

ENCLOSURE 2

Class 1 modifications for quarter ending June 30, 2009

Ms. Greta P. Davis, Ecology
Consisting of 84 pages, including cover sheet

Hanford Facility RCRA Permit Modification

**Part III, Operating Unit 2
PUREX Storage Tunnels**

Remove and Replace the Following Sections:

- Remove Chapter 7.0, dated September 30, 2008, with Addendum J, dated June 30, 2009

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(5 U.S.C. 552)Exemption number(s) and category: <u>Exemption 2</u>
Circumvention of Statute
Department of Energy review required before public release

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J. CONTINGENCY PLAN

2 The WAC 173-303 requirements for contingency plans are satisfied in the following documents: the
3 *Unit-Specific Contingency Plan for the 218-E-14 and 218-E-15 Storage Tunnels* (Chapter 7.0) and
4 Attachment 4, *Hanford Emergency Management Plan* (DOE/RL-94-02).

5 J.1 GENERAL INFORMATION

6 The Plutonium-Uranium Extraction 218-E-14 and 218-E-15 (PUREX Storage Tunnels) are located in the
7 200 East Area of the 1,450-square kilometer U.S. Department of Energy, Richland Operations Office
8 (DOE-RL) operated Hanford Site in southeastern Washington State. The Hanford Site Emergency
9 Preparedness Program is based upon the incident command system, which allows a graded approach for
10 responses to emergency events. This plan contains a description of facility specific planning and
11 response. It is used in conjunction with Attachment 4, *Hanford Emergency Management Plan*
12 (DOE/RL-94-02). Response to events is performed using facility specific and/or Site level emergency
13 procedures.

14 J.1.1 Facility Name

15 U.S. Department of Energy
16 Hanford Site
17 PUREX Storage Tunnels

18 J.1.2 Facility Location

19 Benton County, Washington; within the 200 East Area. Structures covered by this plan are:

20 218-E-14 Tunnel Number 1
21 218-E-15 Tunnel Number 2

22 J.1.3 Owner

23 U.S. Department of Energy
24 Richland Operations Office
25 825 Jadwin Avenue
26 Richland, Washington 99352

27 J.1.4 Facility Manager

28 Fluor Hanford
29 P.O. Box 1000
30 Richland, Washington 99352-1000

31 J.1.5 Description of Facility and Operations

32 The PUREX Storage Tunnels consist of two structures, 218-E-14 (Tunnel Number 1) and 218-E-15
33 (Tunnel Number 2). The tunnels are used for the storage of material from the PUREX Plant and from
34 other onsite sources. The material stored in the tunnels contains dangerous waste and varying amounts of
35 mixed waste contamination; therefore, the stored material is managed as mixed waste. Tunnel Number 1
36 is filled to capacity. Tunnel Number 2 currently has storage positions available and may continue to
37 receive mixed waste from the PUREX Plant and other onsite sources until the tunnel is either filled to
38 capacity or a determination is made that waste will no longer be received.

39 Mixed waste is stored in the PUREX Storage Tunnels on railcars that are modified to serve as both
40 transporter and storage platforms. Each railcar is retrievable. However, because the railcars are stored on
41 a single, dead-end railroad spur inside each storage tunnel, the railcars can be removed only in reverse
42 order (i.e., last in, first out).

1 **J.1.6 Building Evacuation Route**

2 The PUREX Storage Tunnels evacuation route is shown in Figure 7.1. During an emergency, personnel
3 that enter the storage tunnels during material placement operations will evacuate via the north end of the
4 railroad tunnel.

5 **J.2 EMERGENCY COORDINATORS/BUILDING EMERGENCY DIRECTOR**

6 **Table J.1. Emergency Coordinator/Building Emergency Director ^a**

Designation	Job title	Work location	Work phone
Primary	Facility Operations	MO-294	373-1355

7 ^a The names and home phone numbers of all Emergency Coordinators/Building Emergency Director
8 (EC/BED) are maintained at the single point-of-contact (the Hanford Patrol Operations Center) telephone
9 number 373-3800 in accordance with the Hanford Facility RCRA PermitCondition II.A.4.

10 Emergency response will be directed by the EC/BED until the Incident Commander arrives. The incident
11 command structure and staff with supporting on-call personnel fulfill the responsibilities of the EC/BED
12 as discussed in WAC 173-303-360.

13 During events, facility personnel perform response duties under the direction of the EC/BED. The
14 Incident Command Post (ICP) is managed by either the senior Hanford Fire Department member present
15 on the scene or senior Hanford Patrol member present on the scene (security events only). These
16 individuals are designated as the Incident Commander (IC) and as such have the authority to request and
17 obtain any resources necessary for protecting people and the environment. The EC/BED becomes a
18 member of the ICP and functions under the direction of the IC. In this role, the EC/BED continues to
19 manage and direct facility operations.

20 A listing of the primary and alternate EC/BEDs by title, work location and work telephone numbers is
21 identified in the table above. The EC/BED is on the premises or is available through an "on-call" list
22 24 hours a day.

23 **J.3 IMPLEMENTATION OF THE PLAN**

24 In accordance with WAC 173-303-360(2)(b), the BED ensures that trained personnel identify the
25 character, source, amount, and areal extent of the release, fire, or explosion to the extent possible.
26 Identification of waste can be made by activities that can include, but are not limited to, visual inspection
27 of involved containers, sampling activities in the field, reference to inventory records, or by consulting
28 with facility personnel. Samples of materials involved in an emergency might be taken by qualified
29 personnel and analyzed as appropriate. These activities must be performed with a sense of immediacy
30 and shall include available information.

31 The BED shall use the following guidelines to determine if an event has met the requirements of
32 WAC 173-303-360(2)(d):

- 33 1. The event involved an unplanned spill, release, fire, or explosion,
34 AND
35 2.a The unplanned spill or release involved a dangerous waste, or the material involved became a
36 dangerous waste as a result of the event (e.g., product that is not recoverable.), or
37 2.b The unplanned fire or explosion occurred at the PUREX Storage Tunnels or transportation activity
38 subject to RCRA contingency planning requirements,
39 AND
40 3. Time-urgent response from an emergency services organization was required to mitigate the event,
41 or a threat to human health or the environment exists.

1 As soon as possible, after stabilizing event conditions, the BED shall determine, in consultation with the
2 Site contractor environmental single-point-of-contact, if notification to the Washington State Department
3 of Ecology is needed to meet WAC-173-303-360(2)(d) reporting requirements. If all of the conditions
4 under 1, 2, and 3 are met, notifications are to be made to Ecology. Additional information is found in
5 Attachment 4, *Hanford Emergency Management Plan* (DOE/RL-94-02), Section 4.2.

6 If review of all available information does not yield a definitive assessment of the danger posed by the
7 incident, a worst-case condition will be presumed and appropriate protective actions and notifications will
8 be initiated. The BED is responsible for initiating any protective actions based on their best judgment of
9 the incident.

10 The BED must assess each incident to determine the response necessary to protect the personnel, facility,
11 and the environment. If assistance from HP, HFD, or ambulance units is required, the Hanford
12 Emergency Response Number (911) must be used to contact the POC and request the desired assistance.
13 To request other resources or assistance from outside the Central Plateau Surveillance and Maintenance
14 facilities, the POC business number is used (373-3800).

15 **J.3.1 Dangerous and/or Mixed Waste**

16 A seismic event, explosion, tornado, or an aircraft crash could cause damage to the storage tunnels and
17 could involve environmental exposure to mixed waste. These events are considered the only credible
18 sources of a release as the PUREX Storage Tunnels are unoccupied structures and there are no continuous
19 processes associated with waste storage.

20 Emergency responses for credible dangerous and/or mixed waste releases can be found in the following
21 sections.

22 **J.3.2 Fire or Explosion**

23 The fire or explosion hazard associated with the PUREX Storage Tunnels is considered to be very low
24 because of the minimal amount of combustibles stored within the tunnels and the lack of an ignition
25 source.

26 Because of the potential for mixed waste to leach, water is not the preferred choice for fire control.
27 Reduction of the air supply to the storage area by isolation of the tunnel exhaust system, if operating,
28 should permit a fire to self-extinguish. Should the fire continue to spread, heavy equipment and cranes
29 will be called to the scene to cover areas of the tunnels that might collapse. In addition, the following
30 actions are taken in the event of a fire or explosion:

- 31 • If present in the Tunnels, personnel leave by the nearest safe exit and proceed to the designated
- 32 staging area for accounting
- 33 • The single point-of-contact (911) is notified immediately, who in turn initiates notifications to the
- 34 EC/BED (or alternate) if necessary
- 35 • The EC/BED proceeds directly to the scene (if not already there)
- 36 • The EC/BED obtains all necessary information pertaining to the incident
- 37 • Depending on the severity of the event, the EC/BED or his/her designee may be required to provide
- 38 notifications to the site contractor environmental single point of contact, which in turn notifies offsite
- 39 agencies and/or the occurrence notification center informing them as to the extent of the emergency
- 40 (including estimates of mixed waste quantities released to the environment) and any actions necessary
- 41 to protect nearby buildings and/or structures
- 42 • Depending on the severity, the EC/BED requests activation of the affected area ICP to establish
- 43 organizations to provide assistance from DOE-RL, other Hanford site contractors, and outside
- 44 agencies (if 911 is called, the ICP will automatically be activated)
- 45 • The Hanford Patrol establishes roadblocks within the area to route traffic away from the emergency
- 46 scene

- 1 • If necessary, Hanford Fire Department medical personnel remove injured personnel to a safe location,
2 apply first aid, and prepare the injured for transport to medical aid stations or to local hospitals.

3 Depending on the magnitude of a natural phenomena event, fire, or an explosion, damage to the storage
4 tunnels is possible. The hazards could involve personnel and environmental exposure to mixed waste. In
5 the event of such an occurrence, a recovery plan will be developed. The recovery plan will take into
6 consideration methods, if any, for retrieval of the waste stored within the tunnels.

7 **J.3.3 Seismic Event/Tornado**

8 Depending on the magnitude of the seismic event or tornado, damage to the storage tunnels is possible.
9 The hazards could involve personnel and environmental exposure to mixed waste.

10 Emergency responses for seismic events and tornadoes would be the same as those for a fire or explosion.
11 Refer to Section 3.2 of this plan.

12 **J.3.4 Aircraft Crash**

13 In addition to the potential for serious injuries or fatalities involved with an aircraft crash, damage to the
14 storage tunnels is possible, which would result in a fire, explosion, or a mixed waste release. The hazards
15 could involve personnel and environmental exposure to mixed waste.

16 Refer to Section 7.3.2 of this plan for emergency responses for fires and explosions.

17 **J.3.5 Bomb Threat/Explosive Device**

18 Depending on the magnitude of an explosion, damage to the storage tunnels is possible. The hazards
19 could involve personnel and environmental exposure to mixed waste. For emergency responses, refer to
20 Section 7.3.2 of this plan for explosions.

21 **J.3.6 Damaged Dangerous and/or Mixed Waste Shipment**

22 The PUREX Storage Tunnels do not accept shipments from offsite; therefore, the following response
23 procedures only apply to the receipt of a damaged mixed waste shipment from onsite.

24 If the damaged shipment of hazardous substance or dangerous waste/mixed waste arrives at the PUREX
25 Storage Tunnels and the shipment is unacceptable for receipt, the damaged shipment should not be
26 moved. The TSD unit personnel instead need to determine if there has been a release. If there has been a
27 release, TSD unit personnel perform the following actions.

- 28 • Notify the supervisor or manager to advise of the situation. The supervisor or manager contacts the
29 Emergency Coordinator in order to respond and assist in the evaluation of, and response to, the
30 release (response to spills or releases may result in implementation of the contingency plan if the
31 Emergency Coordinator makes this determination).
- 32 • Notify the shipper or generating unit of the damaged shipment and request that they provide any
33 chemical information necessary to assist in responding to the release.
- 34 • Actions are taken to contain and/or to stop the spill if all of the following are true:
- 35 - The identity of the substance(s) involved is known
 - 36 - Appropriate protective equipment and control/cleanup supplies are readily available
 - 37 - Personnel present have received the appropriate training and can safely perform the action(s)
38 without assistance, or assistance is readily available from other trained TSD unit personnel.

39 If any of the above conditions are not met, or there is any doubt, personnel evacuate the area and remain
40 outside, upwind of the TSD unit, pending the arrival of the Emergency Coordinator. Personnel remain
41 available for consultation with the Emergency Coordinator, Hanford Fire Department, or other emergency
42 response personnel, as appropriate.

1 **J.4 UNIT/BUILDING EMERGENCY RESPONSE PROCEDURES**

2 The initial response to any emergency is to immediately protect the health and safety of persons in the
3 area. Identification of released material is essential to determine appropriate protective actions.

4 Containment, treatment, and disposal assessment are secondary responses.

5 Emergency action levels associated with event classifications applicable to the PUREX Storage Tunnels
6 include the following. A Site Area Emergency can be declared for a hazardous material release resulting
7 from a fire, an explosion, natural hazards (i.e., seismic event and/or tornado/high winds), an aircraft crash,
8 discovery or detonation of an explosive device, a hostage situation or armed intruders, or loss of
9 containment. An Alert Emergency can be declared for a fire, explosion, natural hazards (i.e., seismic
10 event and/or tornado/high winds), and aircraft crash. The preceding sections describe the process for
11 implementing basic protective actions as well as descriptions of response actions for events.

12 **J.4.1 Notification**

13 Notification will be made in accordance with the requirements of WAC 173-303-145 and
14 WAC 173-303-360.

15 **J.4.2 Identification of Released/Spilled Materials**

16 Methods for identifying the character, source, amount, and areal extent of any materials when there has
17 been a release or spill to the environment, a fire, or an explosion are outlined in, Attachment 4, *Hanford*
18 *Emergency Management Plan* (DOE/RL-94-02), Section 4.2.

19 **J.4.3 Prevention of Recurrence or Spread of Fires, Explosions, Releases**

20 The EC/BED, as part of the incident command structure, takes the steps necessary to ensure that a
21 secondary release, fire, or explosion does not occur. The following actions are taken:

- 22 • Isolate the area of the initial incident by shutting off power, closing off ventilation systems, if still
23 operating, etc., to minimize the spread of a release and/or the potential for a fire or explosion
- 24 • Inspect surface of the tunnels for leaks, cracks, or other damage
- 25 • Contain and isolate residual mixed waste material
- 26 • Cover or otherwise stabilize areas where residual released mixed waste remains to prevent migration
27 or spread from wind or precipitation run-off
- 28 • Install new structures, systems, or equipment to enable better management of mixed waste
- 29 • Reactivate adjacent operations in affected areas only after cleanup of residual mixed waste is
30 achieved.

31 **J.4.4 Termination of Event**

32 For events where the Hanford Emergency Operations Center (Hanford-EOC) is activated, the RL
33 Emergency Manager has the authority to declare event termination. This decision is based on input from
34 the EC/BED, Incident Commander, and other emergency response organization members. For events
35 where the Hanford-EOC is not activated, the Incident Command structure and staff will declare event
36 termination.

37 **J.4.5 Incident Recovery and Restart of Operations**

38 A recovery plan is developed when necessary. A recovery plan is needed following an event where
39 further risk could be introduced to personnel, the facility, or the environment through recovery action
40 and/or to maximize the preservation of evidence. Depending on the magnitude of the event and the effort
41 required to recover from it, recovery planning may involve personnel from RL and other contractors. If a
42 recovery plan is required, it is reviewed by appropriate personnel and approved by a Recovery Manager
43 before restart. Restart of operations is performed in accordance with the approved plan.

1 If this plan was implemented for a WAC emergency (refer to Section 7.3), the Washington State
2 Department of Ecology must be notified before operations can resume. Attachment 4, *Hanford*
3 *Emergency Management Plan* (DOE/RL-94-02), Section 5.1, discusses different reports to outside
4 agencies. This notification is in addition to other required reports and must include information
5 documenting the following conditions:

- 6 • There are no incompatibility issues with the waste and released materials from the incident.
- 7 • All the equipment has been clean, fit for its intended use, and placed back into service.

8 Additional information that Ecology requests regarding these restart conditions may be included in the
9 required 15-day report identified in WAC 173-303-360(2)(k).

10 For emergencies not involving activation of the Hanford-EOC, the EC/BED ensures that conditions are
11 restored to normal before operations are resumed. An onsite Recovery Manager could be appointed at the
12 discretion of RL to restore conditions to normal. This process is detailed in Attachment 4, *Hanford*
13 *Emergency Management Plan* (DOE/RL-94-02), Section 9.0. The makeup of this organization depends
14 on the extent of the damage and its effects. The onsite recovery organization will be appointed by the
15 appropriate contractor's management.

16 **J.4.6 Incompatible Waste**

17 After an event, the EC/BED or the onsite recovery organization ensures that no waste that might be
18 incompatible with the released material is treated, stored, and/or disposed of until cleanup is completed.
19 Cleanup actions are taken by facility personnel or other assigned personnel. Attachment 4, *Hanford*
20 *Emergency Management Plan* (DOE/RL-94-02), Section 9.2.3, describes actions to be taken.

21 Waste from cleanup activities is designated and managed as newly generated waste. A field check for
22 compatibility before storage is performed, as necessary. Incompatible wastes are not placed in the same
23 container. Containers of waste are placed in storage areas appropriate for their compatibility class.

24 If incompatibility of waste was a factor in the incident, the EC/BED or the onsite recovery organization
25 ensures that the cause is corrected. Examples include modification of an incompatibility chart of
26 increased scrutiny of waste from a generating unit when incorrectly designated waste caused or
27 contributed to an incident.

28 **J.4.7 Post Emergency Equipment Maintenance and Decontamination**

29 All equipment used during an incident is decontaminated (if practicable) or disposed of as spill debris.
30 Decontaminated equipment is checked for proper operation before storage for subsequent use.
31 Consumables and disposed materials are restocked. Fire extinguishers are recharged or replaced.

32 The EC/BED ensures that all equipment is cleaned and fit for its intended use before operations are
33 resumed. Depleted stocks of neutralizing and absorbing materials are replenished, self-contained
34 breathing apparatus are cleaned and refilled, protective clothing is cleaned or disposed of and restocked,
35 etc.

36 **J.5 EMERGENCY EQUIPMENT**

37 Because personnel only enter the storage tunnels during material placement operations, no permanent
38 emergency equipment, communications equipment, warning systems, personal protective equipment, or
39 spill control and containment supplies are located in the tunnels.

40 During storage tunnel operations or an emergency response event, personnel use portable emergency
41 equipment, which could include heavy equipment and cranes (Section 7.3.2). Also, for such operations,
42 work plans are followed and pre-job safety meetings take place.

1 **J.6 COORDINATION AGREEMENTS**

2 The DOE-RL has established a number of coordination agreements, or memoranda of understanding
3 (MOU) with various agencies to ensure proper response resource availability for incidents involving the
4 Hanford Site. A description of the agreements is contained in Attachment 4, *Hanford Emergency*
5 *Management Plan* (DOE/RL-94-02), Table 3-1.

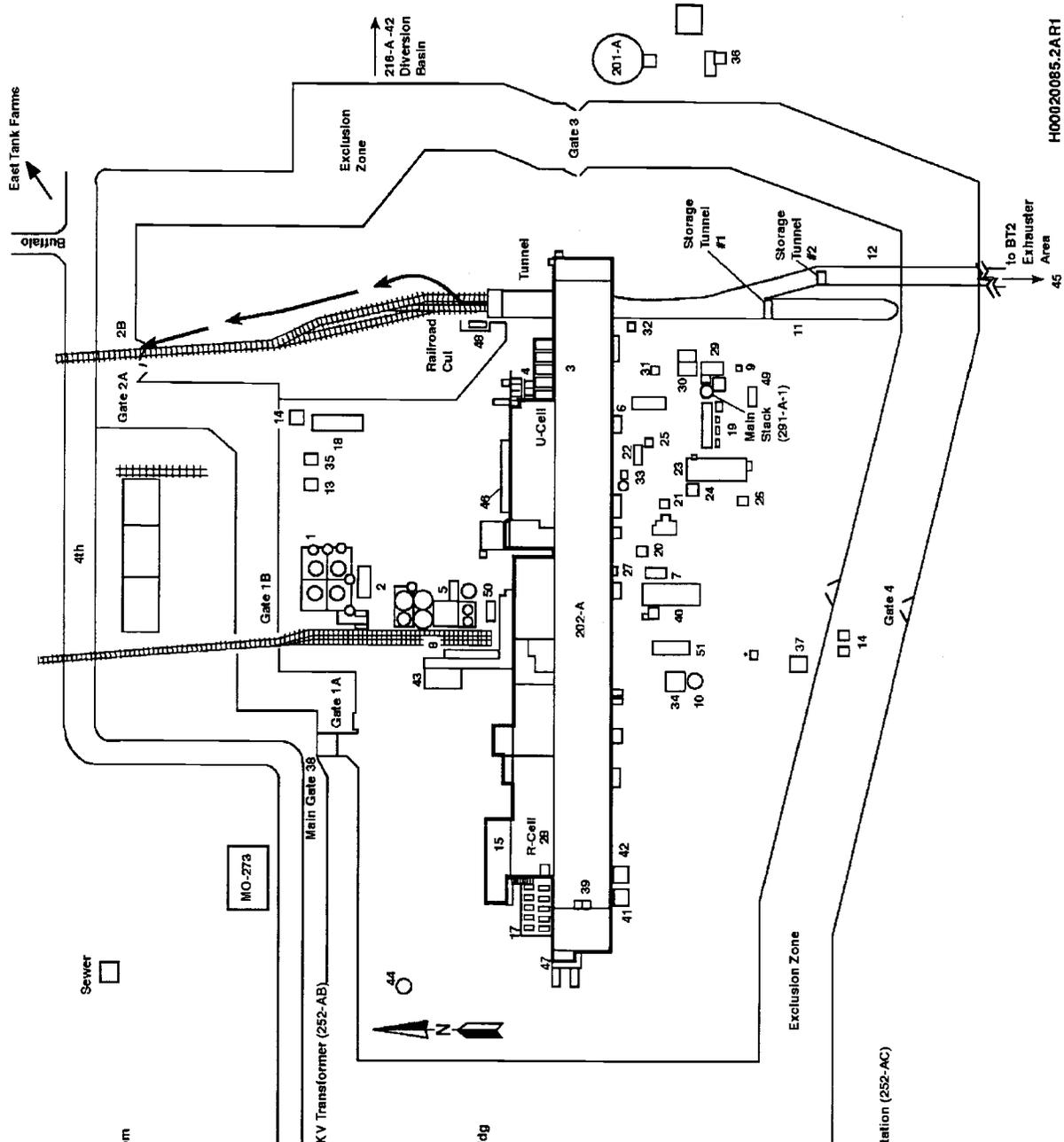
6 **J.7 REQUIRED REPORTS**

7 Post incident written reports are required for certain incidents on the Hanford Site in accordance with
8 Attachment 4, *Hanford Emergency Management Plan* (DOE/RL-94-02), Section 5.1.

