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ADDENDUM F
PREPAREDNESS AND PREVENTION

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ADDENDUM F
PREPAREDNESS AND PREVENTION

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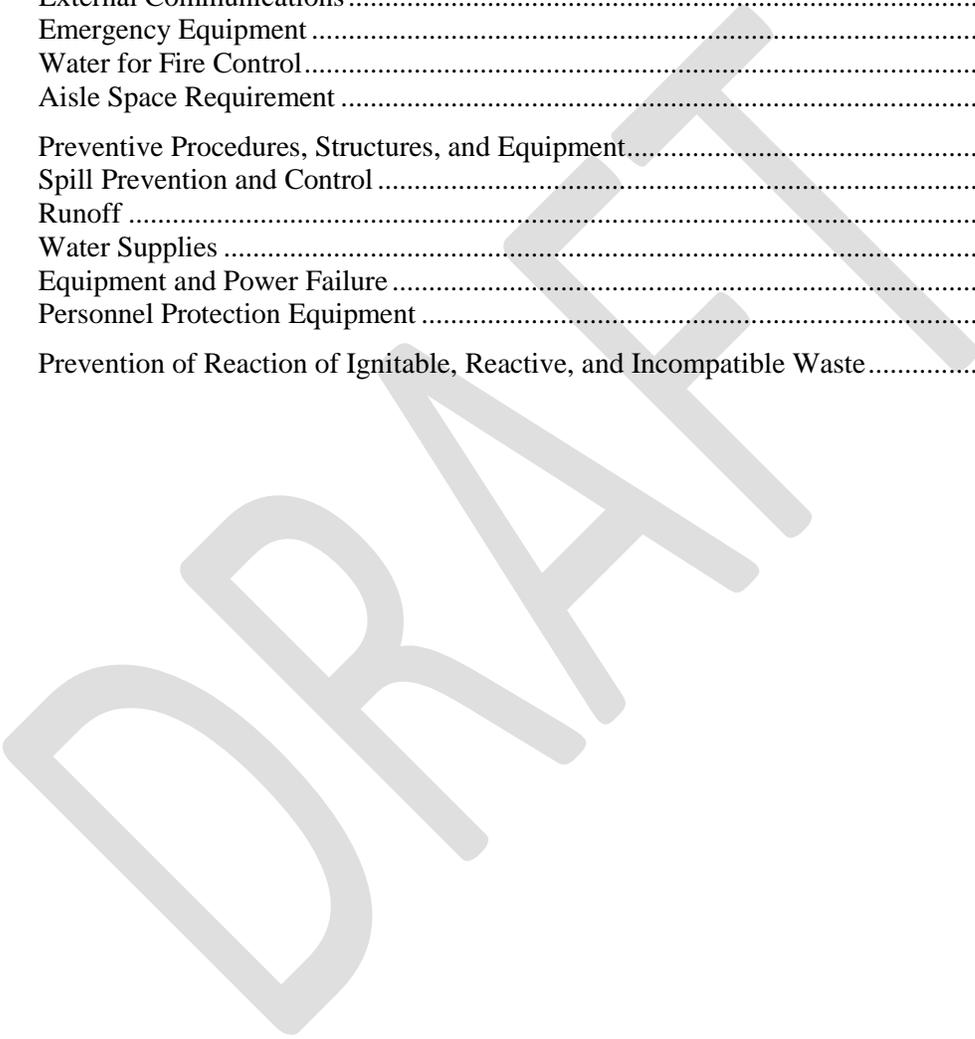
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1 **F PREPAREDNESS AND PREVENTION**

2 This Addendum discusses preparedness and prevention requirements; preventive procedures, structures,
3 and equipment; and prevention of ignitable, reactive, and incompatible waste as related to Low-Level
4 Burial Grounds (LLBG) 218-W-5, Trenches 31 & 34.. LLBG Trenches 31 & 34 are operated to minimize
5 exposure of human health and the environment.

