ADDENDUM I

INSPECTION REQUIREMENTS

This page intentionally left blank.

ADDENDUM I

INSPECTION REQUIREMENTS

Contents

I INSPECTION REQUIREMENTS

I.1 Inspection Plan

This section describes the method(s) and schedule for inspections of the T-Plant Complex treatment and storage areas. The purpose of inspections is to help ensure that situations do not exist that might cause or lead to the release of dangerous and/or mixed waste that could threaten human health and the environment. Problems or abnormal conditions identified by inspections are corrected on a schedule that prevents hazards to human health and the environment in accordance with the requirements of WAC 173-303-320(3). The Permittees shall ensure that the T-Plant Complex inspections meet the requirements of WAC 173-303-320(2), WAC 173-303-630(6) for containers, WAC 173-303-640(6) for tanks, WAC 173-303-680(2) for miscellaneous units, and 40 CFR 264.1101(c)(4) incorporated by reference at WAC 173-303-695 for containment buildings, as described in this Addendum.

I.1.1 General Inspection Requirements

The content and frequency of inspections are described in this section and in Table I.1. Inspections will be performed by trained and authorized operations personnel. An inspection schedule will be maintained and inspections will be documented on inspection data sheets. The T-Plant Complex operations supervisor will sign and date the appropriate inspection sheet after corrections are completed of any deficiencies discovered during the inspections. The schedule and inspection records will be retained in the T-Plant Complex operating record for a minimum of 5 years and contain the information specified in Permit Condition II.X.2.

I.1.1.1 Types of Problems

The T-Plant Complex treatment and storage areas will be inspected to assess conditions including, but not limited to, the following:

- Condition of the differential pressure monitoring for the containment building
- Condition of tanks
- Condition of containers
- Condition of the miscellaneous unit
- Condition of safety and emergency equipment
- Condition of secondary containment
- Condition of security equipment.

I.1.1.2 Frequency of Inspections

In accordance with WAC 173-303-320, the inspection schedule for the T-Plant Complex, including the frequency of inspections, is identified in Table I.1. Inspections will be performed by qualified personnel.

As required by WAC 173-303-395(1)(d), annual inspections will be performed on areas storing any ignitable and reactive waste by authorized personnel. The following information will be entered into the operating record.

- Date and time of the inspection
- Name of person who performed the inspection
- A notation of the observations made
- Any remedial actions taken as a result of this inspection.

I.1.2 Schedule for Remedial Action for Problems Revealed During Inspections

To prevent hazards to the human health and the environment, deficiencies found during inspections will be corrected in accordance with Permit Condition II.X.4. Conditions that do not pose an imminent hazard to human health and the environment will be corrected in a timeframe established by the Ecology and/or

facility management. For example, defects in floor coatings in the 2706-T and 2706-TA operational areas will be corrected before starting decontamination or waste treatment operations involving free liquids on the affected surfaces.

If inspections identify significant tank or container corrosion or leaks and/or spills in secondary containment, the resultant liquid will be removed on a schedule that prevents hazards to human health and the environment.

I.1.3 Specific Process Inspection Requirements

The following sections describe the specific process inspections performed at T-Plant Complex.

I.1.3.1 Container Inspection [WAC 173-303-630]

Waste containers will be inspected visually daily and weekly during waste handling operations where a potential for spills exists and before transfer or movement within T-Plant Complex. Inspections will be documented using inspection checklists and conditions will be recorded that require corrective action. Inspectors look for the following items:

- Open or improperly sealed containers
- Condition of containers (e.g., bulging, cracks, dents, gouges, rust, etc.)
- Proper labeling and marking
- Leaks and spills (e.g., moisture, drops, stains, pooling on floor, etc.).
- Segregation of incompatible wastes
- Appropriate aisle spacing
- Containment to meet the requirements of WAC 173-303-630(7)

I.1.3.2 Tank, Sump, and Secondary Containment Inspection

The following sections describe the inspection of T-Plant Complex tanks, sumps, and secondary containment The Permittees will inspect the tank systems according to the requirements in WAC 173-303-640.

I.1.3.2.1 2706-T Complex Tank System

The 2706-T Complex Tank System is currently out of service and is blanked off to prevent the addition and discharge from the tanks. The 2706-T Tank System will be inspected annually. The Permittees will submit a permit modification to modify the inspection frequency as part of placing the tanks into service. Inspectors look for the following:

- Standing liquid present in secondary containment and 2706-TB Building sump
- Ancillary equipment including water/fire/waste transfer lines, pumps, and tanks for signs of damage or leakage around flanges, valves, and man ways
- Tank cracks, corrosion, weld breaks, punctures, etc.
- Monitoring and leak detection equipment; annunciator panels and alarms; and overfill control inspection devices and gauges working (e.g., level alarms, level sensing devices, , bypass to standby tanks gauges)
- Condition of the seams, joints, corners, or areas where general deterioration occurs.

I.1.3.2.2 2706-T Building and 2706-TA Building Sumps and Secondary Containment

The 2706-T Building railroad pit sump, the 2706-TA Building sump, and the 2706-TA Building HVAC sump are components of the secondary containment system which serve to support the miscellaneous unit operations. These three sumps will be inspected weekly when waste is being stored in their respective buildings. Inspectors look for the following:

- Waste releases (i.e., any standing liquid present in secondary containment)

- Ancillary equipment including water/fire/waste transfer lines, pumps, and tanks for signs of damage or leakage around flanges, valves, and man ways
- Liner cracks, floor coating, corrosion, weld breaks, punctures, etc.
- Monitoring and leak detection equipment; annunciator panels and alarms.