9

1 Figure J.1. PUREX Storage Tunnels Evacuation Route

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- 1. 203-A Storage Area
- 2. 203-A UNH Pump House/Control Room
- 3. 204-A U-Cell
- 4. 206-A Fractionator Bldg
- 5. 211-A Demineralizer Bldg
- 6. 212-A Load Out
- 7. 213-A Reg. Maint. Workshop
- 8. 214-A, B, C, D
- 9. 216-A Spud Cellar Sample Pit
- 10. 216-A-5 PDD FH
- 11. 218-E-14 Storage Tunnel #1
- 12. 218-E-15 Storage Tunnel #2
- 13. 225-EC TDF Monitoring Bldg
- 14. Main Electrical Switch Station & 13.9KV Transformer (252-AB)
- 15. 271-AB PUREX Maintenance Facility
- 17. 276-A R Cell
- 18. 281-A Emergency Generators
- 19. 281-A Exhaust Fans
- 20. 291-AB Sample Shack
- 21. 291-AC Instr. Shack
- 22. 291-AD Ammonia Off Gas Filter Bldg
- 23. 291-AE #4 Filter Bldg
- 24. 291-AG Instr. Shack
- 25. 291-AH Ammonia Off Gas Sampler Bldg
- 26. 291-AJ Instr. Shack
- 27. 291-AK Air Tunnel Enclosure
- 28. 292-AA PR Stack Sample
- 29. 292-AB Main Stack Bldg
- 30. 293-A Dissolver Off Gas Bldg
- 31. 294-A Off Gas Instr. Shack
- 32. 295-A ASD (Ammonia Scrubber)
- 33. 295-AA SCD (Steam Condensate)
- 34. 295-AB PDD (Process Distillate)
- 35. 295-AC CSL Sample Bldg
- 36. 295-AD CWL (Cooling Water)
- 37. 295-AE New PDD Monitoring Bldg
- 38. 2701-AB Badge House
- 39. 2701-AC Patrol Guard Shack
- 40. Electrical Substation
- 41. 2711-A-1 Air Compressor Bldg
- 42. 2712-A Pumphouse
- 43. 2714-A Chemical Warehouse
- 44. 2901-A Water Tank
- 45. Laboratory Sample Receiving Dock
- 46. Laboratory Sample Receiving Dock
- 47. PR-Dock
- 48. Railroad Storage Shed
- 49. SAMCON Unit (217-A)
- 50. Surveillance Lighting Electrical Substation (252-AC)
- * - Storage Shacks

Hanford Facility RCRA Permit Modification

Part III, Operating Unit 3

Liquid Effluent Retention Facility & 200 Area Effluent Treatment Facility

Remove and Replace the Following Sections:

- Remove Chapter 7.0, December 31, 2007, replace with Chapter 7.0, dated June 30, 2009

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25 **Table**

26	Table 7.1.	Hanford Facility Documents Containing Contingency Plan Requirements of WAC 173-303-350(3).....7.1
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May be exempt from public release under the Freedom of Information Act
(5 U.S.C. 552)Exemption number(s) and category: <u>Exemption 2</u>
Circumvention of Statute
Department of Energy review required before public release

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7.0 CONTINGENCY PLAN

The requirements for a contingency plan at LERF/200 Area ETF are satisfied in the following documents: portions of Hanford Facility Permit (Permit) Attachment 4, *Hanford Emergency Management Plan* (DOE/RL-94-02) and this Chapter.

The unit specific building emergency plan also serves to satisfy a broad range of other requirements [e.g., Occupational Safety and Health Administration standards (29 CFR 1910), *Toxic Substance Control Act of 1976* (40 CFR 761) and U.S. Department of Energy Orders]. Therefore, revisions made to portions of this unit specific building emergency plan that are not governed by the requirements of WAC 173-303 will not be considered as a modification subject to WAC 173-303-830 or Permit Condition I.C.3.

Table 7.1 identifies the sections of the unit specific building emergency plan are written to meet WAC 173-303-350(3) contingency plan requirements. In addition, Section 12.0 of the unit specific building emergency plan is written to meet WAC 173-303 requirements identifying where copies of Permit Attachment 4, *Hanford Emergency Management Plan* (DOE/RL-94-02) and the building emergency plan are located and maintained on the Hanford Facility. Therefore, revisions to Chapter 7.0 require a modification subject to WAC 173-303-830 and/or Permit Condition I.C.3.

Table 7.1. Hanford Facility Documents Containing Contingency Plan Requirements of WAC 173-303-350(3)

Requirement	Permit Attachment 4, <i>Hanford Emergency Management Plan</i> (DOE/RL-94-02)	Building Emergency Plan ¹ (HNF-IP-0263-ETF)	Part III, OU-3, LERF & 200 Area ETF, Chapter 7.0
-350(3)(a) - A description of the actions, which facility personnel must take to comply with this section and <u>WAC 173-303-360</u> .	X ² Section 1.3.4	X ² Sections 7.1, 7.2 through 7.2.5, and 7.3 ³ Sections 4.0 (1 st paragraph), 8.2, 8.3, 8.4, 11.0	X ² Sections 7.3.1, 7.3.2, through 7.3.2.5, and 7.3.3 ³ Sections 7.3, 7.3.4, 7.3.5, 7.3.6, and 7.5
-350(3)(b) - A description of the actions which shall be taken in the event that a dangerous waste shipment, which is damaged or otherwise presents a hazard to the public health and the environment, arrives at the facility, and is not acceptable to the owner or operator, but cannot be transported pursuant to the requirements of <u>WAC 173-303-370(5)</u> , Manifest system, reasons for not accepting dangerous waste shipments.	X ² Section 1.3.4	X ^{2,4} Section 7.2.5.1	X ^{2,4} Section 7.3.2.5.1
-350(3)(c) - A description of the arrangements agreed to by local police departments, fire departments, hospitals, contractors, and state and local emergency response teams to coordinate emergency services as required in <u>WAC 173-303-340(4)</u> .	X Sections 3.2.3, 3.3.1, 3.3.2, 3.4, 3.4.1.1, 3.4.1.2, 3.4.1.3, 3.7, and Table 3-1		

Table 7.1. Hanford Facility Documents Containing Contingency Plan Requirements of WAC 173-303-350(3)

Requirement	Permit Attachment 4, <i>Hanford Emergency Management Plan</i> (DOE/RL-94-02)	Building Emergency Plan ¹ (HNF-IP-0263-ETF)	Part III, OU-3, LERF & 200 Area ETF, Chapter 7.0
-350(3)(d) - A current list of names, addresses, and phone numbers (office and home) of all persons qualified to act as the emergency coordinator required under <u>WAC 173-303-360(1)</u> . Where more than one person is listed, one must be named as primary emergency coordinator, and others must be listed in the order in which they will assume responsibility as alternates. For new facilities only, this list may be provided to the department at the time of facility certification (as required by <u>WAC 173-303-810(14)(a)(I)</u>), rather than as part of the permit application.		X ⁵ Section 3.1, 13.0	X ⁵ Sections 7.2 and 7.7
-350(3)(e) - A list of all emergency equipment at the facility (such as fire extinguishing systems, spill control equipment, communications and alarm systems, and decontamination equipment), where this equipment is required. This list must be kept up to date. In addition, the plan must include the location and a physical description of each item on the list, and a brief outline of its capabilities.	X Hanford Fire Department: Appendix C	X Section 9.0	X Section 7.4
-350(3)(f) - An evacuation plan for facility personnel where there is a possibility that evacuation could be necessary. This plan must describe the signal(s) to be used to begin evacuation, evacuation routes, and alternate evacuation routes.	X ⁶ Figure 7-3 and Table 5-1	X ⁷ Section 1.5	X ⁷ Section 7.1

An "X" indicates requirement applies.

¹ Portions of Permit Attachment 4, *Hanford Emergency Management Plan* (DOE/RL-94-02) not enforceable through Appendix A of that document are not made enforceable by reference in the building emergency plan.

² Permit Attachment 4, *Hanford Emergency Management Plan* (DOE/RL-94-02) contains descriptions of actions relating to the Hanford Site Emergency Preparedness System. No additional description of actions are required if at the site level. If other credible scenarios exist or if emergency procedures at the unit are different, the description of actions contained in the building emergency plan will be used during an event by a building emergency director.

³ Sections 7.1, 7.2 through 7.2.5, and 7.3 of the building emergency plan are those sections subject to the Class 2 "Changes in emergency procedures (i.e., spill or release response procedures)" described in WAC 173-303-830, Appendix I, Section B.6.a.

⁴ This requirement only applies to TSD units, which receive shipment of dangerous or mixed waste defined as off-site shipments in accordance with WAC 173-303.

⁵ Emergency Coordinator names and home telephone numbers are maintained separate from any contingency plan document, on file in accordance with Permit Condition II.A.4 and are updated, at a minimum, monthly.

⁶ The Hanford Facility (sitewide) signals are provided in this document. No unit/building signal information is required unless unique devices are used at the unit/building.

⁷ An evacuation route for the TSD unit must be provided. Evacuation routes for occupied buildings surrounding the TSD unit are provided through information boards posted within buildings.

7.1 BUILDING EVACUATION ROUTING

Figures 7.1 and 7.2 provide identification of the primary and secondary staging areas and a general layout of the 2025E and ETF/LERF. Alternate evacuation routes will be used on a case-by-case basis based on meteorological conditions at the time of the event.

7.2 BUILDING EMERGENCY DIRECTOR

Emergency response will be directed by the Building Emergency Director (BED) until the Incident Commander (IC) arrives. The Incident Command System and staff with supporting on-call personnel fulfill the responsibilities of the Emergency Coordinator as discussed in WAC 173-303-360.

During events, ETF/LERF personnel perform response duties under the direction of the BED. The Incident Command Post (ICP) is managed by the senior Hanford Fire Department official, unless the event is determined to be primarily a security event, in which case the Hanford Fire Department and Hanford Patrol will operate under a unified command system with Hanford Patrol making all decisions pertaining to security. These individuals are designated as the IC and as such, have the authority to request and obtain any resources necessary for protecting people and the environment. The BED becomes a member of the ICP and functions under the direction of the IC. In this role, the BED continues to manage and direct LERF/ETF operations.

A listing of BEDs by title, work location, and work telephone numbers is contained in Section 7.7 of this plan. The BED is on the premises or is available through an "on-call" list 24 hours a day. Names and home telephone numbers of the BEDs are available from the Patrol Operations Center (POC) in accordance with Permit Condition II.A.4.

7.3 IMPLEMENTATION OF THE PLAN

In accordance with WAC 173-303-360(2)(b) the BED ensures that trained personnel identify the character, source, amount, and areal extent of the release, fire, or explosion to the extent possible. Identification of waste can be made by activities that can include, but are not limited to, visual inspection of involved containers, sampling activities in the field, reference to inventory records, or by consulting with facility personnel. Samples of materials involved in an emergency might be taken by qualified personnel and analyzed as appropriate. These activities must be performed with a sense of immediacy and shall include available information.

The BED shall use the following guidelines to determine if an event has met the requirements of WAC 173-303-360(2)(d):

1. The event involved an unplanned spill, release, fire, or explosion,
AND
- 2.a The unplanned spill or release involved a dangerous waste, or the material involved became a dangerous waste as a result of the event (e.g., product that is not recoverable.), or
- 2.b The unplanned fire or explosion occurred at the ETF/LERF or transportation activity subject to RCRA contingency planning requirements,
AND
3. Time-urgent response from an emergency services organization was required to mitigate the event or a threat to human health or the environment exists.

As soon as possible, after stabilizing event conditions, the BED shall determine, in consultation with the site contractor environmental single point-of-contact, if notification to the Washington State Department of Ecology (Ecology) is needed to meet WAC 173-303-360(2)(d) reporting requirements. If all of the conditions under 1, 2, and 3 are met, notifications are to be made to Ecology. Additional information is found in Permit Attachment 4, *Hanford Emergency Management Plan*, (DOE/RL-94-02), Section 4.2.

If review of all available information does not yield a definitive assessment of the danger posed by the incident, a worst-case condition will be presumed and appropriate protective actions and notifications will be initiated. The BED is responsible for initiating any protective actions based on their best judgment of the incident.

The BED must assess each incident to determine the response necessary to protect the personnel, facility, and the environment. If assistance from Hanford Patrol, Hanford Fire Department, or ambulance units is required, the Hanford Emergency Response Number (911) must be used to contact the POC and request the desired assistance. To request other resources or assistance from outside the ETF/LERF, the POC business number is used (373-3800).

7.3.1 Protective Actions Responses

Protective action responses are discussed in the following sections. The steps identified in the following description of actions do not have to be performed in sequence because of the unanticipated sequence of incident events.

7.3.1.1 Evacuation

The objective of a facility evacuation order is to limit personnel exposure to hazardous materials or dangerous/mixed waste by increasing the distance between personnel and the hazard. The scope of the evacuation includes evacuation of the facility because of an event at the facility as well as evacuation of the facility in response to a site evacuation order. Evacuation will be directed by the BED when conditions warrant and will apply to all personnel not actively involved in the event response or emergency plan-related activities.

The BED will initiate the evacuation by directing an announcement be made to evacuate along with the evacuation location over a public address system, facility radios, and, as conditions warrant, by activating the 200 Area site evacuation alarms by calling the POC using 911 or 373-3800 (if using a cellular phone). Personnel proceed to a predetermined staging area (shown in Figure 7.2), or other safe upwind location, as determined by the BED. The BED will determine the operating configuration of the facility and identify any additional protective actions to limit personnel exposure to the hazard.

Emergency organization personnel or assigned operations personnel will conduct a sweep of occupied buildings to ensure that all non-essential personnel and visitors have evacuated. For an immediate evacuation, accountability will be performed at the staging area. The BED will assign personnel as accountability aides and staging managers with the responsibility to ensure that evacuation actions are taken at all occupied buildings at the ETF/LERF. All implementing actions executed by the aides/managers are directed by the emergency response procedures. When evacuation actions are complete, the aides/managers will provide a status report to the BED. The BED will provide status to the IC.

Figure 7.1 Evacuation Routes from 2025E

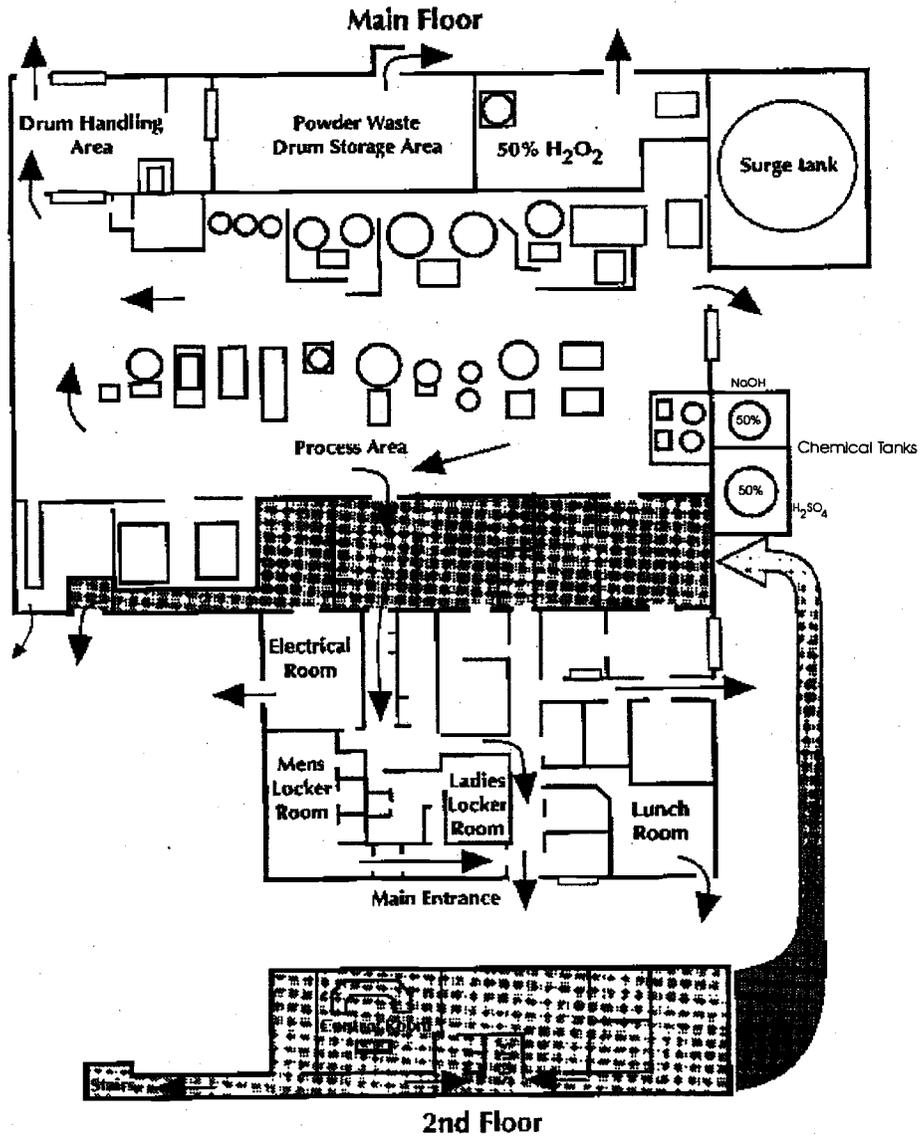
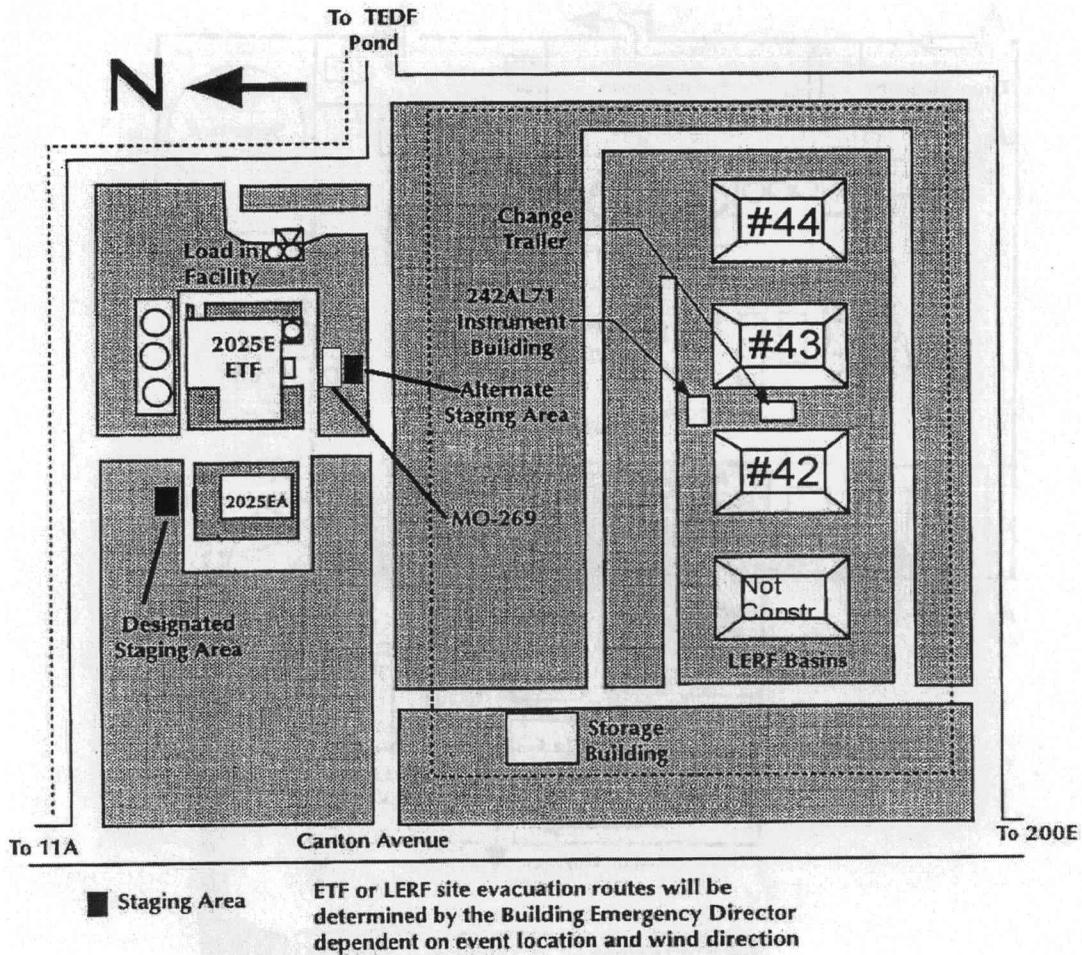


Figure 7.2. ETF/LERF Site Plan



1 **7.3.1.2 Take Cover**

2 The objective of the take cover order is to limit personnel exposure to hazardous materials, or
3 dangerous/mixed waste when evacuation is inappropriate or not practical. Evacuation might not be
4 practical or appropriate because of extreme weather conditions or the material release might limit the
5 ability to evacuate safely personnel.

6 The BED will initiate the take cover by directing an announcement be made over the public address
7 system, facility radios, and, as conditions warrant, by activating the 200 Area site take cover alarms by
8 calling the POC using 911 or 373-3800 (if using a cellular phone). Actions to complete a facility
9 take-cover will be directed by the emergency response procedure. Protective actions associated with
10 operations include configuring, or shutting down, the ventilation systems. Determination of additional
11 take cover response is based on plant operating configuration, weather conditions, amount and duration of
12 release, and other conditions, as applicable to the event and associated hazard. As a minimum, personnel
13 exposure to the hazard will be minimized. The BED will assign personnel as accountability aides with
14 responsibility to ensure that take-cover actions are taken at all occupied buildings at the ETF complex.
15 All implementing actions executed by the aides/managers are directed by the emergency response
16 procedure. When take cover actions are complete, the aides/manager will provide the BED with a status
17 report.

