



Department of Energy
Richland Operations Office
P.O. Box 550
Richland, Washington 99352

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APR 22 2016

1601985

CHPRC CC Recd 04/25/2016

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

Dear Ms. Smith:

ADDITIONAL INFORMATION FOR START OF CLOSURE EXTENSION REQUEST FOR MULTIPLE T PLANT, CENTRAL WASTE COMPLEX (CWC), AND WASTE RECEIVING AND PACKAGING (WRAP) FACILITY DANGEROUS WASTE MANAGEMENT UNITS (DWMU)

- References:
- (1) RL ltr. to J. A. Hedges, Ecology, from S. Charboneau, "Start of Closure Extension Request for Multiple T Plant and Waste Receiving and Packaging (Wrap) Facility Dangerous Waste Management Units (DWMU)," 15-AMRP-0151, dtd. April 23, 2015.
 - (2) Ecology ltr. to S. Charboneau, RL, from S. Dahl, "Request for Approval of United States Department of Energy's Start of Closure Extension for Multiple T Plant and Waste Receiving and Packaging (WRAP) Facility Dangerous Waste Management Units (DWMU)," 16-NWP-013, dtd. February 2, 2016.

The U.S. Department of Energy Richland Operations Office (RL) received the Washington State Department of Ecology (Ecology) request for additional information on how RL is meeting the requirements of Washington Administrative Code 173-303-610(3)(c)(ii)(A) and how the owner/operator is taking all steps to prevent threats to human health and the environment, including compliance with all applicable permit requirements for the below identified T-Plant, CWC, and WRAP DWMUs:

- 221-T Canyon Deck
- 2706-T Building
- 214-T Building
- 2402-W Waste Storage Building
- 2402-WC Waste Storage Building
- 2402-WD Waste Storage Building
- 2336-W Shipping and Receiving Area
- 2404-WB Waste Storage Building

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No outstanding compliance issues have been identified for the above DWMUs. On February 17, 2016, a meeting with CH2M HILL Plateau Remediation Company (CHPRC), RL, and Ecology was held at Ecology's office to discuss the additional information request received in the above referenced letter. On February 18, 2016, CHRPC and RL received clarification from Ecology identifying further information is needed to demonstrate steps have been and are being taken to prevent threats to human health and the environment including compliance with all interim status requirements. The additional information requested is provided in the enclosure.

The following DWMUs are currently being managed in accordance with the Agreed Order (No. DE 10156) and are addressed in the Part B Permit Application (DOE/RL-2015-74):

- 221-T Operations Gallery Storage
- 221-T Bone Yard Storage Area
- 243-T Covered Storage Pad
- 211-T Cage
- High Energy Real Time Radiography and Super High Energy Neutron Counter (HEN221- Head End C)
- Waste Outdoor Storage Area

If you have any questions, please contact me, or your staff may contact Jeffrey A. Frey, Assistant Manager for Safety and Environment, on (509) 376-7727.

Sincerely,



Stacy Charboneau
Manager

ESQ:ACM

Enclosure

cc w/encl:

Debra J. Alexander, Ecology
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Ecology NWP Library
Environmental Portal, LMSI, G3-39
HF Operating Record (Perry, MSA, A3-01)

cc w/o encl:

Moses N. Jaraysi, CHPRC
John B. Price, Ecology
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Enclosure

**Additional Information for T Plant, CWC, and WRAP Dangerous
Waste Management Units**

WAC 173-303-300 General Waste Analysis

The T Plant Complex Waste Analysis Plan (WAP) and CWC-WRAP WAP demonstrate compliance with the requirements of WAC 173-303-300(1) through (5), as well as applicable federal and state land disposal requirements. The WAPs are applicable to waste management activities including the following: Waste receipt, storage, non-destructive examination, physical/chemical screening, sampling, treatment, sorting and repackaging, waste notification and certification, shipment of waste offsite, and transfer of waste to another SWOC TSD location. Wastes managed at each Operating Unit Group (OUG) include the following:

- Newly generated waste from onsite and offsite generators
- Waste previously accepted at other SWOC TSDs and then transferred
- Retrieved waste, including but not limited to contaminated debris, contaminated soil, absorbed oils, PCB-contaminated waste, and labpacks
- OUG generated waste from operations and maintenance activities, including debris, discarded PPE, and maintenance waste
- Wastes treated at T-Plant and CWC.

