergency Plan; this should include the location of project vehicles and specific locations at buildings, or maintain the fire and spill equipment at the facility. Maintaining the fire and spill equipment at the facility would also require a change to the equipment list and description in the Surveillance and Maintenance Building Emergency Plan.

3. Ecology's "Action Required" requested that the Surveillance and Maintenance Building Emergency Plan or a specific Building Emergency Plan be developed to account for missing or the lack of information related to the B Plant Complex. After reviewing the DOE-RL and CHPRC response, Ecology believes that the specific details missing from the current Surveillance and Maintenance Building Emergency Plan are addressed in Item 2 and 4. Ecology will remove the area of alleged noncompliance (i.e., contingency) and identify the observations associated with the area of noncompliance for Item 3 as a concern rather than a violation. Ecology believes the ongoing Hanford Emergency Management Plan workshops will address the contingency concerns and the lack of specific details.

ACTION: No further action is required.

4. After reviewing the DOE-RL and CHPRC response and reviewing the topic identified for resolution during the ongoing Hanford Emergency Management Plan workshop, Ecology maintains the requirement for identifying evacuation routes in the Surveillance and Maintenance Building Emergency Plan, regardless of frequent or infrequent access.

ACTION: DOE-RL and CHPRC must determine what areas surveillance and maintenance personnel access at the B Plant Complex and identify evacuation routes in the Surveillance and Maintenance Building Emergency Plan.

5. The B Plant Complex Pre-closure Work Plan and supporting documentation provided to Ecology fails to demonstrate that labeling requirements for the five tanks (i.e., BCP, BCS, 221-BF-A, 221-BF-B, or ISO-East) cannot be met.

ACTION: DOE-RL and CHPRC should update the B-Plant Complex Pre-closure Work Plan to demonstrate accessibility restrictions that may be present and alternative compliant measures. At a minimum, DOE-RL and CHPRC must provide supporting documentation to Ecology demonstrating that the five tanks located outside of the 221-B Canyon Building cannot be accessed (i.e. radioactive or hazardous constituents contamination, beryllium contamination, asbestos, etc.) and propose an alternative measure to identify the waste contained in the tanks, or mark the tanks in accordance with WAC 173-303-640(5)(d).

6. As a result of Ecology's review of the DOE-RL and CHPRC response and supporting documentation, Ecology is changing the original action required, which stated, "Additionally, within 120 days of receipt of this inspection report, DOE-RL and CHPRC must submit a separate written closure plan for tanks BCP, BCS, 221-BF-A, 221-BF-B, and ISO East and any other identified dangerous waste management units outside 221-B in accordance with WAC 173-303-610 to Ecology; the closure plan must be maintained in the facility's operating record."

Ecology is changing this part of the action required to "DOE-RL and CHPRC must provide supporting documentation that demonstrates cases where physical conditions and/or unknowns prevent timely completion of closure for the five tanks (i.e., BCP, BCS, 221-BF-A, 221-BF-B, or ISO-East.)"

Ecology will remove part of the action required from Item 6 which states "Within 365 days of receipt of this inspection report, DOE-RL and CHPRC must submit a written closure plan for the dangerous waste management units in the 221-B Canyon Building, in accordance with WAC 173-303-610 to Ecology; the closure plan must be maintained in the facility's operating record."

ACTION: The observations associated with the area of alleged noncompliance for the dangerous waste management units in the 221-B Canyon Building will now be noted as a concern. The concern is based on observations documented in the inspection report regarding discrepant or missing information identified in the Pre-Closure Work Plan and Surveillance & Maintenance Plan for the B Plant Complex. Removing this part of the action required for Item 6 is due to the unclear and differing language identified in earlier versions of the Tri-Party Agreement Action Plan, Section 8 (dated March 28, 1997) and language that is currently in Section 8.

7. The B Plant Complex Pre-closure Work Plan fails to demonstrate that inspection requirements for the four tanks BCP, BCS, 221-BF-A, or 221-BF-B cannot be met due to accessibility as stated in the plan.

ACTION: DOE-RL and CHPRC should update the B-Plant Complex Pre-closure Work Plan to demonstrate accessibility restrictions that may be present and alternative compliant measures. At a minimum, DOE-RL and CHPRC must provide supporting documentation to Ecology demonstrating that the four tanks located outside of the 221-B Canyon Building cannot be accessed (i.e. radioactive or hazardous constituents contamination, beryllium contamination, asbestos, etc.) to conduct daily dangerous waste inspections and propose an alternative measure for inspecting the tanks or conduct daily dangerous waste inspections of the tanks in accordance with 40 CFR Part 265.195(a), 265.195(b)(2), and 265.195(b)(3) as incorporated by reference in WAC 173-303-400(3)(a).

8. Ecology reviewed the DOE-RL and CHPRC response and the draft Calendar Year 2014 Hanford Site Mixed Waste Land Disposal Restrictions Full Report, DOE/RL-2015-08, Revision 0, dated March 2015 (2014 LDR Report). The discrepancy identified in Item 8 appears to have been corrected in the draft 2014 LDR Report. DOE-RL and CHPRC have returned to compliance for Item 8, "Hanford LDR Summary Report."

ACTION: No further action is required.

Within 45 days of receipt of Ecology letter 15-NWP-178, DOE-RL and CHPRC must complete the above actions required for the remaining areas of alleged noncompliance (Items 1, 2, 4, 5, 6, and 7) and provide Ecology documentation that the remaining areas of alleged noncompliance have returned to compliance. Failure to correct the alleged areas of noncompliance may result in an administrative order, a penalty, or both, as provided by the Hazardous Waste Management Act (RCW 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.

Document #: 2015-09**Doc Date:** 3/9/2015**Agency:** Ecology**Category:** Notice of Violation**Title:** (MSA) ECOLOGY NOTICE OF VIOLATION FOR MO-234 POTABLE WATER LINE BREAK NOTIFICATION AND REPORTING (ST4511 NOV)**Summary**

This Notice of Violation (NOV) is to inform the United States Department of Energy- Richland Operations Office (DOE-RL) and Mission Support Alliance (MSA) of a violation of ST 4511 Permit, authorized for wastewater discharges on the Hanford Site. The violation and deficiencies were identified through an inspection performed by the Washington State Department of Ecology (Ecology) on October 21, 2014, at Hanford's M0-234

parking lot located in 200 East Area and through other information obtained by Ecology. This inspection was conducted pursuant to Ecology's authority under Chapter 90.48 Revised Code of Washington, as amended.

The following alleged violation of the ST 4511 permit was determined. Additionally, an alleged deficiency in reporting and understanding the permit requirements was identified:

- Failure to identify and report correctly an unauthorized discharge covered by the ST 4511 permit. Permit Condition S8 provides the Permittee a requirement for "upset condition" for a wastewater discharge on the Hanford Site that exceeds the limitations of ST 4511 permit. An upset that exceeds any discharge limitation in ST 4511 permit must be reported to Ecology within 24 hours from the time the Permittee becomes aware of the circumstances.

- Failure to notify Ecology of a noncompliance with ST 4511 permit. Permit Condition G11 stipulates the process that the Permittee must follow in an event, which upon discovery of the circumstances; the Permittee cannot comply with the Permit and its conditions due to any cause. MSA violated Permit Condition G 11 by failing to notify Ecology of its failure to comply and to submit a detailed written repmi to Ecology within 30 days of receipt of the notification. DOE-RL received the NOV letter on March 12, 2015. MSA received the NOV letter from DOE-RL on March 17, 2015. The response is due from DOR-RL to Ecology by April 10, 2015 (actual due date is April 11, 2015, which is a Saturday).

Response(s)

On 4/2/2015 DOE-RL contacted Ecology requesting an extension in the due date for a response to the ST 4511 NOV letter. The new due date for the DOE-RL and MSA response to the ST 4511 NOV letter is 5/12/2015.

On 4/29/2015 DOE-RL issued letter 15-ESQ-0056 to MSA. This letter informs Mission Support Alliance, LLC (MSA) how the U.S. Department of Energy (DOE) interprets requirements contained in waste discharge permits issued by the State of Washington pursuant to the State's permitting program found at Washington Administrative Code (WAC) Chapter 173-216. The terms of Contract DE-ACO6-09RL14728 obligate MSA to comply with requirements of waste discharge permits issued to DOE by the State. MSA is directed to manage its activities and comply with waste discharge permits using the interpretation that the permits apply to all releases of raw or potable water onto the ground, or into the soil column from facilities or other physical systems that MSA manages or controls on the Hanford Site. Reporting of releases from these systems shall be made in a manner compliant with all conditions and terms contained in applicable waste discharge permits. This includes, but is not limited to, notification and reporting requirements when discharge volumes specified in the permits are exceeded, or permit conditions otherwise require notification or reporting. MSA is also directed to, within forty-five (45) days of receipt of this letter; modify its written procedures to assure compliance with directed interpretation of the requirements contained in applicable waste discharge permits, give notice of the modifications to affected MSA personnel, and submit to DOE a written explanation of how the modifications and notifications were accomplished.

On April 30, 2015, MSA issued letter MSA-1501229A R2 to DOE-RL. The attached incident reports have been prepared per Ecology's request in accordance with ST0004511 permit condition, G11.C for each of the incidents

identified in the Notice of Violation (NOV)(15-NWP-051). An updated NOV incident table is also provided. The table provides updated descriptions, locations, incident occurrence dates and the approximate gallons discharged.

On May 6, 2015, Ecology issued letter 15-NWP-083 to DOE-RL and MSA in response to MSA's letter (MSA-1501229A R1) requesting that Ecology revise the NOV to remove MSA as a named party because DOE-RL is signatory to the ST 4511 Permit and MSA is not. This letter informs DOE-RL and MSA that Ecology will not revise the NOV letter and remove MSA as a named party. Ecology identified permit violations and deficiencies through an inspection performed on October 21, 2014. Ecology determined at that time MSA was an operator and responsible for the upset condition.

On May 7, 2015, DOE-RL issued letter 15-ESQ-0073 to Ecology. The purpose of this letter is to transmit the 30-day reports requested by the Ecology letter (15-NWP-051), officially received by DOE-RL on March 12, 2015. Enclosed are the 30 day reports in response to the NOV for State Waste Discharge Permit ST4511 for each incident listed in the NOV table. An updated incident table is also provided. The table provides updated descriptions, locations, incident occurrence dates and the approximate gallons discharged. DOE-RL appreciates the extension of the submission date of these reports from April 11, 2015, to May 12, 2015.

Document #: 2015-06**Doc Date:** 2/19/2015**Agency:** Ecology**Category:** Notice of Violation**Title:** (CHPRC) ECOLOGY DANGEROUS WASTE VIOLATIONS AND CONCERNS AT TRENCH 94 AND CENTRAL WASTE COMPLEX OPERATING UNIT GROUP 6**Summary**

The Washington State Department of Ecology Nuclear Waste Program (Ecology) conducted Dangerous Waste compliance inspections at the Trench 94 Landfill Operating Unit Group 18 on 11/18/2014 (RAID 2015-012), and the Central Waste Complex Operating Unit Group 6 on 12/11/2014 (RAID #2015-018) and 12/16/2014 (RAID #2015-020). On 2/19/2015 Ecology issued letter 15-NWP-025 to the Department of Energy Richland Operations Office (DOE-RL) alleging violations and concerns with respect to the dangerous waste regulations that were documented in an enclosed compliance reports. Ecology indicated that DOE-RL must complete the actions required to correct these alleged violations at each facility and return the enclosed completed Compliance Certificates within 30 days from receipt of this letter (i.e., 3/19/2015). Ecology indicated that failure to comply with these requirements within 30 days could result in an administrative order and a penalty of up to \$10,000 per day for each violation.

Response(s)

DOE-RL issued letter 15-ESQ-0051 to Ecology on March 31, 2015. This letter is responding to the Ecology letter dated February 19, 2015, (15-NWP-025) regarding the Two Dangerous Waste Compliance Inspections for Facilities Operated by CHPRC. The U.S. Department of Energy (DOE) Richland Operations Office (RL) and CHPRC have reviewed the potential violations, concerns, and requested actions described in the referenced letter and are providing responses in the attached documents. Many of the potential violations are directly related to ongoing discussions with the State of Washington Department of Ecology (Ecology), in which the identified concerns are being negotiated. Examples include contingency plan and spill response issues that are the specific topics of an Ecology/RL-led Contractor/ RL/DOE Office of River Protection Hanford Emergency Management Plan Work Group. Other examples include training issues that are being, and will be, discussed and described as part of the on-going Hanford Facility RCRA permit renewal effort being led by Ecology. CHPRC and RL believe it is not appropriate to impose actions on RL/CHPRC that conflict with and/or are not in coordination with these other efforts and suggest that the remedies for these issues should be left in the purview of the work groups to resolve. For issues not currently subject to discussion and negotiation, CHPRC and RL have provided information on understanding of the requirements, the timing for repairs to occur, specifically requested documentation, and have resolved a typo in the nomenclature relating to a Trench 94 figure. CHPRC and RL believe they are compliant with regulatory requirements related to concerns raised by Ecology and provide the basis for that belief in Attachment 1. RL and CHPRC will discuss these issues with Ecology and provide additional information as needed on these topics. It is the RL and CHPRC expectation that most of the issues that are the basis for Ecology's concerns are being, or will be, resolved through the permitting process and use of the Tier 1/Tier 2 issue resolution processes.

On May 8, 2015, Ecology issued letter 15-NWP-086 to DOE-RL and CHPRC. Ecology issued letter 15-NWP-025, dated February 19, 2015, to DOE-RL and CHPRC. The letter transmitted reports for the Trench 94 inspection (NWP Compliance Index No.14.511) and the CWC follow-up inspection (NWP Compliance Index No.14.512). DOE-RL and CHPRC did not return the completed, signed Compliance Certificate within thirty days of receipt as instructed, Ecology did receive a response from DOE-RL and CHPRC for the four violations relating to Trench 94 (15-ESQ-0051).

Violation 1 regarded personnel training at Trench 94. The DOE-RL/CHPRC response was to leave resolution of the matter to ongoing Hanford Facility RCRA permit renewal efforts being led by Ecology. Ecology responded that compliance with interim status facility standards is not contingent upon the permitting process or work groups (e.g., contingency workshop or conceptual agreement packages). The action required by Ecology is within thirty (30) days of receipt of the letter, Ecology requires that DOE-RL and CHPRC submit a written response that identifies all actions the facility has taken or will take to correct the violation as revised by identifying each job title/position for all dangerous waste job duties associated with Trench 94, and developing for each position a description which includes

the requisite skills, education, other qualifications, and duties.

Violation 2 also regarded personnel training at Trench 94. DOE-RL/CHPRC responded by providing copies of updated training records for the two NCOs and SWOC Manager/Field Supervisor (CHPRC-1501202, Attachment 2). Ecology responded by indicating that the submittal of updated training records was acceptable. The documentation provided is sufficient to indicate that the training deficiencies were corrected, and closes out this violation.

Violation 3 regarded the contingency plan at Trench 94. DOE-RL/CHPRC responded that the contingency plan need not be maintained at Trench 94 and is maintained "at the facility" as defined by WAC 173-303-040. Ecology responded that failure to maintain a copy of the contingency plan at the facility is a violation of WAC 173-303-350(4). This violation will be held in abeyance during the workshop meetings; however, Ecology reserves the right to enforce these requirements. As stated in the Trench 94 inspection report, these issues are being addressed in the Hanford Site-wide Contingency Workshop between Ecology and DOE-RL. Ecology notes that these items remain violations until resolved. Within 30 days of the final workshop agreement, submit to Ecology a revision for the Trench 94 Building Emergency Plan (BEP), implementing any agreed upon changes to the Trench 94 BEP.

Violation 4 regarded the emergency coordinator at Trench 94. DOE-RL/CHPRC responded that the emergency coordinator is not located at Trench 94, but can reach the trench within a short period of time. Ecology responded that failure to have at least one employee either on the facility premises or on call (that is, available to respond to an emergency by reaching the facility within a short period of time) is a violation of WAC 173-303-360(1). This violation will be held in abeyance during the workshop meetings; however, Ecology reserves the right to enforce these requirements. As stated in the Trench 94 inspection report, these issues are being addressed in the Hanford Site-wide Contingency Workshop between Ecology and DOE-RL. Ecology notes that these items remain violations until resolved. Within 30 days of the final workshop agreement, submit to Ecology a revision for the Trench 94 Building Emergency Plan (BEP), implementing any agreed upon changes to the Trench 94 BEP.

