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**ADDENDUM I**  
**INSPECTION PLAN**

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**Contents**

I. INSPECTION REQUIREMENTS .....I.1

I.1 General Inspection Requirements .....I.1

I.1.1 Types of Inspections .....I.1

I.1.2 Frequency of Inspections .....I.1

I.2 Schedule for Remedial Action for Problems Revealed .....I.2

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3  
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## 1 I. INSPECTION PLAN

2 This section describes the method and schedule for inspection of the 400 Area WMU. The purpose of the  
3 inspections are to prevent malfunctions and deterioration, operating errors, discharges, identify leaking  
4 containers, improperly stored containers, and degradation of containment and safety equipment and/or  
5 systems (e.g., inert gas pressure in feed line). These inspections help to ensure that situations do not exist  
6 that might cause or lead to the release of waste to the environment or that might pose a threat to human  
7 health. Abnormal conditions identified by inspections will be corrected in accordance with  
8 [WAC 173-303-320\(3\)](#), incorporated by reference.

### 9 I.1 General Inspection Requirements

10 The content and frequency of inspections are described in this section. Inspections, implemented through  
11 operating requirements, are documented on inspection checklists and log sheets. Inspection records are  
12 maintained in accordance with Permit Condition II.I.1, and contain the following information:

- 13 • Date and time of inspection,
- 14 • Printed name and the handwritten signature of the inspector,
- 15 • Notation of the observations made, and
- 16 • Date and nature of any repairs or remedial actions taken

17 The inspection checklists consist of a listing of items that are to be assessed during each inspection. For  
18 each item listed, a yes/no response is made. A 'yes' response means that the item complies with the  
19 conditions stated on the checklist. Any problems identified during the inspection, as indicated by a 'no'  
20 response on the checklist, are reported to the Operations Manager.

#### 21 I.1.1 Types of Inspections

22 Weekly a qualified person will perform an inspection of the active 400 Area WMU storage areas and  
23 containers for any signs of malfunctions, deterioration, discharges, and other anomalies. Specific items  
24 and/or problems to be noted during weekly inspections include the following:

- 25 • Condition of concrete floor, curbing, and walls in the Fuel Storage Facility (FSF)
- 26 • Appropriate safety and packaging equipment
- 27 • Container structural integrity
- 28 • Containers closed
- 29 • Inert gas pressure in feed line to Core Component Pot (CCP) boxes in the FSF
- 30 • Significant corrosion of containers
- 31 • Evidence of spills or leaks
- 32 • Container labels and markings in place, legible, and unobscured
- 33 • Moisture in modules including condensation in the ISA storage modules

34 As needed to support work within the 400 Area WMU, personnel will conduct inspections and tests of  
35 safety equipment. These inspections and tests will include portable fire extinguishers, first aid equipment,  
36 and spill kits. For addition information, refer to Table I.1, Inspection Schedule.

#### 37 I.1.2 Frequency of Inspections

38 Qualified personnel will perform the 400 Area WMU inspections. Inspection will be conducted on the  
39 following frequencies (refer to Table I.1):

- 40 • Weekly inspections of the FSF and ISA.
- 41 • Daily inspections of those portions of the 400 Area WMU that are in the process of receiving  
42 waste or transferring waste out to document any deficiencies noted and to immediately bring  
43 deficiencies to the attention of the Operations Manager.
- 44 • Annual ignitable/reactive waste storage area inspections.

1 **I.1.2.1 Justification for Weekly Inspections**

2 The FFTF Plant complex, which includes the FSF building, is presently in a long term Surveillance &  
3 Maintenance (S&M) condition. While in this condition, the buildings are locked and only periodic,  
4 limited access is allowed for routine S&M. Only fire detection systems continue to operate 24/7, but  
5 power is available to operate limited lighting and ventilation during planned entries. All sodium-wetted  
6 piping and components (including the core component pots stored in FSF) are being maintained under a  
7 static low pressure argon cover gas. The cover gas is supplied from argon dewars on a pad west of the  
8 main FFTF Plant. Cover gas pressure is continuously monitored, and low/high pressure alarms are fed to  
9 panel C-676 in the 481 Building (pump house). The alarm for low or high pressure uses an auto dialer to  
10 summon a stationary operator to investigate, and appropriate actions are initiated.