I.1.3.2.3 221-T Tank System

The 221-T Tank System is an unclosed, non-operating tank system containing mixed waste residue. The 221-T Tank System will be inspected weekly. Due to ALARA considerations, inspectors look for the following:

- Monitoring and leak detection equipment, annunciator panels, and alarms
- Liquids in the 211-T Sump

I.1.3.3 Containment Building (221-T Cells) Inspection [WAC 173-303-695]

The containment building includes the 221-T Canyon Deck and the nine 221-T Cells. See Addendum C for additional information on these DWMUs. The containment building area will be inspected weekly when waste in managed in those areas. Inspections will be documented on surveillance data sheets. Inspectors look for the following items:

- Differential pressure of the 221-T Canyon Building to ensure containment
- Waste releases
- Monitoring and leak detection equipment, annunciator panels, and alarms are operable.

I.1.3.4 2706-T and 2706-TA Buildings Miscellaneous Unit Inspections [WAC 173-303-680]

Miscellaneous unit operations consist of activities involving free liquids and/or storage of non-containerized waste potentially containing feed liquids directly on 2706-T and 2706-TA Buildings operational area floors. Miscellaneous unit operations are subject to the requirements of this permit established to meet WAC 173-303-680 environmental performance standards for protection of human health and the environment during such operations. Operational area floors also will be inspected for degradation or damage to floor coatings weekly, and before and after decontamination or treatment activities involving free liquids or storage of non-containerized waste potentially containing free liquids. Any necessary floor or coating repairs will be performed before commencement of further operations involving free liquids. When non-containerized dangerous and/or mixed waste potentially containing free liquids is stored in the 2706-T and/or the 2706-TA Building, exterior building surfaces and the area immediately surrounding the building(s) will be inspected weekly. Inspection activities will include checking outside the building(s) for liquid accumulations or ground subsidence and visually surveying the various components of the exterior structure to verify that building(s) are intact and not damaged or deteriorated. Inspections will be documented on surveillance data sheets.

I.1.3.5 General Facility [WAC 173-303-320]

The T-Plant Complex will be inspected to ensure that the general facility operating requirements are met. The inspection frequencies are detailed in Table I.1 and address the following areas:

- Safety and emergency equipment
- Security

I.1.4 Inspection Log

Observations, deficiencies, and corrective actions noted during an inspection will be recorded on the inspection checklist. On completion, the checklist will include the inspector's printed name, signature, date, and time. The completed checklist will be submitted for management review and approval. After approval, the checklist will be kept in the Hanford Facility Operating Record, T-Plant Complex File.

Problems identified during the inspections will be prioritized and addressed in a timely fashion as appropriate to mitigate health risks to personnel, and to maintain integrity of waste management units.

1 **Table I.1 WAC 173-303-320(2) Consolidated Inspection Schedule**

Containers		
Areas subject to spills	Daily[1]	Check for spills
Discrepant Containers (as identified in Addendum B)	Weekly[1]	Check for spills
Uncharacterized WRP Waste	Weekly[1,2]	Check for leaks, spills, and deterioration of containers.
Container storage areas	Weekly[2]	Check for leaks, spills, accumulated liquids, and open and properly sealed containers
Container labels	Weekly[2]	Check for visible, readable; and adequate identification of risks
Containers/container storage areas including aisle space	Weekly[2]	Check for deterioration of containers, containment systems, or cracks in protective coating or foundations cause by corrosion, mishandling, or other factors; minimum aisle space less than 30", rows of drums more than 2 drums wide, and segregation of incompatible wastes
Tank Systems		
221-T Tank System (Tank 5-7 and Sump 5-8)	Weekly	Check tank level remote indicators, annunciator panels, and alarms.
2706-TB Tank System	Annually[3]	Check for leaks, spills, and accumulated liquids, monitoring and leak detection equipment, annunciator panels, and alarms.
2706-T Railroad Pit Sump 2706-TA Sump 2706-TA HVAC Sump	Weekly	Check for leaks, spills, and accumulated liquids. Check ancillary equipment for signs of damage or leakage around flanges, and valves. Monitoring and leak detection equipment; annunciator panels and alarms.
Containment Building		
Differential Pressure gauge	Weekly[2]	Check negative pressure is being pulled in the canyon from the ventilation system
Waste releases	Weekly[2]	Check containment of the waste.

[1] To implement WAC 173-303-320(2)(c), "daily when in use" is defined as when dangerous waste management activities have a potential for spill to occur such as moving containers.

[2] Weekly inspection logs prepared to meet WAC 173-303-630(6) will be completed when dangerous waste is being managed within the T-Plant storage areas. If the storage area is empty, "no waste in storage" or equivalent words will be entered on the inspection log.

[3] When dangerous waste is being managed.

[4] Annually when not containing waste.

Miscellaneous Unit		
Building exterior surfaces	Weekly[3]	Check outside the building(s) for liquid accumulations or ground subsidence and visually surveying the various components of the exterior structure
Operational area floors	Weekly[4]	Check for cracks gaps, corrosion, or other deterioration that could allow releases of waste
General Facility		
Safety shower/eye wash stations,	Monthly[2]	Verify equipment is present and functional
Portable safety shower/eye wash stations	Monthly[4]	Verify equipment is present and functional
Posted warning signs	Weekly	Verify signs are present, legible, and visible at 25 feet
Spill response kits	Quarterly	Verify equipment is present and functional
Automatic fire suppression systems, and fire extinguishers	Monthly	Verify equipment is present, functional and pressurized
Ignitable or reactive waste	Annual	Storage in compliance with Hanford Site fire protection standards and WAC 173-303-630(8)

1
2

1
2
3 **This page intentionally left blank.**