18 **7.3.2 Response to Facility Operations Emergencies**

19 Depending on the severity of the following events, the BED reviews the site wide procedures and
20 ETF/LERF emergency response procedure(s) and, as required, categorizes and/or classifies the event. If
21 necessary, the BED initiates area protective actions and Hanford Site Emergency Response Organization
22 activation. The steps identified in the following description of actions do not have to be performed in
23 sequence because of the unanticipated sequence of incident events.

24 **7.3.2.1 Loss of Utilities**

25 A case-by-case evaluation is required for each event to determine loss of utility impacts. When a BED
26 determines a loss of utility impact, actions are taken to ensure dangerous and/or mixed waste is being
27 properly managed, to the extent possible given event circumstances. As necessary, the BED will stop
28 operations and take appropriate actions until the utility is restored.

29 **7.3.2.2 Major Process Disruption/Loss of Plant Control**

30 The hazards assessment has determined that this occurrence does not pose significant risk to human
31 health or the environment.

32 **7.3.2.3 Pressure Release**

33 The hazards assessment has determined that a pressure release does not pose significant risk to human
34 health or the environment. Hazardous material release and dangerous/mixed waste releases are addressed
35 in Section 7.2.5.

36 **7.3.2.4 Fire and/or Explosion**

37 In the event, of a fire, the discoverer activates a fire alarm (pullbox); calls 911 (373-3800 if using a
38 cellular phone) or verifies that 911 have been called. Automatic initiation of a fire alarm (through the
39 smoke detectors, sprinkler systems, and pull boxes) is also possible.

- 40 • Unless otherwise instructed, personnel shall evacuate the area/building by the nearest safe exit and
41 proceed to the designated staging area for accountability.
- 42 • On actuation of the fire alarm, ONLY if time permits, personnel should shut down equipment, secure
43 waste, and lock up classified materials (or hand carry them out). The alarm automatically signals the
44 Hanford Fire Department.

- 1 • The BED proceeds directly to the ICP, obtains all necessary information pertaining to the incident,
2 and sends a representative to meet Hanford Fire Department.
- 3 • The BED provides a formal turnover to the IC when the IC arrives at the ICP.
- 4 • The BED informs the Hanford Site Emergency Response Organization as to the extent of the
5 emergency (including estimates of dangerous waste and mixed waste quantities released to the
6 environment).
- 7 • If operations are stopped in response to the fire, the BED ensures that systems are monitored for
8 leaks, pressure buildup, gas generation, and ruptures.
- 9 • Hanford Fire Department firefighters extinguish the fire as necessary.

10 NOTE: Following a fire and/or explosion, WAC 173-303-640(7) will be addressed for the ETF regarding
11 fitness for use.

12 **7.3.2.5 Hazardous Material, Dangerous and/or Mixed Waste Spill**

13 Spills can result from many sources including process leaks, container spills or leaks, damaged packages
14 or shipments, or personnel error. Spills of mixed waste are complicated by the need to deal with the extra
15 hazards posed by the presence of Atomic Energy Act materials. These controls include containment
16 berms, dedicated spill control sumps, remote gauges, and level indicators as well as spray shields on
17 chemical pipe flanges. LPCS procedures provide alarm response and maintenance actions for leak
18 detection equipment, surveillance of possible leak locations, and response actions for detected spills.

- 19 • The discoverer notifies BED and initiates SWIMS response:
 - 20 ☐ Stops work
 - 21 ☐ Warns others in the vicinity
 - 22 ☐ Isolates the area
 - 23 ☐ Minimizes the spill if possible
 - 24 ☐ Requests the BED Secure ventilation
- 25 • If Operations are stopped, the BED ensures that the plant is put in a safe shutdown configuration.
- 26 • The BED determines if emergency conditions exist requiring response from the Hanford Fire
27 Department based on classification of the spill and injured personnel, and evaluates need to perform
28 additional protective actions.
- 29 • If the Hanford Fire Department resources are not needed, the spill is mitigated with resources
30 identified in Section 9.0 of this plan and proper notifications are made.
- 31 • If the Hanford Fire Department resources are needed, the BED calls 911 (373-3800 if using a cellular
32 phone).
- 33 • The BED sends a representative to meet the Hanford Fire Department.
- 34 • The BED provides a formal turnover to the IC when the IC arrives at the ICP.
- 35 • The BED informs the Hanford Site Emergency Response Organization as to the extent of the
36 emergency (including estimates of dangerous waste and mixed waste quantities released to the
37 environment).
- 38 • If operations are stopped in response to the spill, the BED ensures that systems are monitored for
39 leaks, pressure buildup, gas generation, and ruptures.
- 40 • Hanford Fire Department stabilizes the spill.

41 NOTE: For response to leaks or spills and disposition of leaking or unfit-for-use tank systems, refer to
42 WAC 173-303-640(7).

43 **7.3.2.5.1 Damaged, or Unacceptable Shipments**

44 During the course of receiving an onsite transfer of dangerous and/or mixed waste at ETF/LERF an
45 unanticipated event could be discovered resulting in a conformance issue concerning the waste. Damaged
46 or unacceptable shipments resulting from onsite transfers are not subject to WAC 173-303-370 however
47 conformance issues must be resolved in order to maintain proper records.

1 The following actions are taken to resolve the conformance issue:

- 2 • Operations management is notified of the damaged or unacceptable waste to be received.
- 3 • If the conformance issue results in a spill or release, actions described in Section 7.3.2.5 are taken.
- 4 • The generating organization is notified of the conformance issue.

5 An operations representative, in conjunction with the generating organization, determines the course of
6 action to resolve the conformance issue.

7 **7.3.3 Prevention of Recurrence or Spread of Fires, Explosions, or Releases**

8 The BED, as part of the ICP, takes the steps necessary to ensure that a secondary release, fire, or
9 explosion does not occur. The BED will take measures, where applicable, to stop processes and
10 operations, collect and contain released waste, and remove or isolate containers. The BED also monitors
11 for leaks, pressure buildups, gas generation, or ruptures in valves, pipes, or other equipment, whenever
12 this is appropriate.

13 **7.3.4 Incident Recovery and Restart of Operations**

14 A recovery plan is developed when necessary in accordance with Permit Attachment 4, *Hanford*
15 *Emergency Management Plan*, (DOE/RL-94-02), Section 9.2. A recovery plan is needed following an
16 event where further risk could be introduced to personnel, the ETF/LERF, or the environment through
17 recovery action and/or to maximize the preservation of evidence.

18 If this plan was implemented according to Section 7.3 of this plan, Ecology is notified before operations
19 can resume. The Permit Attachment 4, *Hanford Emergency Management Plan*, (DOE/RL-94-02),
20 Section 5.1 discusses different reports to outside agencies. This notification is in addition to those
21 required reports and includes the following statements:

- 22 • There are no incompatibility issues with the waste and released materials from the incident.
- 23 • All the equipment has been cleaned, fit for its intended use, and placed back into service.

24 The notification required by WAC 173-303-360(2)(j) may be made via telephone conference. Additional
25 information that Ecology requests regarding these restart conditions will be included in the required
26 15-day report identified in Section 7.5 of this plan.

27 For emergencies not involving activation of the Hanford EOC, the BED ensures that conditions are
28 restored to normal before operations are resumed. If the Hanford Site Emergency Response Organization
29 was activated and the emergency phase is complete, a special recovery organization could be appointed at
30 the discretion of RL to restore conditions to normal. This process is detailed in RL and contractor
31 emergency procedures. The makeup of this organization depends on the extent of the damage and the
32 effects. The onsite recovery organization will be appointed by the appropriate contractor's management.

33 **7.3.5 Incompatible Waste**

34 After an event, the BED or the onsite recovery organization ensures that no waste that might be
35 incompatible with the released material is treated, stored, and/or disposed of until cleanup is completed.
36 Cleanup actions are taken by ETF/LERF personnel or other assigned personnel. Permit Attachment 4,
37 *Hanford Emergency Management Plan*, (DOE/RL-94-02), Section 9.2.3, describes actions to be taken.

38 Waste from cleanup activities is designated and managed as newly generated waste. A field check for
39 compatibility before storage is performed as necessary. Incompatible wastes are not placed in the same
40 container. Containers of waste are placed in storage areas appropriate for their compatibility class.

41 If incompatibility of wastes was a factor in the incident, the BED or the onsite recovery organization
42 ensures that the cause is corrected.

1 **7.3.6 Post Emergency Equipment Maintenance and Decontamination**

2 All equipment used during an incident is decontaminated (if practicable) or disposed of as spill debris.

3 Decontaminated equipment is checked for proper operation before storage for subsequent use.

4 Consumable and disposed materials are restocked. Fire extinguishers are recharged.

5 The BED ensures that all equipment is cleaned and fit for its intended use before operations are resumed.

6 Depleted stocks of neutralizing and absorbing materials are replenished; protective clothing is cleaned or
7 disposed of and restocked, etc.

8 **7.4 EMERGENCY EQUIPMENT**

9 Hanford Site emergency resources and equipment are described and listed in Permit Attachment 4,
10 *Hanford Emergency Management Plan*, (DOE/RL-94-02), Appendix C. Emergency resources and
11 equipment for the ETF/LERF are presented in this section.

1 **7.4.1 Fixed Emergency Equipment**

TYPE	LOCATION	CAPABILITY
Safety shower/ eye wash stations (ETF only)	1 - 2025E Rm 122 Decon Station 1 - 2025E South Wall of Process Area 1 - 2025E Rm 134 1 - Outside south 2025E near acid/ caustic tanks 1 - Outside at Load-in station 1 - 2025E Rm 112 Laboratory	Assist in flushing chemicals/ materials from the body and/ or eyes and face of personnel.
Wet pipe sprinkler (ETF only)	Throughout the ETF except those areas protected by pre-active sprinklers	Assist in the control of a fire.
Preactive sprinkler (ETF only)	Control room, communications room, electrical equipment room	Assist in the control of a fire. Maintained dry to prevent accidental damage to equipment
Fire alarm pull boxes (ETF only)	All high traffic areas in operations administration and support areas, truck bay, and process area	Activate the local fire alarm
E-lights	Throughout ETF	1 hour temporary lighting

2 **7.4.2 Portable Emergency Equipment**

TYPE	LOCATION	CAPABILITY
Fire extinguisher ABC type	Throughout ETF (Administrative/Support areas), LERF, and TEDF	Fire suppression for Class A, B, and C fires
Fire extinguisher BC type	Throughout ETF (process area and electrical room)	Fire suppression for Class B and C fires
Portable safety showers and Eye Wash Stations	As needed for special evolutions and maintenance	Assist in flushing chemicals/ materials from the body and/or eyes and face of personnel.

3 **7.4.3 Communications Equipment/Warning Systems**

TYPE	LOCATION	CAPABILITY
Fire alarms (ETF only)	Corridors, locker rooms, process area, drum storage, and truck bay	Audible throughout ETF
Take cover/evacuation	Throughout the ETF	Audible outside buildings and inside administrative buildings
Public address system (ETF Only)	Throughout the ETF	Audible throughout ETF
Portable radios	Operations and maintenance personnel	Communication to control room
Telephone	ETF – control room, 2025E, 2025EA offices, MO-269, 2025EC71. LERF – MO-727 and 242AL71 instrument building LERF Garage 242AL11 TEDF – 225E(pump house 1), 225W (pump house 2), 6653 (sample building), 6653A (pump house 3)	Internal and external communications. Allows notification of outside resources (POC, HFD, Hanford Patrol, etc.

4 Note: Site-Wide communications and warning systems are identified in Permit Attachment 4, *Hanford*
5 *Emergency Management Plan*, (DOE/RL-94-02), Table 5.1.

7.4.4 Personal Protective Equipment

TYPE	LOCATION	CAPABILITY
Acid suits	In the spill response cabinets in 2025E	Chemical protection for personnel during containment and isolation
Respirators	2025E Rm 201	Filtered air for recovery of known hazards

7.4.5 Spill Control and Containment Supplies

SPILL KITS AND SPILL CONTROL EQUIPMENT		
TYPE	LOCATION	CAPABILITY
Spill bags, drums, carts, etc.	4 - 2025E in process area	Support containment and cleanup of hazardous material spills
	1 - 2025E upper level process area	
	1 - 2025E Rm 125A	
	1 - 2025ED Load-In Station CONEX	
Spill response cabinet	1 - 2025E Rm 122	Support equipment for spill response
	2 - 90-day storage CONEX East of 2025E building	
	1 - MO-727 Change Trailer	
	1 - outside southeast side of 2025E	

7.4.6 Incident Command Post

The ICPs for the ETF/LERF are in ETF control room or 2025 EA/ 101. Emergency resource materials are stored at each location. The IC could activate the Hanford Fire Department Mobile Command Unit if necessary.

7.5 REQUIRED REPORTS

Post incident, written reports are required for certain incidents on the Hanford Site. The reports are described in Permit Attachment 4, *Hanford Emergency Management Plan*, (DOE/RL-94-02), Section 5.1.

Facility management must note in the TSD-unit operating record, the time, date and details of any incident that requires implementation of the contingency plan (refer to Section 7.3 of this plan). Within fifteen (15) days after the incident, a written report must be submitted to Ecology. The report must include the elements specified in WAC 173-303-360(2)(k).

7.6 PLAN LOCATION AND AMENDMENTS

Copies of this plan are maintained at the following locations:

- ETF control room
- Operations Managers office (Building 2025EA, Room 101)

This plan will be reviewed and immediately amended as necessary, in accordance with Permit Attachment 4, *Hanford Emergency Management Plan*, (DOE/RL-94-02), Section 14.3.1.1.

7.7 FACILITY/BUILDING EMERGENCY RESPONSE ORGANIZATION

ETF/LERF Building Emergency Directors		
TITLE	WORK LOCATION	WORK PHONE
Shift Operation Manager (SOM)	2025E Building	373-9000 or 373-9500

Names and home telephone numbers of the BEDs are available from the POC (373-3800) in accordance with Permit Condition II.A.4.

Hanford Facility RCRA Permit Modification

**Part III, Operating Unit 15
331-C Storage Units**

Replacement Sections:

- Remove Chapter 7.0, Contingency Plan, dated December 31, 2007, and replace with Addendum J, Contingency Plan dated June 30, 2009

1 **Addendum J** **Contingency Plan**

2 J. CONTINGENCY PLAN..... J.1
3 J.1 Building Emergency Procedure 331-C Storage Unit J.1
4 J.1.1 Facility Name J.1
5 J.1.2 Facility Location J.2
6 J.1.3 Owner/Operator..... J.2
7 J.1.4 Facility Description..... J.2
8 J.1.5 Hanford Site Emergency Sirens/Alarms J.2
9 J.1.6 Building Specific Emergency Alarms J.2
10 J.1.7 Coordination Agreements J.2
11 J.1.8 Communication Equipment..... J.3
12 J.2 Purpose of the Building Emergency Procedure J.3
13 J.2.1 Distribution J.3
14 J.2.2 Acronyms J.3
15 J.3 Building Emergency Response Organization..... J.5
16 J.3.1 BEDs and Alternates J.5
17 J.3.2 Other Members of the Building Emergency Response Organization (BERO)..... J.6
18 J.4 Implementation of the BEP..... J.8
19 J.5 Facility Hazards..... J.9
20 J.5.1 Hazardous Materials..... J.9
21 J.5.2 Physical (Industrial) Hazards J.9
22 J.5.3 Dangerous or Mixed Waste..... J.9
23 J.5.4 Radioactive Materials..... J.9
24 J.5.5 Criticality..... J.9
25 J.5.6 Biological Agents..... J.9
26 J.6 Potential Emergency Conditions and Appropriate Response..... J.10
27 J.6.1 Facility Operations Emergencies..... J.10
28 J.6.2 Identification of Hazardous Materials in and Around Facility..... J.15
29 J.6.3 Natural Phenomena J.15
30 J.6.4 Security Contingencies..... J.16
31 J.7 Facility Take Cover – Shutdown of HVAC J.17
32 J.7.1 Local Shutdown Using Power Operator, BED, or Alternate BED..... J.17
33 J.8 Utility Disconnects Locations J.17
34 J.8.1 Compressed Air..... J.17
35 J.8.2 Sanitary and Process Water..... J.17
36 J.8.3 Main Electrical Power..... J.17
37 J.8.4 HVAC Systems J.17
38 J.9 Termination, Incident Recovery, and Restart..... J.17
39 J.9.1 Termination..... J.17

OFFICIAL USE ONLY

May be exempt from public release under the Freedom of Information Act
(5 U.S.C. 552)Exemption number(s) and category: Exemption 2

Circumvention of Statute

Department of Energy review required before public release

Guidance (if applicable): DOE G 471.3-1

1	J.9.2	Prevention of Recurrence or Spread of Fires, Explosions, or Releases	J.17
2	J.9.3	Recovery	J.18
3	J.9.4	Required Reports.....	J.19
4	J.10	Emergency Equipment	J.19
5	J.10.1	Portable Emergency Equipment.....	J.20
6	J.10.2	Communications Equipment/Warning Systems.....	J.20
7	J.10.3	Personal Protective Equipment (PPE).....	J.20
8	J.10.4	Spill Control and Containment Supplies.....	J.20
9	J.11	Evacuation of Persons with a Disability or Visitors.....	J.20
10	J.12	Exhibits	J.21
11	J.12.1	Exhibit: 331-C Storage Unit Emergency Equipment Locations	J.22
12	J.12.2	Exhibit: 331-C Storage Unit Building Evacuation Exits.....	J.23
13	J.12.3	Exhibit: 331-C Storage Unit Staging Area.....	J.24
14	7.12.4	Exhibit: BED for Low-Hazardous Facilities – Checklisted Duties.....	J.25
15	7.12.5	Exhibit: Staging Area Supervisor Checklist.....	J.28
16	7.12.6	Exhibit: Facility Operations Specialist - Checklist Duties.....	J.29
17	7.12.7	Exhibit: Emergency Checklist for Emergency Management Support Group	J.30
18	7.12.8	Exhibit: Emergency Closeout - Checklisted Duties	J.33
19	7.12.9	Exhibit: Emergency Telephone Numbers	J.34
20			

J. CONTINGENCY PLAN

J.1 BUILDING EMERGENCY PROCEDURE 331-C STORAGE UNIT

The information contained in this Addendum is the unit contingency plan, as required under Washington Administrative Code (WAC) 173-303-806(4)(a)(vii). This addendum is also the Building Emergency Procedure (BEP) as required under the Hanford Facility Dangerous Waste Permit (Permit), Attachment 4, *Hanford Emergency Management Plan* (DOE/RL-94-02). This supersedes all previous contingency plans and BEPs.

This contingency plan has been designed to meet the requirements for a BEP as well as the Ecology requirements for a contingency plan for the 331-C Storage Unit. Permit Attachment 4, *Hanford Emergency Management Plan* (DOE/RL-94-02) details the membership of the U.S. Department of Energy-Richland Operations (DOE-RL) Site Management Team (SMT) mentioned in Section J.3 and following sections, and the procedure for notifying and mobilizing the team.

PNNL shall review and immediately amend, if necessary, this procedure whenever:

- Applicable regulations or the facility Permit are revised;
- The procedure fails in an emergency;
- The facility changes (in its design, construction, operation, maintenance, or other circumstances) in a way that materially increases the potential for fires, explosions, or releases of dangerous waste or dangerous waste constituents, or in any way that changes the response necessary in an emergency;
- The list of emergency equipment changes;
- The list of emergency coordinators changes.

Amendments to the procedure, if necessary following review, will be made in accordance with Permit Condition I.C.3.

This plan must be implemented whenever an emergency threatens human health and/or the environment. Emergencies may arise from, but are not limited to, the following:

- Fire
- Explosion
- Loss of service systems
- A medical emergency
- Bomb threats
- Criminal activity
- Incidents at other facilities
- Natural hazards or natural forces
- Loss of contamination control
- Hazardous materials release.

Expected responses are those actions that are intended to minimize the effects of a situation while providing optimum protection to personnel. Expected responses may include notification to the PNNL Single-Point-Contact (SPC), Building Manager (BM), Building Emergency Response Organization (BERO), and personnel in the facility. This procedure provides for normal notification and reporting.

Emergency telephone numbers are listed in Exhibit 7.12.9 *Emergency Telephone Numbers* at the end of this document. Other emergency response agencies available to assist the Building Emergency Director (BED) and Incident Commander (IC) from offsite are described in Permit Attachment 4, *Hanford Emergency Management Plan* (DOE/RL-94-02), Section 3.0.

J.1.1 Facility Name

331-C Storage Unit
Cypress Street, 300 Area
Richland, WA 99354

J.1.2 Facility Location

The 331-C Storage Unit is located in the southern portion of the 300 Area of the Hanford Site, on Cypress Street.

J.1.3 Owner/Operator

The 331-C Storage Unit is owned and operated by DOE and is co-operated by PNNL.

J.1.4 Facility Description

The 331-C Storage Unit is a dangerous waste storage facility located in southern portion of the 300 Area of the Hanford Site. The unit is owned and operated by DOE-RL and co-operated by PNNL. It is used for the collection, consolidation, and packaging of containerized dangerous waste. Typically, the 331-C Storage Unit handles various types of small-volume wastes from research laboratory activities.

J.1.5 Hanford Site Emergency Sirens/Alarms

Signal	Meaning	Response
Gong (2 gongs/sec)	Fire	Evacuate building. Move upwind. Keep clear of emergency vehicles.
Siren (steady blast)	Area Evacuation	Proceed promptly to north parking lot accountability area. Follow instructions.
Wavering Siren	Take Cover	Close all exterior doors, turn off all intake ventilation and notify the Environmental Management Services Department (EMSD) of your whereabouts. Request call back for status and monitor portable radios.
Howler (Aa-oo-gah)	Criticality	Follow "take cover" instructions above. (No criticality will take place in the 331-C Storage Unit because fissile materials are not accepted for storage.)

To hear these signals and a description of actions to take, call 373-2345.

The following is presented to define specific emergency actions for personnel assigned to the 331-C Storage Unit for different types of emergencies that could be encountered during normal operations.

Area-wide Evacuation. (Signal: Steady siren of 3–5 minutes' duration) In the event of an area-wide evacuation of the 300 Area, 331-C Storage Unit personnel will shut down equipment, secure wastes, and secure classified documents (or carry them with them), if time permits. They will then report to the accountability area and notify the BED of any ongoing processes or any compromises to security. The zone warden will account for all facility personnel.

Take Cover. (Signal: Wavering siren) In the event a take cover alarm is sounded, 331-C Storage Unit personnel will stay inside the 331-C Storage Unit, close all exterior doors, and turn off all intake ventilation. They will secure all wastes and classified documents. Personnel will then contact Environmental Management Services with their location and request a call back for status.

