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Revision 0

BUILDING EMERGENCY PLAN FOR FAST FLUX TEST FACILITY PROPERTY PROTECTION AREA

Prepared for the U.S. Department of Energy
Assistant Secretary for Environmental Management

Contractor for the U.S. Department of Energy
under Contract 89303320DEM000030

CPCCo
Central Plateau
Cleanup Company

P.O. Box 1464
Richland, Washington 99352

Approved for Public Release;
Further Dissemination Unlimited

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This plan covers the following buildings and structures: All buildings, structures, and storage areas within the Fast Flux Test Facility Property Protection Area, with the following exceptions: Building 437 (MASF) and MO4100.

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1.0 GENERAL INFORMATION

The *Fast Flux Test Facility (FFTF)* **is located on the Hanford site, a 560-square-mile (1,450-square kilometer) U.S. Department of Energy (DOE) Richland Operations Office (RL) site in southeastern Washington State. The** *FFTF* **is located in the** *center* **portion of the 4*00* Area near the** *south end* **of the Hanford Site.**

This plan contains a description of facility specific emergency planning and response and is used in conjunction with portions of the DOE/RL-94-02, *Hanford Emergency Management Plan*, to meet contingency plan requirements of Washington Administrative Code (WAC) 173-303. Pursuant to WAC 173-303 Dangerous Waste Regulations, DOE-RL as the owner or operator of the Hanford Facility, is required to have a "contingency plan" for use in emergencies or sudden or non-sudden releases that threaten human health and the environment. Additionally, WAC 173-303-201(9) (for dangerous waste generator locations) and WAC 173-303-350(2) (for TSD facilities) allows the owner or operator to use documentation, other than a "contingency plan," so long as the other documentation incorporates dangerous waste management provisions sufficient to comply with the requirements of WAC 173-303-201, WAC 173-303-350, and WAC 173-303-360. This approach is used at Hanford. There is no specific document titled "Contingency Plan" for the Hanford Facility. Rather, specific portions of this plan combined with portions of contractor facility/activity-specific documentation (e.g., emergency plans/procedures) are maintained to meet the contingency plan requirements of WAC 173-303.

1.1 Facility Name

U.S. Department of Energy
Hanford Site
Fast Flux Test Facility

1.2 Facility Location

Benton County, Washington within the *400* Area.

Buildings/facilities covered by this plan are: *All buildings, structures, and storage locations within the FFTF Property Protection Area (PPA), with the following exceptions: Building 437 (MASF) and MO4100.*

1.3 Owner

U.S. Department of Energy
Richland Operations Office
PO Box 550
Richland, Washington 99352

Manager

Central Plateau Cleanup Company (CPCCo)
P.O. Box 1464
Richland, Washington 99352

1.4 Description of the Facility and Operations

Unless otherwise implied, the term "FFTF", as used in this document, is generally intended to signify all areas as indicated in Section 1.2 and as listed below.

FFTF Plant

The FFTF Plant was a sodium cooled reactor complex with three primary and secondary loops utilizing 12 sodium to air Dump Heat Exchangers (DHX) that transferred heat from the secondary loops to the ambient air.

Originally constructed to support the U.S. Liquid Metal Fast Breeder Reactor Program, the FFTF has performed nuclear fuel and materials tests in support of both national and international fast breeder reactor programs, produced medical and industrial isotopes, performed materials tests for fusion and space programs, conducted passive safety tests, and provided customized neutron environments to meet varying needs. Due to lack of a long-term mission the reactor was shut down in March 1992. All fuel has been removed from the facility. The bulk liquid metal inventory has been drained to the Sodium Storage Facility (Building 402).

Building 403 - Fuel Storage Facility (FSF)

The Fuel Storage Facility (FSF) was designed to provide long term storage for irradiated fueled assemblies and core components that were not intended to be returned to the core. The FSF is located adjacent to the Reactor Service Building and the FSF vessel is located below grade in a cell. All fuel assemblies have been removed from the FSF vessel and, except for a small number of residuals, the liquid metal inventory has been transferred to the Sodium Storage Facility (Building 402).

Interim Decay Storage Vessel (IDS)

The Interim Decay Storage vessel was designed to provide a controlled environment for temporary storage of core fuel assemblies and reactor components (control rods, reflectors etc.). The IDS is located inside Containment below floor level. All fuel assemblies have been removed from the IDS vessel and, except for a small amount of residuals, the liquid metal inventory has been transferred to the Sodium Storage Facility.