The Ecology letter indicates that 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.

On May 13, 2015, Ecology issued letter 15-NWP-089 to DOE-RL and CHPRC. Ecology inspected the CWC (Operating Unit Group 6) on December 11 and 16, 2014 to determine compliance with the Dangerous Waste Regulations, Chapter 173-303 Washington Administrative Code (WAC) and the Agreed Order and Stipulated Penalty No. DE 10156. Ecology issued letter 15-NWP-025 and inspection report, dated February 19, 2015, to DOE-RL and CHPRC. Ecology did not receive the completed, signed Compliance Certificate and documentation required to close out the listed violations from the CWC inspection, as instructed in the Compliance Certificate. Instead, Ecology received and reviewed the DOE-RL and CHPRC response letter 15-ESQ-0051 and attachments, dated March 31, 2015. The response letter and attachments address correcting the items of non-compliance identified in Ecology's Compliance Certificate and inspection report. Ecology has determined that the violations identified from the inspection have returned to compliance.

On 6/11/2015, DOE-RL issued letter 15-ESQ-0078 to Ecology. This letter is in response to Ecology's letter dated May 8, 2015, (15-NWP-086) regarding the Two Dangerous Waste Compliance Inspections for Facilities Operated by CHPRC (Trench 94 and CWC).

With respect to Ecology's alleged violation/observation 1 regarding personnel training at Trench 94, DOE-RL and CHPRC agree that Trench 94 will continue to operate in compliance with all applicable interim status standards of Washington Administrative Code (WAC) WAC 173-303-400(3) until a final status permit is issued or until closure of this Dangerous Waste Management Unit. DOE-RL and CHPRC believe that the existing Dangerous Waste (DW)

training plan for Trench 94 is fully compliant with the regulatory requirements. DOE-RL and CHPRC disagree with Ecology's interpretation and believe the regulations require training only for the following specific individuals:

1. Training for individuals, physically managing hazardous waste who have the opportunity to cause a release that could impact human health or the environment.
2. Training for individuals who are in close proximity to hazardous waste activities that could be impacted should such a release occur.

With respect to Ecology's alleged violation/observation 2 regarding personnel training at Trench 94, DOE-RL and CHPRC agree that the documentation provided was sufficient to indicate that the training deficiencies were corrected and closed out.

With respect to Ecology's alleged violations/observations 3 and 4 regarding contingency plan and emergency coordinator at Trench 94, DOE-RL and CHPRC appreciate the fact that Ecology has recognized and is honoring the Hanford

Environmental Management Program negotiations currently ongoing. Again, DOE-RL believes our current system is fully compliant with the regulatory requirements as discussed in those workshops. DOE-RL and CHPRC hope to assist Ecology in obtaining a more complete understanding of the Hanford Site-wide Emergency Response System and how it satisfies all the relevant regulatory requirements. Since DOE-RL and Ecology are already engaged in ongoing good faith

negotiations on the precise issues, which these alleged violations claim to address, DOE-RL and CHPRC request that Ecology retract its assertion of a violation in these matters, which contradicts our mutual efforts to work together to improve our common understanding on these matters and reach agreement on how to move forward with the permit. In addition, Ecology's letter requires DOE-RL and CHPRC to submit a revised Trench 94 Building Emergency Plan (BEP) within 30 days of reaching agreement through the workshops. DOE-RL believes the timeframe for revising the BEP, if required, should be determined through the workshop agreements themselves.

Document #: 2015-05**Doc Date:** 1/27/2015**Agency:** EPA**Category:** Consent Agreement and Final Order**Title:** (CHPRC) EPA CONSENT AGREEMENT AND FINAL ORDER FOR RCRA VIOLATIONS AT ETF/LERF AND INADEQUATE CLOSURE PLANS FOR EIGHT TSD UNITS**Summary**

On January 21, 2015, the Department of Energy-Richland Operations Office and Environmental Protection Agency (Region 10) signed a Consent Agreement and Final Order (CAFO) for alleged violations of the dangerous waste regulations. The CAFO was filed with the Regional Hearing Clerk on January 26, 2015.

On June 26, 2013, a CAFO to resolve alleged violations of RCRA was issued. The CAFO required DOE-RL to submit to Ecology a permit modification request for eight TSD units; including written closure plans. DOE-RL submitted the required permit modification request and closure plan for the eight TSD units to Ecology on or about October 24, 2013; however, EPA alleges the closure plan failed to satisfy requirements at WAC 173-303-610, as follows:

- i. The submitted closure plan does not include a detailed description of the methods to be used for removing, transporting, treating, storing, or disposing of all dangerous wastes during closure for each of the eight units listed in Paragraph 3.11 of the CAFO, and fails to identify the type(s) of off-site dangerous waste management units to be used, as required by WAC 173-303-610(3)(a)(iv).
- ii. The submitted closure plan does not include a detailed description of the removal and/or decontamination steps needed at the eight units listed in Paragraph 3.11 of the CAFO, as required by WAC 173-303-610(3)(a)(v).
- iii. The submitted closure plan does not specify the total time required to close each unit, nor does it specify the time required for intervening closure activities which would allow tracking of the progress of partial and final closure, as required by WAC 173-303-610(3)(a)(vii).

The EPA alleges that DOE-RL failed to take corrective action within the time specified in a compliance order issued pursuant to Section 3008(a) of RCRA, 42 U.S.C. § 9628(a). In August 2013, EPA authorized representatives conducted a RCRA compliance inspection at the Hanford Site. EPA identified a violation of RCRA and the authorized state RCRA program at Hanford's Liquid Effluent Treatment Facility and Effluent Treatment Facility ("LERF/ETF") based on information collected during the August 2013 inspection and other information.

An owner and operator of a RCRA-regulated dangerous waste TSD facility must have a permit or interim status as required by Section 3005 of RCRA, 42 U.S.C. § 6925, and WAC 173-303-800. In addition, Condition I.A. of the Hanford Facility RCRA Permit, which was issued in 1994 and remains in effect, prohibits any treatment, storage, or disposal of dangerous waste at the Hanford Facility that is not authorized by the permit or by WAC 173-303-400.

Some 136 fifty-five gallon containers of radioactive mixed dangerous waste that had been removed from contaminated wastewater were initially stored outdoors inside the ETF fence and within an area designated for storage in the dangerous waste permit. However, after it was discovered that radiation from the containers could reach workers inside the ETF building, the 136 containers were relocated on April 30, 2013, from the authorized storage area to an adjacent area within the ETF fence, but which was not authorized for storage in the dangerous waste permit. The 136 containers were being stored at this location at the time of the inspection on August 20, 2013.

EPA alleges DOE-RL stored RCRA-regulated dangerous waste without a permit or interim status in violation of Section 3005 of RCRA, 42 U.S.C. § 6925, WAC 173-303-800, and Condition I.A. of the Hanford Facility RCRA Permit. Under Section 3008 of RCRA, 42 U.S.C. § 6928, and 40

C.F.R. Part 19, EPA may assess a civil penalty of not more than \$37,500 per day of noncompliance for each violation, issue an order requiring compliance, or both.

DOE-RL neither admits nor denies the specific factual allegations contained in the Consent Agreement. As required by Section 3008(a)(3) of RCRA, 42 U.S.C. § 6928(a)(3), EPA has taken into account the seriousness of the violation and any good faith efforts to comply with applicable requirements. After considering these factors, EPA has determined and DOE-RL agrees that an appropriate penalty to settle this action is \$44,722. DOE-RL agrees to pay the total civil penalty of \$44,722 within 30 days of the effective date of the Final Order (January 26, 2015).

Response(s)

Payment was made from CHPRC to the Treasurer of the United States on 2/9/15 under CHPRC Correspondence Number CHPRC-1500606.

On February 26, 2015, DOE-RL issued letter 15-ESQ-0036 to Ecology. This letter serves as the Hanford Facility Noncompliance Report for CY 2014, submitted to meet the March 1, 2015, due date specified in the Hanford Facility Resource Conservation and Recovery Act Permit, WA7890008967 (Permit) Condition I.E. 19. In the table attached to the letter, DOE-RL discusses the 136 fifty-five gallon mixed waste containers that were being stored outside of permit authorized storage areas at ETF. The containers were stored outside the permit authorized area from April 30, 2013 until September 2013. In September 2013 the containers were shipped to Perma-Fix Northwest and subsequently shipped to Oak Ridge, Tennessee for treatment. The treated waste has since been returned to Hanford and disposed at ERDF. The boundary of the outdoor container storage area has been clearly marked with painted lines and personnel have been briefed on this boundary and the permit limits. Relevant ETF operating procedures were reviewed and found to be adequate.

Document #: 2014-11

Doc Date: 8/25/2014

Agency: Ecology

Category: Notice of Violation

Title: (WCH) ECOLOGY NOTICE OF VIOLATION AT SAMPLE STORAGE AND SHIPPING FACILITY (1060 BATTELLE BOULEVARD)

Summary

On July 2, 2014, the State of Washington Department of Ecology (Ecology) conducted an unannounced inspection at the Washington Closure Hanford (WCH) 1060 Battelle Boulevard Sample Storage and Shipping Facility (also known as the Sampling and Characterization Warehouse). The purpose of the inspection was to evaluate the facility Satellite Accumulation Areas (SAAs) for regulatory compliance.

On August 25, 2014, Ecology issued letter 14-NWP-183 to DOE-RL and WCH. Ecology identified two alleged violations based on their observations of dangerous waste management and records review of the Satellite Accumulation Area at the Sample Storage and Shipping Facility. Ecology alleges the following violations:

(1) The manifest had the generator identification number listed as "WA7890008967". This EPA ID is assigned to the Hanford Site for all dangerous waste activities within its contiguous boundary. The Sample Storage and Shipping Facility is not located on the Hanford Site, nor is it contiguously bound to the Hanford Site. The Hanford site EPA ID #WA7890008967 cannot be used for this location in accordance with WAC 173-303-060(2). WCH must follow the instructions in WAC 173-303-060 to determine if notification and obtaining an identification number is appropriate. Complete this process and determine if a site identification number is needed. Then provide Ecology your determination in writing and date of completion.

(2) The manifest listed the generator's name, mailing address, and site address as "US DOE IN CARE OF WASHINGTON CLOSURE HANFORD 2620 FERMI AVE, RICHLAND, WA, 99354". The Sample Storage and Shipping Facility SAA is located at 1060 Battelle Blvd., Richland WA, 99354. The site address and mailing address are different. The inspection identified the site address for the SAA as 1060 Battelle Blvd., Richland, WA 99354 and not 2620 Fermi Ave. WCH must follow the instructions in WAC 173-303-180(1) for the EPA form 8700-22 (manifest) and contents that must be properly filled out in a dangerous waste manifest. Provide Ecology documentation correcting the generator's site addresses on manifests for dangerous waste shipments from 1060 Battelle Blvd., Richland WA, 99354 to off-site designated facilities and a date of completion.

WCH must complete the actions needed to correct the violations and return the completed Compliance Certificate within 60 days of receipt of the letter to Ecology. All actions must be completed by October 25, 2014.

Response(s)

On 10/7/2014 WCH issued letter #177452 to DOE-RL. WCH has evaluated the generation activities and concluded, based on the waste generation rate, the Sample Storage and Shipping Facility qualifies as a small quantity generator. As a consequence, notification and obtaining an identification number pursuant to WAC 173-303-060 is not necessary. The Sample Storage and Shipping Facility waste activities, if any, are now conducted as small quantity generator activities, in accordance with WAC 173-303-070(8). In addition, WCH has written a notice for the manifest file addressing previous shipments, explaining that the "Generator's Site Address" should have shown 1060 Battelle Blvd., Richland, Washington, 99354. This notice will be placed in the manifest file by October 31, 2014, and will remain in the file. Since the Sample Storage and Shipping Facility activities qualify under the small quantity generator provisions, a manifest is not required for future shipments from this location. However, in the event that WCH chooses to use a manifest for any future shipments, the physical address of the Sample Storage and Shipping Facility will be entered as the "Generator's Site Address" on the form.

ADDENDUM - On October 23, 2014, DOE-RL issued letter 15-ESQ-0009 to Ecology. WCH has evaluated observations, and taken action consistent with Ecology's required actions as follows:

Observation 1

Action Required: Washington Closure Hanford must follow the instructions in WAC 173-303-060 to determine if notification and obtaining an identification number is appropriate. Complete this process and determine if a site identification number is needed. Then provide Ecology your determination in writing and date of completion.

WCH Action: WCH has evaluated the generation activities and concluded, based on the waste generation rate, the SS & SF qualifies as a small quantity generator. As a consequence, notification and obtaining an identification number pursuant to WAC 173-303-060 is not necessary. The SS & SF waste activities, if any, are now conducted as small quantity generator activities, in accordance with WAC 173-303-070(8).

Observation 2

Action Required: Washington Closure Hanford must follow the instructions in WAC 173-303-180(1) for the EPA form 8700-22 (manifest) and contents that must be properly filled out in a dangerous waste manifest. Provide Ecology documentation correcting the generator's site addresses on manifests for dangerous waste shipments from 1060 Battelle Blvd., Richland WA, 99354 to off-site designated facilities and a date of completion. If manifests are required for future shipments, follow the instructions in WAC 173-303-180(1) for the EPA form 8700-22 (manifest) and contents that must be properly filled out.

WCH Action: WCH has written a notice for the manifest file addressing previous shipments, explaining that the "Generator's Site Address" should have shown 1060 Battelle Blvd., Richland, WA 99354. A copy of this notice is attached. This notice will be placed in the manifest file by October 31, 2014, and will remain in the file. Since the SS & SF activities qualify under the small quantity generator provisions, a manifest is not required for future shipments from this location. However, in the event that WCH chooses to use a manifest for any future shipments, the physical address of the SS & SF will be entered as the "Generator's Site Address" on the form.

DOE/RL and WCH believe the actions close the observations from the Ecology inspection of the SS & SF consistent with Ecology's direction.

As of a WCH memo dated June 8, 2015, the Satellite Accumulation Area located at the Sample Storage and Shipping Facility that caused it to be a small quantity hazardous waste generator has been shutdown and removed.

Document #: 2014-10**Doc Date:** 7/22/2014**Agency:** Ecology**Category:** Notice of Violation**Title:** (BNI) ECOLOGY DANGEROUS WASTE COMPLIANCE INSPECTION OF GENERATOR ACTIVITIES AT THE WASTE TREATMENT PLANT**Summary**

On April 30, 2014, Ecology conducted a dangerous waste compliance inspection of generator activities at the Waste Treatment Plant. On July 22, 2014, Ecology issued letter 14-NWP-152 to DOE-ORP and Bechtel National Incorporated (BNI). Ecology identified violations based on their observations of dangerous waste management and review of records at the Waste Treatment Plant (WTP). The letter contained a Compliance Certificate (found at the end of the inspection report) listing the violations. DOE-ORP and BNI must complete the actions needed to correct these violations and return the completed Compliance Certificate within 30 days of receipt of the letter. Failure to correct the deficiencies may result in an administrative order, a penalty, or both, as provided by the Hazardous Waste Management Act (RCW 70.105.080 and .095). Persons who fail to comply with any provision of this chapter are subject to penalty of up to \$10,000 per day per violation.

Response(s)

On August 20, 2014, DOE-ORP issued letter 14-ECD-0042 to Ecology providing a summary of intended corrective actions. Items 1, 5, and 6 in Ecology letter 14-NWP-152 were corrected at the time of inspection and no further action is required. The training plan, 24590-WTP-GPP-SENV-017, "90-Day Accumulation Area Training," is being revised to include groundwater contamination incidents as an element of training, appropriate job descriptions and job titles for affected personnel, and additional required reading. The revision to the training plan will be provided to Ecology as objective evidence for compliance with Items 2 and 3 in Ecology letter 14-NWP-152. The qualification plan for Environmental Project Leads, QAL-5258, 90-Day Accumulation Area, is being revised to include the job title for Environmental Project Leads, the training requirement for waste segregation, and Hazardous Waste Operations and Emergency Response Regulations initial and refresher as a training requirement. The revised QAL-5258 will be provided to Ecology as objective evidence for compliance with Item 3 in Ecology letter 14-NWP-152. Associated with the revised training plan and QAL-5258, relevant training records for affected personnel will be provided to Ecology as identified in the Ecology letter 14-NWP152 to complete Item 3. WTP Hanford General Employee Training (24590-WTP-CRM-TRA-000001) is being revised with an expanded discussion of waste management at the WTP, including all UW types at the WTP construction site to offer general awareness training for WTP personnel and compliance with Item 4 in Ecology letter 14-NWP-152. An updated UW training bulletin will also be presented to WTP construction personnel who generate UW. The revised training bulletin and attendance rosters will be provided to Ecology as further evidence of compliance with Item 4 in Ecology letter 14-NWP-152.