J.1.6 Building Specific Emergency Alarms

The 331-C Storage Unit has an alarm system (2 gongs/sec) that is monitored by the Hanford Fire Department (HFD). A manual fire alarm pull box is located near each exit door.

J.1.7 Coordination Agreements

Interfaces and coordination with offsite agencies are in the planning, preparedness, response, and recovery elements of the Hanford emergency management program. DOE-RL has developed and maintains agreements to formalize areas of understanding, cooperation, and support with offsite agencies. These agreements are applicable to all Hanford facilities, including the 331-C Storage Unit. Summaries

1 of these memoranda of agreement (MOAs) are given in Permit Attachment 4, *Hanford Emergency*
2 *Management Plan* (DOE/RL-94-02), Table 3-1.

3 **J.1.8 Communication Equipment**

4 Unit operations personnel may also use the facility telephone.

5 **J.2 PURPOSE OF THE BUILDING EMERGENCY PROCEDURE**

6 This procedure provides for the safety of employees, other contractor personnel, visitors, and members of
7 the general public in the event of an emergency. It also is designed to minimize hazards resulting from
8 fires, explosions, or any other unplanned sudden or non-sudden release of dangerous waste or dangerous
9 waste constituents to air, soil, or water. The provisions of the procedure will be carried out immediately
10 whenever the criteria in Section J.4, Implementation of the BEP are met.

11 **J.2.1 Distribution**

12 Controlled copies of the BEP will be located in the following areas:

- 13 Primary BED's office (1 copy);
- 14 At the facility;
- 15 F&O Document Center (record copy holder);
- 16 Emergency Preparedness (EP) Program Office (4 copies);
- 17 PNNL Operations Center (1 copy).

18 **Note:** Uncontrolled copies of the BEP may be viewed by PNNL staff via the PNNL Facilities and
19 Operations intranet website at <http://facilities.pnl.gov/weblinks/BEP/33c/bep-331c.pdf>

20 **Note:** The PNNL EP office distributes copies to the Hanford Emergency Operations Center.

21 **J.2.2 Acronyms**

22	ALARA	As Low As Reasonably Achievable
23	AMH	AdvanceMed Hanford
24	ARM	Area Radiation Monitor
25	BED	Building Emergency Director
26	BEP	Building Emergency Procedure
27	BERO	Building Emergency Response Organization
28	BM	Building Manager
29	BSL	Biological Safety Level
30	CAM	Continuous Air Monitor
31	CAS	Criticality Alarm System
32	CFR	Code of Federal Regulations
33	CMS	Chemical Management System
34	CSM	Cognizant Space Manager
35	DOE/RL	Department of Energy, Richland Operations Office
36	DSA	Documented Safety Analysis
37	EAL	Emergency Action Level
38	EC	Emergency Coordinator
39	EDO	Emergency Duty Officer
40	EE	Energy & Environment
41	EEMT	Essential Emergency Management Team
42	EIP	Emergency Information Posting
43	E,H,S & S	Environment, Health, Safety, & Security
44	EOC	Emergency Operations Center

1	EMSD	Environmental Management Services Department
2	EOC	Emergency Operations Center
3	EP	Emergency Preparedness
4	EPA	Environmental Protection Agency
5	EPO	Emergency Preparedness Office
6	ESM	Electronic Storage Media
7	FO&ED	Facility Operations & Engineering Division
8	FOS	Facility Operations Specialist
9	FSR	Field Services Representative
10	HazMat	Hazardous Materials
11	HFD	Hanford Fire Department
12	HLRF	High-Level Radiochemistry Facility
13	HR	Human Relations
14	HVAC	Heating, Ventilation, & Air Conditioning
15	HWTU	Hazardous Waste Treatment Unit
16	IC	Incident Commander
17	ICP	Incident Command Post
18	IOPS	Integrated Operations System
19	LA/LAI	Limited Area/Limited Area Island
20	MIT	Map Information Tool
21	MOA	Memorandum of Agreement
22	MSDS	Materials Safety Data Sheet
23	MSG	Management Support Group
24	ONC	Occurrence Notification Center
25	PHMC	Project Hanford Management Contractor
26	PIV	Post Indicator Valve
27	PNNL	Pacific Northwest National Laboratory
28	POC	Patrol Operations Center
29	PPE	Personnel Protective Equipment
30	RBA	Radiological Buffer Area
31	RCRA	Resource Conservation and Recovery Act
32	RCP	Radiological Control Procedure
33	RCT	Radiological Control Technician
34	RG	Risk Group
35	RMA	Radiological Material Area
36	RMW	Radioactive Mixed Waste
37	RPL	Radiochemical Processing Laboratory
38	RS&EG	Radiochemical Science & Engineering Group
39	SAL	Shielded Analytical Laboratory
40	SAS	Staging Area Supervisor
41	SED	Site Emergency Director
42	SBMS	Standards Based Management System
43	SCBA	Self-Contained Breathing Apparatus
44	SME	Subject Matter Expert
45	SMT	Site Management Team
46	SNM	Special Nuclear Material
47	SOP	Standard Operating Procedure
48	SPC	Single Point of Contact, 375-2400

1	TDP	Testing Designated Position
2	TSD	Treatment, Storage, Disposal
3	UDAC	Unified Dose Assessment Center
4	WAC	Washington Administrative Code
5	WSDW	Washington State Dangerous Waste

6 **J.3 BUILDING EMERGENCY RESPONSE ORGANIZATION**

7 The 331-C Storage Unit BERO is an emergency response organization with clearly defined
8 responsibilities. The BERO consists of pre-designated and trained individuals who have been assigned
9 emergency response activities associated with the 331-C Storage Unit.

10 **Note:** DOE-RL and other prime contractor personnel are trained to notify the Hanford Emergency
11 number (9-1-1 from onsite telephones) operated by the Hanford Patrol, who then notifies the PNNL SPC.

12 **J.3.1 BEDs and Alternates**

13 The Building Emergency Director (BED) has the responsibility for the welfare and safety of building
14 personnel and for directing efforts to control, evaluate, and terminate the event if the building is the site of
15 an event. The BED performs the duties of the Emergency Coordinator (EC) as prescribed under
16 WAC 173-303-360 and has the authority to commit the resources needed to carry out the BEP.

17 The BED is responsible for verifying implementation of appropriate emergency procedures and their
18 follow-up 24-hours a day. Activities include:

19 Training of the BERO.

20 Maintain the facility emergency information posting boards/building emergency procedure.

21 Maintain a current copy of the BEP at the facility

22 Verify that facility personnel are aware of hazards.

23 Verify that facility personnel are trained to respond to emergencies.

24 Determine when an event has occurred or a condition exists that requires response in accordance with
25 applicable state and/or federal regulations.

26 Communicate with the Environmental Point-of-Contact for RCRA emergencies.

27 Verify that all required notifications and written reports to regulatory agencies are completed within
28 required time frames.

29 Inform BERO staff of any changes to the organization.

30 Review and update the BEP annually.

31 Activate internal facility alarms or communications systems, where applicable, to notify building
32 occupants of protective actions to be taken.

33 Verify that the appropriate alarm is sounded when necessary.

34 Identify the character, exact source, amount, and areas extent of any released materials.

35 Assess possible hazards to human health and the environment that may result from the release, fire, or
36 explosion.

37 Initiate establishment of the Management Support Group (MSG).

38 Receive annual BED training from the PNNL Emergency Preparedness Office (EPO).

39 If necessary, during an extended building evacuation or event (i.e., during inclement weather), the BED
40 will identify an Alternate Staging Area.

- 1 Take reasonable measures (e.g., stopping process/operations, collecting/containing released waste,
- 2 removing/isolating containers) necessary to verify that fires, explosions, and releases do not occur,
- 3 recur, or spread to other dangerous waste; and monitor for leaks, pressure buildup, gas generation, or
- 4 ruptures in valves, pipes, or other equipment, as appropriate.
- 5 Perform the necessary steps in the BED Checklist for Low Hazardous Facilities (Exhibit 7.12.4).
- 6 Direct configuration control over facility systems and components.
- 7 Responsible for the duties of the Facility Operations Specialist or delegate someone to act as Facility
- 8 Operations Specialist, if necessary.
- 9 Activate the BERO and allocate personnel to conduct facility-specific emergency response actions (within
- 10 the affected facility boundary).
- 11 Categorize events and perform incident notification in accordance with the BED Checklist for Low
- 12 Hazard Facilities (Exhibit 7.12.4).
- 13 Direct the implementation of initial preplanned area/site protective actions.
- 14 Coordinate emergency response measures.
- 15 If evacuating the 331-C Storage Unit due to inclement weather, notify the Occurrence Notification Center
- 16 (ONC) at 376-2900.
- 17 Act as a member of the Incident Command Post (ICP) and provide information and assistance to the
- 18 responding agencies as requested to mitigate the event.
- 19 Arrange care for any injured persons and contact the Line Manager.
- 20 Maintain facility emergency equipment.
- 21 Timely implementation of the contingency plan in the event of an emergency.
- 22 Provide a thorough turnover to the Hanford Site Emergency Responder (i.e., Hanford Fire Department,
- 23 Hanford Patrol, etc.)
- 24 Be thoroughly familiar with:
 - 25 • 331-C Storage Unit emergency procedure
 - 26 • All operations and activities
 - 27 • Location and characteristics of wastes handled
 - 28 • Location of all records
 - 29 • Physical layout of the building and area of responsibility
- 30 When recovering from an event, minimize or if possible, prevent generation of pollutants or hazardous
- 31 waste that may impact the environment.
- 32 Verify that preservation of evidence at the event scene is taken into consideration during the event.

33 **J.3.2 Other Members of the Building Emergency Response Organization (BERO)**

34 **J.3.2.1 Zone Wardens**

35 Zone Wardens provide information to the BED via the Staging Area Supervisor (SAS) to verify that no
36 one is unaccounted for, and assist as required in additional duties as determined by the BED. They
37 determine if all personnel have left their assigned area by performing a thorough room-by-room search, if
38 safe to do so (refer to Note below), including unoccupied spaces such as stairwells, corridors, closets, and
39 other common areas. They determine if aid and/or rescue are required and aid those who may need help
40 in evacuating the building. Verify that disabled persons receive whatever assistance may be required for
41 a safe and orderly evacuation. Report the occupancy status of the assigned zone(s) to the SAS and note
42 areas that could not be checked. The Zone Warden also assists the BED in communicating emergency
43 messages to the building occupants.

44 **Note:** The function of the Zone Warden is to verify (when possible), that assigned zones have been
45 evacuated as a means of assisting other emergency responders, and verify the locations of building
46 personnel. The function of Zone Wardens does not include search and rescue; they are not obligated to

1 enter any area they feel presents a hazard to them. Once the evacuation alarm is sounded, Zone Wardens
2 should not enter any location in the facility where there are indications that a hazard may exist. The
3 indications include such things as visible smoke, fire, unusual odors, local alarms, criticality alarms,
4 spilled chemicals, indications on the fire alarm supervisory panel, incapacitated personnel, etc. If a Zone
5 Warden is not in the facility when the evacuation alarm sounds, is a significant distance from their
6 assigned zones, or has been isolated from their zone, they should report to the SAS at the Staging Area or
7 ICP for instructions.

8 **J.3.2.2 Staging Area Supervisor**

9 The Staging Area Supervisor (SAS) will direct all activities at the building staging area and is responsible
10 for notifying the BED if all personnel are accounted for, or if help is needed to locate or account for
11 missing personnel. The SAS will also support the BED, if requested.

12 The SAS collects the occupancy/accountability status from the Zone Wardens at the Staging Area.

13 Report status to the BED at the Staging Area or ICP.

14 Assist in arranging transportation away from the staging area as necessary.

15 Maintain a log of staging area activities.

16 **J.3.2.3 Recorder**

17 Records, in a time-line format, event-related notifications and activities associated with the direction
18 administered and information received by the ICP.

19 **J.3.2.4 Environment, Safety, Health, & Security**

20 Provides guidance for establishing safety requirements for mitigation and recovery actions, which
21 include:

22 Coordinating any support needed from other disciplines of the Environment, Safety and Health (E, S, H,
23 & Security) Division (i.e., Environmental Compliance Representatives, As Low As Reasonably
24 Achievable (ALARA) Control, Industrial Hygiene, and Field Service Representative).

25 Provide telephone notification of incident to DOE-RL contact personnel.

26 The Environmental Support Contact (375-2966) will provide any necessary notifications to regulatory
27 agencies, such as the Washington State Department of Ecology and verify that required written
28 reports to regulatory agencies are completed within 15-days of the incident.

29 Provide notification of releases to the National Response Center and to Ecology in accordance with the
30 site-wide hazardous waste permit, 40 CFR 302.6, and WAC 173-303-145.

31 **J.3.2.5 Individual Staff Members**

32 Announce or activate the appropriate alarm and notify management upon observing an emergency.

33 Read and understand the Emergency Information Postings (EIP) and BEP.

34 Avoid exposure to harmful and life-threatening conditions.

35 Aid those who need help.

36 Become familiar with the F&O BEP Information webpages and the SBMS Subject Area, *Emergency*
37 *Preparedness*. Avoid exposure to harmful and life-threatening conditions.

38 If it can be done safely, secure classified documents and electronic storage media (ESM) before leaving
39 limited areas. If this cannot be done without endangering yourself: 1) take the classified documents
40 and Electronic Storage Media (ESM) with you if time permits, 2) report to the staging area, and 3)
41 inform the BED and then call 375-2400 to report an incident of security concern.

42 Report to the staging area and cooperate with management in accounting for all staff.

43 Provide the BED with any information to assist in evaluating the emergency condition.

44 Perform the following tasks only if time and conditions permit:

- 45 • Follow shutdown procedures in BEP.

- 1 • Remove contaminated clothing.
- 2 • Secure classified documents, material, and nuclear material.

3 **J.3.2.6 Management Support Group Leader**

4 The Facility Operations & Engineering Division Manager, or delegate, will respond when requested by
5 the BED, as the MSG lead. The MSG lead is responsible for the following:

6 performing the necessary steps listed in the Emergency Checklist for Emergency Management Support
7 Group, (Exhibit 7.12.7);

8 having applicable notifications made to PNNL and DOE-RL management;

9 having the event classified per established PNNL procedures;

10 providing senior management assistance to the BED as necessary;

11 assisting in handling communications and notifications;

12 obtaining personnel, supplies, and equipment as necessary;

13 assist the BED in identifying hazardous material in the facility.

14 **J.4 IMPLEMENTATION OF THE BEP**

15 The overall responsibility for implementation of this procedure lies with the BED or the designated
16 alternates. The BED has the responsibilities of the EC as named in WAC 173-303-360. The BED and
17 alternates are on call 24-hours per day and have the authority to commit all necessary resources (both
18 equipment and personnel) to respond to any facility emergency.

19 Response by the BED is usually obtained through the PNNL SPC at 375-2400. The SPC has been
20 designated as the contact point to mobilize a response to any PNNL emergency on the Hanford Site. The
21 SPC is available at all times and has the responsibility to contact the BED or alternate BED to begin
22 responses to emergencies under this procedure.

23 All emergency notifications to the BED, building managers, etc., are made through the PNNL SPC. A
24 complete BERO listing of positions, names, work, and home telephone numbers for the 331-C Storage
25 Unit is maintained on a PNNL intranet website. Copies are distributed, as a minimum, to appropriate
26 facility locations, the SPC, the POC, and with the BEP at the 331-C Storage Unit.

27 The decision by the BED or alternate BED to implement this procedure depends on whether an incident
28 in progress may threaten human health and/or the environment. Immediately after being notified of an
29 emergency, the BED or alternate BED will go to the site and evaluate the situation. Based on evaluation
30 of the event, the BED or alternate BED will implement this procedure to the extent necessary to protect
31 human health and/or the environment.

32 The decision to implement the BEP (contingency plan) should be made whenever unusual or emergency
33 conditions exist that require the response of facility and/or emergency personnel and the establishment of
34 an Incident Command Post (ICP). For RCRA events, the BEP must be implemented and the Department
35 of Ecology notified if all of the following criteria are met.

36 1. The event involves an unplanned spill, release, fire or explosion;

37 AND

38 2a. The unplanned spill or release involves a dangerous waste, or the material involved becomes
39 dangerous waste as a result of the event (e.g., product that is not recoverable);

40 OR

41 2b. The unplanned fire or explosion occurred at a facility or transportation activity subject to RCRA
42 contingency planning requirements;

43 AND

3. Time-urgent response from an emergency services organization is required to mitigate the event, or a threat to human health and/or the environment exists.

Based on evaluation of the event, the BED or alternate will implement the BEP to the extent necessary to protect human health and/or the environment. The BED has the authority to commit the resources necessary to carry out the actions required by the BEP.

The BED will direct that additional checklists identified in the BEP exhibits be initiated and completed. When the materials and quantities involved in the incident have been identified, it should be possible to evaluate the magnitude of the hazard.

During an emergency event, the BED will take all reasonable measures to verify that fires, explosions, and releases do not occur, recur, or spread to other dangerous waste in the facility. Measures include stopping processes and operations, collecting and containing released waste, and removing or isolating containers, as appropriate.

In any emergency, priority is given to protection of the health and safety of persons in the immediate area. Containment and cleanup are secondary objectives. When responding to minor spill events, onsite personnel will generally perform immediate cleanup of minor spills or releases using facility equipment. Remediation of such spills and releases would not normally constitute activation of the BEP. A spill or release of dangerous waste is considered "minor" if the criteria identified in 7.6.1.7, *Response to Minor Spills or Releases* are met.

Incidents discovered by unit personnel trained in emergency response may be responded to according to these procedures prior to the arrival of the BED. However, immediate notification of the BED is still required prior to implementing these procedures.

J.5 FACILITY HAZARDS

J.5.1 Hazardous Materials

The facility may contain hazardous material typically found in an industrial facility, including:
Chemical hazards such as corrosives, oxidizers, flammable solids and liquids, poisons, etc.
Hazardous wastes.

J.5.2 Physical (Industrial) Hazards

The facility may contain industrial hazards such as high-voltage equipment.

J.5.3 Dangerous or Mixed Waste

Dangerous waste is stored at the facility.

J.5.4 Radioactive Materials

Not applicable.

J.5.5 Criticality

Not applicable.

J.5.6 Biological Agents

Work with biological agents is categorized according to Risk Group (RG) and Biosafety Level (BSL). BSL Level-1 and Level-2 Laboratories are located at PNNL. Materials in RG-1 or BSL Level-1 laboratories are well characterized agents not known to cause disease in healthy adults and are of minimal potential hazard to humans and the environment. RG-2 or Biosafety Level-2 laboratories are of a moderate potential hazard to humans and the environment. They are capable of causing infection in humans and are generally worked within containment equipment.

1 The locations of biological wastes in the unit are tracked through a computer tracking system. During an
2 emergency, the current inventory and waste locations may be accessed through this system. If the
3 computer system is not accessible, unit staff can consult the hard copies of acceptance documentation in
4 the Hanford Facility Operating Record, 331-C Storage Unit File. Currently, PNNL does not perform
5 work with biological agents in Biosafety Level-3 or Level-4 Laboratories.

6 **J.6 POTENTIAL EMERGENCY CONDITIONS AND APPROPRIATE RESPONSE**

7 **J.6.1 Facility Operations Emergencies**

8 For an Off-Normal Event or Emergency Condition not specifically addressed, call the PNNL SPC on
9 375-2400. PNNL staff who observe a facility condition that may include, but not limited to the
10 following: smoke, heat, vibration, or unusual sounds such as hissing, should leave the area immediately
11 and make the appropriate emergency notifications. The following guidance is offered for specific listed
12 incidents:

13 **J.6.1.1 Loss of Utilities**

14 In the event of power failure, all containers of waste will be checked for closure and, if the duration of the
15 outage exceeds 30 minutes, will be returned to their storage cells if they have been removed for
16 labpacking or bulking. Facility equipment will be shut down to allow orderly restoration of power.

17 In a power-failure incident, the Building Manager and the BED are to be notified. The Building Manager
18 is responsible to arrange for restoration of power service to the unit. The BED is responsible to evaluate
19 whether the contingency plan should be implemented or whether an evacuation is advisable. If the
20 contingency plan is not implemented immediately, site personnel may be required to monitor the unit for
21 continuing release potential during extreme temperature periods. The BED will determine the need for,
22 and extent of, any such monitoring, in consultation with an industrial hygienist, if appropriate.

23 In the event of power loss to site equipment that results in failure of the equipment, the Building Manager
24 is to be contacted to arrange for repair of the affected equipment and/or provide restoration of power. The
25 BED should be contacted in the event that any failure results in a release or potential release to the
26 environment as described in Section J.4, Implementation of the BEP.

27 **J.6.1.2 Major Process Disruption/Loss of Building Control**

28 Not applicable.

29 **J.6.1.3 Pressure Release**

30 Not applicable.

31 **J.6.1.4 Fire and/or Explosion**

32 **Note:** The Fire Extinguisher Awareness Training exhibit in the SBMS subject area provides information
33 on the type of fire extinguisher to use and the correct way to use it.

34 Never delay the call for help, even when the fire is believed to be out. The fire department will make sure
35 that the fire has been extinguished; they are also required to document the event and determine the cause
36 of the fire.

37 An explosive (Cell 9) magazine is located in the bay of the 331-C Storage Unit. Any fire in the bay may
38 result in the involvement of the magazine with an attendant risk of explosion. Facility personnel,
39 including the BED, should carefully consider the potential for involvement of the magazine in a fire if one
40 occurs. This potential may determine the advisability of fighting a fire in the high bay, the need to
41 request an evacuation of nearby facilities, and other factors.

42 Fires can multiply in size very rapidly and are likely to overwhelm initial fire fighting efforts by the
43 nonprofessional fire fighter. A delay in notifying the fire department often results in fires where large
44 losses occur because the occupants felt that they could handle the emergency while it was small.

- (Signal): GONG
- Response/Action
 - If you are notified of a fire, immediately leave the building by the nearest exit or the area if the fire is outside of a building.
 - If you discover a fire:
 - ♦ Pull the fire alarm pull box to warn occupants of the danger so that they can exit safely. The fire alarm system can be actuated at fire alarm pull boxes located near the exits of the facility.
 - ♦ Notify the fire department by calling the PNNL SPC at 375-2400 or call 911 from a safe location.
 - ♦ Fight the fire only:
 - After you or someone else has pulled the fire alarm pull box and called 375-2400 or 911
 - If the fire is small and you know what is burning (e.g., the fire does not involve hazardous materials)
 - If you are willing, able, and knowledgeable in the selection and use of a fire extinguisher.

