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**PART III, OPERATING UNIT 8,
222-S DANGEROUS & MIXED WASTE TREATMENT, STORAGE & DISPOSAL
UNIT
ADDENDUM I, INSPECTION PLAN**

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3 **ADDENDUM I**
4 **INSPECTION PLAN**

5 **I.1 INSPECTION PLAN**

6 This section describes the method and schedule for inspections of the 222-S Operating Unit
7 Group in accordance with [WAC 173-303-320](#). The purpose of inspections is to ensure that
8 malfunctions and deterioration, operator errors, and discharges are prevented, that may cause or
9 lead to the release of dangerous waste constituents to the environment or a threat to human health.
10 These inspections must be performed often enough to identify problems in time to correct them
11 before they harm human health or the environment. In accordance with [WAC 173-303-320\(3\)](#),
12 any problems revealed by the inspection must be remedied on a schedule that prevents hazards to
13 the public health and environment. Where a hazard is imminent or has already occurred,
14 remedial action must be taken immediately.

15 **I.1.1 General Inspection Requirements**

16 The content and frequency of inspections are described in this section. The inspections are
17 performed by qualified personnel and controlled by laboratory management. Inspections are
18 documented on inspection report forms. The schedule and inspection reports are retained in the
19 operating record for at least five years and contain the following information:

- 20
- 21 • Date and time of inspection.
 - 22 • Printed name and the hand-written signature of the inspector.
 - 23 • Notation of the observations made.
 - 24 • An account of spills or discharges in accordance with [WAC 173-303-145](#).
 - 25 • Date and nature of any repairs or remedial actions taken.

26 **I.1.1.1 Types of Problems**

27 Tables I.1, I.2, and I.3 describe for the types of problems looked for during an inspection.

28 **I.1.1.2 Frequency of Inspections**

29 Tables I.1, I.2, and I.3 describe the inspection frequencies that are required.

30 **I.1.2 Schedule for Remedial Action for Problems Revealed**

31 The 222-S Operating Unit Group organization remedies any problems revealed by the inspection
32 on a schedule that prevents hazards to human health and environment. Where a hazard is
33 imminent or already has occurred, immediate remedial action is taken. Immediate remedial
34 actions are implemented based on ALARA considerations. Further remedial actions are
35 documented in the facility corrective action management program. .

36 **I.1.3 Specific Process Inspection Requirements**

37 The following sections describe the specific process inspections to be performed at 222-S
38 DMWSA, Room 2-B, Room 4-E, and the 219-S Waste Handling Facility.

39 **I.1.3.1 Container Inspection**

40 Containers are inspected for evidence of deterioration of structural integrity and to ensure that
41 dangerous waste labels and markings are legible, and waste labels and markings are not obscured,
removed, or otherwise unreadable. All containers are stored closed with appropriate closure for

1 that container. Bulging, creasing, and rusting, which might be evidenced by peeling paint, are
2 recorded to initiate corrective action.

- 3 • Containers in storage areas are inspected weekly for leaks, spills, and deterioration
4 caused by corrosion, rust, or other factors.
- 5 • Inspection report forms are kept in the 222-S Operating Unit Group’s operating record.
6 For report forms that indicate findings, corrective action datasheets are completed and
7 tracked for any abnormal conditions observed.

8 **I.1.3.2 Tank System Inspection**

9 Table I.1 lists the requirements for inspection of the 219-S Tank System. The tanks are located
10 within shielded vaults and are not readily accessible because of ALARA concerns. Daily
11 inspections include evaluation of data gathered from leak detection monitoring equipment, tank
12 level instrumentation. Annual verification/calibration of the high-level alarms and bimonthly
13 verification of cathodic protection is also required. The tank system has extensive process
14 controls and a microprocessor monitoring system linked to local and remote automated alarms.
15 Any leakage in the tank vault or transfer lines drains to floor sumps. Each sump has a liquid level
16 probe that when activated causes an alarm to sound in the 222-S Laboratory and in the 219-
17 S Waste Handling Facility operating gallery. Liquid collected in sumps is transferred back into
18 the tanks as long as [WAC 173-303-640\(7\)](#) requirements are met. The probability of a tank
19 overflow is very low based on tank system design and operating parameters such as setpoints for
20 high-level alarms, one-way pneumatic valves, and piping configuration (described in Addendum
21 C).

Table I.1 219-S Waste Handling Facility Inspections

Inspection Frequency	Activity/Types of Problems	
-640 (6)(a) High-level alarms	Annually	Verify operation of instrumentation, perform calibration
-640 (6)(a)(ii) Data from monitoring of tank level (instrument readout).	Daily	Observe liquid level to determine if there is exceedance to the operating limit, and visual verification for inspection for leaks.
-640 (6)(b)(i through iii) Data from leak detection monitoring equipment ^a	Daily	Observe annunciator panel to determine if lights are on.
-640 (6)(c)(i) Cathodic protection system	Annually	Confirm proper operation of the system.
-640 (6)(c)(ii) Cathodic protection system	Every 2 months	Inspect and test impressed current system
-395 (1)(d) Ignitable or reactive waste	Annual where ignitable or reactive waste is stored.	Not stored in compliance with Hanford Site fire protection standards.

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Table I.2 222-S Dangerous and Mixed Waste Storage Area and Rooms 2-B and 4-E Inspections

Requirement Description (WAC 173-303-)	Inspection Frequency	Activity/Types of Problems
-630(6) Containers	Weekly	Leaking containers Deteriorating containers ^a .
-630(6) Containment system	Weekly	Deteriorating containment system.
-395(1)(d) Ignitable or reactive waste	Annual where ignitable or reactive waste is stored.	Not stored in compliance with Hanford Site fire protection standards.

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Table I.3 [WAC 173-303-320\(2\)](#) Inspection Schedule

Requirement Description	Inspection Frequency	Activity/Types of Problems
Monitoring equipment: Refer to Table I.1	Not applicable	Not applicable
Safety and emergency equipment: eyewash/shower station, emergency lighting, fire extinguishers, spill cart/spill cabinet, spill cleanup equipment, first aid kits, and respirators.	Monthly	Equipment not present or functional.
Security devices: "Danger - unauthorized personnel keep out" signs	Weekly	Signs not posted or legible.
Operating and structural equipment: dry chemical fire protection system and primary water systems	In accordance with Hanford Fire Department schedule.	Operability.
Areas subject to spills	Daily when waste management activities have a potential for a spill to occur.	Evidence of spills.
Backflow preventer on 219-S raw water line.	Annually by state certified inspector.	Operability.

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