The revised training plan, qualification QAL-5258, relevant training records, WTP Hanford General Employee Training documentation, and UW training bulletin will be provided to Ecology within 90 days (November 20, 2014).

In addition to the six deficiencies identified in Ecology letter 14-NWP-152, Ecology also raised four concerns that are being resolved and will be completed within 180 days (February 18, 2015). The actions to address those concerns include:

(1) Update WTP Procedure 24590-WTP-GPP-SENV-007, Dangerous Waste Accumulation and Handling, to include radioactive mixed waste in the scope and add the statement that waste moves to the centralized satellite accumulation areas "at the end of the job or the end of the shift, whichever comes first"; (2) Revise or generate a single contingency plan for waste generator activities that provides specific regulatory citations from WAC 173-303-340, 350, and 360 to facilitate future compliance assessments; (3) Maintain consistency with job titles between training documentation addressed with the above corrective actions.

On 11/20/2014 DOE-ORP issued letter 14-ECD-0054 to Ecology. Ecology letter 14-NWP-152 identified six deficiencies. DOE-ORP letter 14-ECD-0042/CCN:269741 identified items 1, 5, and 6 were corrected at the time of

inspection and no further action was required. DOE-ORP letter 14-ECD-0054 provides corrective actions for the three remaining deficiencies associated with the training plan requirements for dangerous and universal waste. Hard copies of the revised training plan, qualification QAL-5258, relevant training records, HGET documentation, and UW training bulletin and attendance rosters were provided to Ecology and an Ecology receipt was obtained on 11/6/2014. This documentation provided objective evidence that all the required corrective actions in Items 2, 3, and 4 were completed.

Document #: 2014-09 **Doc Date:** 7/10/2014 **Agency:** Ecology
Category: Notice of Violation
Title: (BNI) ECOLOGY NOTICE OF VIOLATION AT WASTE TREATMENT PLANT MATERIAL HANDLING FACILITY

Summary

On May 19, 2014, the State of Washington Department of Ecology (Ecology) conducted a waste generator inspection at the Waste Treatment Plant Material Handling Facility (WTP-MHF). The WTP-MHF is managed by Bechtel National, Incorporated (BNI) and is located at 1030 Battelle Boulevard in Richland, Washington. The focus of the inspection was on satellite accumulation areas, universal waste management, and associated documentation. Ecology requested documentation for review including a current list of accumulation areas at the WTP-MHF, waste manifest records for the last 12 months, exception reports, land disposal restriction records for the last 12 months, waste designation for desiccant waste stream, spill/emergency response reports, and training records for selected WTP-MHF employees that handle waste.

Response(s)

On 8/6/2014 DOE-ORP issued letter 14-ECD-0038 to Ecology. DOE-ORP and the WTP have evaluated the requirements in WAC 173-303-060 against the dangerous waste generation activities at the WTP-MHF. The generation rates observed at the WTP-MHF qualify the facility as a small quantity generator. Therefore, WTP-MHF will be managed as a small quantity generator in accordance with WAC 173-303-070(8) for the foreseeable future, and DOE-ORP and WTP do not plan to apply for a separate U.S. Environmental Protection Agency identification number at this time.

On 3/4/2015 DOE-RL issued letter 15-ESQ-0042 to Ecology. Pursuant to Washington Administrative Code (WAC) 173-303-060, the Office of River Protection (DOE-ORP) requests that a new Dangerous Waste Site Identification Number be assigned for the Waste Treatment and Immobilization Plant Material Handling Facility (MHF) location as identified in the enclosure. The MHF currently operates as a small quantity generator (SQG) of dangerous waste from the limited maintenance of Waste Treatment and Immobilization Plant Project fleet vehicles and general warehousing activities. Although obtaining a dangerous Waste Site Identification Number is not a WAC requirement for SQGs, activities at the MHF may exceed SQG limits in the future; therefore, DOE-ORP is requesting an identification number and have identified MHF as a large quantity generator. A new Dangerous Waste Site Identification Number that is unique to the MHF is necessary since the MHF is not considered contiguous with the greater Hanford Site that is operating under Dangerous Waste Permit Number WA7890008967. Furthermore, a new Dangerous Waste Site Identification Number will streamline annual dangerous waste reporting and dangerous waste manifesting requirements for the MHF.

Document #: 2014-06**Doc Date:** 3/21/2014**Agency:** Ecology**Category:** Administrative Order**Title:** (WRPS) ADMINISTRATIVE ORDER PERTAINING TO DOUBLE-SHELL TANK 241-AY-102 LEAK FROM THE PRIMARY TANK INTO THE SECONDARY TANK ANNULUS AREA**Summary**

On March 21, 2014, Ecology issued an Administrative Order (AO) to DOE-ORP and WRPS. Ecology alleges four violations of the dangerous waste regulations, as follows.

Violation 1 – Failure to stop the flow of hazardous waste into secondary containment in accordance with 40 CFR 265.196(a). As of the date of the AO, Ecology alleges that DOE-ORP and WRPS have not stopped the flow of waste into the secondary containment of DST 241-AY-102.

Violation 2 - Failure to inspect the tank to determine the cause of the release in accordance with 40 CFR 265.196(a). As of the date of the AO, Ecology alleges that DOE-ORP and WRPS have not inspected the tank to determine the cause of the release. Ecology alleges that DOE-ORP states in the revised Pumping Plan that DST 241-AY-102 will have to be emptied to determine the cause of the release. DOE-ORP has not emptied the tank and has submitted a plan according to which waste removal will not be authorized, nor a removal schedule determined, before March 4, 2016. Ecology alleges that the revised pumping plan does not demonstrate that an initial pumping date sometime after March 4, 2016 is the earliest practicable time to begin waste removal.

Violation 3 - Failure to remove, at the earliest practicable time, as much of the waste as is necessary to prevent further release of hazardous waste to the environment and to allow inspection and repair of the tank to be performed in accordance with 40 CFR 265.196(b). As of the date of the AO, Ecology alleges that DOE-ORP and WRPS have failed to remove, or take any actions to begin removing, as much of the waste as is necessary to prevent further release to the environment and to allow for inspection and repair of the tank system to be performed. Ecology alleges that DOE-ORP states in its revised pumping plan that removing the contents of the tank will not be authorized before March 4, 2016. DOE-ORP has not demonstrated that March 4, 2016, or later would be the "earliest practicable time" to begin removing the waste.

Violation 4 - Failure to remove all released materials from the secondary containment system within 24 hours or in as timely a manner as is possible to prevent harm to human health and the environment in accordance with 40 CFR 265.196(b)(2). As of the date of the AO, Ecology alleges that DOE-ORP and WRPS have failed to remove any of the released materials from the secondary containment. The revised pumping plan indicates that the released materials will be removed only after waste is removed from the primary tank.

Based on the Ecology alleged factual findings and determinations of violations, the AO requires that DOE-ORP and WRPS take the actions described below.

Immediately upon receipt of the AO and continuously thereafter DOE-ORP and WRPS must:

1. Provide to Ecology, upon publication, the results of any modeling that DOE-ORP or WRPS conducts in accordance with recommendations of the DNFSB staff report, "Integrity Implications of Decanting Liquid from Hanford DST 241-AY-102," dated October 24, 2013.
2. Complete isolation of DST 241-AY-102 by August 15, 2014.
3. After the 241-AY-02A pump pit has been isolated, and no later than September 1, 2014, begin pumping the supernatant from DST 241-AY-102. Remove all supernatant, except as necessary to maintain the minimum height of supernatant above the maximum solids level prescribed in RPP-RPT-53901 (prescribing 96-inches above solids level), or as prescribed in other DOE-ORP documents regulating safety in DST 241-AY-102.

4. Complete installation of sludge removal equipment and initiate waste removal in DST 241-AY-102 no later than December 1, 2015. This will include all activities that DOE-ORP will need to complete for authorization to initiate and complete all waste transfers.
5. Complete waste removal to a level sufficient for inspection to determine the cause of the leaks, no later than December 1, 2016.
6. Immediately inform Ecology of any safety issues that arise after pumping has begun and provide a detailed description of the specific safety issue. If the solution to an immediate concern is to cease pumping, provide a recovery plan within 30-days. The recovery plan must include a schedule for correcting and restarting pumping at the earliest practicable time.
7. Within 60-days of the effective date of the AO (i.e., June 21, 2014), submit to Ecology for approval:
 - a. Monitoring plans for annulus inspection, waste temperature monitoring and annulus ventilation monitoring including a schedule for calibration of the continuous air monitor (CAM) and Enraf-Nonius Series 854 (ENRAF). The monitoring plans must provide clear, immediate actions for maintaining annulus ventilation.
 - b. A contingency plan for safely managing any worsening conditions indicated by inspections and monitoring. Such indications include suspected increased leak rate or blockage on the ventilation channels causing increases in waste temperatures. Any other new issues not identified in the contingency plan such as those that arise as a result of construction or waste transfer activities, must be identified and evaluated, with a recovery plan and schedule provided to Ecology within 30-days.
8. Within 90-days of the effective date of the AO (i.e., July 21, 2014), submit a report that evaluates the integrity of the secondary containment system including, but not limited to, the impacts of the waste that is currently in the annulus.
9. Within 120-days of the effective date of the AO (i.e., August 21, 2014), submit a detailed waste retrieval work plan to Ecology for removing the remaining waste from DST 241-AY-102. The waste retrieval work plan shall include, but is not limited to, detailed descriptions of:
 - a. The engineering design and the steps taken to procure equipment, including those steps already undertaken, with a schedule for the procurement of each piece of equipment, showing that these activities either have been or will be completed at the earliest practicable time.
 - b. The steps necessary for installation of all needed out-of-tank equipment and in-tank equipment for removing the waste from DST 241-AY-102.
 - c. The number and schedule of 242-A Evaporator runs, including support activities needed.
 - d. The schedule for installation and start-up of equipment needed to support transfers to other DSTs.
10. Officially submit all supporting documentation that justifies the schedule for the above requirements.
11. To address the potential leak to the environment, sample the liquid from the DST 241-AY-102 annulus leak detection pit monthly, starting within five days of the effective date of the AO (i.e., April 26, 2014). At a minimum, using inductively coupled plasma/mass spectrometry (ICP/MS), analyze this sample for metals, radionuclides, and pH, and report the results to Ecology within 15-days of taking the sample.
12. Conduct monthly video inspections of the entire annulus and weekly video inspections on the current leaks and weekly video inspections of any future leaks into the annulus.

13. Provide Ecology with monthly reports on the results of the visual and video annulus inspections, annulus ventilation performance and status, CAM readings, ENRAF readings, CAM and ENRAF calibration results, sample analysis results, waste heat monitoring results, including any interpretations and conclusions based on the results.

14. Officially submit to Ecology, within 10 working days of the effective date of the AO (i.e., May 1, 2014), copies of:

- a. All documents listed in the revised pumping plan, Attachment A, that were not previously officially submitted to Ecology.
- b. All Technical Safety Requirements and Safety Basis evaluations used to determine the requirements to control flammable gas levels and impacts to operational limits for waste storage (OSD-T-151-00007), as referenced in the revised pumping plan, Section 1.1, that were not previously officially submitted to Ecology.

The effective date of the AO is 30-days from the day of issuance. The AO was signed and issued on March 21, 2014 making the effective date of the AO April 21, 2014. Failure to comply with the AO may result in the issuance of civil penalties or other actions, whether administrative or judicial, to enforce the terms of the AO. DOE-ORP and WRPS have a right to appeal the AO to the Pollution Control Hearing Board (PCHB) within 30-days of the date of receipt of the AO. The appeal process is governed by Chapter 43.21B RCW and Chapter 371-08 WAC. "Date of receipt" is defined in RCW-43.218.001(2).

Response(s)

On 4/17/2014, DOE-ORP issued letter 14-ORP-0050 to the Clerk of the Pollution Control Hearings Board. In this letter, DOE-ORP filed a Notice of Appeal and Motion to Stay of the Washington State Department of Ecology's (Ecology) Administrative Order issued on 3/21/2014. The appeal has been filed with the State of Washington Pollution Control Hearings Board. The State's order requires, among other things, the pumping of double-shell tank AY-102. Based on self-identified concerns and feedback from the Defense Nuclear Facilities Safety Board, ORP is currently assessing whether pumping the tank at this time will create a nuclear safety concern and believes it is more prudent to continue with a risk-based approach for this tank until these issues are better understood. ORP will continue to work with the State to clarify its questions regarding the order. ORP continues to closely monitor DST 241-AY-102 and has found no evidence of tank waste leaking into the environment. ORP will continue working with Ecology on the path forward for this tank, and is committed to safely managing the tank farms to protect the workers, public, and the environment.

On 6/19/2014 DOE-ORP issued letter 14-TF-0071 to Ecology transmitting the draft "Tank 241-AY-102 Monitoring and Contingency Plan." The document addresses items 7a and 7b of the Agreed Order.

On 5/5/2014, DOE-ORP issued letter 14-TF-0050 to Ecology transmitting some documents requested under Administrative Order item #14. The remaining documents requested have not yet undergone review for release as they may contain sensitive material. These documents are currently undergoing internal review and will be transmitted separately.

On 6/30/2014 DOE-ORP issued letter 14-TF-0073 to Ecology transmitting remaining documents in response to Administrative Order item #14. On 5/5/2014, DOE-ORP provided Ecology with the majority of the requested documents. However, there were thirteen additional documents listed, twelve of those documents needed to be processed through clearance.

On 7/11/2014, DOE-ORP issued letter 14-TF-0076 to Ecology transmitting the Tank 241-AY-102 May monthly monitoring report in response to Administrative Order Item #13. The May 2014, monthly report contained herein, is the first monthly report for the Administrative Order and covers the time period from the effective date of the Order (4/21/2014) to 5/22/2014. The monthly report cycle will include all requested data and information for the one month

period from approximately the 21st day of each month.

On 7/21/2014 DOE-ORP issued letter 14-TF-0078 (Reissue) to Ecology transmitting RPP-RPT-57774, Evaluation of Tank 241-AY-102 Secondary Containment System, Rev. 0. This report provides the detail of secondary containment integrity inspections and in progress testing to assess the propensity for corrosion. The report concludes the secondary containment remains intact and is capable of performing its designed function.

On 7/31/2014, DOE-ORP issued letter 14-TF-0085 to Ecology transmitting RPP-RPT-57968, "Final Report for Tank 241-AY-102A Leak Detection Pit Liquid Grab Samples, June 2014" in response to item #11 of the Administrative Order.

On 8/6/2014 DOE-ORP issued letter 14-TF-0091 to Ecology in response to Administrative Order item #13 to "provide Ecology with monthly reports on the results of the visual and video annulus inspections, annulus ventilation performance and status, CAM readings, ENRAF readings, CAM and ENRAF calibration results, sample analysis results, waste heat monitoring results, including any interpretations and conclusions based on the results." The purpose of the letter is to transmit the June 2014, Tank 241-AY-102 Monthly Report to the Washington State Department of Ecology.

On 8/19/2014 DOE-ORP issued letter 14-TF-0096 to Ecology transmitting RPP-RPT-59931, "AY-102 Recovery Project Waste Retrieval Work Plan," Revision 1. This document provides the waste retrieval work plan and supporting documentation for removing primary tank and pumpable annulus waste from 241 -AY- 102. This includes, but is not limited to, detailed descriptions and project schedules requested by action item numbers 9 and 10 of the Administrative Order.