Response/Action (if time permits)

- Verify equipment is shut down.
 - Verify doors/windows are closed.
 - Verify nuclear materials are secured.
 - Evacuate the building through the nearest exit that you can safely use.
 - Obtain all necessary information pertaining to the incident.
 - Initiate action to protect uninvolved hazardous waste, if necessary.
- If classified materials are removed from the limited area (LA) or left unsecured within the LA, inform the BED and then call 375-2400 and report that, "There is an incident of security concern in Building ___, Room ___."
 - Assemble at the Staging Area. Zone Wardens report to the SAS.
 - If personnel are wearing personal protective equipment (PPE) clothing, or are suspected of being contaminated, isolate them from other building occupants and request the Radiological Control Personnel survey them. If possible, direct staff to discard PPE clothing outside exterior doors. Zone Wardens and all staff are to remain at the staging area unless otherwise directed/released by the BED.
 - If the information can be obtained without jeopardizing personnel safety, include the following:
 - Name and callback telephone number of person reporting the incident.
 - Name(s) of chemical(s) involved and amount(s) on fire, or otherwise involved in the incident.
 - Location of incident (identify as closely as possible and include information about multiple building numbers).
 - Time incident began or was discovered.
 - Where the materials involved are going or might go, such as into secondary containment, under doors, through air ducts, etc.
 - Source and cause, if known.
 - Name(s) of anyone contaminated or injured in connection with the event.
 - Any corrective actions in progress.
 - When recovering from an event, minimize, or if possible, prevent generating pollution or hazardous waste that may impact the environment.

1 **J.6.1.5 Hazardous Material Spill**

- 2 In addition to the foregoing contingency plan provisions, the following specific actions may be taken for
3 leaks or spills from containers at the unit:

1 Container leaks will be stopped as soon as possible through tightening closures, tipping the container to
2 stop the leak, use of plugging or patching materials, or overpacking. Appropriate protective
3 equipment will be used.

4 If it is inadvisable to approach the container, build a containment of absorbent materials and restrict
5 access pending notification of the BED and potential activation of the contingency plan.

6 Contents of leaking containers may be transferred to appropriate non-leaking containers. Transfer
7 procedures for fire safety will be followed for ignitable or reactive wastes (e.g., use of non-sparking
8 tools, bonding and grounding of containers, isolation of ignition sources, and use of explosion-proof
9 electrical equipment).

10 Overpacked containers will be marked and labeled in the same manner as the contents. All containers of
11 spill debris, recovered product, etc., will be managed in the same manner as waste containers received
12 from outside the unit. Overpacks in use at the facility will be marked with information pertaining to
13 their contents, and noting whether the container inside the overpack is leaking or is in good condition.

14 **J.6.1.6 Dangerous/Mixed Waste Spill**

15 Dangerous waste is stored at the facility.

16 **J.6.1.7 Response to Minor Spills or Releases**

17 Unit personnel will generally perform immediate cleanup of minor spills or releases using unit equipment,
18 absorbents, and emergency equipment noted in Section J.10, Emergency Equipment. The BED shall be
19 notified of all spills within the unit. If the BED determines that the spill is minor, of known material, and
20 there were no releases outside of the unit, the BED will make the determination if the SPC (375-2400)
21 should be contacted. For spills or releases occurring within individual storage cells during routine
22 handling and storage, refer to Addendum C, Section C.1.1.8.

23 A spill or release of hazardous material or dangerous waste is considered "minor" if all of the following
24 are true:

25 The spill is minor in size (generally less than 10 gallons of liquid or 100 lbs of solids);

26 The composition of the material or waste is known or can be immediately determined from label,
27 manifest, MSDS, or disposal request information;

28 The spill does not threaten the health and safety of building occupants, i.e., an evacuation is not
29 necessary;

30 Unit personnel have received appropriate training and

31 Unit personnel have appropriate protective equipment, respiratory protection, and emergency response
32 equipment to immediately respond and remediate the spill or release.

33 If any of the foregoing conditions are not met, the provisions of Section J.6.1.8 Response to Major
34 Dangerous Waste and/or Material Release should be followed.

35 **J.6.1.8 Response to Major Dangerous Waste and/or Material Release**

36 The following actions will be taken in the event of a major release:

37 **Discoverer**

38 1. If within the unit, notify unit personnel of discovery of spill or release by sounding the fire alarm.

39 2. Immediately notify the PNNL SPC (375-2400) and provide all known information, including:

40 • Name(s) of chemical(s) involved and amount(s) spilled, on fire, or otherwise involved, or
41 threatened by, the incident.

42 • Name and callback phone number of person reporting the incident.

43 • Location of spill or discharge (pinpoint as closely as possible).

- 1 • Time incident began or was discovered.
- 2 • Where the materials involved are going or may go, such as into secondary containment, under
- 3 doors, through air ducts, etc.
- 4 • Source and cause, if known, of spill or discharge.
- 5 • Name(s) of anyone contaminated or injured in connection with the incident.
- 6 • Any corrective actions in progress.
- 7 • Anyone else whom the caller has contacted.
- 8 3. Take action to contain and/or stop the spill if all of the following are true:
- 9 • The identity of the substance(s) involved is known;
- 10 • Appropriate protective equipment and control/cleanup supplies are immediately available;
- 11 • The employee has the proper training and can perform the action(s) contemplated without
- 12 assistance, or assistance is immediately available from other trained unit employees; and
- 13 • Time is of the essence; i.e., the spill/discharge will get worse if immediate action is not taken.

14 If any of the above conditions are not met, or there is doubt, the employee should evacuate the area and
15 remain outside the unit and upwind from it pending the arrival of the BED. He/she should remain
16 available for consultation with the BED, HFD, or other emergency management personnel.

17 **Single Point-of-Contact**

- 18 1. The SPC will notify the BED or alternate, if the BED cannot be immediately reached to arrange
- 19 immediate response to the incident.
- 20 2. The SPC will arrange for immediate response from HFD for fire or ambulance services as needed
- 21 based on the report of the discoverer.
- 22 3. The SPC will notify EMSD of the spill or release incident.
- 23 4. The SPC will support the BED in providing further notification and coordination of response
- 24 activities, if needed. Potential activities requiring SPC participation are:
- 25 • Activate the general evacuation alarm for the 300 Area if the BED determines that evacuation is
- 26 necessary.
- 27 • Notify Hanford EOC if evacuation of the 300 Area or adjacent areas is necessary.
- 28 • Notify the DOE-RL EOC in accordance with Permit Attachment 4, *Hanford Emergency*
- 29 *Management Plan* (DOE/RL-94-02) if necessary to evacuate areas outside the Hanford Site.
- 30 • Any other activities found in Permit Attachment 4, *Hanford Emergency Management Plan*
- 31 (DOE/RL-94-02).

32 **BED or Alternates**

- 33 1. Go directly to the unit to coordinate further activity. Take command of the scene from discovering
- 34 unit employee.
- 35 2. Obtain all immediately available information pertaining to the incident. Determine need for
- 36 assistance from agencies and arrange for their mobilization and response through the SPC.
- 37 3. If building evacuation is necessary, sound the fire alarm.
- 38 4. Arrange for care of any injured employees and provide for any additional help necessary to safely
- 39 evacuate any disabled staff or visitors.
- 40 5. If a threat to surrounding facilities/operations exists, the BED or alternate BED will identify the
- 41 hazards and any appropriate actions needed in the case of an unplanned release and activate the EOC
- 42 if required.

- 1 6. Provide for event notification in accordance with Section J.3.2.4, Environment, Safety, Health, &
2 Security.
- 3 7. Maintain access control at the site by keeping unauthorized personnel and vehicles away from the
4 area. Security personnel may be used to assist in site control if control of the boundary is difficult,
5 (e.g., repeated incursions). In determining controlled-access areas, be sure to consider environmental
6 factors such as wind velocity and direction.
- 7 8. Remain available to fire, police, and other authorities on-scene and provide all required information.
8 If round-the-clock work is anticipated, enlist the assistance of alternate BEDs to provide coverage.
9 Make no comment to media unless authorized to do so. Refer media inquiries to the Media Relations
10 office.
- 11 9. If unit personnel perform remediation, verify the use of proper protective equipment, proper remedial
12 techniques (including ignition source control for flammable spills), and decontamination procedures
13 by all involved personnel. Consult a PNNL industrial hygienist for assistance in determining
14 necessary equipment or procedures.
- 15 10. If remediation is performed by outside agencies, such as the Hanford Hazardous Materials Response
16 Team or other remedial contractors, remain at the site to oversee activities and provide information.
- 17 11. Verify proper containerization, packaging, and labeling of recovered spill materials and overpacked
18 containers.
- 19 12. Verify decontamination (or restocking) and restoration of emergency equipment used in the spill
20 remediation prior to resumption of unit operations.

21 **J.6.1.9 Transportation and/or Packaging Incidents**

- 22 1. (Signal): NONE
- 23 2. Response/Action
 - 24 • Do NOT move the shipment when a damaged shipment of hazardous material or dangerous waste
25 arrives at the 331-C Storage Unit, and the shipment is unacceptable for receipt under the criteria
26 identified in Addendum B.
 - 27 • Notify the BED and the generator of the damaged shipment and obtain any chemical information
28 necessary to assist in the response.
 - 29 • The BED will evaluate the event and initiate appropriate actions for minor events/spills, such as
30 over packing damaged containers, re-labeling, tightening caps, etc, using facility expertise and
31 equipment.
 - 32 • Treat any major release from the package as a hazardous material spill and perform response
33 actions per Section J.6.1.8, *Response to Major Dangerous Waste and/or Material Release*.
 - 34 • Take actions to protect any uninvolved hazardous waste that may be threatened.

35 **J.6.1.10 Unusual, Irritating, or Strong Odors**

36 **J.6.1.10.1 Inside of the Facility**

37 If an unusual, irritating, or strong odor is detected, and the person detecting it has reason to believe that
38 the odor may be the result of an uncontrolled release of a toxic or dangerous material, they shall:

39 Immediately activate the building fire alarm system to evacuate the building, and
40 Notify the SPC, the Building Manager, and cognizant Line Management.

41 In the event that the discoverer has knowledge of the source and scope of the release and believes that the
42 release poses no immediate threat to others, the release shall immediately be reported to the Building
43 Manager and to the discoverer's manager. Measures shall be taken to contain the release and ventilate the
44 area if safe and advisable to do so.

1 In the event that an unusual odor is detected within the facility, and the source of the odor is unknown, the
2 BED must consider whether the facility should be evacuated.

3 **J.6.1.10.2 Outside of the Facility**

4 If an unusual odor is detected and believed to come from outside the 331-C Storage Unit, the following
5 actions should be taken:

6 Notify SPC at 375-2400.

7 Determine wind direction. The duty forecaster at 373-2716 can give the immediate wind direction in the
8 300 Area.

9 Evacuate building to an upwind position regardless of primary designated Staging Area.

10 In some cases, it may be better to remain inside and shut down any heating, ventilation and air
11 conditioning (HVAC) systems. The BED will determine response.

12 **J.6.1.11 Mixed Waste Material Release**

13 Not applicable.

14 **J.6.1.12 Criticality**

15 Not applicable.

16 **J.6.2 Identification of Hazardous Materials in and Around Facility**

17 The 331-C Storage Unit is utilized for the storage of hazardous wastes that pose a potential hazard to the
18 public, adjacent facilities, personnel, programs, and the environment. Facilities adjacent to the
19 331-C Storage Unit may contain hazardous material typically found in an industrial facility including
20 chemical hazards such as corrosives, oxidizers, flammable solids and liquids, poisons, etc., radioactive
21 materials, hazardous wastes, and mixed wastes. They also may contain industrial hazards, such as high-
22 voltage equipment, high-temperature equipment, high-speed equipment (such as drill presses, lathes,
23 drive belts), and overhead hazards. However, none of the surrounding facilities pose an imminent threat
24 to the 331-C Storage Unit in the event of an emergency.

25 **J.6.3 Natural Phenomena**

26 Natural phenomena or events including range fire, flood, high winds/tornado, volcanic eruption/ashfall,
27 seismic events, etc may occur at any time. Follow directions given by Crash Alarm Telephone or
28 331-C Storage Unit BED. If evacuating the facility, have the PNNL SPC (375-2400) report the
29 evacuation to the ONC (376-2900).

30 **J.6.3.1 Seismic Event**

31 The 331-C Storage Unit is located in Benton County, Washington, and is not within one of the political
32 jurisdictions identified in Appendix VI of Title 40 Code of Federal regulations (CFR) Part 264.
33 Therefore, no further demonstration of compliance with the seismic standard is required.

34 **J.6.3.2 Volcanic Eruption/Ashfall**

35 Follow directions given by the 331-C Storage Unit BED. If evacuating the facility, have the PNNL SPC
36 (375-2400) report the evacuation to the ONC (376-2900).

37 **J.6.3.3 High Winds/Tornadoes**

38 Follow directions given by the 331-C Storage Unit BED. If evacuating the facility, have the PNNL SPC
39 (375-2400) report the evacuation to the ONC (376-2900).

40 **J.6.3.4 Flood**

41 The 331-C Storage Unit is located in the 300 Area, which is adjacent to the Columbia River,
42 approximately at river mile 345. Floods of the Columbia River were, therefore, considered for

1 determining compliance with floodplain standards. Floods of other water bodies (i.e., the Yakima River,
2 ephemeral streams on the Hanford Site) were not considered because of their great distance when
3 compared to the distance to the Columbia River.

4 A 100-year floodplain is identified in flood insurance rate maps developed by the Federal Emergency
5 Management Agency (FEMA). The FEMA maps for Benton County, Washington, do not include the
6 Hanford Site. Determination of whether the 331-C Storage Unit is located in a 100-year floodplain,
7 therefore, was made by comparing the land surface elevation at the 331-C Storage Unit with the nearest
8 downstream 100-year flood base elevation identified on the FEMA maps for Benton County. The nearest
9 100-year floodplain identified on the Benton County FEMA maps is at Columbia Point, approximately
10 9 miles downstream of the 331-C Storage Unit at river mile 336. The FEMA map for this area (FEMA
11 1982) identifies a 100-year flood base elevation of 352 ft above mean sea level (AMSL). This elevation
12 is significantly below the elevation of the 331-C Storage Unit, which is approximately 116m (377 ft)
13 AMSL.

14 **J.6.3.5 Range Fire**

15 Follow directions given by the 331-C Storage Unit BED. If evacuating the facility, have the PNNL SPC
16 (375-2400) report the evacuation to the ONC (376-2900).

17 **J.6.4 Security Contingencies**

18 **J.6.4.1 Bomb Threats**

19 When condition is observed or bomb threat received, notify the PNNL SPC at 375-2400 or BED.

20 If necessary, clear the area of personnel.

21 Do not move any suspicious objects.

22 Post warnings if applicable.

23 Provide emergency responders with appropriate information.

24 If a telephone bomb threat is received, record the exact message and attempt to obtain the following
25 information:

26 When will it go off?

27 Where is it located?

28 What does it look like?

29 What kind is it?

30 Why was it placed?

31 How do you know so much about it?

32 Who put it there?

33 Where are you calling from?

34 What is your name and address?

35 **Note:** After receiving the information, notify the PNNL SPC (375-2400) and give the information
36 obtained from the caller and then notify the BED. If you receive a written bomb threat, notify the PNNL
37 SPC at 375-2400 and provide the written bomb threat to PNNL security personnel.

38 **J.6.4.2 Hostage Situation/Armed Intruder/Violence in the workplace (do not activate the** 39 **fire alarm)**

40 When condition is observed, notify the PNNL SPC (375-2400) and the BED.

41 If necessary, clear the area of personnel.

42 Do not move any suspicious objects.

43 Post warnings, if applicable.

44 Provide emergency responders with appropriate information.

45 **J.6.4.3 Classified Material during Evacuation Events**

46 Not applicable

1 **J.7 FACILITY TAKE COVER – SHUTDOWN OF HVAC**

2 If there is a potential for a hazardous plume to be drawn into the building—OR—if, the Patrol Operations
3 Center (POC) directs securing the HVAC via the PNNL SPC (375-2400):

4 The BED or alternate BED will contact the power operator on duty and request that the building HVAC
5 systems be secured for emergency protective actions.

6 Notify the BED when HVAC shut down is complete.

7 **J.7.1 Local Shutdown Using Power Operator, BED, or Alternate BED**

8 If there is a potential for a hazardous plume to be drawn into the building—OR—if, the Patrol Operations
9 Center directs securing the HVAC via the PNNL SPC (375-2400):

10 The BED or alternate BED will contact the power operator on duty and request that the building HVAC
11 system be secured for emergency protective actions.

12 If the building is occupied, and the power operator cannot respond to the building, the facility staff will
13 shut down the HVAC systems using the thermostat located on the north wall west of the roll up door.

14 Notify the BED and the power operator when HVAC shut down is complete.

15 **J.8 UTILITY DISCONNECTS LOCATIONS**

16 Utility disconnects may be necessary under extreme emergency conditions. The BED will determine if
17 utility disconnects are necessary. The locations of the utility disconnects or valves are described below:

18 **J.8.1 Compressed Air**

19 Not applicable.

20 **J.8.2 Sanitary and Process Water**

21 Isolating the fire suppression system to the building isolates all water supply to the building.

22 **J.8.3 Main Electrical Power**

23 There is one main electrical disconnect located in the 331-C Storage Unit. It is located on the north wall
24 east of the roll up door.

25 **J.8.4 HVAC Systems**

26 The main disconnect switch to the HVAC system is located on the north wall east of the roll up door.

27 **J.9 TERMINATION, INCIDENT RECOVERY, AND RESTART**

28 **J.9.1 Termination**

29 The IC in consultation with the 331-C Storage Unit BED will recommend termination of the event when
30 conditions indicate that it is safe to do so.

31 **J.9.2 Prevention of Recurrence or Spread of Fires, Explosions, or Releases**

32 The BED is responsible for taking the steps necessary to verify that a secondary release, fire, or explosion
33 does not occur after the initial incident. Procedures that will be implemented may include:

34 Inspecting containment for leaks, cracks, or other damage

35 Inspecting for toxic vapor generation

36 Isolating residual waste materials and debris

37 Reactivating adjacent operations in affected areas only after cleanup of residual waste materials is
38 achieved.

1 **J.9.3 Recovery**

2 The BED in consultation with any responding agency and senior management will recommend
3 termination of the emergency when conditions dictate that it is safe to do so. The BED will use guidance
4 from Exhibit 7.12.8, *Emergency Closeout – Checklisted Duties*.

5 A Recovery Team, consisting of the IC, 331-C Storage Unit BED, and appropriate representation of all
6 facility interests, will develop and recommend a recovery plan. A recovery plan is needed following an
7 event when further risk could be introduced to personnel, a facility, or the environment through recovery
8 action and/or to maximize the preservation of evidence.

9 The recovery plan will be reviewed and approved by cognizant PNNL line management and EMSD staff,
10 meeting the requirements of Permit Attachment 4, *Hanford Emergency Management Plan*
11 (DOE/RL-94-02), Section 9.2. Restart of operations must be performed in accordance with the approved
12 plan. For emergencies not involving activation of the EOC, the BED is responsible for verifying that
13 conditions are restored to normal before operations are resumed.

14 **J.9.3.1 Storage and Treatment of Released Material**

15 Restart operations after an emergency is conducted in accordance with established procedures for
16 recovery from off-normal events. Treatment and/or storage and disposal of released material and
17 contaminated debris is part of the recovery process leading to restart.

18 Immediately after an emergency, the BED or the recovery organization will make arrangements for the
19 cleanup phase. Procedures for treatment, storage, and/or disposal of released material and contaminated
20 debris are implemented at this time.

21 Released material and contaminated debris will be managed in the same manner as wastes received from
22 outside the unit. All waste so generated will be containerized in drums or other appropriate containers
23 and stored in an appropriate storage area pending analysis and determination of final treatment/disposal
24 requirements. Unit operations personnel will take cleanup actions, or other personnel meeting the training
25 requirements of Addendum G can take cleanup actions. Actions to be taken may include, but are not
26 limited to, any of the following:

27 Neutralization of corrosive spills

28 Chemical treatment of reactive materials to reduce hazard

29 Overpacking or transfer of contents from leaking containers

30 Using absorbents to contain and/or absorb leaking liquids for containerization and disposal

31 Decontamination of solid surfaces impacted by released material, e.g., intact containers, facility
32 equipment, floors, containment systems, etc.

33 Disposal of contaminated porous materials that cannot be decontaminated and any contaminated soil

34 Containerization and sampling of recovered materials for classification and determination of proper
35 disposal technique

36 Follow up sampling of decontaminated surfaces to determine adequacy of cleanup techniques as
37 appropriate.

38 Wastes from cleanup activities will be analyzed and stored in the same manner as are wastes received
39 from outside the unit. Incompatible wastes will not be placed in the same container. Containers of waste
40 will be placed in storage areas appropriate for their compatibility class.

41 If it is determined that incompatibility of waste was a factor in the incident, the BED or the recovery
42 organization will verify that the cause is corrected. Corrective actions may include, for example,
43 modification of an incompatibility chart or increased scrutiny of wastes from a generating unit (in
44 accordance with Section J.3.2 when incorrectly designated waste caused or contributed to an incident.

1 **J.9.3.2 Post-Emergency Equipment Maintenance**

2 All equipment used during an incident will be decontaminated (if practicable) or disposed of as spill
3 debris. Decontaminated equipment will be checked for proper operation prior to storage for subsequent
4 use. Consumables and disposed materials will be restocked. Fire extinguishers will be recharged or
5 replaced.

6 All equipment will be cleaned and fit for its intended use prior to the resumption of operations. Depleted
7 stocks of neutralizing and absorbing materials will be replenished, protective clothing cleaned or
8 disposed and restocked, etc. Notification of state and local authorities will be made through DOE-RL of
9 completion of cleanup, decontamination, and emergency equipment re-supply activities pursuant to
10 WAC 173-303-360(2)(j). Upon notification and approval of PNNL line management, normal facility
11 operations may be resumed.

12 **J.9.4 Required Reports**

13 The written post-incident report, summarized below, is required for incidents at the 331-C Storage Unit
14 requiring activation of the contingency plan.