6 **F.1 Preparedness and Prevention Requirements**

7 The following sections describe the preparedness and prevention measures to be taken at LLBG Trenches
8 31 & 34.

9 **F.1.1 Equipment Requirements**

10 The following sections describe the internal and external communications systems and the emergency
11 equipment required that could be activated by the LLBG Trenches 31 & 34 Building Emergency Director
12 (BED).

13 **F.1.2 Internal Communications**

14 LLBG Trenches 31 & 34 shall be equipped with an internal communication system to provide immediate
15 emergency instructions to personnel. The communication system must include two-way radios or cellular
16 telephones.

17 **F.1.3 External Communications**

18 LLBG Trenches 31 & 34 personnel at the LLBG Trenches 31 & 34 shall have voice communication or
19 equivalent (e.g., hand signals) during work assignments for summoning emergency assistance from the
20 Hanford Fire Department, the Hazardous Materials Response Team, and/or local emergency response
21 teams as necessary. External communication will be maintained through the telephone communication
22 system, a two-way radio base station, and two-way portable radios. In addition, the following external
23 communication systems shall be available for notifying persons assigned to emergency response
24 organizations:

- 25 • Telephone number 911 from site office phones or 373-0911 from cellular phones, contact point
26 for the Hanford Facility; the Hanford Patrol Operations Center notifies and/or dispatches required
27 emergency responders.
- 28 • Telephone number 373-3800, is the single point of contact for the Hanford Patrol Operations
29 Center.

30 **F.1.4 Emergency Equipment**

31 Emergency equipment will be available for use at LLBG as required by [WAC 173-303-340\(1\)](#). A list of
32 equipment will be available for inspection as required by the Contingency Plan and Permit Conditions
33 II.A and III.17.F. The LLBG relies on the Hanford Fire Department to respond to fires and other
34 emergencies as described in Permit Attachment 4, *Hanford Emergency Management Plan*,
35 (DOE/RL-94-02). The LLBG Trenches 31 & 34 operations personnel shall be trained in the use of
36 emergency equipment according to Addendum G (Personnel Training)

37 **F.1.5 Water for Fire Control**

38 The Hanford Fire Department shall be equipped with fire engines to provide needed water for fire control
39 for fires requiring high water volume and pressure at the LLBG Trenches 31 & 34.

40 **F.1.6 Aisle Space Requirement**

41 Aisle spacing during container storage operations at the LLBG 218-W-5, Trenches 31 & 34 shall be
42 sufficient to allow the movement of personnel and fire protection equipment in and around the containers.
43 Container storage will be managed in a manner equivalent with the International Fire Code for the
44 protection of human health and the environment. A minimum 30-inch aisle space shall be maintained

1 between rows of containers as required by [WAC 173-303-630\(5\)\(c\)](#) and [WAC 173-303-340\(3\)](#) for
2 storage of waste at the Trench 31 Waste Storage Pad or the Trench 34 Waste Storage Pad. During
3 container storage operations at the Trench 31 Waste Storage Pad or the Trench 34 Waste Storage Pad,
4 rows of drums shall be placed no more than two drums wide in accordance with [WAC 173-303-630\(5\)\(c\)](#).
5 The containers are loaded and unloaded via the access ramp on the south side of each trench.

6 **F.2 Preventive Procedures, Structures, and Equipment**

7 The following sections describe preventive procedures, structures, and equipment.

8 **F.2.1 Spill Prevention and Control**

9 This section discusses the prevention of dangerous and/or mixed waste spills or leaks during the loading
10 and unloading of waste and during transfers into and out of LLBG Trenches 31 & 34.

11 **F.2.1.1 Unloading Operations**

12 Methods used to prevent releases during unloading operations depend on waste form (e.g., containerized
13 or bulk). The methods employed are as follows:

- 14 • Containers shall be inspected for damage before being unloaded from the transport vehicle.
- 15 • Containerized waste shall be handled by appropriate equipment (e.g., forklift or crane) during
16 unloading.
- 17 • Path from loading area to storage area shall be clear of obstructions.
- 18 • Containers and bulk waste shall not be unloaded with winds in excess of 15 miles (24
19 kilometers) per 5 hours.
- 20 • Bulk waste shall be handled in a manner to ensure that dispersal does not occur (e.g., use of
21 fixatives while placing bulk waste in trenches and air monitoring).