WRPS issued letter WRPS-1403484 to DOE-ORP on 9/3/2014 enclosing document, ECN-14-000832, Supersedure ECN to Install AY-02A Pit Floor Drain Seal Assembly to Isolate the Pit, that provides the documentation of the completion of the work as approved by the engineer for the installation of a solid plug in the AY-02A pit drain on August 8, 2014.

On 9/11/2014, RPP-RPT-58218, "Final Report for Tank 241-AY-102A Leak Detection Pit Liquid Grab Samples, August 2014" was released.

On 9/16/2014 WRPS issued letter 1403820 to DOE-ORP requesting transmittal of RPP-RPT-58064, Final Report for Tank 241-AY-102A Leak-Detection Pit Liquid Grab Samples, July 2014 to Ecology in accordance with Item #11 of the Administrative Order.

On 9/18/2014, DOE-ORP issued letter 14-TF-0112 to Ecology transmitting RPP-RPT-59931, Rev. 2, AY-102 Recovery Project Waste Retrieval Work Plan. The revision was necessary to remove the Official Use Only classification from the document.

On 9/22/2014 DOE-ORP issued letter 14-TF-0111 to Ecology transmitting the July 2014 Tank 241 -AY- 102 Monthly Monitoring Report.

On 9/29/2014, the State of Washington Department of Ecology, Washington State Attorney General, U.S. Department of Energy, and Washington River Protection Solutions signed Settlement Agreement PCHB-14-041c. USDOE and WRPS timely completed requirements 1, 8, 9, 10, and 14 of the Administrative Order. Ecology, USDOE, and WRPS now agree to resolve the appeal of the Order through the settlement outlined in PCHB-14-041c, which settles the remaining requirements in the Administrative Order.

On 9/30/2014 DOE-ORP issued letter 14-TF-0116 to Ecology transmitting RPP-RPT-58064, Final Report for Tank

241-A Y-102A Leak-Detection Pit Liquid Grab Samples, July 2014, to address Item #11 of the Administrative Order.

On 10/14/2014 DOE-ORP issued letter 14-TF-0119 to Ecology transmitting the August 2014 Tank 241-AY-102 Monthly Monitoring Report.

On 10/30/2014 DOE-ORP issued letter 14-TF-0122 to Ecology transmitting the revised "Tank 241-AY-102 Contingency Plan" in accordance with Settlement Agreement PCHB-14-041c.

On 11/19/2014 DOE-ORP issued letter 14-TF-0125 to Ecology. The Settlement Agreement requires a number of documents and actions regarding Tank 241-AY-102, including submittal of monthly leak inspection reports. This letter transmits the September 2014 Tank 241-AY-102 Monthly Monitoring Report to the Washington State Department of Ecology.

On 11/26/2014 DOE-ORP issued letter 14-TF-0126 to Ecology transmitting the revised "Tank 241-AY-102 Monitoring Plan" (RPP-PLAN-60074) in accordance with Settlement Agreement PCHB-14-041c.

On 12/16/2014 DOE-ORP issued letter 14-TF-0129 to Ecology transmitting the October 2014 Tank 241-AY-102 Monthly Monitoring Report.

On 12/22/2014, Ecology issued letter 14-NWP-250 to DOE-ORP and WRPS acknowledging receipt of the Tank 241-AY-102 Contingency Plan. After discussing their comments with DOE-ORP and WRPS on 12/9/2014, Ecology approves the plan based on resolution of their comments. Ecology requested a meeting to better understand the risk of ventilation system failure. Ecology also requested a meeting on modeling to better understand the risk of solids precipitation. Approval of the plan does not satisfy all requirements in the Settlement Agreement (Section II.B.7.a); Ecology expects revised submittals of the plan for review and approval.

On 1/20/2015 DOE-ORP issued letter 15-TF-0003 to Ecology transmitting the November 2014 Tank 241-AY-102 Monthly Monitoring Report.

On February 20, 2015, DOE-ORP issued letter 15-TF-0011 to Ecology transmitting the "Tank 241-AY-102 Monthly Monitoring Report for December 2014" in response to Section II.B.13 of the 241-AY-102 Settlement Agreement.

On 3/12/2015, DOE-ORP issued letter 15-TF-0023 to Ecology transmitting the Tank 241-AY-102 Monthly Monitoring Report for January 2015 in response to Section II.B.13 of the 241-AY-102 Settlement Agreement.

On 3/27/2015 DOE-ORP issued letter 15-ECD-0016 to Ecology. This letter submits to Ecology a Notice of Construction (NOC) Application Form and supporting documentation for review and approval. Meetings between WRPS, DOE-ORP, and Ecology have taken place prior to transmittal of the NOC to support permitting activities necessary to retrieve waste from DST 241-AY-102. The NOC application is the first of two planned modifications to Ecology Order DE11NWP-001. This modification will support the current 241-AY-102 schedule to allow retrieval of the 241-AY-102 tank utilizing the existing ventilation system. The NOC application discusses changes for the first modification including: (1) a modification of the 702-AZ ventilation system for the AY/AZ tank farms, and (2) addition of DST 241-AY-102 annulus stack to Ecology Order DE11NWP-001.

On 4/17/2015 DOE-ORP issued letter 15-TF-0040 to Ecology transmitting the "Tank 241-AY-102 Monthly Monitoring Report for February 2015" in response to Section II.B.13 of the 241-AY-102 Settlement Agreement.

On 5/21/2015 DOE-ORP issued letter 15-TF-0048 to Ecology transmitting the "Tank 241-AY-102 Monthly Monitoring Report for March 2015" in response to Section II.B.13 of the 241-AY-102 Settlement Agreement.

On 6/16/2015 DOE-ORP issued letter 15-TF-0061 to Ecology transmitting the "Tank 241-AY-102 Monthly Monitoring Report for April 2015" in response to Section II.B.13 of the 241-AY-102 Settlement Agreement.

On 7/8/2015 DOE-ORP issued letter 15-TF-0066 to Ecology transmitting the "Tank 241-AY-102 Monthly Monitoring Report for May 2015" in response to Section II.B.13 of the 241-AY-102 Settlement Agreement.

On July 16, 2015, DOE-ORP issued letter 15-TF-0070 to Ecology transmitting RPP-PLAN-60472, "Tank 241-AY-102 Contingency Plan - Construction Phase," Rev 0, in response to Section II.B.7 of the 241-AY-102 Settlement Agreement. The 241-AY-102 Settlement Agreement requires a number of documents and actions regarding Tank 241-AY-102, including the following item in Section II.B.7: Thirty (30) days before beginning construction activities, USDOE and WRPS will submit a revised contingency plan for Ecology review and approval.

On August 19, 2015, Ecology issued letter 15-NWP-160 to DOE-ORP and WRPS. Ecology received the Tank 241-AY-102 Contingency Plan Construction Phase, RPP-PLAN-60472, for approval. The plan was submitted to Ecology 30 days before beginning construction activities for the AY-102 Recovery Project, in accordance with the AY-102 Settlement Agreement, Section II.B.7.ii. Ecology staff reviewed the plan, and comments are enclosed. The comments were also provided informally to DOE-ORP and WRPS staff in advance. Ecology expects the plan to be revised based on their comments and resubmitted for approval.

On 8/19/2015 DOE-ORP issued letter 15-TF-0076 to Ecology transmitting the "Tank 241-AY-102 Monthly Monitoring Report for June 2015" in response to Section II.B.13 of the 241-AY-102 Settlement Agreement.

On 9/9/2015 DOE-ORP issued letter 15-TF-0075 to Ecology. The purpose of this letter is to transmit the revised report, RPP-RPT-57774, "Evaluation of Tank 241-AY-102 Secondary Containment System," Rev. 01, to Ecology in accordance with Section II.B.8 of the 241-AY-102 Settlement Agreement (PCHB No. 14-041c).

On 9/10/15 DOE-ORP issued letter 15-TF-0089 to Ecology transmitting RPP-PLAN-58891, "Final Report for Tank 241-AY-102 Annulus Leak Detection Pit Liquid Grab Samples, July 2015, Rev 0, in Response to Section II.B.11 of the 241-AY-102 Settlement Agreement. The 241-AY-102 Settlement Agreement requires a number of documents and actions regarding Tank 241-AY-102, including the Section II.B.11 requirement to "Sample the liquid from the Tank 241-AY-102 annulus leak detection pit whenever the leak detection pit is pumped or there is significant change in the pH and at a minimum, using inductively coupled plasma/mass spectrometry (ICP/MS), analyze this sample for metals, radionuclides, and pH, and provide the preliminary results to Ecology within fifteen (15) days of taking the sample. Submit the final results to Ecology within sixty (60) days of taking the sample." Prior to pumping the leak detection pit, a sample was collected on 7/29/2015. The preliminary results were provided to Ecology electronically on 8/12/2015 (TOC-ENV-NOT-2015-4105, AY-102 LDP 15-Day Sample Results). Attached to DOE-ORP letter 15-TF-0089 are the final results of the sample analysis.

On 9/10/2015 DOE-ORP issued letter 15-TF-0087 to Ecology. In response to Ecology letter 15-NWP-160, DOE-ORP and WRPS met with Ecology to resolve comments and update RPP-PLAN-60472, "Tank 241-AY-102 Contingency Plan - Construction Phase," Rev 00, as agreed to in the meeting. The purpose of this letter is to transmit the revised plan, RPP-PLAN-60472, Rev. 01 to Ecology.

On 9/17/2015 DOE-ORP issued letter 15-TF-0094 to Ecology transmitting the "Tank 241-AY-102 Monthly Monitoring Report for July 2015" in response to Section II.B.13 of the 241-AY-102 Settlement Agreement.

On 9/16/2015 Ecology issued letter 15-NWP-171 to DOE-ORP and WRPS in response to letter 15-TF-0087. Ecology received the "Tank 241-AY-102 Contingency Plan- Construction Phase," RPP-PLAN-60472, Revision 01, for approval. Ecology reviewed and submitted comments on Rev. 00 of the plan. Ecology discussed their comments with DOE-ORP and WRPS and the comments were resolved. Ecology approves the revised AY-102 Contingency Plan for the construction phase. As discussed, Ecology and DOE-ORP plan to meet before the next submittal of the contingency plan to discuss leak detection and alternatives for monitoring the tank annulus space. A future revision of the contingency plan will focus on tank pumping operations. Ecology recommends that operations closely monitor

for tank leaks as waste removal actions may have an adverse effect on the leak rate.

On 11/19/2015 DOE-ORP issued letter 15-TF-0117 to Ecology transmitting the "Tank 241-AY-102 Monthly Monitoring Report for August 2015" in response to Section II.B.13 of the 241-AY-102 Settlement Agreement.

On 12/3/2015 DOE-ORP issued letter 15-TF-0124 to Ecology transmitting the "Tank 241-AY-102 Monthly Monitoring Report for September 2015" in response to Section II.B.13 of the 241-AY-102 Settlement Agreement.

On 12/3/2015 DOE-ORP issued letter 15-TF-0123 to Ecology transmitting an environmental operations activities notification TOC-ENV-NOT-2015-4147 in response to Section II.B.6 of the 241-AY-102 Settlement Agreement. On 10/22/2015 TOC-ENV-NOT-2015-4140 provided notification to Ecology of a safety issue encountered during the removal of the AP102-WST-P-001 Mixer Pump from the 241-AP-102 receiver tank. Final disassembly and retrieval of the mixer pump could not be completed due to unsuccessful decontamination efforts to remove an unexpected solidified dangerous waste found on the mixer pump. Work was stopped in order to address the unexpected safety challenges. On 11/19/2015 TOC-ENV-NOT-2015-4147 was transmitted to Ecology and provided a recovery plan. The recovery plan details the actions taken to resolve the safety concerns. Mixer pump removal operations were safely resumed on 10/23/2015 and the planned pit upgrades and equipment installation to support Tank AY-102 retrieval operations resumed on 11/2/2015. Based on the safety analysis, and in order to remove the pump in a manner protective of the workers, the mixer pump was not disassembled before final removal. Therefore, work planning is underway to prepare the pump for packaging, shipment, and final disposal. Overall impact on the pump disposal schedule is unknown. Washington River Protection Solutions is actively planning for schedule recovery in order to limit the impact on the Settlement Agreement milestones and the regulatory deadlines for pump disposal. Details of the schedule recovery actions and impacts will be provided to Ecology in a separate correspondence.

On 12/10/2015 DOE-ORP issued letter 15-TF-0126 to Ecology transmitting the "Tank 241-AY-102 Monthly Monitoring Report for October 2015" in response to Section II.B.13 of the 241-AY-102 Settlement Agreement.

On 12/17/2015 Ecology issued letter 15-NWP-214 to DOE-ORP. The DOE-ORP has met the obligations of 241-AY-102 Settlement Agreement Item II.B.6 regarding a safety issue. DOE-ORP notified Ecology of the safety issue encountered while removing the 241-AP-102 mixer pump AP102-WST-P-001, and submitted a recovery plan. DOE-ORP submitted the safety issue notification, recovery effort status, and the initial transmittal of the recovery plan to Ecology through a series of emails. Ecology is submitting those emails and attachments to document the timeline of the notifications and receipt of the recovery plan. The recovery plan was also later submitted by Letter 15-TF-0123, dated December 3, 2015.

While the requirements for this specific safety issue are met, Item II.B.6 is a continuing obligation of the Settlement Agreement.

On 1/12/2016 DOE-ORP issued letter 15-TF-0131 to Ecology. The purpose of the letter is to transmit RPP-PLAN-60610, Tank 241-A Y-102 Contingency Plan - Operations Phase, Revision 00. This plan provides contingency planning for worsening tank conditions that may occur during the AY-102 Recovery Project timeline, specifically for the tank pumping operations phase of the project.

On March 17, 2014, DOE-RL issued letter 14-AMRP-0126 to Ecology transmitting documentation regarding implementation of Agreed Order and Stipulated Penalty Number DE 10156, Section 4.6.2. Attached are the training materials provided to the personnel required to conduct designation sampling and the training rosters with attendees' job positions and names.

On March 17, 2014, DOE-RL issued letter 14-AMRP-0127 to Ecology transmitting documentation regarding implementation of Agreed Order and Stipulated Penalty Number DE 10156, Section 4.6.1. Attached are the training materials for notifications and reporting provided to the appropriate facility employees and the training rosters with attendees' job positions and names.

On March 27, 2014, Ecology issued letter 14-NWP-043 to DOE-RL and CHPRC. Ecology acknowledged receipt of the submittal for Section 4.6.5 of the Agreed Order and indicates the response is acceptable. Ecology applied a 20 percent reduction (\$49,200) to the penalty amount of \$246,000 consistent with the Agreed Order. Ecology requested additional information on compliance with Agreed Order requirements for labeling including (1) procedures operators and field work supervisors follow when waste is transferred from one container to another and (2) procedures for replacing missing or obscured labels.

On March 28, 2014, Ecology issued letter 14-NWP-047 to DOE-RL and CHPRC. After reviewing the submittals for Section 4.6.4 of the Agreed Order, Ecology requires additional information, as follows:

1. Submit an explanation of, or identify in the facility inspection procedure, the process used when a dangerous waste inspection of multiple buildings or outdoor storage units is documented on one inspection log and a problem is noted. How is the location where the problem occurred and the remedy specified in the log?
2. Submit a revision or explanation of Step 4.1.2 of procedure SW-040-043, Rev 9, Change 3, "Inspect CWC and Miscellaneous Buildings." Step 4.1.2 incorrectly states, "If open item already exists, and no additional deficiency is recorded, then check 'yes' box because it is an open item."
3. Submit documentation verifying the training of appropriate SWOC personnel on Step 4.1.4 of the CWC inspection procedure SW-040-043, Rev 9, Change 3. Step 4.1.4 provides guidance for the operator to document remedies taken "on the inspection sheet."
4. Items identified on the Open Item List are shown without any remedial actions taken. Consult with Ecology, if determined by Ecology, submit a schedule for resolution of the following open items: (1) closure of unused and/or unfit for use units, (2) structure repairs including roof and wall repair and repair to secondary containment, and (3) container integrity issues.
5. Contact Ecology to schedule a Compliance Assistance Visit between Ecology and SWOC facility operators to observe and supply feedback on performing dangerous waste inspections. Ecology has a concern with the completeness and thoroughness of the inspections.