WAC 173-303-310 Security

Warning signs are posted stating “Danger-Unauthorized Personnel Keep Out” (or an equivalent legend) at each OUG. The signs have a font type and size written in English that ensures that it can be read from a distance of at least 25 feet. Requirements for a 24-hr surveillance (WAC 173-303-310(2)(b)) and an artificial or natural barrier system (WAC 173-303-310(2)(c)) are met at the Hanford Facility level as identified in Attachment 3, “Security” to the WA7890008967, Hanford Facility Resource Conservation and Recovery Act Permit. At both T Plant and CWC, visitors are required to sign in and must adhere to all PPE requirements, and are subject to escorting protocols.

WAC 173-303-320 General inspection

General inspections in accordance with WAC 173-303-320 are conducted for each OUG according to the following table:

Inspection Requirements for Central Waste Complex Operating Unit Group		
Requirement	Frequency	Inspection Description
Posted warning signs	Weekly	Signs are present, legible, and visible.
Fire suppression systems	Weekly	Water, air, and temperatures are within range; systems are operational and pressurized. Valves are open, seal/lock is intact, water and air pressures are within range, and system is calibrated.
Spill response kits	Monthly/ Quarterly	Equipment is present, and seal is intact.
Fire extinguishers	Monthly	Equipment is present, and seal is intact and not past the expiration date.
First aid equipment/CPR kit	Monthly	Equipment is present, and seal is intact.
Particulate eye wash bottles and Portable eyewash stations	Monthly	Equipment is present and functional, and seal is intact and not past the expiration date.
Emergency response	Weekly/ Quarterly	Equipment is present, and seal is intact.
Emergency telephones	Monthly	Equipment is present and operating.
Windsocks	Monthly	Equipment is present and operating.
Containers/container storage areas	Weekly	Container integrity is not compromised by punctures, dents, penetrating scratches, loose lids, bulging, excessive corrosion, damage, or deterioration. Containers are closed and stored in a manner that will not rupture the containers or cause them to leak. Aisle spacing between rows of containers is at least 76cm (30 in.). For any portable secondary containment used to meet the requirements of WAC 173-303-630(7), verify that there is no deterioration of secondary containment system caused by corrosion or other factors and no evidence of spills or leaks.
Container labels	Weekly	Container marking/labeling is intact, unobscured, legible, and in good condition. Labels are visible, readable, and adequately identify risks.
Curbing, floor, and sumps	Weekly	Containment used meets the requirements of WAC 173-303-630(7). Verify no deterioration of containment curbing, flooring, and sumps caused by corrosion or other factors; no evidence of spills or leaks.
Ignitable or reactive waste	Annually	Storage is in compliance with WAC 173-303-630(8).

Inspection Requirements for T Plant Complex Operating Unit Group

Requirement	Frequency	Inspection Description
Posted warning signs	Weekly	Signs are present, legible, and visible.
Fire suppression systems	Monthly	Water, air, and temperatures are within range; systems are operational and pressurized.
		Valves are open, seal/lock is intact, water and air pressures are within range, and system is calibrated.
Spill response kits	NA	Equipment is present, and seal is intact.
Fire extinguishers	Monthly	Equipment is present, and seal is intact and not past the expiration date.
First aid equipment/CPR kit	Monthly	Equipment is present, and seal is intact.
Particulate eye wash bottles and Portable eyewash stations	Portable: Weekly while in use	Equipment is present and functional, and seal is intact and not past the expiration date.
Emergency response	Monthly	Equipment is present, and seal is intact.
Emergency telephones	Monthly	Equipment is present and operating.
Containers/container storage areas	Weekly	Container integrity is not compromised by punctures, dents, penetrating scratches, loose lids, bulging, excessive corrosion, damage, or deterioration. Containers are closed and stored in a manner that will not rupture the containers or cause them to leak. Aisle spacing between rows of containers is at least 76cm (30 in.). For any portable secondary containment used to meet the requirements of WAC 173-303-630(7), verify that there is no deterioration of secondary containment system caused by corrosion or other factors and no evidence of spills or leaks.
Container labels	Weekly	Container marking/labeling is intact, unobscured, legible, and in good condition. Labels are visible, readable, and adequately identify risks.
Curbing, floor, and sumps	Weekly	Containment used meets the requirements of WAC 173-303-630(7). Verify no deterioration of containment curbing, flooring, and sumps caused by corrosion or other factors; no evidence of spills or leaks.
Ignitable or reactive waste	Annually	Storage is in compliance with WAC 173-303-630(8).

