WASTE TREATMENT OF IMMOBILIZATION PLANT
CHAPTER 6A
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CHANGE CONTROL LOG

Change Control Logs ensure that changes to this unit are performed in a methodical, controlled, coordinated, and transparent manner. Each unit addendum will have its own change control log with a modification history table. The "**Modification Number**" represents Ecology's method for tracking the different versions of the permit. This log will serve as an up to date record of modifications and version history of the unit.

Modification History Table

Modification Date	Modification Number
11/29/2017	8C.2017.4D
09/05/2017	8C.2017.6F
08/2011	

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INSPECTION PLAN

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TABLES

ACRONYMS

ALARA	As Low As Reasonably Achievable
EMF	Effluent Management Facility
HLW	High-Level Waste
IHLW	Immobilized HLW
ILAW	Immobilized LAW
LAW	Low-Activity Waste
WTP	Waste Treatment and Immobilization Plant

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CHAPTER 6A
INSPECTION PLAN

6A.0 INSPECTION PLAN

The following sections describe the Waste Treatment and Immobilization Plant (WTP) dangerous waste inspection plan. The WTP Inspection ~~p~~Plan uses a graded approach to preventing and detecting malfunctions, deterioration, operator errors, and discharges that range from daily inspections to integrity assessments. This graded approach is comprised of activities that, at a minimum, meets the inspection requirements in Washington Administrative Code (WAC) 173-303-320 and includes more precautions for equipment at higher risk of failure. Monitoring via instrumentation will be used to perform remote inspections in areas of high radioactivity, including, but not limited to, the Pretreatment Areas, Low Activity Waste (LAW) vitrification area, Analytical Laboratory (Lab), Effluent Management Facility (EMF) and the High Level Waste (HLW) vitrification area. Due to the radioactive nature of the waste and consistent with as low as reasonably achievable (ALARA) principles, monitoring by instrumentation is the primary means of fulfilling the inspection requirements in these areas. The WTP also use cameras, windows, process control, function checks, and preventive maintenance to comply with inspection requirements.

The inspections for various facilities are provided in Table 6A-1 through Table 6A-7 of this inspection schedule. Each table addresses a particular dangerous waste management unit, or group of units, such as tanks. Within each dangerous waste management unit table, the inspections are presented by system, and are further broken down by individual component. Once a dangerous waste management unit receives dangerous and/or mixed waste, the inspection criteria and frequencies detailed in the tables for each specific unit (Table 6A-1 through 6A-7) will be active. Controlled copies of the inspection plan will be kept at the WTP facility.

The WTP has no waste pile units, surface impoundment units, incinerator units, landfill units, or land treatment facilities. The requirements for inspection of these units and activities are not applicable to the WTP and are not included in this inspection schedule.

6A.1 GENERAL INSPECTION REQUIREMENTS

This section describes general, WTP-wide inspection requirements used to help prevent, detect, or respond to environmental or human health hazards related to dangerous and/or mixed waste handling, treatment, and storage at the WTP.

6A.1.1 Inspection Methods

The method of inspection is how an inspection is to be performed. The three primary methods of inspection identified and required by this inspection plan are described below.

Methods of Inspection	
Physical	An inspection conducted physically in person (e.g. maintenance or operator). A physical inspection requires the physical presence of the inspector at the item of inspection and is not to be confused with a remote inspection. Due to accessibility limitation, physical inspections may be conducted with the aid of instruments (e.g., borescope, mirrors).
Remote	An inspection conducted by one or all of the following methods: closed-circuit television, observation windows, control panels, process control system, or any other inspection that is not conducted physically in person.
Functional	An inspection conducted by operating or testing the item being inspected to determine if equipment/instrument is operating correctly and capable of performing its function.

Due to the radioactive nature of the waste and consistent with ALARA principles, remote inspections are the primary method of conducting inspections for several facilities at WTP. Areas of higher radiation have been identified for all of the operating facilities, i.e. ~~l~~Lab, Pretreatment, LAW vitrification area, HLW vitrification area and EMF. Unless otherwise stated in this permit, inspections of equipment, items, and systems are performed as physical inspections.

6A.1.2 Inspection Frequencies

The frequency of inspection is how often (at a minimum) an inspection must be performed. For the purposes of this inspection schedule, the various inspection frequencies have been established with sufficient conservatism to be protective of human health and the environment. The inspection frequencies most frequently used in this plan are outlined below.

Inspection Frequencies	
Frequency	**Definition**
Daily	Once per calendar day
Weekly	Once per calendar week*
Monthly	Once per calendar month
Bimonthly	Once every other calendar month
Quarterly	Once per calendar quarter
Semi-Annual	Once per 6-month calendar period
Annually	At least once during a 12-month period +/- 30 days

*Washington Administrative Code requires some dangerous waste inspections to be completed every 7 days. Affected inspections are identified in the Inspection Tables.

6A.1.3 Suspended Inspections

When a dangerous waste management unit is no longer receiving, managing, or treating waste, the unit's specific inspections may be suspended. During these situations, inspections can be suspended until the affected system is placed back into dangerous waste operation. Prior to resuming dangerous waste operations, "initial" inspections will be conducted when the system is brought back online and regularly scheduled inspections are resumed. Inspections detailed in Table 6A-1 cannot be suspended.

In the case an inspection has been suspended prior to the expiration of the next scheduled inspection, the inspection requirement is satisfied by performing the inspection prior to resuming dangerous waste operations. In the case of suspended daily inspections, the initial (restart) inspection satisfies the daily inspection requirement for that day. All suspended inspections will be documented in the inspection log described in Section 6A.2. The decision to suspend a permit required inspection requires verbal notification to the Department of Ecology.

6A.2 INSPECTION LOG

Inspection checklists will be used to document completion of the inspection schedule in this plan. These checklists will be records of the items contained in the inspection schedule and will be kept as a hardcopy or an electronic copy. Records of completed inspections will include the date and time of inspection; the legible, printed name and hand written signature of the inspector (or equivalent), a notation of the observations made, an account of spills or discharges and the date and nature of any repairs or remedial actions taken.

Personnel performing these inspections will be appropriately trained and qualified in the system being inspected~~ion~~ as prescribed in Chapter 8.0, Personnel Training. When performing the inspection, the inspector will note all observations and deficiencies on the inspection sheet. Inspection deficiencies

discovered by the inspector and corrective actions that have been initiated are delegated to responsible individuals in the operations group. Completed and/or suspended inspection checklists are stored in the WTP operating record for at least 5 years from the date of the inspection.

6A.3 SCHEDULE FOR REMEDIAL ACTION FOR PROBLEMS REVEALED

6A.3.1 Remedies

Problems revealed by inspections will be corrected on a schedule that prevents hazards to the public health and environment. If inspections show that nonemergency maintenance is required, maintenance is completed as soon as possible to prevent further damage and to reduce the need for subsequent emergency response. Non-emergency corrective actions will be initiated within 24 hours if possible; however, additional response time may be required because of the radioactive component of the waste being managed at the WTP. Where a hazard is imminent or has already occurred, remedial actions are taken immediately to prevent equipment damage and prevent hazards to human health and the environment.

If an inspection identifies a fire, explosion, or release involving a dangerous waste, or an imminent hazard to human health or the environment, the WTP Contingency Plan, Chapter 7.0, is followed.

6A.4 SPECIFIC PROCESS OR WASTE TYPE INSPECTION REQUIREMENTS

6A.4.1 Container Inspections

The WTP will store immobilized low-activity waste (ILAW) in containers and immobilized high-level waste (IHLW) in canisters, and secondary dangerous and mixed waste in containers. For purposes of IHLW, the term canisters are used to specifically address the unique disposal requirements of the filled containers. Throughout this section, general references to containers also applies to the IHLW canisters. Inspections of container storage areas will be performed weekly when waste is in the storage areas.

Immobilized Low-Activity Containers and High-Level Waste Canisters

Filled ILAW containers and IHLW canisters will be radioactive and thus, inspections must be performed remotely. Therefore, in lieu of conventional container inspections while the containers are in storage, each container will be inspected before and after filling, and when it is moved into and out of the ILAW and IHLW containment buildings or container storage areas. The containers will not contain free liquids, will be chemically and physically stable (not ignitable or reactive), and will have either a welded closure (IHLW) or pressed fitted closure seal (ILAW). The IHLW canisters will be placed in special racks inside the storage areas that will prevent them from toppling.

The WTP will inspect the ILAW and IHLW container storage or containment building areas, when they are in use, weekly by remote means. As specified in III.10.D.4.b.ii, these remotely managed storage areas are exempt from the 30-inch aisle spacing. ILAW and IHLW containers/canisters aisle spacing is anticipated to be in the range of 4 to 16 inches, as described in Chapter 4E.1.2.1 and 4F.1.2.1, respectively. ~~Table 6A-2~~ Table 6A-3a and Table 6A-4a details the methods and criteria used to inspect the ILAW containers and IHLW canisters, respectively.