On April 1, 2014, Ecology issued letter 14-NWP-049 to DOE-RL and CHPRC acknowledging receipt of the submittal for Section 4.6.1 of the AO. The submittal was acceptable and Ecology applied a 10 percent reduction (\$24,600) to the suspended penalty amount of \$246,000.

On April 3, 2014, Ecology issued letter 14-NWP-057 to DOE-RL and CHPRC acknowledging receipt of the deliverable for Section 4.6.2 of the AO. Ecology requested additional information within 30-days of receipt of the letter including:

1. Submit to Ecology the number and location of the referenced RCRA Sampling Technical Guide.
2. Submit to Ecology a revision or explanation of the references listed in the On-The-Job-Evaluation tasks and

requirements.

3. Submit to Ecology a revision or explanation of how high concentration VOC methods will be conducted, VOC soil and sediment samples will be implemented, closed system purge and trap and extraction for VOC in soil and waste samples will be implemented, and collection and preparation of soil samples for VOC analyses will be performed.

On April 29, 2014, DOE-RL issued letter 14-AMRP-0166 to Ecology transmitting additional information for Section 4.6.4 requested in Ecology's letter dated March 28, 2014 (14-NWP-047). The following information was transmitted:

1. Response to Washington State Department of Ecology Request for Additional Information for Agreed Order and Stipulated Penalty Number DE 10156, Section 4.6.4, Ecology Letter 14-NWP-047 Dated March 28, 2014.
2. SW-040-043 (SWSD-PRO-OP-51714), Inspect CWC & Miscellaneous Buildings, Revision 9, Change 5, Dated 04/02/2014.
3. SW-040-043 (SWSD-PRO-OP-51714), Appendix A - Weekly CWC RCRA/Non-RCRA Inspection Checklist for 2402-WH, Dated 01/28/2014.
4. SW-040-043 (SWSD-PRO-OP-51714), Appendix A - Weekly CWC RCRA/Non-RCRA Inspection Checklist for 2402-WH, Dated 05/08/2013.
5. RCRA Open Item List Report – CWC, Dated 04/21/2014.
6. SWSD-PRO-OP-52802, Management of the List of SWOC Containers with a Higher Potential for Corrosion (Watch List), Revision 0, Change 0, Dated 03/06/2014.
7. Working Schedule, SWOC Repair Schedule, Dated 04/13/2014.
8. WMP-200-4.12 (PRC-PRO-NS-52318), SWOC Abnormal Container Management Program, Revision 20, Change 2, Dated 08/23/2013.

On April 28, 2014, DOE-RL issued letter 14-AMRP-0165 to Ecology transmitting documentation regarding implementation of Agreed Order Section 4.6.3. An attendance roster was attached to the letter for the meeting to jointly review with Ecology "information previously used to develop the process knowledge documentation for the Retrievably Stored Waste (RSW) packages." The roster includes attendees' job positions and names.

On April 29, 2014, DOE-RL issued letter 14-AMRP-0162 to Ecology acknowledging receipt of Ecology's request for additional information (14-NWP-057). DOE-RL indicated that it is not apparent how the requested information supports a determination that the requirements of the Agreed Order, Section 4.6.2 (i.e., delivering the training material provided to the appropriate facility employees and the training rosters) are met. DOE-RL requests Ecology's assistance or clarification regarding the additional information request. DOE-RL suggests a meeting at Ecology's convenience to discuss this matter.

On May 7, 2014, Ecology issued letter 14-NWP-092 to DOE-RL and CHPRC acknowledging receipt of information submitted for Section 4.6.3 and completion of review. Ecology indicated sufficient documentation was submitted for Section 4.6.3 and Ecology applied a 20 percent reduction (\$49,200) to the penalty amount of \$246,000.

On May 20, 2014, DOE-RL issued letter 14-AMRP-0184 to Ecology transmitting the additional information requested in Ecology letter 14-NWP-043. Under the terms of the AO, Section 4.4, within 15 calendar days "Ecology will determine whether each action has been implemented as required by the schedule in Section 4.6 of the AO." There are no provisions in the AO for extending the determination past 15 days.

On June 16, 2014, DOE-RL issued letter 14-AMRP-0213 to Ecology transmitting documentation regarding implementation of Agreed Order and Stipulated Penalty Section 4.6.6. Photographic and other documentation for 166 of 167 containers of retrievably stored waste at the CWC Outside Storage Area A was provided to Ecology. Compliance with Section 4.6.6 requirements was met by either (1) existing covers on the containers, (2) applying new covering since the Agreed Order was signed, (3) movement indoors, or (4) shipment offsite for treatment. For the remaining Concrete Box 231-Z-DR-11, clarification was requested from Ecology on the adequacy of the current covering of this concrete box. DOE-RL proposes a reduction of the penalty in the Agreed Order by 16 percent, instead of 20 percent as proposed in the Agreed Order with the remaining 4 percent reduction at the time that Concrete Box 231-Z-DR-11 is placed in the shipping container. At that time, DOE-RL will provide Ecology with photographic evidence and information that demonstrates compliance with Agreed Order Section 4.6.6 in order to receive the final reduction of 4 percent of the penalty.

On 6/26/14 Ecology issued letter 14-NWP-127 to DOE-RL and CHPRC indicating that sufficient documentation was provided to account for the removal from outside storage, shipment offsite for treatment, or protective coverings of 166 of the original 167 containers of retrievably stored waste at the CWC Outside Storage Area A. Ecology concurs with the plan to place the remaining container, 231-Z-DR-11, into a shipping container that is being fabricated. Ecology applied a 16 percent reduction (\$39,360) to the penalty amount of \$246,000 and agreed to hold 4 percent reduction (\$9,840) until the shipping container is ready and container 231-Z-DR-11 is placed into the shipping container.

On July 24, 2014, DOE-RL issued letter 14-AMRP-0224 to Ecology providing answers to follow-up questions associated with implementation of actions initially required in Section 4.6.2 of the Agreed Order. Ecology requested the document number and location of the RCRA Sampling Technical Guide. Ecology was provided a copy of the web page which included the link to the RCRA Sampling Technical Guide. In addition, DOE/RL-96-68, Hanford Analytical Services Quality Assurance Requirements Documents (HASQARD) establishes a consistent level of quality for sampling and for field and laboratory analytical services provided by contractor and commercial field and laboratory analytical operations. Ecology requested the Guide used in preparing the training program be properly referenced in the training documents. Ecology's comments will be taken into account as part of the periodic review to the qualification cards. Ecology requested information on the procedures and documents for Volatile Organic Analysis (VOA) sampling. CHPRC and DOE-RL have evaluated the need for a VOA HIGH sample collection method. It has been determined that a VOA HIGH sample collection method is not required. If there is an unexpected event requiring VOA sampling, CHPRC will use the VOA LOW sample collection method in GRP-FS-04-G-030 consistent with the requirements of SW-846 Method 5035A, Closed-System Purge-and-Trap And Extraction for Volatile Organics in Soil and Waste Samples.

On 8/6/2014 Ecology issued letter 14-NWP-158 to DOE-RL and CHPRC. Ecology acknowledges receipt of additional information submitted for Section 4.6.4 of the Agreed Order and Stipulated Penalty on 4/29/2014. Ecology has completed review of the additional information. Ecology indicated that submittal of the additional information and response to the requirements of Section 4.6.4 of the Agreed Order are acceptable. Ecology applied a 20 percent reduction (\$49,200) to the suspended penalty amount of \$246,000.

On 9/5/2014 DOE-RL and DOE-ORP issued letter 14-ESQ-0111 to Ecology transmitting a Class 2 modification to the RCRA Permit. The permit modification request will include two changes. One change will be to the Permit Applicability Matrix (Permit Attachment 9) to make 'Facility Contingency Plan' applicable to Interim Status TSD Units (the SWOC units are operating to Interim Status Standards). The second change will be to Appendix A of DOE/RL-94-02, Hanford Emergency Management Plan (Permit Attachment 4), to describe how each requirement of WACs 173-303-340, -350, -355, and -360 are met for TSD units operating to Interim Status Standards."

On 9/16/2014 Ecology issued letter 14-NWP-202 to DOE-RL providing responses to the three items in DOE-RL letter 14-AMRP-0224.

(1) Ecology requested the document number and location of the RCRA Sampling Technical Guide mentioned in

the training materials provided in the 3/17/2014 submittal. DOE-RL provided the internet location to Ecology during a meeting on 6/12/2014. Ecology responded that the Guide does reference the ASTM procedures called out in Washington Administrative Code (WAC) 173-303-110(2), "Representative Samples." No action is required.

(2) Ecology requested that the Guide used in preparing the training program be properly referenced in the training documents. DOE-RL indicated that Ecology's comments will be taken into account as part of the periodic review of the qualification cards. Ecology indicated that WAC 173-303-110(2) requirements for collecting representative samples, especially the listed ASTM procedures, are met by referencing the Guide. However, the training materials currently reference the Guide only by its name. Because the reference is ambiguous, verification with WAC 173-303-110(2) cannot occur. Without a proper reference to the Guide, the training material does not meet WAC 173-303-110(2) requirements. Either properly reference the Guide in all training materials it is used in (1) creating, (2) supplementing, or (3) teaching or list each requirement in WAC 173-303-110(2) directly into the training material.

(3) Ecology requested information on Volatile Organic Analysis (VOA) sampling. DOE-RL replied that they and CHPRC have evaluated the need for a VOA HIGH sample collection method in the context of guidance provided in Implementation Memorandum 5 that addresses the use of SW-846 Method 5035A for sites where remedial action is being conducted under the Model Toxics Control Act (MTCA). At this time, remedial action under MTCA is not being conducted in the Treatment, Storage, and Disposal units at the Solid Waste Operations Complex subject to the Agreed Order. Consequently, it has been determined that a VOA HIGH sample collection method is not required. If there is an unexpected event requiring VOA sampling, CHPRC will use the VOA LOW sample collection method in GRP-FS-04-G-030 consistent with the requirements of SW-846 Method 5035A. DOE-RL and CHPRC stated if the sample concentration is above 200 ug/kg, the laboratory will report an estimated concentration. Ecology indicated that this response, as stated, would not allow sample results greater than 200 ug/kg to be used for waste designation. DOE-RL must submit to Ecology, for approval, an equivalent method for sample collection for soils potentially containing VOAs at concentrations greater than 200 ug/kg.

On 9/23/2014 DOE-RL issued letter 14-AMRP-0267 to Ecology transmitting documentation requested in Ecology's letter dated May 7, 2014. A prioritization report for the waste containers stored at the Central Waste Complex, Outside Storage Area A was transmitted. This completed Section 4.6.3 requirements.

On 12/10/2014 DOE-RL issued letter 15-AMRP-0032 to Ecology. The purpose of the letter is to respond to a second round of Ecology comments and questions (Ecology letter 14-NWP-202) to the original Section 4.6.2 deliverable (see items 1, 2, and 3 under 9/16/2014 entry above). No action was required for item 1. With respect to item 2, DOE-RL responded that an internet link to the RCRA Sampling Technical Guide (Guide) has been referenced and provided to Ecology during a June 12, 2014, meeting between Ecology, DOE-RL, and CH2M HILL Plateau Remediation Company (CHPRC). Ecology has established that the Guide does reference the American Society for Testing and Materials (ASTM) procedures called out in Washington Administrative Code (WAC) 173-303-110(2), "Representative Samples." Personnel are trained to the CHPRC procedures which implement and reference hierarchical documents, such as the Guide.

With respect to item 3, DOE-RL responded that Ecology referenced WAC 173-303-110(1), "Purpose," which requires that "Quality control procedures specified by the testing method or an approved equivalent method must be followed for the analytical result to be considered valid for designation." Designation for toxicity characteristics, which includes volatile organic compounds, is conducted in accordance with WAC 173-303-090(8), "Toxicity characteristic," which establishes dangerous waste thresholds in mg/L based on the use of the Toxicity Characteristic Leaching Procedure (TCLP), test method 1311 in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846. The Waste Analysis Plans for the Solid Waste Operations Complex units specify the use of Method 1311 for sample preparation, followed by analysis using SW-846 Method 8260, "Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)." Because samples analyzed for waste designation purposes can be prepared via Method 1311, and step 6.3 of Method 1311 specifically states, "Preservatives shall not be added to

samples before extraction," it is not necessary to prepare a Volatile Organic Analysis (VOA) high sampling method. In addition, Agreed Order and Stipulated Penalty No. DE 10156 does not identify a requirement for a VOA high sampling method. This completed Section 4.6.2 requirements.

On 1/16/2015 DOE-RL issued letter 15-AMRP-0060 to Ecology. This letter transmits documentation regarding implementation of Agreed Order and Stipulated Penalty Number DE 10156 Section 4.6.6. Container Number 231-Z-DR-1 has been placed into a shipping container. On January 7, 2015, Container Number 231 -Z-DR- 11 was placed into Industrial Packaging 1 (IP- 1) (a shipping container assigned Container Number 0090327). Three photographs are attached to the letter. This completes implementation of Agreed Order and Stipulated Penalty Number DE 10156 Section 4.6.6. Weekly inspections will be performed on Container Number 0090327.

On 1/16/2015 DOE-RL issued letter 15-AMRP-0056 to Ecology transmitting the AO one year progress report. This letter provides the status of the functional requirements in the AO, as well as those contained in Exhibit A.

On April 20, 2015, DOE-RL issued letter 15-ESQ-0064 to EPA (Region 10). This letter reiterates that container 231-Z-DR-11 was placed into a steel industrial packaging container on January 7, 2015, as stipulated in the Agreed Order. There is no reason to believe 231-Z-DR-11 contains any substantial amount of free liquids and there is no visible evidence of a hole in the container from which liquid could have been discharged. Rather, the small amount of liquid found near the container was consistent with snow or rain running over the exterior of the container, which had been buried in radioactively contaminated soil for decades. The large containers in Outside Storage Area A were covered with custom fitted waterproof tarps and are inspected weekly and monthly in accordance with inspection procedures. Additional inspections are performed in accordance with the Agreed Order. The tarps prevent precipitation from reaching the surface of the containers, thus removing the major potential cause of corrosion.

On 9/24/2015 DOE-RL issued letter 15-AMRP-0329 to Ecology. Information was previously provided that documented completion of actions associated with Agreed Order and Stipulated Penalty Number DE 10156, Section 4.6.1 by letter 14-AMRP-0127, dated March 17, 2014. According to Ecology staff, the original addressee received an incomplete copy of the attachment. Specifically, some of the employee training rosters were missing. The Administrative Record contains the complete package. This can be found via Accession Number 0086043.

Document #: 2013-05-01

Doc Date: 10/21/2013

Agency: EPA

Category: Notice of Violation

Title: (CHPRC) EPA NOTICE OF VIOLATIONS AND STIPULATED PENALTIES RELATED TO ASBESTOS MANAGEMENT UNDER CERCLA

Summary

On October 21, 2013 DOE-RL received a Notice of Violation and Stipulated Penalty from the US EPA for alleged mis-management of asbestos demolition materials at several Hanford facilities.

The allegations are a result of an EPA NESHAP compliance inspection conducted on August 7-8, 2012. The field inspection included 13 Hanford sites where facilities had been demolished or asbestos work was underway. A total of 22 samples were collected at 6 sites, with 19 samples testing positive for asbestos.

EPA identified 3 alleged violations which were assessed penalties totaling \$115,000.00 and 2 additional alleged violations which were not assessed penalties.

DOE must invoke dispute resolution within 15 days of receipt of the letter or submit payment of the penalty within 60 days.

Response(s)

DOE letter 14-OCC-0006 to EPA, dated 11/6/13, provided notification that DOE would not invoke dispute resolution and proposed that the fine be paid through a SEP.

EPA denied the SEP and on 12/4/13 CHPRC paid the penalty.

Document #: 2013-04**Doc Date:** 6/26/2013**Agency:** EPA**Category:** Consent Agreement and Final Order**Title:** (CHPRC) EPA CONSENT AGREEMENT AND FINAL ORDER FOR HANFORD SITE RCRA PERMIT VIOLATIONS**Summary**

On June 24, 2013 the US Department of Energy, Richland Operations Office (DOE-RL) received a Consent Agreement and Final Order issued by the US Environmental Protection Agency (EPA). The Order alleges that DOE-RL stored various types of hazardous wastes without a permit at T Plant, CWC and low-level burial grounds. The Order also alleges that DOE-RL failed to meet closure plan requirements for SWOC facilities and failed to submit closure plans and closure notices for the 221T railroad tunnel and 2401W.