Building 402 - Sodium Storage Facility (SSF)

The Sodium Storage Facility was constructed in 1996 for storage of metallic sodium product from the FFTF plant systems. It serves as an interim storage facility for the frozen sodium removed from the FFTF until final disposition. The facility is located between the South and West Dump Heat Exchangers. The 28 by 27-meter (92 by 89 foot) concrete facility houses three 303,000-liter (80,044 gallon) sodium storage tanks and one 199,000-liter (52,570 gallon) sodium storage tank. The total frozen sodium inventory contained in the four tanks is approximately 247,300 gallons.

Dangerous Waste Management Units (DWMUs)

The FFTF has two permitted storage areas (Building 403 Fuel Storage Facility and the Interim Storage Area) subject to RCRA contingency planning requirements as described below.

Building 403 Fuel Storage Facility (FSF) Dangerous Waste Management Unit

Building 403 has received authorization to serve as a DWMU as part of the 400 Area Waste Management Unit (WMU). The TSD unit is permitted to store approximately 350 gallons of frozen sodium contained in components removed from the Interim Decay Storage Vessel.

Interim Storage Area (ISA)

This area is a fenced gravel area with a concrete pad located east of the Maintenance and Storage Facility (MASF) in the northeast corner of the FFTF PPA. The ISA has received authorization to serve as a DWMU as part of the 400 Area Waste Management Unit (WMU).

Central Accumulation Areas and Satellite Accumulation Areas

The facility includes any Central Accumulation Areas (CAAs) and Satellite Accumulation Areas (SAAs) within the facility footprint (as described in Section 1.2) and as referenced in the CPCCo CAA and SAA lists maintained in accordance with the Hanford Facility RCRA Permit, Condition II.I.1.

2.0 PURPOSE

This plan describes the facility hazards and the actions that will be taken in response to upset and/or emergency conditions within the *FFTF.* **These events may include spills or releases caused by processing, fires and explosions, transportation activities, movement of materials, packaging, storage of hazardous materials, and natural and security contingencies. Sections 1.0, 3.1, 4.0, 7.1, 7.1.1, 7.1.2, 7.2, 7.2.1, 7.2.2, 7.2.3, 7.2.4, 7.2.5, 7.2.5.1, 7.3 and subsections, 7.6, 8.2, 8.2.1, 8.2.2, 9.0, 9.1, 9.2, 9.3, 9.4, 9.5, 9.6, 11.0, 12.0, of the Building Emergency Plan (BEP) are enforceable sections meeting RCRA contingency planning requirements. Enforceable sections cannot be changed without coordinating the change with the Permit modification process. Attachment B of this BEP provides a crosswalk listing applicable WAC 173-303 requirements and how/where the requirement is met.**

3.0 FACILITY/BUILDING EMERGENCY RESPONSE ORGANIZATION

The facility/Building Emergency Response Organization (ERO) includes the Building Emergency Director (BED), facility subject-matter experts, and other operations personnel who are responsible for implementing emergency response actions at *FFTF.*

The Inner Area End States (IAES) project is not staffed 24 hours a day. During normal working hours, the Shift Operation Manager will become the Building Emergency Director (BED) as necessary, and the Facility Emergency Response Organization will fill all the normally assigned Incident Command Post (ICP) functions. On back-shifts, weekends and facility closure days, the on-call BED position will be filled by assignment on a week-by-week rotation. The BED on-call list is managed by IAES Operations.

The FFTF and all associate facilities under the plan are unoccupied and activities are limited to surveillance and maintenance and demolition activities.

3.1 Building Emergency Director

Emergency response will be directed by the BED until the IC arrives. The BED, supported by facility/building ERO personnel, fulfills the role and meets the requirements of the "Emergency Coordinator" as defined in WAC 173-303-201 (for dangerous waste generator locations) and WAC 173-303-360(1) (for permitted TSD facilities). During events, *FFTF* personnel perform response duties under the direction of the BED. The senior responding Hanford Fire Department officer will be the IC. If the event is determined to primarily be a security event, the Hanford Fire Department and Hanford Patrol will operate under a unified command system with Hanford Patrol making decisions pertaining to security. These individuals have the authority to request and obtain any resources necessary for protecting people and the environment.

The BED becomes a member of the Incident Command Organization and functions under the direction of the IC. In this role, the BED continues to manage and direct *FFTF* operations.

The BED is an on-call position during normal working hours, back-shifts, weekends, and holidays. The current BED contact information is located at the IAES Shift Office, 200 East MO287, (509) 373-1355.