The dangerous waste container labeling requirements will be met by using a unique alphanumeric identifier that will be welded to each container. Deterioration of the identifier is not expected due to the permanent nature of these markings and provisions for subsequent handling that will safeguard against damage to the containers and the identifying marks.

Using the identification on each container, a tracking system will record key movements of each immobilized waste container through the facility. Information about the waste canister tracking system is in Chapter 4.0. For each container of ILAW and IHLW produced, the system will track the following:

- The location of each container in process and storage areas
- The date that waste was first placed in the container
- The date the container was shipped from the facility, and its destination
- The nature of waste in the container, including dangerous waste designation codes, and land disposal restriction requirements

Secondary and Miscellaneous Waste in Containers

Secondary waste refers to newly generated waste (or a waste by-product from treating the Hanford tanks waste) that is designated as dangerous waste or mixed waste. Secondary waste will be generated at the WTP, for example, waste associated with laboratory activities, maintenance activities and failed contaminated equipment.

6A.4.2 Tank Systems Inspections, Assessments and Corrective Actions

6A.4.2.1 Tank System Inspections

A description of the tank systems, and their safety and interlock controls, at the WTP can be found in Chapter 4. Access to regulated tanks for inspection and integrity assessments must be consistent with keeping radiation exposure ALARA. Each tank or grouping of identical tanks is shown as a line item in the facility specific inspection schedule, ~~Table 6A-3~~ in Table 6A-3b, Table 6A-4b, Table 6A-5b, and Table 6A-6b. Each inspection item includes a description of problems to look for and the frequency of inspection. The inspection will address the tanks overfill and spill control equipment, data gathered from monitoring and leak detection equipment, construction materials, the area immediately surrounding the externally accessible portion of the tank as well as secondary containment system.

6A.4.2.2 Tank System Integrity Assessments

Periodic integrity assessments will be performed over the life of the regulated tank systems to assure they retain their structural integrity and will not collapse, rupture, or fail. The frequency of integrity assessments will be based on the potential for corrosion and erosion. The classification system allows extra assessment efforts to be focused on tank system that may have the highest potential consequences if failure or loss of containment should occur.

Assessment of equipment with lower potential for corrosion and erosion with accessible areas or hot cells is made during the routine or maintenance outages and within 10 years after start of hot commissioning at selected accessible points where baseline Non-Destructive Examination (NDE) measurements had been taken. Subsequent integrity assessments will be based on the results of previous integrity assessments, the age of the equipment, materials of construction, characteristics of the waste, and any other relevant factors, but there will be no more than 10 years between integrity assessments.

Assessment of equipment with higher potential for corrosion and erosion within accessible areas is made during routine or maintenance outages and within 7 years after the start of hot commissioning at selected accessible points where baseline NDE measurements had been taken. Subsequent integrity assessments will be based on the results of previous integrity assessments, the age of the equipment, materials of construction, characteristics of the waste, and any other relevant factors but there will be no more than 7 years between integrity assessments.

6A.4.2.3 Tank Systems – Corrective Actions

If a leak or spill of dangerous and/or mixed waste is detected in a secondary containment system during the course of an inspection, the permittee will follow the remedial actions found in permit conditions III.10.E.5.i.i through III.10.E.5.i.v.

6A.5 STORAGE OF IGNITABLE OR REACTIVE WASTES

Small amounts of ignitable (D001) and reactive (D003) waste may be generated as secondary waste during maintenance and laboratory operations. Management of this waste will be performed either in Lab Pack Room (A-0139A) or Waste Drum Management Room (A-0139), in accordance with WAC 173-303-395. Annual inspections of all areas managing D001 and D003 waste will be conducted by personnel familiar with the International Fire Code, or in the presence of the local, state, or federal fire marshal. The date and time of the inspection, the name of the inspector or fire marshal, a notation of the observation made, and any remedial actions, will be documented in the inspection log.

6A.5.1 Secondary and Miscellaneous Waste in Containers

Container Storage Areas managing secondary and/or miscellaneous wastes are inspected at least every seven days. Inspections of container storage areas include verifying major risk labels are present and legible, that all containers are closed, and area and aisle space is free of liquid and debris. Additional inspection criteria are included in the container storage inspection tables at the end of this chapter.

6A.6 AIR EMISSIONS CONTROL AND DETECTION

6A.6.1 Air Emissions from Process Vents (Subpart AA)

The WTP does not use any of the regulated devices or processes listed; therefore, the WTP will not be subject to regulation under Subpart AA (40 CFR 264).

6A.6.2 Air Emission Standards for Equipment Leaks (Subpart BB)

The WAC 173-303-691 and Subpart BB (40 CFR 264) applies to equipment that contains or contacts hazardous wastes with organic concentrations of at least 10 percent by weight. This provision will not apply to the facility because the WTP will not accept or treat wastes with organic concentrations at or above 10 percent by weight. Compliance with this provision will be documented through analyses of verification samples, as described in the Waste Analysis Plan.

6A.6.3 Air Emission Standards for Tanks and Containers (Subpart CC)

The regulations specified under WAC 173-303-692 and 40 CFR Part 264 Subpart CC, incorporated by reference, do not apply to the WTP mixed waste tank systems and containers. These tanks and containers qualify as waste management units that are "used solely for the management of radioactive dangerous waste in accordance with all applicable regulations under the authority of the Atomic Energy Act and the Nuclear Waste Policy Act" and are excluded under WAC 173-303-692(1)(b)(vi).

Containers or tanks bearing nonradioactive, dangerous waste, such as maintenance and laboratory waste, that are not excluded under WAC 173-303-692(1)(b)(ii) or 40 CFR 264.1082(c), will comply with the container and tank standards specified under 40 CFR part 264 Subpart CC.

Table 6A-1 General Facility Inspections[1]			
Security Devices			
WTP inner fence (i.e., active portion)	Check for appearance, damage and tampering.	Monthly	Physical
Warning signs to read "DANGER – UNAUTHORIZED PERSONNEL KEEP OUT"	Verify signs are present, legible from a distance of 25 ft, and visible; ensure buildings or rooms containing dangerous and/or missed waste are posted.		
Points of access to active portions turnstiles, doors, and/or magnetic encoded bar readers	Verify operability	Monthly	Functional
Emergency Preparedness Equipment			
Safety showers and eyewash stations	Verify operability and sufficient pressure	At least every seven days	Physical
Fire Detectors	Check for appearance, damage or signs of tampering	Semi-Annual	Physical
	Verify operability	Annually	Functional
Automatic fire suppression system(s)	Verify operability	Annually	Functional
Portable fire extinguishers (all types)	Check for adequate charge	Monthly	Physical
Emergency and exit lighting	Test operability	Monthly	Functional
Spill kit and spill control equipment	Verify contents complete	Quarterly	Physical
Personal protective clothing and equipment	Ensure supplies meet ERP listing and requirements	Quarterly	Physical
Communications Equipment			
Emergency sirens and alarms	Verify operability	Monthly	Functional
Voice paging system (pagers or PA system)			
Emergency telephones			
Power Supply Inspections			
Emergency uninterruptible power supply system(s)	Verify operability	Annual	Functional
Emergency turbine generator	Perform no-load test and verify sufficient fuel	Annual	Functional

[1] Applies to active portions (i.e., Laboratory) of the WTP Facility

Table 6A-2 Lab Inspection Plan

Table 6A-2a Lab Container Storage Inspections

Dangerous and Mixed Waste Container Storage Areas			
Laboratory Waste Management Areas (A-0139) (A-0139A/B/C/D)	Verify major risk labels present and legible, ensure all containers are closed; Check that container storage areas are free of liquid and debris; Check for significant cracks, gaps, and other signs of deterioration of storage area floors; Verify minimum 30 inches of aisle space between containers; Verify that any dangerous and or mixed waste container holding free liquids have portable secondary containment and no liquids accumulated in portable secondary containment	At least every seven days	Physical
Container Storage areas storing ignitable or reactive waste	Inspect, by professional person or in the presence of a fire marshal for compliance with the International Fire code	Annual	Physical

Table 6A-2b Lab Tank System and Ancillary Equipment Inspections

Analytical Laboratory Tank System: RLD-VSL-00164 RLD-VSL-00165[2]			
Tank level switches and transmitters	Check for proper operation and review of alarm status	Daily	Remote
	Check Interlock Initiation	Weekly	Remote
Spill control equipment/overfill controls	Check for proper operation	Daily	Remote
Tank integrity assessment[1]	Operating history review	2 years	N/A
	Visual inspections	2 years	Physical or Remote
	Nondestructive examination	10 years	Physical
Secondary Containment Sump Systems: Sumps associated with RLD-VSL-00164: RLD-SUMP-00041 Sumps associated with RLD-VSL-00165: RLD-SUMP-00042, -00043A/B, -00044, -00045			
Level switches and transmitters	Check for proper operation and review of alarm status	Daily	Remote
Sump integrity assessment*	Operating history review	2 years	N/A
	Visual inspection	2 years	Physical or Remote
	Nondestructive examination[3]	10 years	Physical
Leak Detection Boxes Leak Detection Boxes associated with RLD-VSL-00164: RLD-LDB-00005, -00006, -00007, -00008, -00011 Leak Detection Boxes associated with RLD-VSL-00165: RLD-LDB-00002, -00004, -00009			

[2] Inspections apply to active portions of the facility. RLD-VSL-00165, including associated sumps and leak detection boxes, will not be active under the DFLAW configuration.
[3] Nondestructive examination will only be conducted for sumps that were found to have managed dangerous waste during the operating history review.