WAC 173-303-330 Personnel Training

The Dangerous Waste Training Plans for each OUG meet the requirements of WAC 173-303-330. Introductory and continuing training programs are designed to prepare personnel to manage and maintain the facilities in a safe, effective, and environmentally sound manner. In addition to prepare personnel to manage and maintain the facilities under normal conditions, the training programs ensure that personnel are prepared to respond in a prompt and effective manner should abnormal or emergency conditions occur.

WAC 173-303-340 Preparedness and Prevention

The purposes of preparedness and prevention are to minimize the damage caused by a fire or explosion and help avoid or mitigate any unplanned sudden or nonsudden release of dangerous waste constituents to air, soil, surface water, or groundwater. The requirements of WAC 173-303-340 can be found throughout various procedures and include:

- Internal/External communications
- Emergency equipment
- Water for fire control
- Aisle Space Requirements
- Arrangements with local authorities

WAC 173-303-350 Contingency plan and emergency procedures

WAC 173-303-360 Emergencies

The Building Emergency Plans (BEPs) for each OUG (HNF-IP-0263-CWC, HNF-IP-0263-TPC) describe both the facility hazards and the basic responses to upset and/or emergency conditions within the facilities. These events may include spills or releases caused by processing, fires and explosions, transportation activities, movement of materials, packaging, storage of hazardous materials, and natural and security contingencies. When used in conjunction with Permit Attachment 4, *Hanford Management Plan*, the plans meets the requirements for contingency planning as required by WAC 173-303.

The Building Emergency Plans cover the following:

- Building emergency response organization
- Plan implementation
- Facility hazards (HW, DW, Industrial Hazards, Radioactive Materials, Criticality)
- Potential emergency conditions (facility operations emergencies, natural phenomena, security contingencies, unexpected/unidentified odors)
- Incident response (protective action, emergencies, prevention of recurrence, natural phenomena, security)
- Termination of event, incident recovery and restart of operations
- Emergency equipment
- Coordination agreements
- Required reports
- Plan location and amendments
- Facility/building emergency response organization

WAC 173-303-610 Closure and post-closure

A closure plan specific to each DWMU above was developed to comply with the requirements of WAC 173-303-610(2) through (6) and utilizing the U.S. Environmental Protection Agency (EPA) guidance document EPA/240/R-02/005, *Guidance on Choosing a Sampling Design for Environmental Data Collection (QA/G-5S)*, and Ecology Publication #94-111, *Guidance for Clean Closure of Dangerous Waste Units and Facilities*. Closure plans for each DWMU above were submitted to the Department of Ecology in the SWOC Part B permit application (DOE/RL-2015-74).

The storage and treatment design capacities and the date of the last dangerous waste received into each OUG DWMU are identified in the tables below. The maximum treatment capacities and maximum storage capacities have been updated to reflect values in the SWOC Part B permit application (DOE/RL-2015-74) submitted in January 2016.

**Treatment and Storage Capacities and Date of Last Dangerous Waste Receipt for T Plant Complex
Dangerous Waste Management Units**

DWMU	Maximum Treatment Capacity (mt/day)^a (DOE/RL-2015-74)	Maximum Storage Capacity (Liters) (DOE/RL-2015-74)	Date of Last Dangerous Waste Receipt
221-T Canyon Deck	296	858,600	4/30/2015
2706-T Building	296	56,600	5/25/2011
214-T Building	296	94,800	10/5/2015 ^b

^a Individual treatment units are permitted to process at the daily maximum treatment rate; however, the maximum treatment rate for all associated treatment units combined within T Plant cannot exceed 296 metric tons/day.

^b 214-T Building has received waste since the original request in April 2015.

**Treatment and Storage Capacities and Date of Last Dangerous Waste Receipt for Central Waste
Complex Dangerous Waste Management Units**

DWMU	Maximum Treatment Capacity (mt/day)^a (DOE/RL-2015-74)	Maximum Storage Capacity (Liters) (DOE/RL-2015-74)	Date of Last Dangerous Waste Receipt
2402-W Waste Storage Building	0	234,600	4/1/2008
2402-WC Waste Storage Building	0	234,600	11/19/2010
2402-WD Waste Storage Building	382	234,600	5/11/2011
2336-W Shipping and Receiving Area	0	138,500	10/22/2015*
2404-WB Waste Storage Building	0	1,879,000	8/6/2014

*2336-W Shipping and Receiving Area is included in the waste tracking for the 2336-W Building. The 2336-W Building has received waste since the original request in April 2015.

^a Individual treatment units are permitted to process at the daily maximum treatment rate; however, the maximum treatment rate for all associated treatment units combined within CWC cannot exceed 382 metric tons/day.