> **During off-shift hours, a BED is designated as on-call. The on-call BED name and home telephone number is available from the Patrol Operations Center (POC) in accordance with RCRA Permit Condition II.A.4.**
>
> **As necessary, the BED will make the Operational Emergency categorization/ classification decision and also determine if the event is subject to the requirements of WAC 173-303-201(14)(d) or WAC 173-303-360(2)(d) prior to responding to the scene.**

IAES **maintains a complete listing of current, qualified BEDs. The list is maintained in** MO-287, and MO-294, **co-located with this plan, and also contained in Permit Attachment 4A.**

3.2 Other Members

The IAES ERO includes personnel trained to perform response actions including Facility Staging Area Manager, Incident Command Post (ICP) Communicator, ICP Hazards Communicator, Hazards Assessors, and Facility Operations Specialist. Since FFTF is an unoccupied facility, some of the positions would not be required to respond to an event. In addition, based on the event, the BED can identify additional support personnel (radiological control, maintenance, engineering, hazardous material coordinators, etc.) to be part of the Facility/Building Emergency Response Organization. ERO positions as a team facilitate communication and control of emergency response resources and information, aid in accountability, ensure protective actions have been taken, and help stabilize and mitigate the emergency.

The BED will notify other facility/building ERO to support the on-scene response. *ERO are contacted via radio, work phone or cellular phone.*

The complete facility/building ERO listing of positions, names of ERO members, work locations, and telephone numbers for the *FFTF* is maintained in a separate location in a format determined appropriate by *IAES* management. Copies are distributed to appropriate *IAES* locations and maintained by *CPCCo Safeguards, Security, and Emergency Services***.**

4.0 IMPLEMENTATION OF THE PLAN

The BED must assess each incident to determine the response necessary to protect the personnel, facility, and the environment. If assistance from Hanford Patrol or Hanford Fire Department is required, the Hanford Emergency Response Number (911 or 509-373-0911 if using a cellular phone) must be used to contact the POC and request the desired assistance.

In accordance with WAC 173-303-201(14)(b) or WAC 173-303-360(2)(b), whenever there is a release, fire or explosion, the BED ensures that personnel identify the character, source, amount, and areal extent of any released materials. Identification 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 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 steps to determine if an emergency circumstance is subject to the contingency plan implementation and notification requirements of WAC 173-303-201 or WAC 173-303-350 and WAC 173-303-360:

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 for reuse without processing).**

OR

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

AND

3. **The emergency circumstance poses a threat to human health or the environment.**

Additional guidance to assist the BED in determining the applicability of the requirements is maintained in DOE-0223, DOE-RL Emergency Plan Implementing Procedures (RLEPs). This guidance is derived from Washington State Department of Ecology (WSDOE) Dangerous Waste Permit application guidelines for implementation of the contingency plan and notifications to Washington State Department of Ecology (Ecology). Contractor environmental single points-of-contact are also available to assist the BED in determining the applicability of requirements.

If assessment of an event does not allow a definitive determination of the threat to human health and the environment, then the BED shall continue to implement the emergency procedures for the event, and through that process continue the assessment of the event.

If the BED determines that the event response requires contingency plan implementation, the BED must *notify and direct the environmental organization to notify, the Washington State Department of Ecology (Ecology)* **in accordance with WAC 173-303-201(14)(d) or WAC 173-303-360(2).**

The following information must be included in the assessment report:

- **The name and telephone number of reporter.**
- **The name and address of facility.**
- **The time and type of incident (e.g., release, fire).**
- **The name and quantity of material(s) involved, to the extent known.**
- **The extent of injuries, if any.**
- **The possible hazards to human health or the environment outside the facility.**

5.0 FACILITY HAZARDS

5.1 Hazardous Materials

The only significant bulk hazardous material at FFTF is solid sodium. The material usage, location, and estimated quantities are summarized below.

Table 1. Hazardous Materials

MATERIAL	USAGE/LOCATION	APPROXIMATE QUANTITY	PRIMARY HAZARD
Sodium (solid)	SSF and residual frozen sodium remaining in piping and cold traps	936,100 liters (247,300 gallons)	Reactivity

Other hazardous materials at the facility include ethylene glycol and petroleum products. Specific locations of chemical products may be obtained from the facility chemical coordinator. SDS data sheets are maintained electronically using current Hanford Site data bases.

5.2 Industrial Hazards

Industrial hazards that may be encountered at FFTF include confined spaces, rotating equipment, and asbestos in some building materials.

Because the ventilation system is not normally operated and the possibility of a cover gas leak, there is the potential for an oxygen deficiency to be encountered in below grade spaces. Oxygen monitors are required for building entries.