Table 6A-2b Lab Tank System and Ancillary Equipment Inspections			
Level switches and transmitters	Check for proper operation and review of alarm status	Daily	Remote
Integrity assessment	Operating history review	2 years	N/A

Table 6A-3 ~~Example~~ Low Activity Waste Inspection Plan

Table 6A-3a ~~Example~~ LAW Containment Building and Container Storage Inspections

LAW Containment Rooms

LAW LSM Gallery: L-0112

LAW Container Finishing Line: L-0109B, L-0109C, L-0109D, L-0109E, L-0115B, L-0115C, L-0115D, L-0115D, L-0115E

LAW Consumable Import/Export Containment Building: L-0119B

LAW C3 Workshop Containment Building: L-0226A

LAW Pour Cave Containment: L-B009B, L-BO11B, L-B011E, L-B013B, L-B013C, L-B015A

ILAW Container Buffer Storage Containment Building: L-B025C, L-B025D

Item	Inspection	Frequency	Method
Building exterior	Inspect the area immediately surrounding the containment building to detect signs of releases of dangerous waste	At least every seven days	Physical
Interior rooms	Inspect floor and walls for significant cracks, gaps, corrosion, or other signs of deterioration; look for liquids on floor		
	Check differential pressure monitoring records to ensure negative pressure in containment building area		
Container Storage areas storing ignitable or reactive waste	Inspect, by professional person or in the presence of a fire marshal for compliance with the International Fire code	Annual	Physical
Immobilized ILAW Container Storage in Containment Buildings			
ILAW containers	Inspect that unique alphanumeric identifier is welded to ILAW container and is legible	Prior to placing in storage	Remote
Filled ILAW containers[4]	Inspect each container for cracks, leaks, bulges, or other abnormalities	After sealing container	Remote
	Record in tracking system each container's location when placed in storage; Record in tracking system all container location changes if container(s) are moved while in storage; Verify container in recorded location when transporting container out of WTP storage	Within 48 hours of placing or moving each container	Remote

[4] Direct access to containers of ILAW for the purposes of inspection is precluded due to high radioactivity levels; therefore, ILAW containers are exempt from the 30-inch aisle requirements (III.10.D.4.b.ii)

1

Table 6A-3b ~~Example~~ LAW Tank System and Ancillary Equipment Inspections

Component Name
LCP: LCP-VSL-00001, -00002
LFP: LFP-VSL-00001, -00002, -00003, -00004
LVP: LVP-TK-00002
LOP: LOP-VSL-00001, -00002
RLD: RLD-VSL-00003, -00004, -00005

Item	Types of Problems/Inspections	Frequency	Method
Tank level switches and transmitters	Check for proper operation and review of alarm status	Daily	Remote
	Check interlock initiation	Weekly	Remote
Spill control equipment/overfill controls	Check for proper operation	Daily	Remote
Tank integrity assessment	Operating history review	TBD	TBD
	Visual inspections	TBD	TBD
	Nondestructive examination	TBD	TBD
Secondary Containment Sump System:			
Level switches and transmitters	Check for proper operation and review of alarm status	Daily	Remote
Sump integrity assessment	Operating history review	TBD	TBD
	Visual inspection	TBD	TBD
	Nondestructive examination	TBD	TBD

2
3

Table 6A-3c ~~Example~~ LAW Miscellaneous Treatment Unit Inspections

Item	Plant Item number	Types of Problems/Inspections	Frequency	Method
LAW Melter Process System (LMP)				
LAW melter 1 LAW melter 2	LMP-MLTR-00001 LMP-MLTR-00002	Check for damage, leaks, or abnormalities	Daily	Remote
		Inspect melter level monitoring data to prevent overflow		
LAW Primary Offgas Process System (LOP)				
Melter 1 and melter 2 submerged bed scrubbers	LOP-SCB-00001 LOP-SCB-00002	TBD	TBD	Remote
Melter 1 and melter 2 wet electrostatic precipitators	LOP-WESP-00001 LOP-WESP-00002	TBD	TBD	Remote
Primary/standby film coolers	LOP-FCLR-00001 LOP-FCLR-00002 LOP-FCLR-00003 LOP-FCLR-00004	TBD	TBD	Remote
LAW Secondary Offgas/Vessel Vent Process (LVP)				
Melter offgas caustic scrubber	LVP-SCB-00001	TBD	TBD	Remote
Melter offgas HEPA	LVP-HEPA-00001A/B	TBD	TBD	Remote

Table 6A-3c ~~Example~~ LAW Miscellaneous Treatment Unit Inspections

Item	Plant Item number	Types of Problems/Inspections	Frequency	Method
filters	LVP-HEPA-00002A/2B LVP-HEPA-00003A			
Thermal catalytic oxidizer	LVP-SCO-00001	TBD	TBD	Remote
NO_x selective catalytic reduction unit	LVP-SCR-00001	TBD	TBD	Remote
Melter offgas HEPA preheaters	LVP-HTR-00001A/1B	TBD	TBD	Remote
Catalytic oxidizer electric heater	LVP-HTR-00002	TBD	TBD	Remote
Catalytic oxidizer heat recovery unit	LVP-HX-00001	TBD	TBD	Remote
Offgas mercury adsorbers	LVP-ADBR-00001A/1B	TBD	TBD	Remote
Melter offgas exhausters	LVP-EXHR-00001A/1B/1C	TBD	TBD	Remote

Table 6A-4 ~~Example~~ Effluent Management Facility Inspection Plan

Table 6A-4a ~~Example~~ EMF Containment Building and Container Storage Inspections

Item	Inspection	Frequency	Method
Building exterior	Inspect the area immediately surrounding the containment building to detect signs of releases of dangerous waste	At least every seven days	Physical
Interior rooms	Inspect floor and walls for significant cracks, gaps, corrosion, or other signs of deterioration; look for liquids on floor		
	Check differential pressure monitoring records to ensure negative pressure in containment building area		
Container Storage areas storing ignitable or reactive waste	Inspect, by professional person or in the presence of a fire marshal for compliance with the International Fire code	Annual	Physical

Table 6A-4b ~~Example~~ EMF Tank System and Ancillary Equipment Inspections

Component Name	Types of Problems/Inspections	Frequency	Method
DEP: DEP-VSL-00001, -00002, -00003A, -00003B, -00003C, 00004A, -00004B, -00005A, -00005B			
Tank level switches and transmitters	Check for proper operation and review of alarm status	Daily	Remote
Spill control equipment/overfill controls	Check interlock initiation	Weekly	Remote
Tank integrity assessment	Check for proper operation	Daily	Remote
	Operating history review	TBD	TBD
	Visual inspections	TBD	TBD
Secondary Containment Sump System:			
Level switches and	Check for proper operation and review of alarm status	Daily	Remote

Table 6A-4b ~~Example~~ EMF Tank System and Ancillary Equipment Inspections

Component Name	Types of Problems/Inspections	Frequency	Method
DEP: DEP-VSL-00001, -00002, -00003A, -00003B, -00003C, 00004A, -00004B, -00005A, -00005B			
transmitters			
Sump integrity assessment	Operating history review	TBD	TBD
	Visual inspection	TBD	TBD
	Nondestructive examination	TBD	TBD