The Order stipulates a fine of \$136,000 payable within 30 days and requires DOE-RL to submit permit modifications or closure plans for listed units to the Washington State Department of Ecology within 120 days. DOE-RL must also cease placement of prohibited wastes in Trenches 31 and 34 without first satisfying applicable treatment standards in accordance with WAC 173-303 140.

Response(s)

On 7/11/13 the fine was paid electronically by DOE-RL.

DOE-RL letter 13-AMRP-0311 to Ecology, dated 9/26/13, requested delay of closure for the 221-T railroad tunnel and WRAP.

Ecology letter 13-NWP-108 to DOE-RL, dated 10/4/13, approved the request to extend closure for the 221-T railroad tunnel and WRAP.

DOE-RL letter 13-ESQ-0074 to Ecology, dated 10/11/13, transmitted closure plans for the dangerous waste management units.

DOE-RL letter 14-ESQ-0003 to Ecology, dated 10/18/13, transmitted additional closure plans for the T Plant Complex dangerous waste management units.

On September 19, 2014 DOE-RL issued letter 14-AMRP-0270 to Ecology requesting an extension in the date of expected closure in accordance with 40 CFR 265.112(d)(2)(i). On October 4, 2013, Ecology approved the DOE-RL request to an extension to the start of closure for the 221 -T Railroad Tunnel and Waste Receiving and Packaging (WRAP) Facility Dangerous Waste Management Units (DWMUs). The approval (13-NWP-108) extended the expected date to begin closure to September 30, 2014.

On September 29, 2014, Ecology issued letter 14-NWP-212 to DOE-RL. Pursuant to 40 CFR 265.112(d)(2)(i), and based on the submitted information, Ecology grants an extension to September 30, 2016, for beginning closure of the 221-T Railroad Tunnel and the WRAP DWMUs 2336-W Building NDE/NDA Area and 2336-W Building Process Area.

On April 13, 2015, DOE-RL issued letter 15-AMRP-0126 to Ecology. In accordance with Permit Condition I.E.20, this letter provides corrected information regarding the T Plant 221-T Cells Dangerous Waste Management Unit (DWMU) described in the Part A Permit Application attached to DOE-RL letter 13-ESQ-0074 that submitted Closure Plans for closing the DWMUs. Additional review of T Plant dangerous waste inventory information has revealed that the subject submittal incorrectly described the 221 -T Cells DWMU. Cell 16R should have been included along with cells 7L, 13R, and 17R as part of the 221-T Cells DWMU. Discussions are ongoing between DOE-RL and the Washington State Department of Ecology regarding other changes to the Part A applications. Following resolution of those issues, DOE-RL will provide an updated T Plant Part A application reflecting the results of those discussions as well as changes due to the addition of Cell 16R to the 221-T Cells DWMU.

On July 29, 2015, Ecology issued letter 15-NWP-145 to DOE-RL. This letter constitutes Ecology's completeness review for fourteen closure plans submitted as part of permit modification requests documented in DOE-RL letters 13-ESQ-0074 and 14-ESQ-0003. The purpose of the completeness review is to ensure that all major components of the submittal

have been addressed sufficiently to allow for a technical evaluation. Training plans, inspection plans, and Part A forms were submitted for operating DWMUs within the

SWOC. These submittals are not addressed in the Ecology completeness review. Ecology will work with DOE-RL and its contractors to resolve issues with these submittals as part of the SWOC permit application required by the Agreed Order and Stipulated Penalty No. DE 10156 (Agreed Order). Ecology found several areas where closure plan information was either missing or lacked critical elements that would deem the closure plans incomplete. However, these issues have been resolved as explained in the resolution after each item in the letter. Ecology and DOE-RL will continue to work together to revise text in the closure plans and appropriately

address all issues, including any related to public comments received during the first public comment period.

Notification of closure in accordance with WAC 173-303-610(3)(c) is required for all fourteen closing DWMUs. For the illegal/unauthorized DWMUs identified in the USEPA CAFO, the closure start date is the effective date of the USEPA enforcement action. For purposes of satisfying the closure notification requirement for the illegal/unauthorized DWMUs,

USDOE must provide a notice of start of closure upon implementation of closure activities.

On November 5, 2015, Ecology issued letter 15-NWP-198 to DOE-RL. This letter was issued to transmit Ecology comments on the T-Plant Complex Operating Unit Group, 277-T Outdoor Storage Area Dangerous Waste Management Unit (DWMU) Closure Plan. This is an unauthorized DWMU identified in the Consent Agreement and Final Order

(RCRA -10-2013-0113) the Environmental Protection Agency issued against the United States Department of Energy (USDOE) in June, 2013. Ecology included this DWMU in the Agreed Order and Stipulated Penalty (No. DE 10156) with USDOE and CH2M Hill Plateau Remediation Company

(CHPRC) dated January 24, 2014. The Agreed Order requires DOE to submit to Ecology a Class 3 permit modification request to incorporate this and other DWMUs into the Hanford Dangerous Waste Permit.

WAC 173-303-610(3)(c)(ii), and the Permittees can demonstrate compliance with the criteria at WAC 173-303-610(3)(c)(ii)(A), then USDOE and CHPRC must provide a request to Ecology for extension of the time period within which closure must begin. Ecology recommends that any request for an extension to the one-year period include a reference to the TPA M-92-09 milestone.

On August 1, 2014, DOE-RL issued letter 14-AMRP-0247 to Ecology. In response to Ecology's letter (14-NWP-136), "Dangerous Waste Compliance Inspection at Hanford's 400 Area Waste Management Unit (WMU), RCRA ID WA7890008967," dated July 11, 2014, the U.S. Department of Energy Richland Operations Office will respond within 60 days of receipt of the letter. Originally Ecology requested a response within 14 days. The extra time will be used to gather additional information that Ecology requested.

On September 23, 2014 DOE-RL issued letter 14-AMRP-0287 to Ecology responding to Ecology's July 11, 2014, request for additional information on the disposal of instruments and tubing that contain a small amount of sodium potassium (NaK). Due to the configuration of the instruments and the small volume of material, reclamation of the NaK may not be feasible. Treatment followed by disposal is an option. Treatment of the NaK components is not currently available at Hanford. The NaK could be treated at one or more offsite facilities in Tennessee. This would entail packaging the NaK containing waste into Department of Transportation (DOT) compliant packaging and shipment of the waste to an offsite facility. Residues from the treatment process would be returned to Hanford for disposal. The Hanford RCRA Permit, Operating Group Unit 16, specifically identifies NaK as present at this unit and provides appropriate authorization for management of this material at the Interim Storage Area (ISA). The management of NaK in the ISA is safely and compliantly performed as described by the approved permit provisions for Operating Unit Group 16. The very small volume of NaK (approximately two cups), the current site budget, waste management, and cleanup priorities have led DOE-RL and CH2M HILL Plateau Remediation Company (CHPRC) to conclude that deferral of treatment at this time is appropriate. DOE-RL and CHPRC believe that continued safe and compliant storage at the ISA is preferred over a high cost, near-term shipment/treatment/waste return process involved with offsite treatment.

Document #: 2012-05-01 **Doc Date:** 7/19/2012 **Agency:** Ecology
Category: Notice of Penalty
Title: (WRPS) ECOLOGY NOTICE OF PENALTY FOR MISSED MILESTONE M-047-06

Summary

On July 19, 2012 DOE-ORP received a notice of Stipulated Penalty for TPA Milestone M-047-06 in the amount of \$5,000.

This action follows a Notice of Violation that was issued on 7/12/12. Ecology alleges that ORP failed to comply with the requirements of TPA milestone M-047-06 by not establishing interim milestones and reporting the milestone was on schedule.

ORP has 7 days to invoke dispute resolution or pay the fine.

Response(s)

DOE-ORP paid the penalty by direct wire on 7/27/12

DOE-ORP letter 12-ECD-0037 to Ecology, dated 8/21/12, provided a response to the NOV and NOP.

Document #: 2012-05 **Doc Date:** 7/12/2012 **Agency:** Ecology
Category: Notice of Violation
Title: (WRPS) ECOLOGY NOTICE OF VIOLATION FOR MISSED MILESTONE M-047-06

Summary

On July 12, 2012 DOE-ORP received a Notice of Violation for missing TPA milestone M-047-06. The Department of Ecology alleges that ORP failed to comply with the requirements of TPA milestone M-047-06 by not establishing interim milestones and reporting the milestone was on schedule.

Response(s)

Ecology issued a Notice of Penalty on 7/19/12. see EATS 2012-05-01.

WRPS paid the fine on 7/27/12.

Document #: 2012-06

Doc Date: 7/10/2012

Agency: EPA

Category: Notice of Violation

Title: (CHPRC) EPA NOTICE OF VIOLATION FOR THE PROPOSED PLAN AND RI/FS REPORT FOR THE HANFORD 300 AREA

Summary

On July 10, 2012 the US Environmental Protection Agency (EPA) issued a Notice of Violation to DOE-RL for violating the schedule for responding to comments on primary documents as set forth in the Hanford TPA.

EPA alleges that DOE has delayed responding to EPA comments submitted on the 300 area Proposed Plan and RI/FS report.

Response(s)

DOE-RL letter 12-AMRP-0101 to EPA, dated 7/25/12, stated that the Proposed Plan and RI/FS were delivered to EPA on 7/13/12.

Document #: 2011-02

Doc Date: 5/24/2011

Agency: Ecology

Category: Notice of Violation

Title: (WRPS) ECOLOGY NOTICE OF VIOLATION - FAILURE TO COMPLY WITH TPA
MILESTONE M-045-100

Summary

The US Department of Energy, Office of River Protection (DOE-ORP) submitted the Single Shell Tank System Catch Tank Assumed Leak Response Plan, RPP-PLAN-48438 to the Department of Ecology on December 28, 2010 to fulfill TPA milestone M-045-100.

After its review, Ecology determined that the Plan failed to meet three criteria of the milestone and asserts that DOE has failed to comply with HFFACO Article VII, Paragraph 26. In a Notice of Violation filed on 5/26/11 ORP must submit a schedule to revise and resubmit the Response Plan and begin monitoring of un-monitored tanks.

Ecology stated that it does not intend to take enforcement action at this time, but reserves the right to make such notification pending review of DOE's response.

Response(s)

DOE-ORP letter 11-TF-065 to Ecology, dated June 1, 2011, provided notice that ORP is initiating the dispute resolution process.

DOE-ORP letter 11-TF-067 to Ecology, dated June 16, 2011, requested an extension to 9/25/11 to respond to comments.

On 6/29/11 Ecology approved a Dispute extension to 8/31/11 at the project managers level.

Ecology letter 11-NWP-099 to DOE-ORP, dated 8/25/11, transmitted an Agreement in Principle to the M-045-100 Assumed Leak Response Plan, pending resubmittal of the Plan by ORP and subsequent approval by Ecology.

DOE-ORP letter 11-TF-090, dated August 29, 2011, to Ecology transmitted the revised Response Plan for Ecology's review and approval.

Ecology letter 11-NWP-110, dated 9/26/11, to DOE-ORP transmitted Ecology's approval of the response plan.

DOE-ORP letter to Ecology, dated 9/28/11, sent notification of ORPS' intent to dismiss dispute resolution.

Document #: 2010-12**Doc Date:** 1/20/2011**Agency:** Utah DEQ**Category:** Notice of Violation**Title:** (CHPRC) UTAH DEQ GENERATOR ACCESS PERMIT #0811005000; NOTICE OF VIOLATION AND NOTICE OF PROPOSED IMPOSITION OF CIVIL PENALTY**Summary**

On January 20, 2011, the Utah Department of Environmental Quality, Division of Radiation Control, issued a Notice of Violation and Notice of Proposed Imposition of Civil Penalty to CH2M HILL Plateau Remediation Company (CHPRC).

A radioactive waste shipment from CHPRC (Permittee), was identified and confirmed by the Division of Radiation Control as exceeding Class A limits. The permittee misclassified and certified the waste that EnergySolutions received, accepted and disposed of as Class A. Shipment number 9079-08-0001S consisted of 76 drums and was described on the NRC Uniform Low-Level Waste Manifest Form 541 as Class A unstable material. It was determined that the classification calculations of the material were based on the container gross weight, rather than the net weight of the waste regarding one container identified as RHZ-103-A-16907. Therefore, it was misclassified as Class A waste. The Licensee may not receive Class B or Class C low-level radioactive waste without first receiving approval from the Executive Secretary of the Utah Radiation Control Board and also receiving approval from the Governor and the Legislature.

This violation (i.e., shipment of greater than Class A waste to licensee) is of significant concern and has been characterized as Severity Level III. The base penalty for this Severity Level is \$2,500.00. Therefore, a civil penalty of \$2,500.00 is proposed.

The Permittee also wrongly certified that the waste was classified as Class A. This violation is characterized as a Severity Level IV. The base penalty for this Severity Level is an additional \$750.00. Therefore, a civil penalty of \$750.00 is proposed.

Regarding the civil penalties, the licensee may within 30 days of receipt of the NOV, pay the civil penalty in the amount of \$3,250.00, or may protest the imposition of the civil penalties in whole or in part by written answer.

Response(s)

On February 17, 2011, CHPRC issued letter CHPRC-1100890 to the Utah DEQ. This letter responds to the Notice of Violation and Notice of Proposed Imposition of Civil Penalties (NOV), which was received by CHPRC on January 27, 2011, and submits a check for \$3,250 in payment of the fine/penalty. The NOV specified that CHPRC provide a written answer and payment of penalties within 30 days of receipt of the NOV (by February 25, 2011).

On March 2, 2011, the Utah DEQ issued a letter to CHPRC that was received on March 10, 2011. The Utah DEQ indicates they have reviewed the information provided in CHPRC-1100890. The corrective steps are adequate for the NOV dated January 20, 2011. Based on these corrective steps, the Utah DEQ will lift the suspension of shipments, effective immediately, and considers this matter closed.

Document #: 2010-11**Doc Date:** 10/14/2010**Agency:** Utah DEQ**Category:** Notice of Violation**Title:** (CHPRC) UTAH DEQ GENERATOR ACCESS PERMIT #0811005000; NOTICE OF VIOLATION AND NOTICE OF PROPOSED IMPOSITION OF CIVIL PENALTY**Summary**

On October 14, 2010, the Utah Department of Environmental Quality, Division of Radiation Control, sent a Notice of Violation and Notice of Proposed Imposition of Civil Penalty to CH2M HILL Plateau Remediation Company (CHPRC).

On May 12, 2010 EnergySolutions received and accepted a radioactive waste shipment [Manifest No. (9079-01 0001S)/SC015/001574825JJK] from CHPRC (Permittee), contractor to the US Department of Energy - Richland Operations. The shipment consisted of a single metal box characterized and described by the Permittee as Class A waste. Analysis of samples taken from the fraction of the waste that was to be segregated and treated separately via thermal desorption, as prescribed by the generator, indicated that in accordance with R313-15-1008 the Americium-241 concentration, 86 nCi/g, exceeded the Class A limit of 10 nCi/g. The Permittee detrimentally misclassified and certified the waste.

This violation is of significant concern and has been characterized as Severity Level III. The base penalty for this Severity Level is \$2,500.00. Therefore, a civil penalty of \$2,500.00 is proposed. Also, the Permittee wrongly certified that the waste was classified as Class A. This violation is characterized as a Severity Level IV. There is no civil penalty proposed for this violation.

Response(s)

On December 2, 2010, CHPRC issued letter CHPRC-1004216 to the Utah Radiation Control Board. This letter responds to the Notice of Violation and Notice of Proposed Imposition of Civil Penalties (NOV), which was dated October 14, 2010, and was received by CHPRC on October 21, 2010. CHPRC believes that while the potential existed for a non-compliance to have occurred as specified in the NOV, a non-compliance did not occur. CHPRC provided detailed responses to the two allegations in the NOV: (1) exceeding the NRC Class A limit of 10 nCi/g for Am-241 and (2) wrongly certified the waste was Class A per 10 CFR 20, Appendix G, Section II. The CHPRC response also included corrective steps taken and the results achieved; corrective steps taken to prevent recurrence; and the date full compliance will be achieved. Due to extenuating circumstances identified in the letter, CHPRC requests that the NOV and proposed penalties be withdrawn.