5.3 Dangerous/Mixed Waste

IAES Regulatory Compliance maintains a specific list of dangerous waste, mixed waste, and radioactive waste accumulated/stored at FFTF. As identified in the Surveillance and Maintenance Plan for the Fast Flux Test Facility (FFTF) (DOE/RL-2009-26, Rev. 0 April 2009), dangerous waste generation and disposal are not expected during surveillance and maintenance (S&M) mode. If waste is generated, it will be handled in compliance with the applicable Federal, State, and local environmental laws and regulations, and DOE orders. A brief description of wastes commonly stored is as follows (this list is not intended to be all-inclusive and may vary to support the needs or operations of the facility):

WASTE TYPE	LOCATION
Radioactive sodium waste and sodium hydroxide in Building 403 (FSF) and the ISA. A mixed-waste drum containing small amounts of NaK is located on the ISA pad.	Building 403 (FSF) and ISA Treatment, Storage, and Disposal Units

5.4 Radioactive Materials

Radioactive materials are stored in Buildings 402, 403, 405 and in the ISA.

5.5 Criticality

Criticality is not a credible event at the FFTF.

6.0 POTENTIAL EMERGENCY CONDITIONS

Potential emergency conditions, under both WAC 173-303 and DOE requirements fall into three basic categories: (1) operations (process upsets, fires, explosions, loss of utilities, spills, and releases); (2) natural phenomena (e.g., earthquakes); and (3) security contingencies (e.g., bomb threat, hostage situation). The following are conditions that may lead to an emergency at the *FFTF.*

6.1 Facility Operations Emergencies

6.1.1 Loss of Utilities

A loss of utilities is not expected to lead to an emergency condition or require implementation of protective actions. During surveillance and maintenance mode the fire detection system is the only continuously powered system. Lighting and Heating and Ventilation (H&V) are only energized during plant entries for surveillance and/or maintenance.

6.1.2 Major Process Disruption/Loss of Plant Control

There are no plant process failures or malfunctions that are expected to lead to an emergency condition or require implementation of protective actions.

6.1.3 Pressure Release

There is a low-pressure argon system (2 inches to 27 inches wg.) supplied to most sodium and cover gas systems throughout the plant. The probability of a hazardous condition is minimized due to the very low pressure of the argon supply, the very high quality (nearly all welded) of the sodium and cover gas piping, and the natural diffusion of the argon into the atmosphere. Access to FFTF is controlled by work control documentation.

6.1.4 Fire and/or Explosion

A fire or explosion would require the affected building to be evacuated. A fire or explosion in an area containing hazardous material or dangerous waste could generate environmental release concerns.

The sodium systems containing bulk quantities of frozen sodium are maintained with an inert gas blanket. A breach of these systems is considered to be unlikely and if any breach did occur, it would be very small, and the leakage of cover gas would be made up by the cover gas supply system. A larger breach that may introduce air into the sodium systems would result in only a minor reaction between the sodium and oxygen or water vapor in the air and would not present a significant hazard. A large rapid sodium-water reaction event is not considered credible considering the low probability of a large system breach combined with the low probability of significant water accumulation (considering the draining of all water systems in the plant, the arid Hanford climate, and the periodic inspection of vulnerable locations.

6.1.5 Hazardous Material Spill

The most significant hazardous material release would come from a sodium leak. Since all of the remaining sodium at FFTF is frozen, a sodium leak has been determined to be an unlikely event. Other hazardous material spills would be limited to local areas and mitigated by plant design but may require timely response to minimize environmental impact.

6.1.6 Dangerous/Mixed Waste Spill

Due to the limited quantity of wastes maintained at the facility, there are no dangerous waste or mixed waste spills identified that could generate a DOE declared emergency or are likely to create a RCRA emergency at FFTF. However, in the event of a waste spill the consequences would be very localized and necessary mitigating measures minimal.

6.1.7 Transportation and /or Packaging Incidents

Due to the potential receipt of some hazardous materials and the shipment of wastes, a transportation incident is possible. The effects of a shipment event would be the same as those for hazardous material or dangerous/mixed waste events except no shipments are made which could generate a DOE declared emergency.

6.1.8 Radioactive Material Release

6.1.8.1 Radioactive Liquid Waste Spill

Due to the location of system piping and components, a radioactive liquid waste spill outside of facility structures to the environment is unlikely. There are no identified scenarios involving radioactive liquid waste that would generate an emergency condition

6.1.9 Criticality

Criticality is not a credible event at the FFTF.

6.2 Natural Phenomena

Natural phenomena are discussed in the following sections.