Table 6A-4c ~~Example~~ EMF Miscellaneous Treatment Unit Inspections

Item	Plant Item number	Types of Problems/Inspections	Frequency	Method
DEP evaporator separator	DEP-EVAP-00001	TBD	TBD	TBD
DEP evaporator reboiler	DEP-RBLR-00001	TBD	TBD	TBD
Evaporator primary condenser	DEP-COND-00001	TBD	TBD	TBD
Evaporator intercondenser	DEP-COND-00002	TBD	TBD	TBD
Evaporator after condenser	DEP-COND-00003	TBD	TBD	TBD
Process condensate lagga storage transfer line filter	DEP-FILT-00002	TBD	TBD	TBD
Evaporator Feed prefilter	DEP-FILT-00003	TBD	TBD	TBD
Condensate duplex cartridge filter	DEP-FILT-00004A DEP-FILT-00004B	TBD	TBD	TBD
Concentrate effluent cooler	DEP-HX-00001	TBD	TBD	TBD
Process Ventilation primary HEPA	DVP-HEPA-00003A DVP-HEPA-00003B	TBD	TBD	TBD
Process Ventilation secondary HEPA	DVP-HEPA-00004A DVP-HEPA-00004B	TBD	TBD	TBD
Process Ventilation Heater	DVP-HTR-00001A/B	TBD	TBD	TBD
Process Ventilation Exhauster	DVP-EXHR-00001A/B	TBD	TBD	TBD

Table 6A-5 ~~Example~~ High Level Waste Inspection Plan

Table 6A-5a ~~Example~~ HLW Containment Building and Container Storage Inspections

Item	Inspection	Frequency	Method
Containment Building Inspections			
Building exterior	Inspect the area immediately surrounding the containment building to detect signs of releases of dangerous waste	At least every seven days	Physical
Interior rooms	Inspect floor and walls for significant cracks, gaps, corrosion, or other signs of deterioration; look for liquids on floor		
	Check differential pressure monitoring records to ensure negative pressure in containment building area		
Dangerous and/or Mixed Waste Container Storage Inspections			
HLW east corridor (HC-0108/0109/0110) HLW loading area (H-0130)	Verify major risk labels present and legible, ensure all containers are closed; Check that container storage areas are free of liquid and debris; Check for significant cracks, gaps, and other signs of deterioration of storage area floors; Verify minimum 30 inches of aisle space between containers; Verify that any dangerous and or mixed waste container holding free liquids have portable secondary containment and no liquids accumulated in portable secondary containment	At least every seven days when in use	Physical
Container Storage areas storing ignitable or reactive waste	Inspect, by professional person or in the presence of a fire marshal for compliance with the International Fire code	Annual	Physical
HLW Vitrification Plant Canister Storage Area			
IHLW canisters	Inspect that unique alphanumeric identifier is welded to IHLW canister and is legible	Prior to placing in storage	Remote
Filled IHLW canisters[5]	Inspect each container for cracks, leaks, bulges, or other abnormalities	After sealing container	Remote
	Record in tracking system each container's location when placed in storage; Record in tracking system all container location changes if container(s) are moved while in storage; Verify container in recorded location when transporting container out of WTP storage	Within 48 hours of placing or moving each container	Remote
IHLW canister storage cave (H-0132)	Inspect for deformities in storage area floors or debris in storage area	At least every seven days when in use	Remote

[5] Direct access to IHLW for the purposes of inspection is precluded due to high radioactivity levels; therefore, IHLW canisters are exempt from the 30-inch aisle space requirements (III.10.D.4.b.ii).

Table 6A-5b ~~Example~~ HLW Tank System and Ancillary Equipment Inspections

High Level Waste Tank System:
HOP: HOP-VSL-00903, -00904
HDH: HDH-VSL-00001, -000002, -000003, -00004
RLD: RLD-VSL-00002, -00007, -00008
HFP: HFP-VSL-00001, -00002, -00005, -00006
HSH: HSH-TK-00001, -00002

Item	Types of Problems/Inspections	Frequency	Method
Tank level switches and transmitters	Check for proper operation and review of alarm status	Daily	Remote
	Check Interlock Initiation	Weekly	Remote
Spill control equipment/overfill controls	Check for proper operation	Daily	Remote
Tank integrity assessment	Operating history review	TBD	TBD
	Visual inspections	TBD	TBD
	Nondestructive examination	TBD	TBD
Secondary Containment Sump System:			
Level switches and transmitters	Check for proper operation and review of alarm status	Daily	Remote
Sump integrity assessment	Operating history review	TBD	TBD
	Visual inspection	TBD	TBD
	Nondestructive examination	TBD	TBD

1

Table 6A-5c ~~Example~~ HLW Miscellaneous Treatment Unit Inspections

Item	Plant Item number	Types of Problems/Inspections	Frequency	Method
LAW Melter Process System (LMP)				
HLW melter 1 HLW melter 2	HMP-MLTR-00001 HMP-MLTR-00002	Check for damage, leaks, or abnormalities	Daily	Remote
		Inspect melter level monitoring data to prevent overflow		
Melter Offgas Treatment Process System (HOP)				
Submerged bed scrubber	HOP-SCB-00001 HOP-SCB-00002	TBD	TBD	TBD
Wet electrostatic precipitators (WESP)	HOP-WESP-00001 HOP-WESP-00002	TBD	TBD	TBD
Thermal catalytic oxidizer	HOP-SCO-00001 HOP-SCO-00004	TBD	TBD	TBD
NOx selective catalytic reduction units	HOP-SCR-00001 HOP-SCR-00002	TBD	TBD	TBD
Silver mordenite columns	HOP-ABS-00002 HOP-ABS-00003	TBD	TBD	TBD
HEPA filters	HOP-HEPA-00001A/B HOP-HEPA-00002A/B HOP-HEPA-00007A/B HOP-HEPA-00008A/B	TBD	TBD	TBD
Melter offgas film coolers	HOP-FCLR-00001/3 HOP-FCLR-00002/4	TBD	TBD	TBD
Catalyst skid preheaters	HOP-HX-00001 HOP-HX-00003	TBD	TBD	TBD

Table 6A-5c ~~Example~~ HLW Miscellaneous Treatment Unit Inspections				
Item	**Plant Item number**	**Types of Problems/Inspections**	**Frequency**	**Method**
HEPA preheaters	HOP-HTR-00001B HOP-HTR-00002A HOP-HTR-00005A HOP-HTR-00005B	TBD	TBD	TBD
Catalyst skid electric Heaters	HOP-HTR-00007 HOP-HTR-00001	TBD	TBD	TBD
Silver mordenite preheaters	HOP-HX-00002 HOP-HX-00004	TBD	TBD	TBD
Stack extraction fans	HOP-FAN-00008A HOP-FAN-00008B HOP-FAN-00008C HOP-FAN-00010A HOP-FAN-00010B HOP-FAN-00010C	TBD	TBD	TBD
Booster extraction fans	HOP-FAN-00001A/B/C HOP-FAN-00009A/B/C	TBD	TBD	TBD
Activated carbon adsorber	HOP-ADBR-00001A/B HOP-ADBR-00002A/B	TBD	TBD	TBD
High efficiency mist eliminators (HEME)	HOP-HEME-00001A/B HOP-HEME-00002A/B	TBD	TBD	TBD
HLW Pulse Jet Ventilation System (PJV)				
PJV HEPA filters	PJV-HEPA-00004A/B PJV-HEPA-00005A/B	TBD	TBD	TBD
Pulse ventilation HEPA electric preheater	PJV-HTR-00002	TBD	TBD	TBD
Pulse vent extraction Fans	PJV-FAN-00002A/B	TBD	TBD	TBD

Table 6A-6 ~~Example~~ Pretreatment Facility Inspection Plan

Table 6A-6a ~~Example~~ PT Containment Building Inspections			
Pretreatment Hot Cell Containment Building: P-0123 **Pretreatment Maintenance Containment Rooms:** PM0124, P-0121A, P-0421A, P-0122A, P-0122A, P-0123A, P-0124, P-124A, P-0125, P-0125A, P-0128A, P-0128 **Pretreatment Filter Package Maintenance Containment Room:** P-0223 **Pretreatment Filter Cave Room:** P-0335 **Decon Chamber:** P-0335A **General Filter Room:** P-0431A			
Item	**Inspection**	**Frequency**	**Method**
Building exterior	Inspect the area immediately surrounding the containment building to detect signs of releases of dangerous waste	At least every seven days	Physical
Interior rooms	Inspect floor and walls for significant cracks, gaps, corrosion, or other signs of deterioration; look for liquids on floor		

Table 6A-6a ~~Example~~ PT Containment Building Inspections			
	Check differential pressure monitoring records to ensure negative pressure in containment building area		