On April 7, 2011, the Utah DEQ sent a letter to CHPRC indicating that they have reviewed the letter containing the corrective actions and accepts them. The Utah DEQ letter also acknowledges receipt of the imposed civil penalty of \$2,500. The Utah DEQ considers the NOV dated October 14, 2010, closed.

Document #: 2010-07**Doc Date:** 7/7/2010**Agency:** WDOH**Category:** Notice of Violation**Title:** (WRPS) WDOH NOTICE OF VIOLATION FOR EMISSION UNITS 296-A-43, 241-S-302, 296-A-44 (TANK FARMS)**Summary**

In January 2010 WDOH performed inspections at various Tank Farm facilities. During facility reviews, WDOH inspectors noted several instances where sampling requirements of the Hanford Site Air Emissions License FF-01 were not met.

On July 7, 2010 WDOH issued a Notice of Violation alleging five violations of WAC 246-247 and 40 CFR 61.93 for failure to complete required periodic confirmatory monitoring. Two action items were assigned requiring submittal of completed monitoring reports, and incorporation of a monitoring plan into the facility's QA Plan.

Response(s)

DOE-ORP letter to WDOH, 10-ESQ-240, dated 8/3/10, provided requested monitoring data and closes action 1.

DOE-ORP letter 10-ESQ-254 to WDOH, dated 8/18/10, transmitted a plan to revise TFC-PLN-71 to meet WDOH requirements by 3/1/11. The new revision will include minor emission units as well as the major emission units, and will focus on ensuring timely sampling and monitoring, QA and management reviews.

On March 1, 2011, WRPS presented a draft of the tank farms NESHAP QA Plan to WDOH. The revision incorporates monitoring requirements consistent with 40CFR 61.

Document #: 2010-04**Doc Date:** 4/15/2010**Agency:** EPA**Category:** Notice of Non-Compliance**Title:** (CHPRC) EPA FIELD CITATION FOR NON-COMPLIANCE WITH UST REQUIREMENTS AT PFP**Summary**

During the week of April 12-16, 2010, the U.S. Environmental Protection Agency (EPA), Region 10, conducted an inspection of underground storage tanks (USTs) on the Hanford Site. The focus of the inspection was on USTs regulated under Subtitle C and Subtitle I of the Resource Conservation and Recovery Act (RCRA). Hanford Site contractors involved in the inspection included Mission Support Alliance (MSA), CH2M Hill Plateau Remediation Company (CHPRC), Washington Closure Hanford (WCH), and Washington River Protection Solutions (WRPS).

On April 15, 2010, the EPA inspector issued a Field Citation to PFP for failure to provide an overfill prevention system on an underground storage tank at PFP. The Field Citation carries a penalty of \$420.00, payable within 30 days. The facility must also install a spill prevention system or implement procedures restricting deliveries to 25 gallons or less at a time. Written proof of compliance must be received by EPA within 60 days.

Response(s)

CHPRC e-mail dated 4/27/10 confirmed payment of the penalty.

CHPRC letter 1000371 to EPA, dated 5/19/10, transmitted rev 1 of the UST procedure incorporating fuel transfer limits as requested by EPA, and documentation confirming payment of the penalty.

Document #: 2010-03**Doc Date:** 3/24/2010**Agency:** DOT**Category:** Notice of Violation**Title:** (MSA) DEPARTMENT OF TRANSPORTATION NOTICE OF CLAIM - VIOLATION OF REQUIREMENTS AT MSA FACILITIES RESULTING FROM COMPLIANCE REVIEW CONDUCTED 2/24/2010**Summary**

On February 24, 2010 the US Department of Transportation (DOT) conducted a review to determine compliance with the Federal Motor Carrier Safety Regulations (FMCSR) and the Federal Motor Carrier Commercial Regulations (FMCCR).

As a result of the review, two alleged violations of 49CFR were discovered -- transporting a container not in proper condition and using a driver before the motor carrier had received a negative pre-employment controlled substance test result.

On March 24, 2010, DOT issued a Notice of Violation to Mission Support Alliance (MSA) and levied a fine of \$12,890. Payment of the fine or a response to the notice is due in thirty days.

Response(s)

MSA letter 1000411A R1 to DOT, dated 4/22/10, transmitted a letter requesting suspension of the Notice of Claim penalties based on the Corrective Actions Plan submitted to DOT on 1/27/10.

On 6/16/10 DOT issued a Settlement Agreement to MSA which required payment of a \$10,312.00 fine by 7/9/10.

MSA paid the fine electronically on 7/1/10.

As of 7/14/10 all actions in the Corrective Actions Master Plan have been completed except for the Effectiveness Review (due 12/3/10).

An effectiveness review of corrective actions for AR 29028063 was completed on 11/19/2010, (IA-SHQ-11-7827, "Effectiveness of Corrective Actions Associated with DOT Penalties"). Corrective actions were found to have been only partially effective in preventing or reducing the probability of recurrence.

Document #: 2010-02

Doc Date: 3/15/2010

Agency: Ecology

Category: Notice of Violation

Title: (WRPS) ECOLOGY NOTICE OF VIOLATION RESULTING FROM DANGEROUS WASTE PERMIT INSPECTION AT 242-A EVAPORATOR

Summary

The Washington State Department of Ecology (Ecology) began an inspection of the 242-A Evaporator on 7/21/09 to evaluate DOE-ORP and Washington River Protection Solution's (WRPS) compliance with revision 8C of the Hanford Facility's Dangerous Waste Permit.

As a result of the inspection, three alleged violations were cited -- Failure to document personnel training, failure to maintain a current Permit Training Matrix, and failure to adequately document required periodic inspections. Two concerns were also noted that related to training documentation and excessive response time for providing requested information.

Ecology stated that formal enforcement will be withheld pending completion of three corrective actions.

Response(s)

DOE-ORP letter 10-ESQ-125 to Ecology, dated 4/14/10, transmitted ORP's response to the NOV, which included written verification of training & permit modifications.

DOE-RL letter 10-EMD-0080 to Ecology, dated 7/8/10, transmitted a RCRA Permit Class I Modification package that includes the 242-A facility.

Ecology letter 1002473 to DOE-RL, DOE-ORP and Hanford contractors, dated 8/23/10, provides approval of the Hanford RCRA Permit Class I Modification package that was submitted on 7/8/10. This action is closed.

Document #: 2010-01**Doc Date:** 2/3/2010**Agency:** DOT**Category:** Notice of Violation**Title:** (MSA) DEPARTMENT OF TRANSPORTATION NOTICE OF CLAIM - VIOLATION OF REQUIREMENTS AT MSA FACILITIES FROM COMPLIANCE REVIEW CONDUCTED JANUARY 11-15, 2010**Summary**

On January 11-15, 2010 the US Department of Transportation (DOT) conducted a review to determine compliance with the Federal Motor Carrier Safety Regulations (FMCSR) and the Federal Motor Carrier Commercial Regulations (FMCCR).

As a result of the review, three alleged violations of 49CFR were discovered -- transportation of hazardous materials without an approved security plan, transporting a container not in proper condition and transporting a hazardous material in a cargo tank without a specified test or inspection.

On February 3, 2010, DOT issued a Notice of Violation to Mission Support Alliance (MSA) and levied a fine of \$32,990. Payment of the fine or a response to the notice is due in thirty days.

Response(s)

MSA letter 1000173A R1 to DOT, dated 3/3/10, transmitted a letter requesting suspension of the Notice of Claim penalties based on the Corrective Actions Plan submitted to DOT on 1/27/10.

A Settlement Agreement was issued to MSA on 4/19/10 that reduces the fine to \$19,794.00 and requires MSA to have no violations of critical requirements within the next two years.

MSA paid the fine electronically on 5/3/10.

As of 7/14/10 all actions in the Corrective Actions Master Plan have been completed except for the Effectiveness Review (due 12/3/10).

An effectiveness review of corrective actions for AR 29028063 was completed on 11/19/2010, (IA-SHQ-11-7827, "Effectiveness of Corrective Actions Associated with DOT Penalties"). Corrective actions were found to have been only partially effective in preventing or reducing the probability of recurrence.

Document #: 2009-03**Doc Date:** 6/17/2009**Agency:** Ecology**Category:** Notice of Non-Compliance**Title:** (CHPRC) ECOLOGY NOTICE OF NON-COMPLIANCE RESULTING FROM WRAP
DANGEROUS WASTE INSPECTION ON 4/14/09 (UNIVERSAL WASTE MANAGEMENT)**Summary**

On April 14, 2009 the Washington State Department of Ecology and the U.S. Environmental Protection Agency (EPA) conducted a joint inspection of the WRAP facility to verify that management of dangerous waste was being conducted in accordance with WAC Interim Status permit requirements.

As a result of the inspection findings, Ecology issued a Notice of Non-compliance on June 17, 2009 for failure to provide separate secondary containment for two drums containing unknown liquid wastes. A concern was also included for the accumulation of universal waste in an open container, contrary to WAC 173-303-573 requirements.

Ecology acknowledged that corrective actions have already been taken to segregate the two drums, and that revisions to the CCRC management plan is currently under revision. No action items were identified.

Response(s)

DOE-RL/ORP letter 09-ESQ-346, dated 10/7/09, transmitted Rev 3 of the CCRC Management Plan to EPA for concurrence.

EPA letter to ORP, dated 1/26/2010, transmits EPA's acceptance of the final CCRC Management Plan and closes this action.

Document #: 2009-02**Doc Date:** 3/3/2009**Agency:** EPA**Category:** Notice of Violation**Title:** (WRPS) EPA NOTICE OF VIOLATION OF RCRA REQUIREMENTS FOR UNIVERSAL WASTE MANAGEMENT AT 616**Summary**

On September 24-25, 2008, the U.S. Environmental Protection Agency (EPA, Region 10) and the Washington State Department of Ecology (Ecology) conducted an inspection of the 616 Waste Handling Facility managed, at the time, by CH2MHILL Hanford Group (CHG). Management of the 616 Building has since transferred to Washington River Protection Solutions (WRPS) as a result of Tank Farm Contractor transition.

On March 3, 2009 EPA issued a Notice of Violation based on observations made during the inspection. EPA alleges four violations of the Universal Waste requirements regarding the labeling and dating of batteries and lamps being accumulated for recycle.

DOE must submit a written response within 15 days identifying actions taken, or planned to be taken, to correct the violation.

Response(s)

DOE letter 09-ESQ-094 to EPA, dated 3/24/09, provides a response to the NOV and requests an additional 45 days to coordinate a response with Ecology and the other DOE offices.

ORP letter 09-ESQ-091, dated 3/25/09, transmits the NOV to WRPS for action.

ORP letter 09-ESQ-156 dated 5/8/09, transmitted a formal response to EPA that identifies proposed corrective actions to resolve the NOV. ORP commits to submitting a draft of the CCRC Management Plan to EPA by 10/12/09.

DOE-RL/ORP letter 09-ESQ-346, dated 10/7/09, transmitted Rev 3 of the CCRC Management Plan to EPA for concurrence

EPA letter to ORP, dated 1/26/2010, transmits EPA's acceptance of the final CCRC Management Plan and closes this action.

Document #: 2006-04-01**Doc Date:** 6/12/2008**Agency:** Ecology**Category:** Notice of Penalty**Title:** (FH) ECOLOGY M-91-42 STIPULATED PENALTY AGREEMENT (TRU-M)**Summary**

On June 12, 2008 the Washington State Department of Ecology and DOE-RL reached an agreement resolving the dispute over missed milestone M-91-42. The agreement stipulates a penalty of \$25,000, funding for a Department of the Interior technical support person for a period of three years and changes to the volume certification commitments. The DOI Fish & Wildlife person will be located at Hanford and will provide DOE with advice on cleanup restoration alternatives. RL shall provide a Letter of Completion to Ecology when the DOI person is hired.

Response(s)

DOE-RL letter 08-AMCP-0156 to Ecology, dated 4/4/08, transmitted notification that the treatment requirement of 6,520 CuM of MLLW had been completed.

DOE-RL letter 08-FMD-0163 to Ecology, dated 6/26/08, transmitted payment of the penalty.

DOE-RL letter 08-AMCP-0185 to Ecology, dated 8/5/08, transmitted change request M-91-08-02 for approval.

DOE-RL letter 08-AMCP-0286 to Ecology, dated 9/29/08, transmitted change request M-91-08-04 for approval.

Ecology letter to RL dated 10/14/08, rejects change request M-91-08-04 submitted on 9/29/08.

RL letter 09-AMCP-0014 to Ecology, dated 10/21/08, provided notification of DOE's intent to invoke dispute resolution regarding disapproval of TPA change request M-91-08-04.

RL letter 09-OCC-0032, dated 2/12/09, transmitted a notice of completion to Ecology that the DOI person had been hired.

Ecology letter 0901024, dated 4/30/09, to DOE-RL provided a response to DOE's notification letter of 2/12/09.

Document #: 2008-12**Doc Date:** 6/2/2008**Agency:** EPA**Category:** Consent Agreement and Final Order**Title:** (CHG) EPA CONSENT AGREEMENT AND FINAL ORDER FOR FAILURE TO NOTIFY NRC OF MIXED WASTE RELEASE AT TANK S-102**Summary**

On July 27, 2007, in an area at the Hanford Facility where CH2M HILL, Hanford Group, Inc. (CHG) was performing work for DOE a spill of radioactive hazardous waste occurred.

Approximately 114 gallons of mixed waste containing a number of radionuclides was released. Two radionuclides (Cesium-137 and Strontium-90) were initially calculated by DOE to be above the RQ. Preliminary data from the S-102 dilution hose line sample later confirmed that the RQ was exceeded for Cesium-137. The quantity of Cesium-137 released was calculated to be 2.83 Ci, compared to the RQ of 1.0 Ci.

On June 2, 2008, the U.S. Environmental Protection Agency together with the U.S. Department of Energy, Office of River Protection (ORP) and CH2M HILL Hanford Group, Inc.

(CH2M HILL) filed a Consent Agreement and Final Order (CAFO) (Docket No. CERCLA- 10-2008-0064) settling the parties' interests regarding the tank S- 102 event on the

Hanford Site on July 27, 2007. As part of that CAFO, ORP and CH12M HILL agreed to pay a penalty/fine of \$6,800 and complete a Supplemental Environmental Project (SEP) to purchase emergency response equipment for the local emergency response team.

Response(s)

On June 9, 2008, CHG issued letter #CH2M-0801416 to the EPA submitting check #05578 for \$6,800 in partial fulfillment of the requirements under Consent Agreement and Final Order, Docket No. CERCLA-10-2008-0064.

Remaining requirements are associated with a Supplemental Environmental Project to purchase equipment for the Tri-County Hazardous Material Response Team.

On August 19, 2008, CHG issued letter #0801891 to the EPA transmitting the certified completion report for the Supplemental Environmental Project (SEP). A total of \$26,129.06 was provided to fund the SEP.

Document #: 2008-03 **Doc Date:** 3/4/2008 **Agency:** Ecology
Category: Notice of Violation
Title: (FH) ECOLOGY NOTICE OF VIOLATION FROM DANGEROUS WASTE COMPLIANCE
INSPECTION OF T PLANT COMPLEX CONDUCTED JUNE-AUGUST 2007

Summary

A Notice of Violation was received from the State of Washington Department of Ecology (Ecology) on March 4, 2008 in response to a dangerous waste compliance inspection of the T Plant Complex that was conducted June through August 2007. Two previous inspections in 2000 and 2005 also cited concerns with inadequate waste designation at T Plant.

The inspection identified one violation of WAC 173-303 regarding waste designation. Three concerns identified were related to waste accumulation, container management and personnel training.

Response(s)

DOE-RL letter 08-AMCP-0181 to Ecology, dated 5/9/08, transmits a list of containers in storage at T Plant since before 1/1/07 and provides closure for the action items.

At the May 22, 2008 Project Managers Meeting, Ecology stated that they were satisfied with the response provided by RL. This action is considered closed.