15 **J.9.4.1 Report to Ecology/EPA**

16 The Environmental Support Contact (375-2966) will provide any necessary notifications to regulatory
17 agencies such as the Washington State Department of Ecology and verify that required written reports to
18 regulatory agencies are completed within 15 days of event termination.

19 Within 15 days of the incident, a written report will be submitted to Ecology concerning the incident. The
20 report must include:

21 Name, address, and telephone number of DOE-RL contact;

22 Name, address, and telephone number of 331-C Storage Unit;

23 Date, time, and type of incident (e.g., fire, explosion);

24 Name and quantity of material(s) involved;

25 The extent of any injuries;

26 Assessment of any actual or potential hazards to human health or the environment caused by the incident;

27 Estimated quantity and disposition of recovered material that resulted from the incident;

28 Cause of the incident; and

29 Description of corrective action taken to prevent recurrence of the incident.

30 **J.10 EMERGENCY EQUIPMENT**

31 Support equipment available to assist in responding to an emergency can be found by referring to the
32 HFD emergency equipment listing in Permit Attachment 4, *Hanford Emergency Management Plan*
33 (DOE/RL-94-02), Appendix C.

34 **J.10.1 Hanford Site Emergency Equipment**

35 The Hanford Site has fire and patrol personnel trained and equipped to respond in emergency situations.
36 These personnel are employees of the site-operating contractor. The HFD Hazardous Material Response
37 Team is trained for mobilization and control of hazardous material emergencies. The HFD will take
38 control of the incident scene until the incident is under control and personnel rescue is complete.

39 The Hanford Patrol provides support to the Fire Department during an incident, including such activities
40 as activation of area sirens (for evacuation or take cover), access control, traffic control, and emergency
41 notifications.

1 If an emergency threatens other facilities and/or there is a danger of release of hazardous materials to the
2 environment, the HFD will respond. The HFD will coordinate protective response actions and
3 notifications and furnish any necessary technical assistance.

4 **J.10.2 Portable Emergency Equipment**

5 Portable fire extinguishers are located throughout the facility. These locations are identified in Exhibit
6 7.12.1, *331-C Storage Unit Emergency Equipment Locations*.

7 A mobile command post vehicle can be obtained via HFD main telephone number (373-2230). The HFD
8 Battalion Commander will approve and dispatch vehicle.

9 **J.10.3 Communications Equipment/Warning Systems**

10 Fire alarm pull boxes are located at every exit throughout the facility. All locations are shown on
11 Exhibit 7.12.1 *331-C Storage Unit Emergency Equipment Locations*.

12 **J.10.4 Personal Protective Equipment (PPE)**

13 The unit has a safety shower and eyewash unit at the south end of the bay area. Drainage from this unit
14 flows into the containment trenches. This eyewash/shower unit is inspected for clear and unobstructed
15 accesses weekly in accordance with Section J.6.2.

16 Protective clothing and respiratory protective equipment are maintained at the facility for use during both
17 routine and emergency operations. This protective equipment includes at a minimum:

- 18 6 sets of chemically resistant suits, aprons, boots, and gloves
- 19 20 protective glasses
- 20 5 pair chemical goggles
- 21 4 face shields
- 22 4 full face respirators
- 23 Respirator cartridges (variety).

24 This protective equipment is stored in cabinets located in the bay east area. Personnel assigned to the
25 331-C Storage Unit are available to assist other trained personnel (e.g., firefighters) in emergency
26 situations or possible "immediately dangerous to life or health" spill cleanup situations.

27 **J.10.5 Spill Control and Containment Supplies**

28 Supplies of absorbent pillows are located in the bay area. These pillows absorb organic or inorganic
29 materials and have a rated absorption capacity of approximately 1 liter of waste each. They may be used
30 for barriers to contain liquid spills as well as for absorbent purposes. The work area also has an ample
31 supply of diatomaceous earth or vermiculite for absorption of liquid waste spills. Neutralizing absorbent
32 is available for response to acid or caustic spills. A supply of empty drums (DOT UN1A1 closed head
33 and DOT UN1A2 open head) and salvage drums (overpacks) is maintained along with brooms, shovels,
34 and miscellaneous spill response supplies. These supplies are maintained in the bay area or in the
35 adjacent covered area on the east side of the Unit.

36 **J.11 EVACUATION OF PERSONS WITH A DISABILITY OR VISITORS**

37 The 331-C Storage Unit has an evacuation plan, which includes emergency signal identification and
38 staging area location. In the event an evacuation is required, 331-C Storage Unit personnel depart by one
39 of the exit doors noted in Exhibit 7.12.2 and proceed to the staging area for a head count. The location of
40 the staging area is shown in Exhibit 7.12.3.

41 The safety of building visitors is the responsibility of the facility host, who shall verify that visitors are
42 provided a safe and orderly evacuation. The facility host will report the visitor status to the Staging Area
43 Supervisor as soon as is practical after the evacuation.

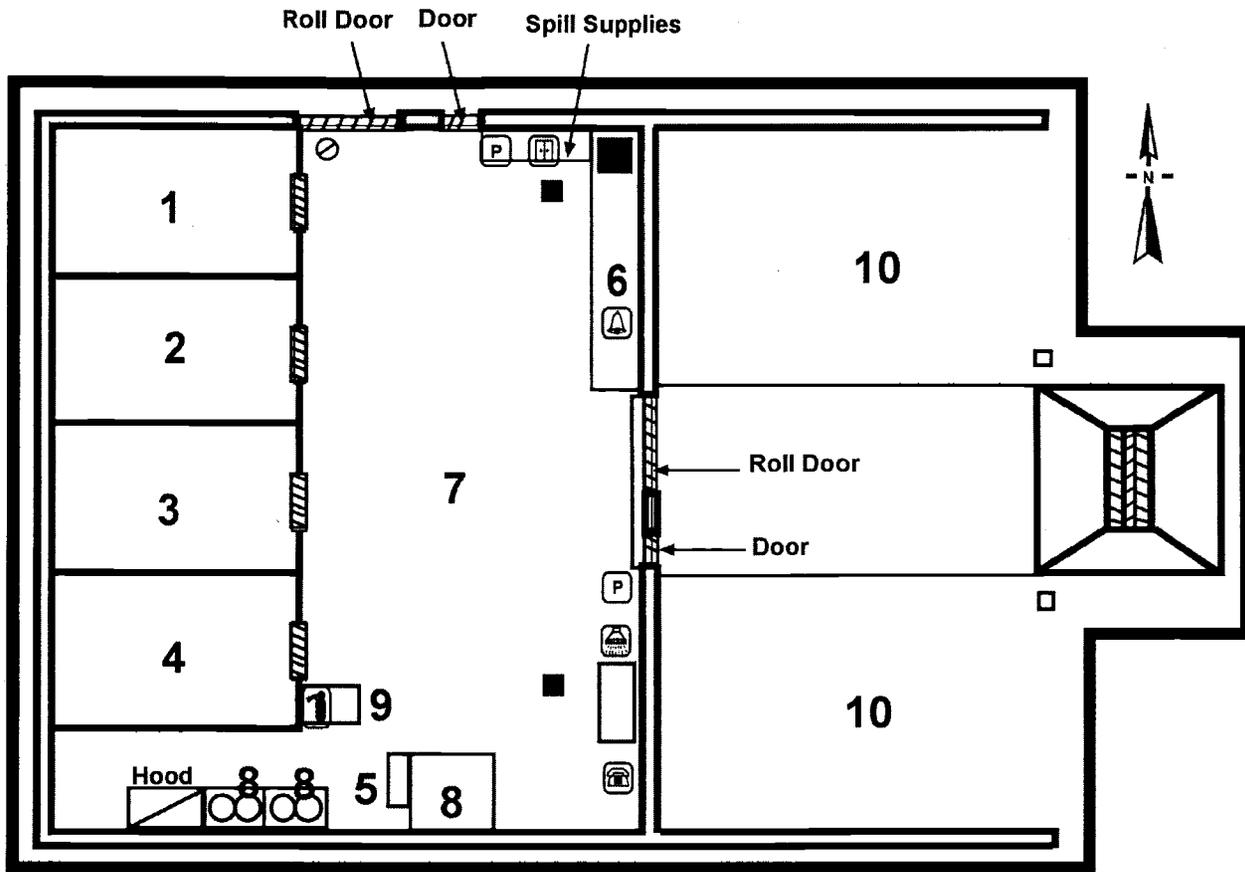
1 **J.12 EXHIBITS**

2 Note: Exhibits J.12.4 through J.12.9 are not enforceable under the Permit, and are mentioned for
3 completeness only in order to maintain an effective emergency response document.

4

1 J.12.1 Exhibit: 331-C Storage Unit Emergency Equipment Locations

2



Legend			
	Emergency Equipment Cabinet		Fire Alarm Pull Box
	Safety Shower/Eyewash		Phone
	Emergency Lights		Fire Alarm Bell
	HVAC Shutoff		Collection Sump
	TSD Boundary		10 Lb. ABC Fire Extinguisher
			15 Lb. Or Larger Class D Fire Extinguisher

3
4

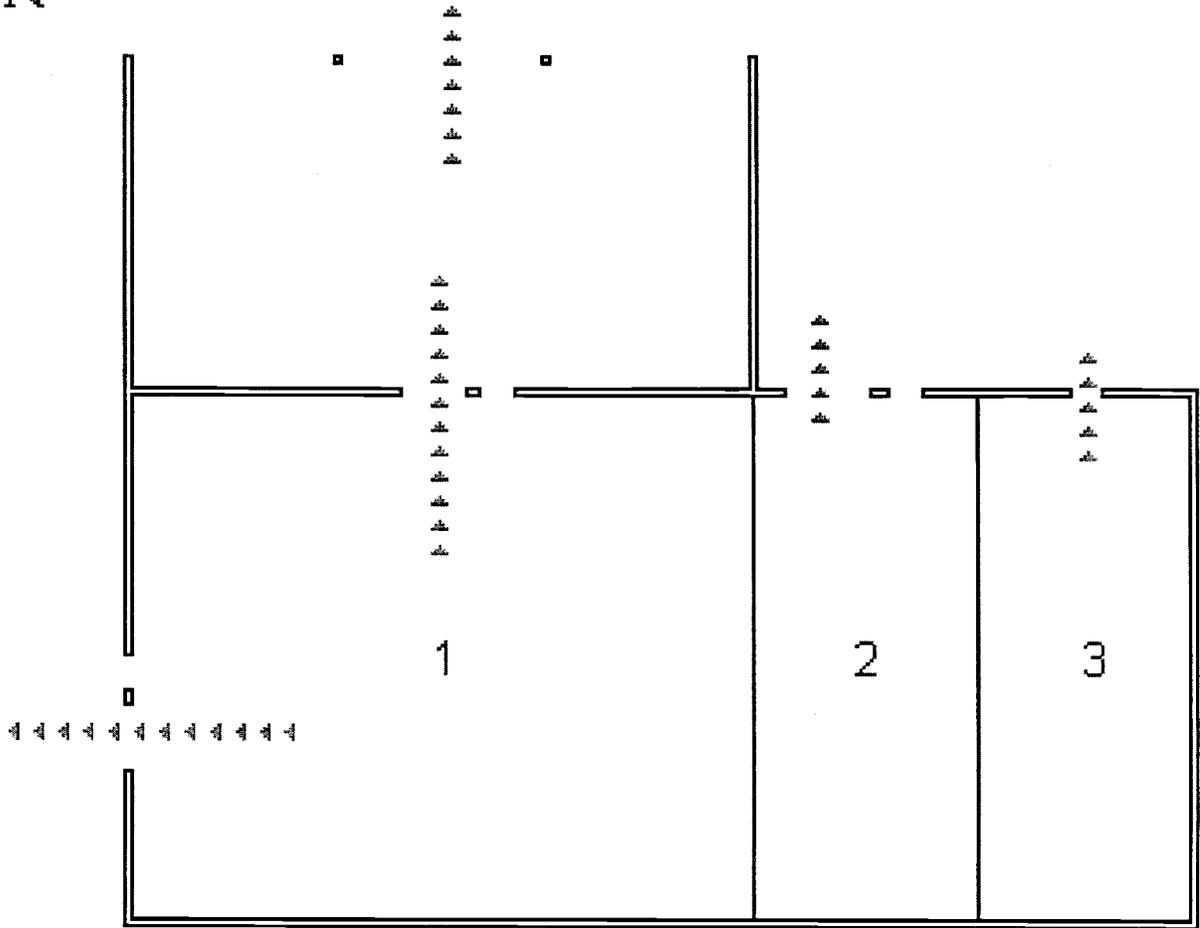
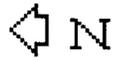
Legend

1. Acids, Oxidizers
2. Poisons, Class 9
3. Alkaline, WSDW, Organic Peroxides
4. Organics Flammable and Compressed Aerosols
5. Compressed gases
6. Universal/Recycling Storage Area
7. Class 9, WSDW, Non-flammable and compatible waste
8. Flammable Storage
9. Explosive Magazine
10. Outdoor Non-regulated Drum Storage

5

1 J.12.2 Exhibit: 331-C Storage Unit Building Evacuation Exits

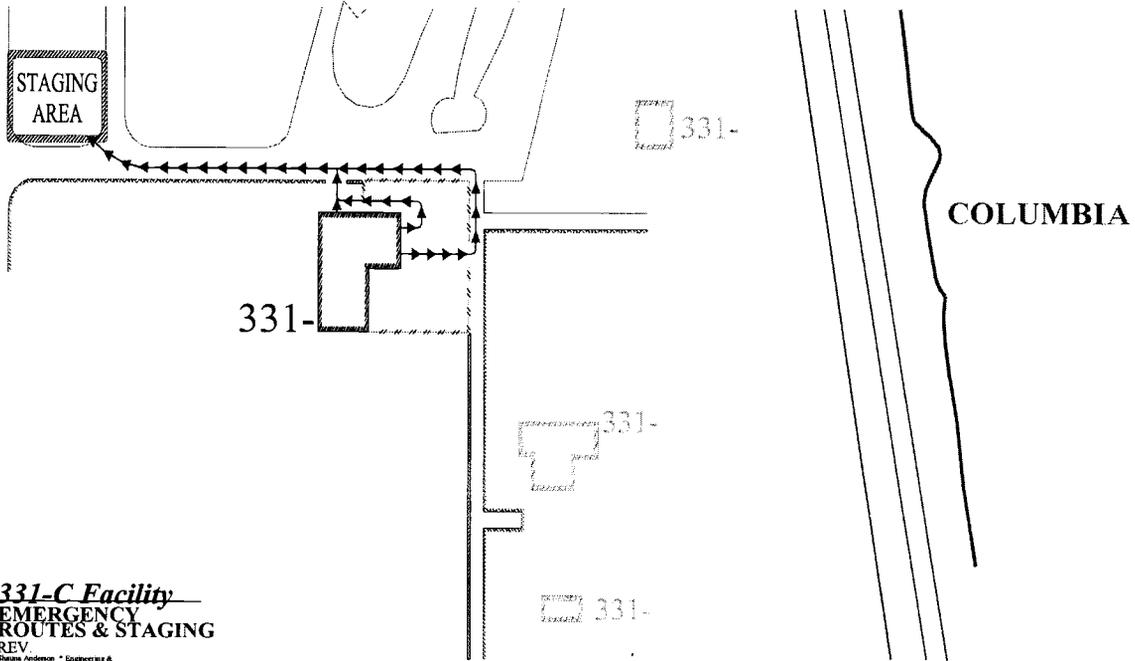
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3

4

1 **J.12.3 Exhibit: 331-C Storage Unit Staging Area**



2

1 **J.12.4 Exhibit: BED for Low-Hazardous Facilities – Checklisted Duties**

2 Maintain a log or assign a log keeper to record your activities, including the date and time information
3 was received or time when an action was taken. This checklist is not meant to be performed step-by-step,
4 but is to be used as a reference document, as appropriate to the incident.

5 **Immediate Actions**

1. _____ Upon initial discovery/notification, complete the following:
 - Stop non-emergency activities in the event scene hazard area and monitor systems for potential secondary leaks or pressure buildup.
 - Warn personnel in event scene hazard area.
 - Isolate the impacted area from inadvertent entry (if using facility personnel to control access, consider wind direction, proximity, and communications capability).
 - Minimize exposure by performing those actions necessary to protect human health and/or the environment.
2. _____ Call (delegate if possible) 375-2400. Explain the nature of the event and be prepared to provide the following:
 - Call back phone number where BED can be reached.
 - Type of assistance needed (include a request for the response of an Incident Commander)
 - Your name, location, and safe routing directions to the ICP.
 - Request for local fire department assistance when dealing with unknown materials or hazards.
 - If on the Hanford Site, request for Hanford Patrol assistance regarding roadblocks and other security concerns.
 - Information related to injuries, contaminations, and exposures. Cellular telephones or radios shall not be used to provide names and payroll numbers of personnel.
 - Have the Single Point of Contact (SPC) notify appropriate State or local agencies if their help is needed to mitigate the event.
 - Have the SPC notify the PNNL Chemical Assessment Committee if Chemical assistance is needed.
3. _____ Additional actions that may be necessary:
 - As information becomes available, identify the character, source, and amount of released material and evaluate the release situation.
 - Initiate mitigation actions that cannot be delayed without threatening human health and/or the environment.
 - Send facility/process knowledgeable person to meet and guide emergency responders to event scene.
 - Begin segregation of any contaminated personnel.
 - Note:** Immediate hazardous material responses are handled by the local responding fire Department.
4. _____ Implement protective actions for facility personnel (i.e., take cover/evacuate).
 - Note:** If evacuating in response to a bomb threat or suspicious device, do not use a fire alarm pull box to evacuate the building. Verify personnel stage a minimum of 300 feet from the potential hazard and cease use of cellular telephones, radios, or other radio frequency generating equipment within a 300-foot radius.

Have initial and periodic facility announcements performed in order to keep personnel located at the staging area informed.

Evaluate the situation and determine an appropriate staging area location outside any plume pathway.

During an evacuation, assign staff (e.g., Zone Wardens) to monitor facility access points to prevent unauthorized reentry.

For a take cover event, secure HVAC as appropriate.

If a fire alarm occurs during a take cover, immediately provide personnel (for whom you have responsibility) guidance on appropriate action.

Note: The BED for low-hazardous facilities (until the IC arrives) may permit coordinated personnel movement during protective actions.

5. _____ Provide turn-over briefing to IC upon arrival including:
- Potentially affected personnel
 - Incident and facility conditions
 - Mitigation efforts underway
 - Accountability (missing personnel or persons suspected to be in the event scene area)
 - Status of injured, contaminated, or exposed personnel
 - Equipment status (shutdown, isolated, still running, etc.)
 - Witnesses or involved personnel location
 - Protective actions implemented
 - Location of established road blocks by facility personnel
 - Location of staging area if facility is evacuated
 - Status of assigned ICS functions.

Note: At the completion of the turn-over from the BED for low-hazards facilities to the IC, the IC shall assume responsibility for command and control of the incident.

6. _____ Check with the Cognizant Space Managers to determine if operations of a hazardous nature were in progress at the time of the evacuation. If so, coordinate with the safety personnel and determine the actions necessary for incident response.
7. _____ If necessary, establish the Management Support Group by calling the SPC and request the MSG be activated.

Follow-up Actions

8. _____ IF incident involves a spill, release, fire, or explosion, exceeds environmental permits, or is a threat to human health or the environment, AND you have not consulted with the Environmental Support Contact.
- THEN request the SPC to notify the Environmental Support Contact to initiate regulatory required notifications.
9. _____ Confirm that facility personnel accountability has been conducted and evacuated personnel (if any) have been moved to a safe location.
10. _____ Verify event reporting requirements are initiated.
11. _____ Coordinate establishment of operations protocols with IC based on availability of personnel.
- Assist IC in assigning other functional components of the ICP, as necessary.
12. _____ Keep the IC informed on the status of facility personnel and activities.

13. _____ If any personnel are deceased, injured, contaminated, potentially exposed, or transported by ambulance (do not use the name or payroll number of involved personnel if using a cellular phone),
Then notify the appropriate line management (Health Advocate).
14. _____ Participate in ICP briefings as required.
15. _____ When incident is stabilized, participate in a debriefing with the IC and assume actions to return facility to normal operations.
16. _____ See that all hazardous material generated is handled appropriately and that incompatible waste is handled or stored in the area until necessary cleanup has occurred.
17. _____ Treat the affected incident area as an event/crime scene by eliminating any unnecessary disturbance of physical evidence.
Witnesses to the event may be able to provide critical information to emergency responders.
Document your initial observations.
18. _____ Regarding the Hanford Site facilities, upon event termination, make a copy of all logs and turn them over to the IC/Liaison Officer (EDO) or IC designee.
19. _____ When incident is stabilized, refer to the Low Hazard Building Emergency Procedure, Section J.15, Exhibit 5, Emergency Closeout – Checklisted Duties, to coordinate termination of the emergency and to PNNL-MA-110, Section 9.0, Termination, Reentry, and Recovery.
20. _____ As time permits, reference appropriate sections of the BEP for further guidance.

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1 **J.12.5 Exhibit: Staging Area Supervisor Checklist**

2 The Facility Staging Area Supervisor is responsible for coordination of actions at the facility staging area.
3 This position is staffed by a facility representative. The list below is not designed to be all encompassing,
4 nor is it necessary to perform each of these actions in sequence. The Facility Staging Area Supervisor is
5 responsible for implementing the following check listed duties for non-declared, RCRA, and DOE
6 declared emergencies, as appropriate. Maintain a log of your activities or assign a log keeper, including
7 the date and time information was received or time when action was taken. This checklist is not meant to
8 be performed step-by-step, but is to be used as a reference document, as appropriate to the incident.