1

Table 6A-6b ~~Example~~ PT Tank System and Ancillary Equipment Inspections			
Pretreatment Facility Tank System: **FRP:** FRP-VSL-00002A, -00002B, -00002C, -00002D **FEP:** FEP-VSL-00017A, -00017B, -00005 **HLP:** HLP-VSL-00027A, -00027B, -00022, -00028 **UFP:** UFP-VSL-00001A, -00001B, -00002A, -00002B, -00062A, -00062B, -00062C, UFP-FILT-00001A UFP-FILT-00001B UFP-FILT-00002A UFP-FILT-00002B UFP-FILT-00003A UFP-FILT-00003B, UFP-FILT-00004A, UFP-FILT-00004B, UFP-FILT-00005A, UFP-FILT-00005B **CXP:** CXP-VSL-00001, CXP-IXC-00001 CXP-IXC-00002 CXP-IXC-00003 CXP-IXC-00004, CXP-VSL-00005, CXP-VSL-00004, CXP-VSL-00026A CXP-VSL-00026B CXP-VSL-00026C **CNP:** CNP-VSL-00001, -00004, -00003 **PVP:** PVP-VSL-00001 **PWD:** PWD-VSL-00033, -00044, -00015, -00016, -00046, -00043 **TLP:** TLP-VSL-00002, -00009A, -00009B **TCP:** TCP-VSL-00001 **RDP:** RDP-VSL-00002A, -00002B, -00002C, -00004 **RLD:** RDP-TK-00006A, -00006B, -00017A, -00017B **PIH:** PIK-TK-00001			
Item	**Types of Problems/Inspections**	**Frequency**	**Method**
Tank level switches and transmitters	Check for proper operation and review of alarm status	Daily	Remote
	Check Interlock Initiation	Weekly	Remote
Spill control equipment/ overfill controls	Check for proper operation	Daily	Remote
Tank integrity assessment	Operating History Review	TBD	TBD
	Visual Inspections	TBD	TBD
	Nondestructive examination	TBD	TBD
Secondary Containment Sump System:			
Level switches and transmitters	Check for proper operation and review of alarm status	Daily	Remote
Sump integrity assessment	Operating History Review	TBD	TBD
	Visual Inspection	TBD	TBD
	Nondestructive examination	TBD	TBD

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3

Table 6A-6c ~~Example~~ PT Miscellaneous Treatment Unit Inspections				
Item	**Plant Item number**	**Types of Problems/Inspections**	**Frequency**	**Method**
Treated LAW Process System (TLP)				
Treated LAW evaporator separator vessel	TLP-SEP-00001	Inspect vessel level monitoring data to prevent overflow	Daily	TBD
Treated LAW reboiler	TLP-RBLR-00001	TBD	TBD	TBD
Treated LAW primary	TLP-COND-00001	TBD	TBD	TBD

Table 6A-6c ~~Example~~ PT Miscellaneous Treatment Unit Inspections				
Item	**Plant Item number**	**Types of Problems/Inspections**	**Frequency**	**Method**
condenser				
Treated LAW inter-condenser	TLP-COND-00003	TBD	TBD	TBD
Treated LAW after-Condenser	TLP-COND-00002	TBD	TBD	TBD
Waste Feed Evaporator Feed Process System (FEP)				
Waste feed evaporator Separator vessels	FEP-SEP-00001A FEP-SEP-00001B	TBD	TBD	TBD
Waste feed evaporator reboilers	FEP-RBLR-00001A FEP-RBLR-00001B	TBD	TBD	TBD
Waste feed evaporator primary condensers	FEP-COND-00001A FEP-COND-00001B	TBD	TBD	TBD
Waste feed evaporator inter-condensers	FEP-COND-00002A FEP-COND-00002B	TBD	TBD	TBD
Waste feed evaporator after-condensers	FEP-COND-00003A FEP-COND-00003B	TBD	TBD	TBD
Pulse Jet Ventilation (PJV)				
PJV primary HEPA filters	PJV-HEPA-00001A PJV-HEPA-00001B PJV-HEPA-00001C PJV-HEPA-00001D PJV-HEPA-00001E PJV-HEPA-00001F PJV-HEPA-00001G	TBD	TBD	TBD
PJV secondary exhaust HEPA filters	PJV-HEPA-00002A PJV-HEPA-00002B PJV-HEPA-00002C PJV-HEPA-00002D PJV-HEPA-00002E PJV-HEPA-00002F	TBD	TBD	TBD
PJV exhaust fans	PJV-FAN-00001A PJV-FAN-00001B PJV-FAN-00001C	TBD	TBD	TBD
PJV demisters	PJV-DMST-00002A PJV-DMST-00002B PJV-DMST-00002C	TBD	TBD	TBD
Pretreatment Vessel Vent Process System (PVP)				
Electric heaters	PVP-HTR-00001A PVP-HTR-00001B PVP-HTR-00001C	TBD	TBD	TBD
Vessel vent after-cooler	PVP-CLR-00001	TBD	TBD	TBD
Vessel vent carbon bed adsorbers	PVP-ADBR-00001A	TBD	TBD	TBD

Table 6A-6c ~~Example~~ PT Miscellaneous Treatment Unit Inspections				
Item	**Plant Item number**	**Types of Problems/Inspections**	**Frequency**	**Method**
	PVP-ADBR-00001B			
Vessel vent VOC oxidizer unit	PVP-OXID-00001	TBD	TBD	TBD
Vessel vent adsorber outlet filters	PVP-FILT-00001	TBD	TBD	TBD
Vessel vent HEME (mist eliminator)	PVP-HEME-00001A PVP-HEME-00001B PVP-HEME-00001C	TBD	TBD	TBD
Vessel vent scrubbing liquid cooler	PVP-HX-00002	TBD	TBD	TBD
Vessel vent caustic scrubber	PVP-SCB-00002	TBD	TBD	TBD
Pretreatment Vessel Vent Process and Exhaust System (PVV)				
Vessel vent HEPA primary filters	PVV-HEPA-00001A PVV-HEPA-00001B	TBD	TBD	TBD
Vessel vent HEPA secondary filters	PVV-HEPA-00002A PVV-HEPA-00002B	TBD	TBD	TBD
Vessel vent exhaust fans	PVV-FAN-00001A PVV-FAN-00001B	TBD	TBD	TBD
Cesium Nitric Acid Recovery Process System (CNP)				
Cesium evaporator separator vessel	CNP-EVAP-00001	TBD	TBD	TBD
Cesium evaporator concentrate reboiler	CNP-HX-00001	TBD	TBD	TBD
Cesium evaporator nitric acid rectifier column	CNP-DISTC-00001	TBD	TBD	TBD
Cesium evaporator primary condenser	CNP-HX-00002	TBD	TBD	TBD

Table 6A-7 ~~Example~~ Balance of Facilities Inspection Plan

Table 6A-7a ~~Example~~ BOF Container Storage Inspections			
Item	**Inspection**	**Frequency**	**Method**
Dangerous and Mixed Waste Container Storage Areas			
Failed melter storage area	Verify major risk labels present and legible, ensure all containers are closed; Check that container storage areas are free of liquid and debris; Check for significant cracks, gaps, and other signs of deterioration of storage area floors; Verify minimum 30 inches of aisle space between containers; Verify that any dangerous and or mixed waste container holding free liquids have portable secondary containment and no liquids accumulated in portable secondary containment	At least every seven days	Physical
Non-radioactive dangerous waste container storage area	Verify major risk labels present and legible, ensure all containers are closed; Check that container storage areas are free of liquid and debris; Check for significant cracks, gaps,	At least every seven days	Physical

Table 6A-7a ~~Example~~ BOF Container Storage Inspections

	and other signs of deterioration of storage area floors; Verify minimum 30 inches of aisle space between containers; Verify that any dangerous and or mixed waste container holding free liquids have portable secondary containment and no liquids accumulated in portable secondary containment.		
Non-radioactive dangerous waste container storage area storing ignitable or reactive waste	Inspect, by professional person or in the presence of a fire marshal for compliance with the International Fire code.	Annual	Physical

Table 6A-7b ~~Example~~ BOF Cathodic Protection Schedule-Dangerous Waste Transfer Lines

Item	Inspection	Frequency
Cathodic protection systems for dangerous and mixed waste transfer lines	Verify proper operation	Initial (less than 6 months after installation)
		Annual (from date of initial installation inspection
All sources of impressed current supporting cathodically protected dangerous and mixed waste transfer lines	Test for proper function	Bi-Monthly

~~Table 6A-1 Example WTP General Inspection Schedule~~

~~Component Name~~	~~Inspection~~	~~Frequency~~
~~Security Devices~~		
~~WTP inner fence~~	~~Check for damaged fencing~~	~~Monthly~~
~~Posted warning signs (see Chapter 6.0, section 1.2) that say: "DANGER – UNAUTHORIZED PERSONNEL KEEP OUT"~~	~~Verify signs are present, legible from a distance of 25 ft, and visible; ensure buildings or rooms containing dangerous or mixed waste are posted~~	~~Monthly~~
~~Points of access to active portions turnstiles, doors, and/or magnetic encoded bar readers~~	~~Verify operability~~	~~Monthly~~
~~Emergency Preparedness Equipment~~		
~~Safety showers and eyewash stations~~	~~Verify operability and sufficient pressure~~	~~At least every seven days~~
~~Automatic fire suppression system(s)~~	~~Verify operability~~	~~Annually~~
~~Portable fire extinguishers (all types)~~	~~Check for adequate charge~~	~~Monthly~~
~~Emergency lighting~~	~~Test operability~~	~~Monthly~~