11 The core component pots are stored inside two DOT 7A shipping containers. The containers are bolted  
12 closed and pressurized with argon cover gas. The shipping containers are located inside a shield wall area  
13 which limits access. No waste handling operations are planned during the S&M period. With limited  
14 access, no waste handling operations, and the continuous cover gas monitoring, a weekly remote visual  
15 inspection with a video camera is considered appropriate for the waste stored in the FSF. Based on the  
16 ability to respond to problems adequately through the low/high pressure alarm system and a video  
17 surveillance system, coupled with the unnecessary exposure potential that would result from more  
18 frequent personnel inspections, weekly inspections with a video camera will be protective of human  
19 health and the environment.

20 The ISA is a 75 meters by 156 meters (247 feet by 513 feet) totally fenced area. When the FFTF went to  
21 long-term S&M, a hazardous material storage building that has secondary containment (HS0091) was  
22 placed in the ISA and mixed wastes that are sealed in various size containers (85-gallon overpacks, 55-  
23 gallon drums, 1-gallon cans, etc) were moved into the building. The containers have small amounts of  
24 radioactive sodium and/or sodium potassium alloy (NaK) that causes the wastes to designate as mixed  
25 waste. There will be no other mixed waste generated and placed in the ISA until the FFTF Plant  
26 undergoes D&D activities. The configuration of the mixed waste being stored within the building will not  
27 change and all the containers are properly sealed. Performing weekly inspections with entry by site  
28 personnel will meet the regulatory inspection requirements.

29 **I.2 Schedule for Remedial Action for Problems Revealed**

30 Consistent with [WAC 173-303-320\(3\)](#), if inspections identify leaks, spills, and/or precipitation, in the  
31 secondary containment; the resultant material will be removed on a schedule that prevents hazards to  
32 human health and the environment. If corrosion or other obvious structural deficiency is observed on  
33 containers, corrective actions shall be pursued in a timeframe established by the Operations Manager.

34 On receipt and before containers are accepted for storage in the 400 Area WMU, personnel inspect each  
35 container to confirm appropriate documentation, labeling, and soundness of containers. Depending on the  
36 severity of any container anomalies, corrective actions could range from continued monitoring to  
37 correcting on discovery or longer if procurement of needed materials and personnel are required. Other  
38 conditions that are not a threat to human health and the environment will be dispositioned in a timeframe  
39 established by the Operations Manager.

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**Table I.1. Inspection Schedule**

Requirement Description	Inspection Frequency	Types of Problems
Inspections of those portions of the 400 Area WMU that are in process of receiving or transferring waste out	Daily	Document any deficiencies noted and immediately bring the deficiencies to the attention of the Operations Manager
Container storage areas (FSF)	Weekly	Condition of concrete floor, container structural integrity, containers closed, inert gas pressure in feed line to large boxes, significant corrosion of containers, evidence of leaks, spills, accumulated liquids, and open and improperly sealed containers, container labels and markings in place, legible, and unobstructed
Container storage, large boxes, and unique components (ISA)	Weekly	Condition of containers/large boxes/unique components structural integrity, containers closed, significant corrosion of containers, evidence of leaks, spills, accumulated liquids, and open and improperly sealed containers, container labels and markings in place, legible, and unobstructed, and moisture and condensate in the storage modules
Portable fire extinguishers, first aid kits, spill response kits	As needed to support work within the 400 Area WMU	Check for equipment not present and test, as appropriate
Ignitable or reactive waste	Annual	Storage in compliance with <a href="#">WAC 173-303-395(I)(d)</a>

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