1. _____ Upon notification of an emergency event requiring facility personnel to evacuate, proceed to the staging area with the appropriate tools and information to perform the Staging Area Supervisor duties.
2. _____ Verify through the BED that the staging area is in a safe location.
WARNING: If evacuating in response to a bomb threat or suspicious device, do not use a Hanford fire alarm pull box to evacuate the building. Personnel stage a minimum of 300 feet from the potential hazard and cease use of cellular telephones, radios, cordless (portable) telephones, portable computing devices, or other radio frequency generating equipment within a 300-foot radius.
3. _____ Segregate personnel, who could be potentially contaminated, who did not survey when exiting RCA, or are in personal protective equipment (PPE). Direct RCTs to survey personnel.
4. _____ Collect personnel accountability status (including staff, disabled staff, or visitors that require aid, rescue, or assistance for evacuation) from Zone Wardens at staging area and report status to the BED within 30 minutes of the emergency being declared.
5. _____ Query staff at staging area to determine if hazardous processes are on going in the facility and notify BED.
6. _____ Query staff at the staging area to determine if they have any important medical conditions (pregnancy, heart problems, diabetes, etc.), medications, or health concerns that need to be reported to the BED.
7. _____ Query staff at staging area to determine if there are any security issues. Have classified documents been secured prior to exiting? Verify that the BED has been informed of any security issues.
8. _____ Determine if any personnel were injured or potentially exposed to hazardous materials. Communicate any positive responses to the BED.
9. _____ Confirm that the Radiological Hazard Assessor has verified habitability at the staging area and ICP.
10. _____ Update personnel on the event status on a periodic basis.
11. _____ If notified to evacuate the 300 Area, identify all personnel with vehicle keys in their immediate possession. Match up people with rides. Verify destination and route with each driver.
12. _____ Use government vehicles to transport personnel in PPE, if possible. Reserve vehicles for personnel with late shutdown duties.
13. _____ When directed by the BED, coordinate relocation of personnel to the alternate staging area identified by the BED.
14. _____ Perform turnover of all information listed above with the fire department staging officer upon his arrival.
15. _____ Upon event termination, turn over all logs to the IC/Liaison Officer or IC designee.

1 **J.12.6 Exhibit: Facility Operations Specialist - Checklist Duties**

2 The individual, either the BED, or designee, when assigned by the BED, is responsible to
3 accomplish/direct immediate mitigative actions at the event scene that cannot be delayed without
4 threatening human health and/or the environment. The Facility Operations Specialist (FOS) is
5 responsible for meeting emergency responders at the event scene and providing information on event
6 status and initial actions that are underway. The FOS is responsible for implementing the following
7 check listed duties for non-declared, RCRA, and DOE declared emergencies, as appropriate. Maintain a
8 log or assign a log keeper to record your activities, including time and date information was received or
9 time when action was taken. This checklist is not meant to be performed step-by-step, but is to be used as
10 a reference document, as appropriate to the incident.

1. _____ Obtain briefing on operational/mitigative activities and obtain any necessary facility specific procedures, utility disconnects, etc.
2. _____ Following BED briefing, and after receiving safe routes of travel and a radio, respond to a safe location upwind of the event scene.
Verify that personnel who were in the immediate area are accounted for and located in a safe, upwind area.
Verify that first aid is administered as-soon-as possible.
Begin segregation of any contaminated personnel.
STOP non-emergency activities in the event scene hazard area.
WARN personnel in the event scene hazard area.
ISOLATE the impacted area.
MINIMIZE exposures.
3. _____ Meet emergency personnel responding to the event scene and provide information on event status and initial actions underway. Collocate with the HFD/Hanford Patrol Operations Section Chief upon their arrival and act as the facility point-of-contact at the incident scene hazard area.
4. _____ Assist the HFD/Hanford Patrol Operations Section Chief with development of a mitigation plan by providing facility expertise.
5. _____ Identify, contact, and supervise additional facility personnel as required to Support Operations Section activities.
6. _____ Coordinate with HFD/Hanford Patrol Operations Section Chief to verify that all facility emergency responders are wearing appropriate PPE for assigned tasks.
7. _____ Upon event termination, turn over all logs to the IC/Liaison Officer or IC designee.

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- 1 **J.12.7 Exhibit: Emergency Checklist for Emergency Management Support Group**
- 2 The Management Support Group will use the following checklist to support the BED in managing the
- 3 administrative aspects of the event.

Item	Yes	No	Comment
Has 375-2400 been notified? (Use 375-9959 if 375-2400 is unavailable)			
Has the MSG Liaison received safe routes of travel and been directed to the ICP?			
Have all building occupants been accounted for? PNNL staff? PNNL visitors? Other Contractor personnel? Consultants, vendors, others?			
Have any persons received injuries or been subjected to conditions requiring medical attention? If Yes, has medical attention been arranged?			
Has the BED classified the event? Alert Site General			
Has activation of the EOC been requested?			
Do any persons require medication for non-event reasons (e.g., heart medicine)?			
Has access control been initiated by the appropriate Law Enforcement Agency?			
Has the Area Operations Manager/Building Manager been notified? Have they reported to the event scene?			
Has a location for the ICP been established?			
Has location for the Management Support Group been established and communicated to the appropriate Fire Department, Law Enforcement Agency, and the PNNL Technical Rep. in the EOC (376-7148) (if activated)?			
Has an open line between the ICP Communicator and the Event Scene Liaison in the EOC been established?			
Has the Emergency Duty Officer made contact with the BED?			
Has the event log been set up?			
Have the appropriate essential personnel been notified? (paragraph 5.5.8 of PNNL-MA-110)			
Are additional staff required for support? Line Management? Clerical? Technical? Other?			
Has the Incident Commander established a schedule for periodic briefings?			
Are additional RCTs required?			
Is there a need for a facility inventory? Chemical-hazardous, toxic, flammable? Radio chemical? Nuclear or fissile material? If inventory information is required, contact the following: Chemical inventory—376-0812			

Item	Yes	No	Comment
—372-1043 or 375-6315 Nuclear/fissile—Safeguards & Security Duty Officer or Cognizant operations staff			
Has Public Relations been notified?			
Coordinate with Laboratory leadership to determine if BMI should be notified. (614) 424-4444			
Has DOE Headquarters been notified?			
Has EOC contacted other facilities not immediately involved?			
Is technical or operational spokesperson needed? If so, has he/she been contacted?			
Has Program Manager been notified?			
Will relief staff be required for the Incident Command Post (Event and Support Teams)?			
Is transportation needed? Available?			
Is there a need for additional equipment or supplies (including food)?			
Has PNNL security made arrangements with patrol for access of special equipment (radios, cellular telephones)?			
Has the need for a facility(s) HVAC system shutdown been analyzed?			
Do subgroups need to be developed to assist with special activities that may need to occur (e.g., identifying essential personnel, accountability, termination and recovery efforts, etc.)?			
Has the impact to all work or projects in PNNL facilities been considered if the work force is reduced to only essential personnel (e.g., rad work, security/classified work, etc.)?			
Has the necessary line management been contacted to assure research project equipment is in a safe condition?			
Are event termination, recovery and reentry plans, checklists/procedures being developed?			
Has the necessary administrative support been acquired?			
Has the following been planned for a partial evacuation (essential personnel only)? 1. Determining who is essential. 2. Identify the staging location for essential personnel. 3. Notify essential personnel to report to work (recorded message, EOC media release, direct phone call, etc.), route of access, staging location, and person to report to. 4. Communicate list of essential personnel to the POC (911 or 373-3800) 5. Controlling accountability and assignment of staged essential personnel. 6. Activating the EEMT (PNNL-MA-110, Section 5.5.8). NOTE: Communications has a prepared email message to assist in performing this activity.			
Are there adequate controls established to prevent unauthorized Building/Site access entry and/or work initiation?			
Have preservation of evidence activities at the event/crime scene occurred (for significant events)?			
For mass casualties, has HR been directed to the Red Cross Family and Friends			

Item	Yes	No	Comment
Support Center?			
Has consideration for establishing shifts of emergency personnel (EOC/MSG) been made?			
Are additional radiation instruments required? What type? How many of each type?			
Is the Hazardous Materials (HazMat) team needed?			
<p>Has the need for a Post-Natural Phenomena Hazard Building Inspection been evaluated?</p> <p>If yes, a Post-Natural Phenomena Hazard Building Inspection is needed:</p> <ul style="list-style-type: none"> • Have the buildings been classified in one of the following four categories: <ul style="list-style-type: none"> ○ INSPECTED (Green Placard)—No apparent hazard found, although repairs may be required. No restriction on use or occupancy. ○ RESTRICTED USE (Yellow Placard)—Dangerous condition believed to be present. Entry permitted for emergency purposes only. No usage on a continuous basis is allowed. ○ UNSAFE (Red Placard)—Extreme hazard, may collapse. Unsafe for occupancy or entry. No admittance except by authorized personnel. ○ AREA UNSAFE (Red Placard) – Designated area is unsafe. No admittance except by authorized personnel. • Has the ONC been notified? • Have the buildings been posted with placards? • Has the status of building inspections and availability of inspection personnel been reported to the Hanford EOC? • Is there a need to request additional inspection resources from the Hanford EOC? 			

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1 **J.12.8 Exhibit: Emergency Closeout - Checklisted Duties**

2 The following emergency closeout check listed items are to be referred to by the BED, Operations
3 Section Chief, FOS, and the IC before recommending termination of a declared emergency.

Criteria	Criteria Met Date/Time or NA
1. Initiating Condition is (circle one): (a) stabilized (b) corrected	
2. Radiation or hazardous material exposure levels within the affected facility are corrected, stable, or decreasing with time.	
3. Fires are extinguished; flooding conditions are under control.	
4. Damage to facilities and/or process-related systems and equipment are stabilized or corrected.	
5. Injured personnel have been properly treated and/or transported to medical facilities.	
6. Check with Cognizant Space Managers to determine if operations of a hazardous nature were in progress at the time of the evacuation. If so, coordinate with the Safety Advisor and determine the actions necessary before a general staff re-entry occurs.	
7. Fire, flood, earthquake, or similar emergency conditions no longer constitute a hazard to critical systems/equipment or to personnel.	
8. Security of the affected facilities is controlled. NOTE: IF a facility that has reportable quantities of special nuclear material (SNM) has been completely evacuated, THEN notify the on-call security representative who will contact the manager, Safeguards and Security. A physical inventory of SNM may be required before restoring normal operations to the facility.	
9. Release of hazardous material offsite or beyond controlled areas onsite have ceased or are controlled within permissible regulatory limits, and the potential for an uncontrolled release is low.	
10. Management agreement for termination of the emergency condition.	
11. Notification of emergency condition termination to PNNL Control Room.	
12. Upon facility re-entry, access control has been established to prevent inadvertent or uncontrolled entry into (1) the event scene and (2) areas that were contaminated during the event.	
13. Operators will verify that the fire doors are open for remaining staff to re-enter the laboratories and office areas.	
14. Operations reviews current facility system conditions to determine if there is any significant system degradation and reports status back to the BED or IC.	
15. Operations performs a walk down of all mechanical level spaces looking for abnormal conditions and reports status back to the BED or IC.	
16. Existing conditions no longer meet the established Emergency Action Levels for the facility/site, and it appears unlikely that conditions will deteriorate.	
17. See that any waste that is incompatible with the release material is NOT treated, stored, or disposed of until cleanup procedures are completed.	
18. Before operations are resumed, all emergency equipment used shall be cleaned and restored to a usable, operable condition.	
ICBED _____ (Signature)	_____ (Date)

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Hanford Facility RCRA Permit Modification
Part III, Operating Unit 16
400 Area Waste Management Area

Remove and replace the following section for Part III, Operating Unit 16:

- Remove Addendum E, Contingency Plan dated March 31, 2009, and replace with Addendum J, Contingency Plan dated June 30, 2009

1 **Addendum J** **Contingency Plan**

2 J CONTINGENCY PLAN..... J.1
3 J.1 BUILDING EVACUATION ROUTING (BUILDING LAYOUT) J.3
4 J.2 BUILDING EMERGENCY DIRECTOR..... J.3
5 J.3 IMPLEMENTATION OF THE PLAN..... J.3
6 J.3.1 Protective Action Responses J.4
7 J.3.2 Response to Facility Operations Emergencies J.5
8 J.3.3 Prevention of Recurrence or Spread of Fires, Explosions, or Releases J.6
9 J.3.4 Incident Recovery and Restart of Operations..... J.7
10 J.3.5 Incompatible Waste..... J.7
11 J.3.6 Post Emergency Equipment Maintenance and Decontamination J.7
12 J.4 EMERGENCY EQUIPMENT J.8
13 J.4.1 Fixed Emergency Equipment J.8
14 J.4.2 Portable Emergency Equipment..... J.8
15 J.4.3 Communications Equipment/Warning Systems..... J.8
16 J.4.4 Personal Protective Equipment J.8
17 J.4.5 Spill Control and Containment Supplies J.9
18 J.4.6 Incident Command Post J.9
19 J.5 REQUIRED REPORTS J.9
20 J.6 PLAN LOCATION AND AMENDMENTS J.9
21 J.7 BUILDING EMERGENCY ORGANIZATION BUILDING EMERGENCY DIRECTOR J.9

22 **Figures**

23 Figure J.1. FFTF Primary Staging Area J.10
24 Figure J.2. FFTF Alternate Staging Area J.11

25 **Table**

26 Table J.1. Hanford Facility Documents Containing Contingency Plan Requirements of
27 WAC 173 303-350(3)..... J.1
28

OFFICIAL USE ONLY
May be exempt from public release under the Freedom of Information Act
(5 U.S.C. 552) Exemption number(s) and category: Exemption 2
Circumvention of Statute
Department of Energy review required before public release

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J CONTINGENCY PLAN

The requirements for a contingency plan at the 400 Area WMU are satisfied in the following documents: Portions of the Hanford Facility RCRA Permit (Permit) Attachment 4 *Hanford Emergency Management Plan* (DOE/RL-94-02) and this section.

The unit-specific building emergency plan also serves to satisfy a broad range of other requirements [e.g., Occupational Safety and Health Administration standards (29 CFR 1910), *Toxic Substances Control Act of 1976* (40 CFR 761), and U.S. Department of Energy Orders]. Therefore, revisions made to portions of this unit-specific building emergency plan that are not governed by the requirements of WAC 173-303 will not be considered as a modification subject to WAC 173-303-830 or Permit Condition I.C.3.

Table J.1 identifies the sections of the unit-specific building emergency plan written to meet WAC 173-303-350(3) contingency plan requirements identified in this application. In addition, Section 12.0 of the unit-specific 400 Area WMU building emergency plan is written to meet WAC 173-303 requirements identifying where copies of Permit Attachment 4, *Hanford Emergency Management Plan* (DOE/RL-94-02) and the building emergency plan are located and maintained on the Hanford Facility. Therefore, revisions to Addendum E require a permit modification subject to WAC 173-303-830 and/or Permit Condition I.C.3.

Table J.1. Hanford Facility Documents Containing Contingency Plan Requirements of WAC 173 303-350(3)

Requirement	Permit Attachment 4 <i>Hanford Emergency Management Plan</i> (DOE/RL-94-02)	Building Emergency Plan ¹ (HNF-IP-0263-FFTF)	Addendum J
<u>-350(3)(a)</u> - A description of the actions which facility personnel must take to comply with this section and <u>WAC 173-303-360</u>	X ² Section 1.3.4	X ² Sections 7.1, 7.2 through 7.2.5, and 7.3 ³ Sections 4.0, 8.2, 8.3, 8.4, and 11.0	X ² Sections J.3.1, J.3.2 through J.3.2.5, and J.3.3 ³ Sections J.3, J.3.4, J.3.5, J.3.6, and J.5
<u>-350(3)(b)</u> - A description of the actions which shall be taken in the event that a dangerous waste shipment, which is damaged or otherwise presents a hazard to the public health and the environment, arrives at the facility, and is not acceptable to the owner or operator, but cannot be transported pursuant to the requirements of <u>WAC 173-303-370(5)</u> , Manifest system, reasons for not accepting dangerous waste shipments	X ² Section 1.3.4	X ^{2,4} Section 7.2.5.1	X ^{2,4} Section J.3.2.5.1
<u>-350(3)(c)</u> - A description of the arrangements agreed to by local police departments, fire departments, hospitals, contractors, and state and local emergency response teams to coordinate emergency services as required in <u>WAC 173-303-340(4)</u> .	X Sections 3.2.3, 3.3.1, 3.3.2, 3.4, 3.4.1.1, 3.4.1.2, 3.4.1.3, 3.7, and Table 3-1		

Requirement	Permit Attachment 4 <i>Hanford Emergency Management Plan</i> (DOE/RL-94-02)	Building Emergency Plan ¹ (HNF-IP-0263-FFTF)	Addendum J
-350(3)(d) - A current list of names, addresses, and phone numbers (office and home) of all persons qualified to act as the emergency coordinator required under <u>WAC 173-303-360(1)</u> . Where more than one person is listed, one must be named as primary emergency coordinator, and others must be listed in the order in which they will assume responsibility as alternates. For new facilities only, this list may be provided to the department at the time of facility certification (as required by <u>WAC 173-303-810 (14)(a)(I)</u>), rather than as part of the permit application.		X ⁵ Sections 3.1 and 13.0	X ⁵ Sections J.2 and J.7
-350(3)(e) - A list of all emergency equipment at the facility (such as fire extinguishing systems, spill control equipment, communications and alarm systems, and decontamination equipment), where this equipment is required. This list must be kept up to date. In addition, the plan must include the location and a physical description of each item on the list, and a brief outline of its capabilities.	X Hanford Fire Department: Appendix C	X Section 9.0	X Section J.4
-350(3)(f) - An evacuation plan for facility personnel where there is a possibility that evacuation could be necessary. This plan must describe the signal(s) to be used to begin evacuation, evacuation routes, and alternate evacuation routes.	X ⁶ Figure 7-3 and Table 5-1	X ⁷ Section 1.5	X ⁷ Section J.1

1 An 'X' indicates requirement applies.

2 ¹ Portions of Permit Attachment 4, *Hanford Emergency Management Plan* (DOE/RL-94-02) not enforceable through Appendix A
3 of that document are not made enforceable by reference in the building emergency plan.

4 ² Permit Attachment 4, *Hanford Emergency Management Plan* (DOE/RL-94-02) contains descriptions of actions relating to the
5 Hanford Site Emergency Preparedness System. No additional descriptions of actions are required at the site level. If other
6 credible scenarios exist or if emergency procedures at the unit are different, the description of actions contained in the building
7 emergency plan will be used during an event by a building emergency director.

8 ³ Sections 7.1, 7.2 through 7.2.5, and 7.3 of the building emergency plan are those sections subject to the Class 2 "Changes in
9 emergency procedures (i.e., spill or release response procedures)" described in WAC 173-303-830, Appendix I, Section B.6.a.

10 ⁴ This requirement only applies to TSD units that receive shipment of dangerous or mixed waste defined as offsite shipments in
11 accordance with WAC 173-303.

12 ⁵ Emergency Coordinator names and home telephone numbers are maintained separate from any contingency plan document
13 on file in accordance with Permit Condition II.A.4 and is updated, at a minimum, monthly.

14 ⁶ The Hanford Facility (site wide) signals are provided in this document. No unit/building signal information is required unless
15 unique devices are used at the unit/building.

16 ⁷ An evacuation route for the TSD unit must be provided. Evacuation routes for occupied buildings surrounding the TSD unit are
17 provided through information boards posted within buildings.

1 **J.1 BUILDING EVACUATION ROUTING (BUILDING LAYOUT)**

2 Figures J.1 and J.2 provide identification of the primary and secondary staging areas and a general layout
3 of the 400 Area WMU. Alternate evacuation routes will be used on a case-by-case basis based on
4 meteorological conditions at the time of the event.

5 **J.2 BUILDING EMERGENCY DIRECTOR**

6 Emergency response will be directed by the Building Emergency Director (BED) until the Incident
7 Commander (IC) arrives. The incident command system (ICS) and staff, with supporting on-call
8 personnel, fulfill the responsibilities of the Emergency Coordinator as discussed in WAC 173-303-360.
9 During events, WMU personnel perform response duties under the direction of the BED. The Incident
10 Command Post (ICP) is managed by either, the senior Hanford Fire Department member present or senior
11 Hanford Patrol member present on the scene (security events only). These individuals are designated as
12 the IC and as such, have the authority to request and obtain any resources necessary for protecting people
13 and the environment.

14 The BED becomes a member of the ICP and functions under the direction of the IC. In this role, the BED
15 continues to manage and direct 400 Area WMU operations.

16 A listing of the BEDs by title, work location, and work telephone number is contained in Section J.7. The
17 BED is on the premises or is available through an "on-call" list 24-hours-a-day. Names and home
18 telephone numbers of the BEDs are available from the Patrol Operations Center (POC) in accordance
19 with Permit Condition II.A.4.

20 **J.3 IMPLEMENTATION OF THE PLAN**

21 In accordance with WAC 173-303-360(2)(b), the BED ensures that trained personnel identify the
22 character, source, amount, and areal extent of the release, fire, or explosion to the extent possible.
23 Identification of waste can be made by activities that can include, but are not limited to, visual inspection
24 of involved containers, sampling activities in the field, reference to inventory records, or by consulting
25 with facility personnel. Samples of materials involved in an emergency might be taken by qualified
26 personnel and analyzed as appropriate. These activities must be performed with a sense of immediacy
27 and shall include available information.

28 The BED shall use the following guidelines to determine if an event has met the requirements of
29 WAC 173-303-360(2)(d):

- 30 1. The event involved an unplanned spill, release, fire, or explosion,
31 AND
32 2.a The unplanned spill or release involved a dangerous waste, or the material involved became a
33 dangerous waste as a result of the event (e.g., product that is not recoverable),
34 OR
35 2.b The unplanned fire or explosion occurred at the 400 Area WMU or transportation activity subject to
36 RCRA contingency planning requirements,
37 AND
38 3. Time-urgent response from an emergency services organization was required to mitigate the event,
39 or a threat to human health or the environment exists.

40 As soon as possible after stabilizing event conditions, the BED shall determine, in consultation with the
41 site contractor environmental single-point-of-contact, if notification to Ecology is needed to meet
42 WAC 173-303-360 (2)(d) reporting requirements. If all of the conditions under 1, 2, and 3 are met,
43 notifications are to be made to Ecology. Additional information is found in Permit Attachment 4,
44 *Hanford Emergency Management Plan* (DOE/RL-94-02), Section 4.2.

1 If review of all available information does not yield a definitive assessment of the danger posed by the
2 incident, a worst-case condition will be presumed and appropriate protective actions and notifications will
3 be initiated. The BED is responsible for initiating any protective actions based on their best judgment of
4 the incident.

5 The BED must assess each incident to determine the response necessary to protect the personnel, facility,
6 and the environment. If assistance from Hanford Patrol, Hanford Fire Department, or ambulance units is
7 required, the Hanford Emergency Response Number (911) must be used to contact the POC and request
8 the desired assistance. To request other resources or assistance from outside the 400 Area WMU, the
9 POC business number is used (373-3800).

10 **J.3.1 Protective Action Responses**

11 Protective action responses are discussed in the following sections. The steps identified in the following
12 description of actions do not have to be performed in sequence because of the unanticipated sequence of
13 incident events.