Table 6A-1 Example WTP General Inspection Schedule

Component Name	Inspection	Frequency
Spill kit and spill control equipment	Verify contents complete	Quarterly
Emergency sirens and alarms	Verify operability	Monthly
Voice paging system (pagers or PA system)	Verify operability	Monthly
Emergency telephones	Verify operability	Monthly
Personal protective clothing and equipment	Ensure supplies meet ERP listing and requirements	Quarterly
Power Supply Inspections		
Emergency uninterruptible power supply system(s)	Verify operability	Annual
Emergency diesel generator	Perform no-load test and verify sufficient fuel	Annual

1

Table 6A-2 Example Canister and Container Storage Inspection Schedules

Name	Inspection	Frequency
Dangerous and/or Mixed Waste Container Storage Inspections		
• HLW East corridor El. 0 ft (HC-0108/09/10) • HLW Loading Area (H-0130) • Lab Pack Room (A-0139A) • Waste Drum Management Room (A-0139) • Non-radioactive dangerous waste container storage area • Failed melter storage facility • Container storage in HLW, PTF, and LAW Containment Building described in Table III.10.D.A	Verify major risk labels present and legible, ensure all containers are closed (except when waste is being added to container); Check that container storage areas are free of liquid and debris; Check for significant cracks, gaps, and other signs of deterioration of storage area floors; Verify minimum 30 inches of aisle space between containers, except for IHLW canisters and ILAW containers; Verify that any dangerous and or mixed waste container holding free liquids have portable secondary containment and no liquids accumulated in portable secondary containment	At least every seven days
Immobilized ILAW Container Storage in Containment Buildings		
ILAW containers	Inspect that unique alphanumeric identifier is welded to ILAW container and is legible	Prior to placing in storage
Filled ILAW containers [1]	Inspect (visually, by camera surveillance, or cell window) each container for cracks, leaks, bulges, or other abnormalities	After sealing container
	Record in tracking system each container's location when placed in storage; Record in tracking system all container location changes if container(s) are moved while in storage; Verify container in recorded location when transporting container out of WTP storage.	Within 48 hours of placing or moving each container
Container Monitoring/Export Areas (L-0109E and L-0115E)	Inspect (visually, by camera surveillance, or cell window) for deformities in storage area floors or debris in storage area	At least every seven days when facility is storing waste in immobilized waste container monitoring/export area
HLW Vitrification Plant Canister Storage Area		
IHLW canisters	Inspect that unique alphanumeric identifier is welded to IHLW canister and is legible	Prior to placing in storage
Filled IHLW Canister [1]	Inspect (visually, by camera surveillance, or cell window) each canister for cracks, leaks, bulges, or other abnormalities	After sealing canister

Table 6A-2 Example Canister and Container Storage Inspection Schedules

Name	Inspection	Frequency
	Record in tracking system each canister's location when placed in storage; Record in tracking system all canister location changes if canister(s) are moved while in storage; Verify canister in recorded location when transporting canister out of WTP storage.	Within 48 hours of placing or moving each canister
IHLW Canister Storage Cave (H-0132)	Inspect (visually, by camera surveillance, or cell window) for deformities in storage area floors or debris in storage area	At least every seven days when facility is storing waste in immobilized waste canister storage area

[1] Direct access to container of ILAW and IHLW for the purposes of inspection is precluded due to high radioactivity levels. Therefore, ILAW and IHLW containers are exempt from the 30-inch aisle requirements (III.10.D.4.b.ii).

Table 6A-3 Example Tank Systems and Ancillary Equipment Inspection Schedule

Component Name	Plant item number	Inspection	Frequency
Pretreatment Plant Tank System			
FRP			
Waste feed receipt vessels	FRP-VSL-00002A FRP-VSL-00002B FRP-VSL-00002C FRP-VSL-00002D	Inspect tank level monitoring data to prevent overflow	Daily
FEP			
Waste feed evaporator feed vessels	FEP-VSL-00017A FEP-VSL-00017B	Inspect tank level monitoring data to prevent overflow	Daily
Waste feed evaporator condensate vessel	FEP-VSL-00005	Inspect tank level monitoring data to prevent overflow	Daily
HLP			
HLW Lag storage vessel	HLP-VSL-00027A HLP-VSL-00027B	Inspect tank level monitoring data to prevent overflow	Daily
HLW feed receipt vessel	HLP-VSL-00022	Inspect tank level monitoring data to prevent overflow	Daily
HLW feed blend vessel	HLP-VSL-00028	Inspect tank level monitoring data to prevent overflow	Daily
UFP			
Ultrafiltration feed preparation vessels	UFP-VSL-00001A UFP-VSL-00001B	Inspect tank level monitoring data to prevent overflow	Daily
Ultrafiltration feed vessels	UFP-VSL-00002A UFP-VSL-00002B	Inspect tank level monitoring data to prevent overflow	Daily
Ultrafilter permeate collection vessel	UFP-VSL-00062A UFP-VSL-00062B UFP-VSL-00062C	Inspect tank level monitoring data to prevent overflow	Daily
Ultrafilters	UFP-FILT-00001A UFP-FILT-00001B UFP-FILT-00002A UFP-FILT-00002B UFP-FILT-00003A UFP-FILT-00003B UFP-FILT-00004A UFP-FILT-00004B UFP-FILT-00005A UFP-FILT-00005B	Inspect tank level monitoring data to prevent overflow	Daily

Table 6A-3 Example Tank Systems and Ancillary Equipment Inspection Schedule

Component Name	Plant item number	Inspection	Frequency
CXP			
Cesium ion exchange feed vessel	CXP-VSL-00001	Inspect tank level monitoring data to prevent overflow	Daily
Cesium ion exchange columns	CXP-IXC-00001 CXP-IXC-00002 CXP-IXC-00003 CXP-IXC-00004	Inspect column monitoring data to prevent release	Daily
Cesium reagent vessel	CXP-VSL-00005	Inspect tank level monitoring data to prevent overflow	Daily
Cesium ion exchange caustic rinse collection vessel	CXP-VSL-00004	Inspect tank level monitoring data to prevent overflow	Daily
Cesium ion exchange treated LAW collection vessels	CXP-VSL-00026A CXP-VSL-00026B CXP-VSL-00026C	Inspect tank level monitoring data to prevent overflow	Daily
CNP			
Cesium evaporator eluate lute vessel	CNP-VSL-00001	Inspect tank level monitoring data to prevent overflow	Daily
Cesium evaporator recovered nitric acid vessel	CNP-VSL-00004	Inspect tank level monitoring data to prevent overflow	Daily
Eluate contingency storage vessel	CNP-VSL-00003	Inspect tank level monitoring data to prevent overflow	Daily
PVP			
Vessel ventilation HEME drain collection vessel	PVP-VSL-00001	Inspect tank level monitoring data to prevent overflow	Daily
PWD			
Ultimate overflow vessel	PWD-VSL-00033	Inspect tank level monitoring data to prevent overflow	Daily
Plant wash vessel	PWD-VSL-00044	Inspect tank level monitoring data to prevent overflow	Daily
Acidic/alkaline effluent vessel	PWD-VSL-00015	Inspect tank level monitoring data to prevent overflow	Daily
Acidic/alkaline effluent vessel	PWD-VSL-00016	Inspect tank level monitoring data to prevent overflow	Daily

Table 6A-3 Example Tank Systems and Ancillary Equipment Inspection Schedule

Component Name	Plant item number	Inspection	Frequency
C3 floor drains tank	PWD-VSL-00046	Inspect tank level monitoring data to prevent overflow	Daily
HLW effluent transfer vessel	PWD-VSL-00043	Inspect tank level monitoring data to prevent overflow	Daily
TLP			
Treated LAW evaporator condensate vessel	TLP-VSL-00002	Inspect tank level monitoring data to prevent overflow	Daily
LAW SBS condensate receipt vessel	TLP-VSL-00009A TLP-VSL-00009B	Inspect tank level monitoring data to prevent overflow	Daily
TCP			
Treated LAW concentrate storage vessel	TCP-VSL-00001	Inspect tank level monitoring data to prevent overflow	Daily
RDP			
Spent resin slurry vessels	RDP-VSL-00002A RDP-VSL-00002B RDP-VSL-00002C	Inspect tank level monitoring data to prevent overflow	Daily
Spent resin dewatering moisture separation vessel	RDP-VSL-00004	RESERVED	Daily
RLD			
Process condensate vessels	RDP-TK-00006A RDP-TK-00006B	Inspect tank level monitoring data to prevent overflow	Daily
Alkaline effluent vessels	RLD-VSL-00017A RLD-VSL-00017B	Inspect tank level monitoring data to prevent overflow	Daily
PIH			
Decontamination soak tank	PIH-TK-00001	Inspect tank level monitoring data to prevent overflow	Daily
LAW Vitrification Plant Tank System			
LCP			
LAW Melter 1 concentrate receipt vessel	LCP-VSL-00001	Inspect tank level monitoring data to prevent overflow	Daily