22 Any spills shall be managed as identified in Addendum J (Contingency Plan). In the LLBG Trenches 31
23 & 34, container pallets, burial containers, and other approved waste packages are placed individually in
24 the trenches for burial. Waste may be staged at the waste unloading area no longer than necessary for
25 placement into the trench; however, waste might be left in place overnight (e.g., should the daily
26 operational shift end or weather conditions preclude movement) before waste is placed into the trench.

27 **F.2.2 Runoff**

28 The waste in the LLBG Trenches 31 & 34 shall be buried below the land surface; thus, the LLBG
29 Trenches 31 & 34 are designed to prevent runoff of precipitation that might have come in contact with
30 waste. The average precipitation is approximately 6 inches (16 centimeters) per year, so minimal run-off
31 occurs. The land surface is relatively level, so trenches have only internal drainage. The minimal
32 amounts of precipitation that accumulate are contained within the trenches.

33 The lined LLBG 218-W-5, Trenches 31 & 34 are designed to channel run-on liquid away from the
34 trenches. Run-off liquid will be captured within the trenches. Surface liquid evaporates.

35 Actions to be taken in response to a spill or discharge are detailed in Addendum J (Contingency Plan).

36 **F.2.3 Water Supplies**

37 The design and operation of the LLBG Trenches 31 & 34 are intended to minimize the generation of
38 potentially contaminated leachate and to prevent its migration into groundwater resources in the local
39 area. Operations are designed to protect local water supplies (Addendum C, Process Information) and
40 mitigate contaminant migration through surface water and groundwater (Addendum D, Groundwater
41 Monitoring). Descriptions of activities that prevent contamination of water supplies or groundwater
42 include the following:

- 43 • Placement of mixed waste in LLBG 218-W-5, Trenches 31 & 34, refer to Addendum C (Process
44 Information).

- 1 – Waste shall be containerized or stabilized to control migration of mixed waste.
- 2 – Run-on and run-off shall be controlled.
- 3 – Leak detection systems shall be used.
- 4 – Leachate shall be collected and managed as mixed waste.
- 5 – Inspections shall be performed.
- 6 • Placement of backfill on filled portions of trenches.

7 **F.2.4 Equipment and Power Failure**

8 Electrical power is required for LLBG 218-W-5, Trenches 31 & 34; however, loss of electricity does not
9 constitute an emergency, but should be restored as soon as possible. Electricity supplies power to the
10 sump pumps used to remove accumulated leachate from the primary and secondary liners.

11 **F.2.5 Personnel Protection Equipment**

12 All personnel shall be required to wear the personnel protective equipment required by the work
13 authorization documentation when working in sections of LLBG Trenches 31 & 34. The protective
14 clothing required in the LLBG Trenches 31 & 34 varies depending on the form and content of the waste.
15 Personnel will be instructed to wear personal protective equipment in accordance with training, posting,
16 and instructions.

17 **F.3 Prevention of Reaction of Ignitable, Reactive, and Incompatible Waste**

18 The following sections describe prevention of reaction of ignitable, reactive, and incompatible waste.
19 Waste acceptance criteria prohibit the disposal of ignitable or reactive waste in the LLBG Trenches 31 &
20 34. Reactive and ignitable waste must be treated and/or neutralized (Addendum B, Waste Analysis). No
21 ignitable or reactive waste subject to [40 CFR 268](#) can be stored in LLBG 218-W-5, Trenches 31 & 34.
22 Ignitable or reactive waste shall be managed pursuant to [WAC 173-303-395](#)(1). In addition, the
23 requirements of [WAC 173-303-630](#)(9) and [WAC 173-303-640](#)(9) shall be met.

24 Addendum B (Waste Analysis) requires that ignitable or reactive waste be treated in accordance with
25 RCRA-specified treatment standards. In addition, measures shall be taken to ensure that the commingling
26 of incompatible waste does not occur. Waste acceptance criteria ensure that the required treatment has
27 been performed before the waste is disposed or stored in the LLBG Trenches 31 & 34.

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