14 **J.3.1.1 Evacuation**

15 When a Fast Flux Test Facility (FFTF) PPA evacuation is ordered or the evacuation siren sounds,
16 non-essential employees will turn off office equipment, secure classified documents, obtain car keys and
17 proceed to the staging area. Essential personnel are those who have been previously designated as having
18 an emergency response role, are assigned to the on-shift Operations crew, or are utilized by the
19 Emergency Response Organization during the event (e.g., RCTs, Stationary Operating Engineers). Once
20 at the staging area, personnel will report to their prescribed location to allow for accountability.
21 Personnel with physical handicaps should have monitors assigned as necessary to assist them during an
22 evacuation.

23 Personnel in protective clothing when an evacuation alarm sounds should make an effort to undress at the
24 normal undress area if safe to do so. These personnel must remain separated from others, and report to
25 the Contaminated Personnel staging sign located outside at the north end of 4713-B, next to the Tool Crib
26 door. An RCT will be dispatched to that location to survey personnel. If directed to the alternate staging
27 area, it is recommended that personnel remove and leave protective clothing in the parking lot prior to
28 entering their vehicle and upon arrival at the alternate staging area remain segregated from others and
29 notify staging area personnel of the situation.

30 Personnel performing significant plant operations when an evacuation is initiated shall place the
31 equipment in a stable configuration if safe to do so and then respond as appropriate to the evacuation.

32 Personnel Accountability Aides (PAAs) will perform designated building sweeps to ensure all personnel
33 have been notified and are proceeding to the staging area. PAAs will then proceed to the staging area and
34 assist with personnel accountability. After personnel accountability is completed at the staging area, the
35 Staging Area Manager (SAM) will notify the BED/ICP.

36 The locations of the staging areas are shown on the illustrations in Section J.1. Within each building the
37 exits are clearly marked and evacuation routes to the staging area are maintained clear of obstacles.

38 The BED will normally contact the POC to inform them of the event and ensure that necessary onsite and
39 offsite protective actions are initiated. If additional transportation is needed for personnel, the BED may
40 coordinate for additional transportation through RL-EOC.

41 **J.3.1.2 Take Cover**

42 The site area siren will sound to notify personnel of the need to take cover. Personnel shall respond to the
43 first take cover signal sounded. The BED will normally contact the POC to inform them of the event and
44 ensure that necessary onsite and offsite protective actions are initiated.

1 When the "Take Cover" Alarm is activated, personnel shall take cover in the nearest building or trailer,
2 halt work, and if able place equipment in a safe condition. Close windows, exterior doors, interior doors,
3 and/or window blinds for offices with windows, and secure heating, ventilation, and air conditioning
4 (HVAC). If possible, personnel should move to interior hallways, lock up classified documents, and
5 follow normal exit procedures from radiologically controlled areas in preparation for evacuation. PAAs
6 will assist in the conduct of Take Cover activities.

7 **J.3.2 Response to Facility Operations Emergencies**

8 Depending on the severity of the event, the BED reviews the site-wide emergency response procedure(s)
9 and, as required, categorizes and/or classifies the event. If necessary, the BED initiates area protective
10 actions and Hanford Site Emergency Response Organization activation. The steps identified in the
11 following description of actions do not have to be performed in sequence because of the unanticipated
12 sequence of incident events.

13 **J.3.2.1 Loss of Utilities**

14 The loss of utilities will not have any impact because the WMU does not require support of any utilities.
15 Only minimal electrical power is available in the facility, and its loss would not have any effect on the
16 WMU.

17 **J.3.2.2 Major Process Disruption/Loss of Plant Control**

18 There are no process upsets or losses of plant control that can have any effect on the 400 Area WMU.
19 The FFTF facility is being deactivated for entry into a long-term surveillance and maintenance mode and
20 will be operated in accordance with an approved Surveillance & Maintenance Plan. Completion of
21 deactivation and entry into long-term surveillance and maintenance will be reported to Ecology.

22 **J.3.2.3 Pressure Release**

23 No pressure hazard exists for the waste stored in the 400 Area WMU.

24 **J.3.2.4 Fire and/or Explosion**

25 In the event of a fire, the discoverer activates a fire alarm (pull box); calls 911 (373-3800 if using a
26 cellular phone) or verifies that 911 has been called. The discoverer also notifies the SOM/BED.

- 27 • Unless otherwise instructed, personnel shall evacuate the area/building by the nearest safe exit and
28 proceed to the designated staging area for accountability.
- 29 • On actuation of the fire alarm, ONLY if time permits, personnel should shut down equipment, and
30 secure waste. The alarm automatically signals the Hanford Fire Department.
- 31 • The BED proceeds directly to the ICP, obtains all necessary information pertaining to the incident,
32 and sends a representative to meet Hanford Fire Department.
- 33 • The BED provides a formal turnover to the IC, when the IC arrives at the ICP.
- 34 • The BED informs the Hanford Site Emergency Response Organization as to the extent of the
35 emergency (including estimates of dangerous waste, mixed waste or radioactive material quantities
36 released to the environment).
- 37 • If operations are stopped in response to the fire, the BED ensures that systems are monitored for
38 leaks, pressure buildup, gas generation, and ruptures.
- 39 • Hanford Fire Department firefighters extinguish the fire as necessary.

1 **J.3.2.5 Hazardous Material, Dangerous and/or Mixed Waste Spill**

2 Spills can result from many sources including container spills or leaks, damaged packages or shipments,
3 or personnel error. Spills of mixed waste are complicated by the need to deal with the extra hazards
4 posed by the presence of radioactive materials.

- 5 • The discoverer notifies the BED and initiates SWIMS response:
 - 6 – Stops work
 - 7 – Warns others in the vicinity
 - 8 – Isolates the area
 - 9 – Minimizes the spill if possible
 - 10 – Requests the BED Secure ventilation
- 11 • The BED determines if emergency conditions exist, requiring response from the Hanford Fire
12 Department based on classification of the spill and injured personnel, and evaluates the need to
13 perform additional protective actions.
- 14 • If the Hanford Fire Department resources are not needed, the spill is mitigated with resources
15 identified in Section J.4 and proper notifications are made.
- 16 • If the Hanford Fire Department resources are needed, the BED calls 911 (373-3800 if using a cellular
17 phone).
- 18 • The BED sends a representative to meet the Hanford Fire Department.
- 19 • The BED provides a formal turnover to the IC when the IC arrives at the ICP.
- 20 • The BED informs the Hanford Site Emergency Response Organization as to the extent of the
21 emergency (including estimates of dangerous waste, mixed waste, or radioactive material quantities
22 released to the environment).
- 23 • If operations are stopped in response to the spill, the BED ensures that systems are monitored for
24 leaks, pressure buildup, gas generation, and ruptures.
- 25 • Hanford Fire Department stabilizes the spill.

26 **J.3.2.6 Damaged or Unacceptable Shipments**

27 During the course of receiving an onsite transfer of mixed waste at the 400 Area WMU, an unanticipated
28 event could be discovered resulting in a conformance issue concerning the waste. Damaged or
29 unacceptable shipments resulting from onsite transfers are not subject to WAC 173-303-370; however,
30 conformance issues must be resolved in order to maintain proper records.

31 The following actions are taken to resolve the conformance issue:

- 32 • Operations management is notified of the damaged or unacceptable waste to be received.
- 33 • If the conformance issue results in a spill or release, actions described in Section J.3.2.5 are taken
- 34 • The generating organization is notified of the conformance issue

35 An operations representative, in conjunction with the generating organization, determines the course of
36 action to resolve the conformance issue.

37 **J.3.3 Prevention of Recurrence or Spread of Fires, Explosions, or Releases**

38 The BED, as part of the ICP, takes the steps necessary to ensure that a secondary release, fire, or
39 explosion does not occur. The BED will take measures, where applicable, to stop processes and
40 operations; collect and contain released wastes and remove or isolate containers. The BED shall also

1 monitor for leaks, pressure buildups, gas generation, or ruptures in valves, pipes, or other equipment,
2 whenever this is appropriate.

3 **J.3.4 Incident Recovery and Restart of Operations**

4 A recovery plan is developed when necessary in accordance with Permit Attachment 4, *Hanford*
5 *Emergency Management Plan* (DOE/RL-94-02), Section 9.2. A recovery plan is needed following an
6 event where further risk could be introduced to personnel, the 400 Area WMU, or the environment
7 through recovery action and/or to maximize the preservation of evidence.

8 If this plan was implemented according to Section J.3, Ecology must be notified before operations can
9 resume. Permit Attachment 4, *Hanford Emergency Management Plan* (DOE/RL-94-02), Section 5.1
10 discusses different reports to outside agencies. This notification is in addition to those required reports
11 and must include the following statements:

- 12 • There are no incompatibility issues with the waste and released materials from the incident.
- 13 • All the equipment has been cleaned, fit for its intended use, and placed back into service.

14 The notification required by WAC 173-303-360(2)(j) may be made via telephone conference. Additional
15 information that Ecology requests regarding these restart conditions will be included in the required
16 15-day report identified in Section J.5.

17 For emergencies not involving activation of the Hanford-EOC, the BED ensures that conditions are
18 restored to normal before operations are resumed. If the Hanford Site Emergency Response Organization
19 was activated and the emergency phase is complete, a special recovery organization could be appointed at
20 the discretion of DOE to restore conditions to normal. This process is detailed in DOE and contractor
21 emergency procedures. The makeup of this organization depends on the extent of the damage and its
22 effects. The onsite recovery organization will be appointed by the appropriate contractor's management.

23 **J.3.5 Incompatible Waste**

24 After an event, the BED or the onsite recovery organization ensures that no waste that might be
25 incompatible with the released material is treated, stored, and/or disposed of until cleanup is completed.
26 Clean up actions are taken by 400 Area WMU personnel or other assigned personnel. Permit
27 Attachment 4, *Hanford Emergency Management Plan* (DOE/RL-94-02), Section 9.2.3, describes actions
28 to be taken.

29 Waste from cleanup activities is designated and managed as newly generated waste. A field check for
30 compatibility before storage is preformed, as necessary. Incompatible wastes are not placed in the same
31 container. Containers of waste are placed in approved storage areas appropriate for their compatibility
32 class.

33 If incompatibility of waste was a factor in the incident, the BED or the onsite recovery organization
34 ensures that the cause is corrected.

35 **J.3.6 Post Emergency Equipment Maintenance and Decontamination**

36 All equipment used during an incident is decontaminated (if practicable) or disposed of as spill debris.
37 Decontaminated equipment is checked for proper operation before storage for subsequent use.
38 Consumables and disposed materials are restocked. Fire extinguishers are replaced.

39 The BED ensures that all equipment is cleaned and fit for its intended use before operations are resumed.
40 Depleted stocks of neutralizing and absorbing materials are replenished; protective clothing is cleaned or
41 disposed of and restocked, etc.

1 **J.4 EMERGENCY EQUIPMENT**

2 Hanford Site emergency resources and equipment are described and listed in Permit Attachment 4,
3 *Hanford Emergency Management Plan* (DOE/RL-94-02), Appendix C. Emergency resources and
4 equipment for the 400 Area WMU are presented in this section.

5 **J.4.1 Fixed Emergency Equipment**

6 None, refer to Section J.4.2.

7 **J.4.2 Portable Emergency Equipment**

PORTABLE EMERGENCY EQUIPMENT		
TYPE	LOCATION	CAPABILITY
Fire Extinguisher	Fire extinguishers are available at the entrance to the TSD unit location	Portable Class D fire extinguishers are available for use to respond to fires at the FSF and the ISA.
Miscellaneous Emergency Equipment	Emergency Equipment is available at the facility and will be staged when work is performed at the TSD unit location	Blankets, first aid kits, and emergency lights.

8 **J.4.3 Communications Equipment/Warning Systems**

COMMUNICATIONS EQUIPMENT		
TYPE	LOCATION	CAPABILITY
Alert tone HI-LOW TONE	Throughout the 400 Area	Informing facility personnel of forthcoming emergency announcements
Fire Alarm Continuously Ringing Bell Or Electronic Gong And Strobe	Throughout 400 Area at or near building exits	Alerts personnel of a potential fire in their area
2-Way Radio/Cell Phone	At least one with personnel while in the TSD unit location.	Notify personnel to summon emergency assistance
Argon pressure monitoring system	FFTF argon dewar pad	Notify personnel of over or under pressure in the inert cover gas for piping and components containing sodium residuals

9 Note: Site wide communications and warning systems are identified in Permit Attachment 4, *Hanford*
10 *Emergency Management Plan* (DOE/RL-94-02), Table 5.1.

11 **J.4.4 Personal Protective Equipment**

PERSONAL PROTECTIVE EQUIPMENT		
TYPE	LOCATION	CAPABILITY
SCBAs Leather Gloves	Emergency Equipment is available at the facility and will be staged when work is performed at the TSD unit location	Protection from various hazards (e.g. smoke, fumes, oxygen deficient atmosphere, chemicals, high airborne radioactivity, radiological contamination)

1 **J.4.5 Spill Control and Containment Supplies**

SPILL KITS AND SPILL CONTROL EQUIPMEMNT		
TYPE	LOCATION	CAPABILITY
Spill Control Materials <ul style="list-style-type: none"> • Absorbent materials • Coveralls • Bags • Step-off pads • Surgical and chemical gloves • Goggles • Sodium-bicarbonate • Barrier tape • Rags • Scissors • Shoe Covers 	Spill Kits will be staged when work is performed at the TSD unit location	Control and mitigation of radioactive and chemical spills

2 **J.4.6 Incident Command Post**

3 The IC could activate the Hanford Fire Department Mobile Command Unit if necessary.

4 **J.5 REQUIRED REPORTS**

5 Post-incident written reports are required for certain incidents on the Hanford Site. The reports are
6 described in Permit Attachment 4, *Hanford Emergency Management Plan* (DOE/RL-94-02), Section 5.1.

7 Facility management must note in the TSD-unit operating record, the time, date, and details of any
8 incident, which requires implementation of the contingency plan. Within 15 days after the incident, a
9 written report must be submitted to Ecology. The report must, at a minimum, include the elements
10 specified in WAC 173-303-360(2)(k).

11 **J.6 PLAN LOCATION AND AMENDMENTS**

12 Copies of this plan are maintained in the Hanford Facility Operating Record, 400 Area WMU File.

13 This plan will be reviewed and immediately amended as necessary, in accordance with Permit
14 Attachment 4, *Hanford Emergency Management Plan* (DOE/RL-94-02), Section 14.3.1.1.

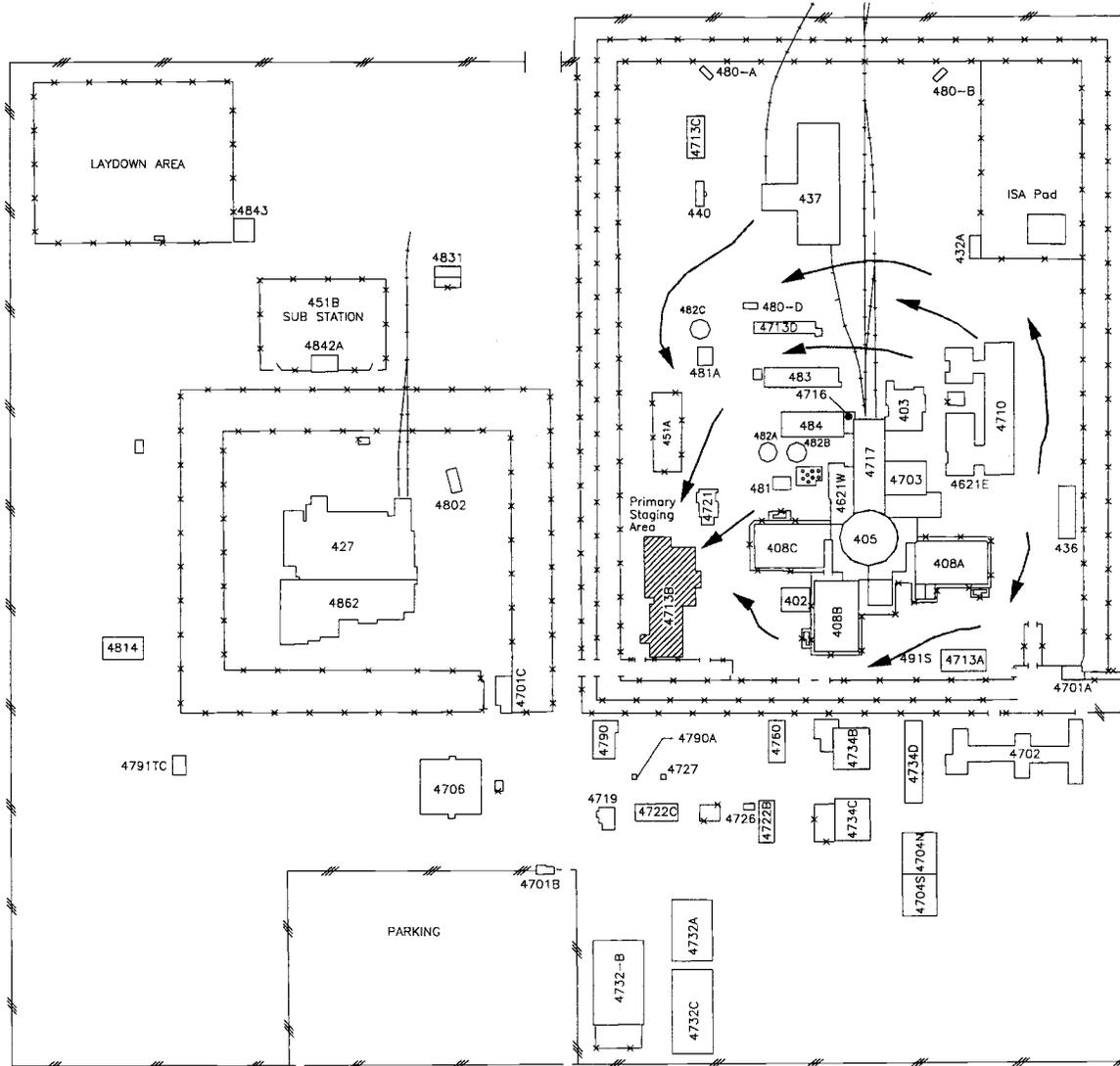
15 **J.7 BUILDING EMERGENCY ORGANIZATION BUILDING EMERGENCY DIRECTOR**

FFTF BEDs		
TITLE	WORK LOCATION	WORK PHONE
S&M Operations Manager	MO 294	376-0702

16 Names and home telephone numbers of the BEDs are available from the POC (373-3800) in accordance with Permit
17 Condition II.A.4.

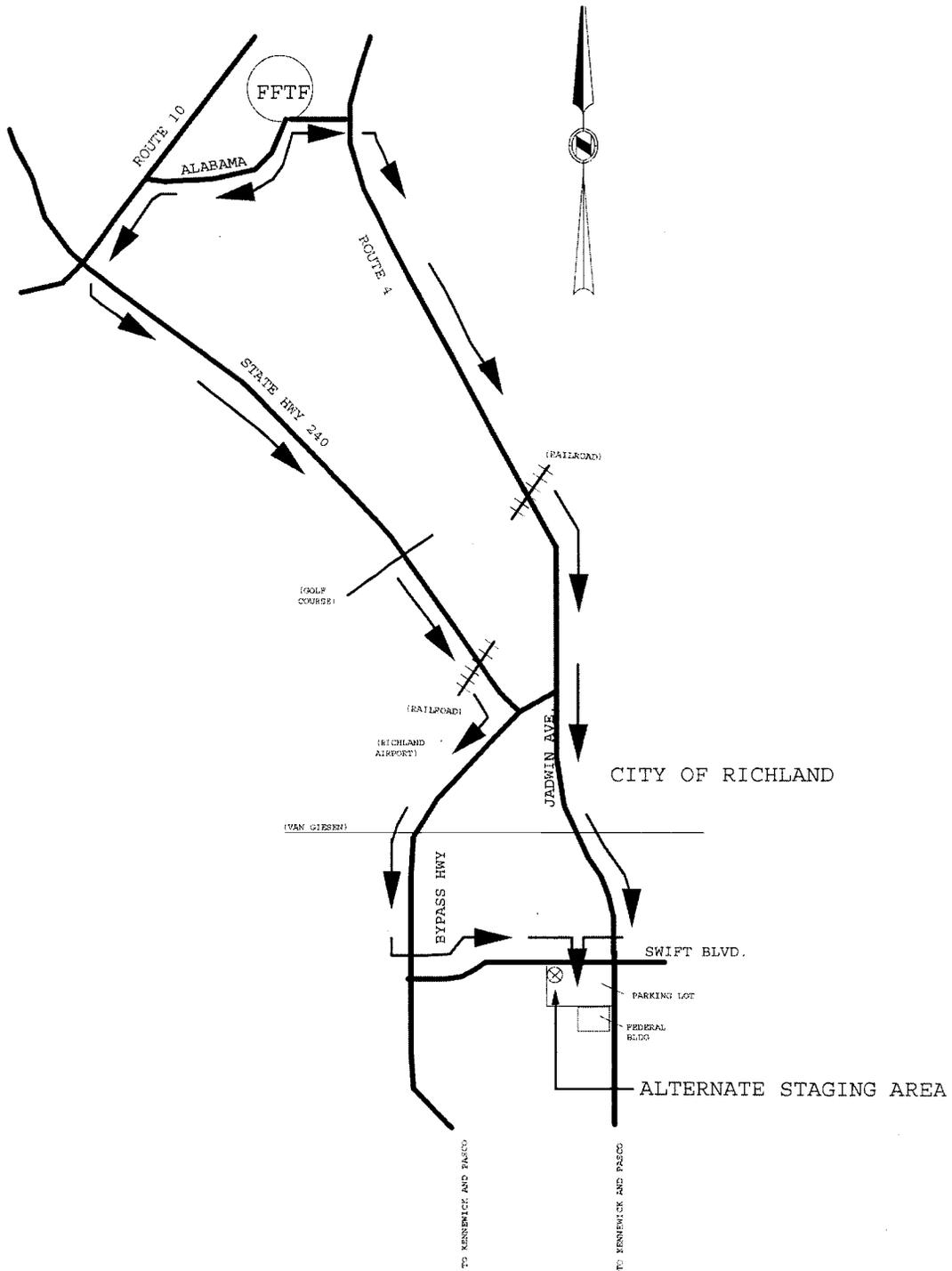
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Figure J.1. FFTF Primary Staging Area



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Figure J.2. FTFF Alternate Staging Area



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