Table 6A-3 Example Tank Systems and Ancillary Equipment Inspection Schedule

Component Name	Plant item number	Inspection	Frequency
LAW Melter 2 concentrate receipt vessel	LCP-VSL-00002	Inspect tank level monitoring data to prevent overflow	Daily
LFP			
Melter 1 feed preparation vessel	LFP-VSL-00001	Inspect tank level monitoring data to prevent overflow	Daily
Melter 1 feed vessel	LFP-VSL-00002	Inspect tank level monitoring data to prevent overflow	Daily
Melter 2 feed preparation vessel	LFP-VSL-00003	Inspect tank level monitoring data to prevent overflow	Daily
Melter 2 feed vessel	LFP-VSL-00004	Inspect tank level monitoring data to prevent overflow	Daily
LVP			
LAW caustic collection tank	LVP-TK-00001	Inspect tank level monitoring data to prevent overflow	Daily
LOP			
LAW Melter 1 SBS condensate vessel	LOP-VSL-00001	Inspect tank level monitoring data to prevent overflow	Daily
LAW Melter 2 SBS condensate vessel	LOP-VSL-00002	Inspect tank level monitoring data to prevent overflow	Daily
RLD			
Plant wash vessel	RLD-VSL-00003	Inspect tank level monitoring data to prevent overflow	Daily
C3/C5 drains/sump collection vessel	RLD-VSL-00004	Inspect tank level monitoring data to prevent overflow	Daily
SBS condensate collection vessel	RLD-VSL-00005	Inspect tank level monitoring data to prevent overflow	Daily
HLW Vitrification Plant Tank System			
HOP			
Melter 1 SBS condensate receiver vessel 1	HOP-VSL-00903	Inspect tank level monitoring data to prevent overflow	Daily
Melter 2 SBS condensate receiver vessel 2	HOP-VSL-00904	Inspect tank level monitoring data to prevent overflow	Daily

Table 6A-3 Example Tank Systems and Ancillary Equipment Inspection Schedule

Component Name	Plant item number	Inspection	Frequency
HDH			
Canister decon vessel 1	HDH-VSL-00002	Inspect tank level monitoring data to prevent overflow	Daily
Canister decon vessel 2	HDH-VSL-00004	Inspect tank level monitoring data to prevent overflow	Daily
Waste neutralization vessel	HDH-VSL-00003	Inspect tank level monitoring data to prevent overflow	Daily
Canister rinse vessel	HDH-VSL-00001	Inspect tank level monitoring data to prevent overflow	Daily
RLD			
Acidic waste vessel	RLD-VSL-00007	Inspect tank level monitoring data to prevent overflow	Daily
Plant wash and drains vessel	RLD-VSL-00008	Inspect tank level monitoring data to prevent overflow	Daily
Offgas drains collection vessel	RLD-VSL-00002	Inspect tank level monitoring data to prevent overflow	Daily
HFP			
HLW Melter 1 feed preparation vessel	HFP-VSL-00001	Inspect tank level monitoring data to prevent overflow	Daily
HLW Melter 2 feed preparation vessel	HFP-VSL-00005	Inspect tank level monitoring data to prevent overflow	
HLW Melter 1 feed vessel	HFP-VSL-00002	Inspect tank level monitoring data to prevent overflow	Daily
HLW Melter 2 feed vessel	HFP-VSL-00006	Inspect tank level monitoring data to prevent overflow	
HSH			
Decontamination Tank Melter cave 1	HSH-TK-00001	Inspect tank level monitoring data to prevent overflow	Daily
Decontamination Tank Melter cave 2	HSH-TK-00002	Inspect tank level monitoring data to prevent overflow	Daily

Table 6A-3 Example Tank Systems and Ancillary Equipment Inspection Schedule

Component Name	Plant item number	Inspection	Frequency
Analytical Laboratory Tank System			
RLD			
Lab area sink drain collection vessel	RLD-VSL-00164	Inspect tank level monitoring data to prevent overflow	Daily
Hot cell drain collection vessel	RLD-VSL-00165	Inspect tank level monitoring data to prevent overflow	Daily
Effluent Management Facility Tank System			
Evaporator Process System Vessels	DEP-VSL-00001 DEP-VSL-00002	Inspect tank level monitoring data to prevent overflow	Daily
Evaporator Discharge System Vessels	DEP-VSL-00003A DEP-VSL-00003B DEP-VSL-00003C	Inspect tank level monitoring data to prevent overflow	Daily
	DEP-VSL-00004A DEP-VSL-00004B	Inspect tank level monitoring data to prevent overflow	Daily
	DEP-VSL-00005A DEP-VSL-00005B	Inspect tank level monitoring data to prevent overflow	Daily
Primary Containment Sumps as identified the WTP Permit (Reserved)			
Secondary Containment			
Leak detectors for all tank systems, miscellaneous units, and containment buildings managing dangerous and/or mixed waste	See Chapter 4.0	Monitor leak detection instrumentation or monitoring data to detect leaks	Daily
Underground Piping (receiving from DST and transferring out)			
Leak detectors		Monitor leak detection instrumentation or monitoring data to detect leaks	Daily

1
2

Table 6A-4 Example Cathodic Protection Inspection Schedule Dangerous Waste Transfer Lines

Component Name and Line Number	Inspection	Frequency
Cathodic protection systems for dangerous and mixed waste transfer lines	Verify proper operation	Initial (less than 6 months after installation) Annually (from date of initial installation inspection, above)
All sources of impressed current supporting cathodically protected dangerous and mixed waste transfer lines	Test for proper function	Bi-monthly

Table 6A-5 Example Ignitable or Reactive Wastes Inspection Schedule

Component Name	Inspection	Frequency
Container storage areas storing ignitable or reactive waste	Inspect, by professional person or in the presence of fire marshal for compliance with Uniform Fire Code and enter inspection into operating record. Inspect container storage areas for compliance with WAC 173-303-630 (8) requirements.	365 days

Table 6A-6 Example Miscellaneous Treatment Unit Schedule

Component Name	Plant Item Number	Inspection	Frequency
Pretreatment Facility Miscellaneous Treatment Unit Systems			
TLP			
Treated LAW evaporator separator vessel	TLP-SEP-00001	Inspect vessel level monitoring data to prevent overflow	Daily
Treated LAW Reboiler	TLP-RBLR-00001	TBD	TBD
Treated LAW Primary Condenser	TLP-COND-00001	TBD	TBD
Treated LAW Inter-Condenser	TLP-COND-00003	TBD	TBD
Treated LAW After-Condenser	TLP-COND-00002	TBD	TBD
FEP			
Waste Feed Evaporator Separator Vessels	FEP-SEP-00001A FEP-SEP-00001B	TBD	TBD
Waste Feed Evaporator Reboilers	FEP-RBLR-00001A FEP-RBLR-00001B	TBD	TBD
Waste Feed Evaporator Primary Condensers	FEP-COND-00001A FEP-COND-00001B	TBD	TBD
Waste Feed Evaporator Inter-Condensers	FEP-COND-00002A FEP-COND-00002B	TBD	TBD
Waste Feed Evaporator After-Condensers	FEP-COND-00003A FEP-COND-00003B	TBD	TBD
PJV			
PJV Primary HEPA filters	PJV-HEPA-00001A PJV-HEPA-00001B PJV-HEPA-00001C PJV-HEPA-00001D PJV-HEPA-00001E PJV-HEPA-00001F PJV-HEPA-00001G	TBD	TBD
PJV Secondary Exhaust HEPA filters	PJV-HEPA-00002A PJV-HEPA-00002B PJV-HEPA-00002C PJV-HEPA-00002D PJV-HEPA-00002E PJV-HEPA-00002F	TBD	TBD
PJV Exhaust fans	PJV-FAN-00001A PJV-FAN-00001B PJV-FAN-00001C	TBD	TBD