Document #: 2007-11 **Doc Date:** 12/18/2007 **Agency:** Ecology
Category: Notice of Violation
Title: (CHG) ECOLOGY NOTICE OF VIOLATION FOR DISCHARGE PERMIT ST4511
NONCOMPLIANCE AT 241C

Summary

On 11/26/07 ORP sent a letter to Ecology reporting a noncompliance of State Waste Discharge Permit ST 4511 that occurred at the 241C tank farm on 10/30/07. Subsequent review of the notification and report by Ecology resulted in a determination that the discharge was a permit violation. Ecology issued a letter to ORP and CHG on 12/18/07 that identified three actions to be completed within 45 days of receipt of the letter.

Response(s)

Ecology verbally agreed to an extension of the due dates to 2/29/08.

ORP letter 08-ESQ-030 to Ecology, dated 2/25/08 provided the required response and closes the 3 action items.

Document #: 2007-10-01 **Doc Date:** 12/4/2007 **Agency:** Ecology
Category: Notice of Penalty
Title: (CHG) ECOLOGY NOTICE OF STIPULATED PENALTY INCURRED AND DUE No. 5218 (S-102 RELEASE)

Summary

On 12/4/07 the Washington State Department of Ecology issued a Notice of Penalty to DOE-ORP for 2 alleged violations of HFFACO Article VII, and failure to comply with two requirements of the S-102 Initial Waste Retrieval Functions and Requirements document (RPP-10901): backflow prevention devices for the Raw Water System and component assessments by an Independent Qualified and Registered Professional Engineer (IQRPE).

ORP has seven days to invoke dispute resolution or pay the penalty.

Response(s)

ORP letter 07-AMD-249 to Ecology dated 12/6/07 initiated dispute resolution for the NOP.

Ecology, ORP, and the Attorney General verbally agreed to a 30-day extension. The dispute resolution period was extended to February 6, 2008.

On 2/6/08 Ecology and ORP signed an agreement to extend the dispute resolution period through 2/29.

ORP and Ecology signed a Settlement Agreement on 4/14/08 resolving the dispute over the NOP. The Settlement Agreement provides for payment of a penalty and the option to perform two Supplemental Environmental Projects (SEP). The SEPs would replace HEPA breather filters in TY tank farm, and provide emergency equipment for the Tri-County HAZMAT response team.

Document #: 2007-09 **Doc Date:** 10/30/2007 **Agency:** EPA
Category: Consent Agreement and Final Order
Title: (FH) EPA CONSENT AGREEMENT AND FINAL ORDER FOR TWIN CITY METALS PCB SPILL

Summary

On 10/30/07 the US EPA issued a Consent Agreement and Final Order in the matter of the Twin City Metals PCB spill. On 5/31/06 FH shipped 60 transformers to Twin City Metals (TCM) in Kennewick, WA for metal recycling. On 6/1/06 one of the transformers spilled approx. 50 gallons of fluid to the ground at the TCM location.

The ruling identified 8 violations of 40CFR 761.60(a)(1) and 2 violations of 40CFR 761.207.

Civil penalties assessed were \$54,800 to Fluor Hanford and \$30,000 to Twin City Metals (TCM).

FH shall remit payment of penalty within 30 days of filing of the Order.

Response(s)

On 11/26/07 FH legal sent a check to EPA for \$54,800 (per e-mail from Steve Cherry dated 12/4/07).

Document #: 2007-08

Doc Date: 10/25/2007

Agency: Ecology

Category: Notice of Violation

Title: (PNNL) ECOLOGY NOTICE OF VIOLATION AND REQUIREMENT FOR INFORMATION FOR THE OPERATION OF TWO DIESEL ENGINES AT 336 BUILDING

Summary

On 10/25/07 the Department of Ecology issued a Notice of Violation to DOE-RL for the operation of two leased non-road diesel engines at the 336 building in violation of Ecology Approval Condition 1.3.2.1.1 of Order DE06NWP-002. The approval order requires the use of engines certified by the manufacturer to meet EPA Tier 2 (or higher) emission standards.

During the period of 7/3/07 to 7/19/07 two Tier 1 diesels were unknowingly used at the 336 building contrary to the approval order. PNNL identified the error, ceased operations and self-disclosed the error to Ecology by e-mail on 7/25/07.

The NOV requests that listed information be delivered to Ecology within 45 days of receipt of the NOV letter.

Response(s)

DOE-RL letter 08-SED-0060 to Ecology, dated 12/6/07 provided a response addressing all 4 action items.

On 1/9/08 Ecology issued a Notice of Correction to DOE-RL for the Approval Order violation that occurred on 7/25/07. (see EATS item 2007-08-01)

Document #: 2002-19-02**Doc Date:** 5/14/2007**Agency:** Ecology**Category:** Notice of Violation**Title:** (CHG) ECOLOGY NOTICE OF VIOLATION FOR UNFIT-FOR-USE HAZARDOUS WASTE TANK SYSTEM COMPONENTS (HIHTL)**Summary**

On May 14, 2007 Ecology issued a Notice of Violation to DOE-ORP and CHG based on findings from a March 28, 2007 inspection at tank farms to determine if temporary transfer lines were being managed in accordance with the Temporary Waste Transfer Line Management Program Plan. The inspection revealed that temporary mixed waste transfer lines are not being managed according to requirements of the plan.

This action is in response to a Notice of Non-Compliance issued to ORP and CHG August 8, 2002, for alleged violations of state and federal hazardous waste tank system regulations for operation of temporary mixed waste transfer lines in use at Hanford's tank farms. To correct the violations cited in the notice of non-compliance, ORP and CHG developed the Temporary Waste Transfer Line Management Program Plan, RPP-12711. Ecology considers operation of the temporary mixed waste transfer lines to be compliant as long as all requirements of the plan are met.

Response(s)

DOE-ORP/CHG letter 07-TPD-029 to Ecology dated 5/31/07 requests additional time to complete the corrective actions, and commits to providing the requested transfer line removal schedule by 8/31/07.

DOE-ORP letter 07-TPD-048 to Ecology dated 8/31/07 transmits the requested storage, use and removal schedule as required by the NOV. ORP commits to providing quarterly status reports to Ecology and requests that the NOV be closed.

DOE-ORP letter 07-TPD-062 to Ecology, dated 12/11/07 transmitted the quarterly report listing all temporary transfer lines in storage, deployed for use, or in use on the Hanford site,

DOE-ORP letter 08-TPD-008 to Ecology, dated 2/15/08 provided the revised waste transfer line management program plan (RPP-12711 rev 3K) and requests Ecology approval.

DOE-ORP letter 08-TPD-012 to Ecology, dated 3/27/08 transmitted the quarterly report listing all temporary transfer lines.

Ecology letter to DOE-ORP and CHG, dated 5/5/08 conditionally approves the RPP-12711 revision, and the Hose-in-hose removal schedule. Ecology considers the corrective measures complete at this time.

ORP letter 08-TPD-035 to Ecology, dated 7/23/08, transmitted Rev 4 of RPP-12711 Temporary Waste Transfer Line Management Program Plan.

Ecology letter 12-NWP-133, dated 8/7/12, to DOE-ORP requests all disposal records for transfer lines removed from service to be provided by 9/15/12.

Document #: 2007-03

Doc Date: 5/8/2007

Agency: Ecology

Category: Notice of Violation

Title: (WCH) ECOLOGY NOTICE OF VIOLATION OF THE RCRA PERMIT AT 100N

Summary

On May 8, 2007 the Department of Ecology issued a Notice of Violation to DOE-RL and Washington Closure Hanford (WCH) alleging violations of the RCRA permit at 183N.

Beginning on 1/25/07 Ecology conducted inspections of petroleum spills at the 183N demolition site in the 100N area. As a result of the inspections, Ecology cited two permit violations relating to notification, mitigation and cleanup of dangerous wastes or hazardous constituents released to the environment.

Five concerns were also identified regarding operations at the demolition site.

Response(s)

RL letter 07-SED-0347 to Ecology, dated 9/24/07, responded to the NOV and provided release notification protocols for contractors in the form of a Supplemented Contractor Requirements Document (SCRD). The letter also requested that Ecology defer further actions until the SCR D is implemented by site contractors in October 2007.

Document #: 2007-01-01 **Doc Date:** 4/10/2007 **Agency:** Ecology
Category: Notice of Violation
Title: (CHG) ECOLOGY NOTICE OF VIOLATION NO. DE 4218 (VIOLATION OF APPROVAL ORDER DE05NWP-002 REV1 AT 241-C-108)

Summary

On November 29, 2006 the Department of Ecology conducted an inspection and technical assistance visit of Single Shell Tank waste retrieval operations in response to complaints from tank farm workers of odors assumed to be from retrieval operations. The purpose of the visit was to assess operations and permit compliance status for retrieval operations of tank 241-C-108.

On 4/10/07 Ecology issued a Notice of Violation of Order DE05NWP-002 Rev 1.

During the visit Ecology communicated concerns with implementation and internal communication of Industrial Hygiene (IH) programs established by the USDOE-ORP for tank farm worker protection, since Ecology continues to receive complaints.

Ecology review of sampling plans and reports indicate the apparent emission of TAPs not previously identified to Ecology. Ecology also alleges that sample results identify four Class A carcinogenic TAPs for which no emissions notice has been received.

DOE is directed to submit a permit modification request to include the TAPs that were not previously identified in the NOC. It is also recommending that DOE request a modification to Order DE05NWP-002 for other emission points. DOE has 30 days to provide a response or request an extension.

On April 10, 2007 the Department of Ecology issued a Finding of Violation of condition 2.5 of the Notice of Construction Order DE05NWP-002, Revision 1. The notice alleges that ORP failed to notify Ecology within 90 days of the discovery of TAPs not previously identified in the Notice of Construction. ORP is ordered to file a Notice of Construction revision within 45 days, and to submit quarterly stack and sampling assessments for 2007.

Response(s)

DOE-ORP letter 07-ESQ-064 to Ecology dated 4/24/07 acknowledged receipt of the NOV and provided confirmation that actions assigned in the NOV will be met.

DOE-ORP letter 07-ESQ-070 to Ecology dated 5/9/07 transmitted the first quarter stack samples report.

DOE-ORP letter 07-ESQ-088 to Ecology dated 5/15/07 transmitted the NOC modifications for Ecology approval.

DOE-ORP letter 07-ESQ-116 to Ecology dated 7/27/07 transmitted the second quarter stack samples report.

Ecology letter 0702695 to ORP dated 10/11/07 communicates the results of Ecology's review of submittals. Ecology determined that ORP has submitted the required information and that operations are now in compliance with DE05NWP-002 and DE 4218.

DOE-ORP letter 07-ESQ-193 to Ecology dated 10/22/07 transmitted the third quarter stack samples report.

DOE-ORP letter 08-ESQ-040 to Ecology dated 3/6/08 transmitted the fourth quarter stack samples report, and completes the items required by this action.

Document #: 2007-02

Doc Date: 3/27/2007

Agency: EPA

Category: Notice of Penalty

Title: (WCH) EPA STIPULATED PENALTIES FOR VIOLATIONS OF CERCLA REQUIREMENTS AT ENVIRONMENTAL RESTORATION DISPOSAL FACILITY

Summary

The U.S. Environmental Protection Agency (EPA) issued a Notice of Penalty letter to the U.S. Department of Energy, Richland Operations Office (DOE-RL) on March 27, 2007, that assesses a penalty against RL for alleged violations of CERCLA requirements established in accordance with the TPA.

The letter alleges failure to perform compaction testing in accordance with the approved operations plan from June 1, 2005 through January 11, 2007, and failure to conduct weekly inspections of the leachate collection system between May and December 2006.

The total penalty assessed for these alleged violations is \$1,140,000. However, the amount of the penalty may be mitigated if DOE commits to an environmental project acceptable to EPA.

Response(s)

RL letter 07-OEC-0042 dated 4/11/07 provides a response to the NOP letter and clarifies a minor inaccuracy. The letter also confirms a meeting with EPA scheduled for 4/18/07, and requests a 60 day extension to allow sufficient time for discussions.

EPA letter dated 4/25/07 to DOE/RL, grants DOE a 60 day extension to develop a proposal for an environmental project.

DOE-RL letter 07-SED-0340 dated 8/16/07 submitted the SEP proposals to EPA for approval.

DOE-RL letter 07-SED-0395 dated 9/14/07 submitted one revised SEP proposal to EPA for approval.

On 11/20/07 EPA issued a Settlement Agreement between RL and EPA that stipulates the actions to be completed to close this action (2007-02-01)

Document #: 2006-05-01 **Doc Date:** 10/16/2006 **Agency:** EPA
Category: Notice of Penalty
Title: (WCH) EPA STIPULATED PENALTIES ASSESSED FOR VIOLATIONS OF CERCLA REQUIREMENTS AT 100-D-56

Summary

The US Environmental Protection Agency (EPA) issued a Notice of Assessed Stipulated Penalties on October 16, 2006, for alleged violations of CERCLA requirements related to two chromium dichromate spills and failure to follow work plans. The Notice levies a penalty of \$120,000 against the U.S. Department of Energy-Richland Operations Office.

In a letter dated 9/18/06, Ecology issued a Notice of Violation (NOV) to DOE that DOE and its contractors had failed to conduct remediation activities at the 100-D-56 pipeline in accordance with applicable CERCLA requirements contained in the 100 Area Remedial Design/Remedial Action Work Plan. Ecology identified four violations and requested the EPA to assess stipulated penalties in accordance with Article XX of the HFFACO.

Response(s)

EPA letter to DOE-RL dated 10/16/06 transmitted formal notification that the stipulated penalty being assessed for the June 2006 alleged violations was in the amount of \$120,000.00.

On 11/30/06 WCH received formal direction from DOE-RL to pay the penalty. (1/3/07 Occurrence Report)

On 12/7/06 WCH submitted a check to the Hazardous Substances Superfund.(1/3/07 Occurrence Report)

Document #: 2006-05 **Doc Date:** 9/18/2006 **Agency:** Ecology
Category: Notice of Violation
Title: (WCH) ECOLOGY NOTIFICATION OF VIOLATIONS RELATED TO INTERIM REMEDIAL ACTION AT THE 100-D-56 PIPELINE

Summary

From June 20 through August 31, 2006, the Department of Ecology conducted an inspection of remedial activities at the 100-D-56 site in Hanford's 100 area. As a result of the inspection, Ecology alleges numerous violations of TPA requirements. Four violations were cited, including failure to comply with the RD/RA Work Plan and the 100 Area ROD. Seven areas of concern were also identified.

Although no actions were identified, Ecology expects DOE to address the environmental threat by excavating, designating and managing contaminated soil in compliance with the 100 Area RD/RA Work Plan. Ecology also expects DOE to excavate the contaminated soil as soon as possible, consistent with requirements to protect worker health and safety.

In a separate letter to EPA Region 10, Ecology recommended that EPA assess stipulated penalties.

Response(s)

Letter from EPA dated 10/16/06 to DOE/RL provided notification that stipulated penalties were being assessed for violations of CERCLA requirements. Penalties assessed were \$120,000.00. Payment of the penalty will be tracked under EATS action 2006-05-01.

On 12/7/06 WCH submitted a check to the Hazardous Substances Superfund for \$120,000.00.

Document #: 2006-03**Doc Date:** 7/14/2006**Agency:** EPA**Category:** Notice of Violation**Title:** (DOE-RL) EPA NOTICE OF VIOLATION - FAILURE TO SUBMIT A COMPLETE APPLICATION FOR A NEW RCRA PERMIT**Summary**

Permit condition I.F of the HSWA portion of the Hanford RCRA permit states that the permittee must submit a complete application for a new permit at least 180 days before the permit expires. In a letter dated July 14, 2006, EPA states that a complete application consists of an application to Ecology, and an application to EPA Region 10 for those HSWA requirements for which Ecology has not yet received final authorization. The HSWA portion of the Hanford RCRA permit expired September 27, 2004. Therefore, DOE-RL should have provided a complete application to EPA by March 30, 2004. EPA alleges that the submittal received on March 30, 2004 is incomplete and does not satisfy the HSWA requirement. Specifically, the submittal does not address the waste minimization requirements of 40CFR 264.73.

Response(s)

DOE-RL letter 06-ESD-0145 to EPA dated 7/27/06 (DA03140287), responded to the NOV. RL provided documentation that the renewal application included the waste minimization information, and requested that EPA withdraw the NOV.