Table 6A-6 Example Miscellaneous Treatment Unit Schedule

Component Name	Plant Item Number	Inspection	Frequency
PJV Demisters	PJV-DMST-00002A PJV-DMST-00002B PJV-DMST-00002C	TBD	TBD
PVP			
Electric heaters	PVP-HTR-00001A PVP-HTR-00001B PVP-HTR-00001C	TBD	TBD
Vessel Vent After-cooler	PVP-CLR-00001	TBD	TBD
Vessel Vent Carbon Bed Adsorbers	PVP-ADBR-00001A PVP-ADBR-00001B	TBD	TBD
Vessel Vent VOC Oxidizer unit	PVP-OXID-00001	TBD	TBD
Vessel Vent Adsorber Outlet filters	PVP-FILT-00001	TBD	TBD
Vessel Vent HEME (mist eliminator)	PVP-HEME-00001A PVP-HEME-00001B PVP-HEME-00001C	TBD	TBD
Vessel Vent Scrubbing Liquid Cooler	PVP-HX-00002	TBD	TBD
Vessel Vent Caustic Scrubber	PVP-SCB-00002	TBD	TBD
PVV			
Vessel Vent HEPA primary filters	PVV-HEPA-00001A PVV-HEPA-00001B	TBD	TBD
Vessel Vent HEPA secondary filters	PVV-HEPA-00002A PVV-HEPA-00002B	TBD	TBD
Vessel Vent Exhaust fans	PVV-FAN-00001A PVV-FAN-00001B	TBD	TBD
CNP			
Cesium evaporator Separator Vessel	CNP-EVAP-00001	TBD	TBD
Cesium evaporator concentrate reboiler	CNP-HX-00001	TBD	TBD
Cesium evaporator nitric acid rectifier column	CNP-DISTC-00001	TBD	TBD
Cesium evaporator primary condenser	CNP-HX-00002	TBD	TBD
Cesium evaporator inter-condenser	CNP-HX-00003	TBD	TBD
Cesium evaporator after-condenser	CNP-HX-00004	TBD	TBD

Table 6A-6 Example Miscellaneous Treatment Unit Schedule

Component Name	Plant Item Number	Inspection	Frequency
LAW Vitrification Plant Miscellaneous Treatment Unit Subsystems			
LMP			
LAW Melter 1 LAW Melter 2	LMP-MLTR-00001 LMP-MLTR-00002	Visual inspection (via cave window or CCTV if provided) for damage, leaks, or abnormalities Inspect melter level monitoring data to prevent overflow	Daily
LOP			
Melter 1 and melter 2 submerged bed scrubbers	LOP-SCB-00001 LOP-SCB-00002	TBD	TBD
Melter 1 and melter 2 wet electrostatic precipitators	LOP-WESP-00001 LOP-WESP-00002	TBD	TBD
Primary/standby film coolers	LOP-FCLR-00001 LOP-FCLR-00002 LOP-FCLR-00003 LOP-FCLR-00004	TBD	TBD
LVP			
Melter Offgas Caustic scrubber	LVP-SCB-00001	TBD	TBD
Melter Offgas HEPA filters	LVP-HEPA-00001A LVP-HEPA-00001B LVP-HEPA-00002A LVP-HEPA-00002B LVP-HEPA-00003A	TBD	TBD
Thermal catalytic oxidizer	LVP-SCO-00001	TBD	TBD
NO_x selective catalytic reduction unit	LVP-SCR-00001	TBD	TBD
Melter Offgas HEPA Preheaters	LVP-HTR-00001A LVP-HTR-00001B	TBD	TBD
Catalytic oxidizer electric heater	LVP-HTR-00002	TBD	TBD
Catalytic oxidizer heat recovery unit	LVP-HX-00001	TBD	TBD
Offgas Mercury Adsorbers	LVP-ADBR-0000A1/1B	TBD	TBD
Melter Offgas Exhausters	LVP-EXHR-00001A LVP-EXHR-00001B LVP-EXHR-00001C	TBD	TBD

Table 6A-6 Example Miscellaneous Treatment Unit Schedule

Component Name	Plant Item Number	Inspection	Frequency
HLW Vitrification Plant Miscellaneous Treatment Unit Subsystems			
HMP			
HLW Melter 1	HMP-MLTR-00001	Visual inspection (via cave window or CCTV if provided) for damage, leaks, or abnormalities Inspect melter level monitoring data to prevent overflow	Daily
HLW Melter 2	HMP-MLTR-00002		
HOP			
Submerged Bed Scrubber	HOP-SCB-00001 HOP-SCB-00002	TBD	TBD
Wet Electrostatic Precipitators (WESP)	HOP-WESP-00001 HOP-WESP-00002	TBD	TBD
Thermal Catalytic Oxidizer	HOP-SCO-00001 HOP-SCO-00004	TBD	TBD
NOx Selective Catalytic Reduction Units	HOP-SCR-00001 HOP-SCR-00002	TBD	TBD
Silver Mordenite Columns	HOP-ABS-00002 HOP-ABS-00003	TBD	TBD
HEPA Filters	HOP-HEPA-00001A HOP-HEPA-00001B HOP-HEPA-00002A HOP-HEPA-00002B HOP-HEPA-00007A HOP-HEPA-00007B HOP-HEPA-00008A HOP-HEPA-00008B	TBD	TBD
Melter Offgas Film Coolers	HOP-FCLR-00001/3 HOP-FCLR-00002/4	TBD	TBD
Catalyst Skid Preheaters	HOP-HX-00001 HOP-HX-00003	TBD	TBD
HEPA Preheaters	HOP-HTR-00001B HOP-HTR-00002A HOP-HTR-00005A HOP-HTR-00005B	TBD	TBD
Catalyst Skid Electric Heaters	HOP-HTR-00007 HOP-HTR-00001		
Silver Mordenite Preheaters	HOP-HX-00002 HOP-HX-00004	TBD	TBD

Table 6A-6 Example Miscellaneous Treatment Unit Schedule

Component Name	Plant Item Number	Inspection	Frequency
Stack Extraction Fans	HOP-FAN-00008A HOP-FAN-00008B HOP-FAN-00008C HOP-FAN-00010A HOP-FAN-00010B HOP-FAN-00010C	TBD	TBD
Booster Extraction Fans	HOP-FAN-00001A HOP-FAN-00001B HOP-FAN-00001C HOP-FAN-00009A HOP-FAN-00009B HOP-FAN-00009C	TBD	TBD
Activated Carbon Adsorber	HOP-ADBR-00001A HOP-ADBR-00001B HOP-ADBR-00002A HOP-ADBR-00002B	TBD	TBD
High Efficiency Mist Eliminators (HEME)	HOP-HEME-00001A HOP-HEME-00001B HOP-HEME-00002A HOP-HEME-00002B	TBD	TBD
PJV			
PJV HEPA Filters	PJV-HEPA-00004A PJV-HEPA-00004B PJV-HEPA-00005A PJV-HEPA-00005B	TBD	TBD
Pulse Ventilation HEPA Electric Preheater	PJV-HTR-00002	TBD	TBD
Pulse Vent Extraction Fans	PJV-FAN-00002A PJV-FAN-00002B	TBD	TBD
Effluent Management Facility Miscellaneous Treatment Unit Subsystems			
DEP evaporator separator	DEP-EVAP-00001	TBD	TBD
DEP evaporator reboiler	DEP-RBLR-00001	TBD	TBD
Evaporator primary condenser	DEP-COND-00001	TBD	TBD
Evaporator intercondenser	DEP-COND-00002	TBD	TBD
Evaporator after condenser	DEP-COND-00003	TBD	TBD
Process condensate lga storage transfer line filter	DEP-FILT-00002	TBD	TBD
Evaporator Feed prefilter	DEP-FILT-00003	TBD	TBD

Table 6A-6 Example Miscellaneous Treatment Unit Schedule

Component Name	Plant Item Number	Inspection	Frequency
Condensate duplex cartridge filter	DEP-FILT-00004A DEP-FILT-00004B	TBD	TBD
Feed vessel area sump pump filter	DEP-FILT-00005	TBD	TBD
Concentrate effluent cooler	DEP-HX-00001	TBD	TBD
Process Ventilation primary HEPA	DVP-HEPA-00003A DVP-HEPA-00003B	TBD	TBD
Process Ventilation secondary HEPA	DVP-HEPA-00004A DVP-HEPA-00004B	TBD	TBD
Process Ventilation Heater	DVP-HTR-00001A/B	TBD	TBD
Process Ventilation Exhauster	DVP-EXHR-00001A/B	TBD	TBD

Table 6A-7 Example Containment Buildings Inspection Schedule

Component Name	Inspection	Frequency
Containment building areas as designated in Chapter 4.0	Inspect and record in the operating record data gathered from monitoring equipment and leak detection equipment as well as the containment building and the area immediately surrounding the containment building to detect signs of releases of dangerous waste. All areas should be inspected for significant cracks, gaps, corrosion, or other signs of deterioration; look for liquids on floor. Check differential pressure monitoring records to ensure negative pressure in containment building area.	At least every seven days