6.2.1 Seismic Event

Depending on the magnitude of the event, severe structural damage can occur resulting in serious injuries or fatalities and the release of hazardous materials to the environment. Damaged electrical circuits and wiring could result in the initiation of fires.

6.2.2 Volcanic Eruption/Ash Fall

Though not expected to cause structural damage, the ash resulting from a volcanic eruption could cause shorts in electrical equipment and plug ventilation system filters.

6.2.3 High Winds/Tornadoes

High winds or tornadoes may cause structural damage to systems containing hazardous materials resulting in a release of the materials to the environment.

6.2.4 Flood

Flooding can cause the release of hazardous materials depending on the type of storage containers. Floods can also cause short circuits in electrical wiring located at or below ground level. This may then result in an increased likelihood of fires.

6.2.5 Range Fire

The hazards associated with a range fire are the same as those associated with a building fire plus potential site access restrictions and travel hazards such as poor visibility.

6.2.6 Aircraft Crash

In addition to the potential for serious injuries or fatalities, an aircraft crash could result in the direct release of hazardous materials to the environment or cause a fire that could lead to the release.

6.3 Security Contingencies

Security contingencies are discussed in the following sections.

6.3.1 Bomb Threat/Explosive Device

A bomb threat may be received by anyone who answers the telephone or receives a written correspondence[1]. The major effect on the FFTF is that personnel will need to perform emergency shutdown of the facility before evacuation. If an explosive device detonates, the effects are the same as those discussed under fire and explosion.

6.3.2 Hostage Situation/Armed Intruder

A hostage situation or the entry of an armed hostile intruder(s) can pose an emergency if either of these conditions has the potential to adversely affect facility operations.

6.3.3 Suspicious Object

If a suspicious object is discovered, the major effect on the FFTF is that personnel may need to perform an emergency shutdown of the facility before evacuation.

6.4 Unexpected/Unidentified Odors

Unexpected or unidentified odors have the potential to cause health effects and could be indicative of other events.

7.0 INCIDENT RESPONSE

The initial response to any emergency is to immediately protect the health and safety of persons in the affected area. Identification of released material is essential to determine appropriate protective actions. Containment, treatment, and disposal assessment are secondary responses.

The following sections describe the process for implementing basic protective actions as well as descriptions of response actions for the events listed in Section 6.0 of this plan. In addition, a section addressing prevention of secondary release, fires or explosions is provided. Attachment A provides a list of applicable procedures.

7.1 Protective Action 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.

---

[1] Written correspondence includes, but is not limited to, letters, emails, and text messages.

In addition to the facility protective actions described below, the BED also reviews the sitewide and *FFTF* emergency response procedure(s) for categorization and/or classification of the event and if necessary, initiates area protective actions and Hanford Site ERO activation. Operational Emergency categorization and/or classification is reported to the Hanford Emergency Operations Center (EOC), triggering notification to offsite officials that includes planned recommendations for protective actions if needed. Hanford EOC staff are responsible to coordinate protective action recommendations with offsite officials.

A common set of initial response actions are performed by the event discoverer and the BED during all events. Those actions are described below and are not repeated in each following subsection.

The discoverer notifies the BED and initiates SWIM response as specified in the following sections.

- **Stops work.**
- **Warns others in the vicinity.**
- **Isolates the area.**
- **Minimizes exposure to the hazards.**
    - **The BED determines if emergency conditions exist requiring response from the Hanford Fire Department and evaluates the need to perform additional protective actions.**
    - **If the Hanford Fire Department resources are not needed, the event is mitigated with resources identified in Section 9.0 of this plan and proper notifications are made.**
    - **If the Hanford Fire Department resources are needed, the BED ensures notification to 9-1-1 from site phones (509 373 0911 from a cellular phone).**
    - **The BED ensures a representative is sent to meet the Hanford Fire Department.**
    - **The BED provides a formal turnover to the IC when the IC arrives at the incident command post (ICP).**
    - **The BED informs the Hanford Site ERO as to the extent of the emergency (including estimates of dangerous waste and mixed waste quantities released to the environment, if applicable).**
    - **If operations are stopped in response to the event, the BED ensures that systems are monitored for leaks, pressure buildup, gas generation, and ruptures, if applicable.**
    - **Hanford Fire Department stabilizes the event.**

7.1.1 Evacuation Plan

FFTF is unoccupied unless surveillance and maintenance activities are being conducted. In this case when a FFTF evacuation is ordered or the evacuation siren sounds, employees will obtain car keys and proceed to the staging area. Once at the staging area, personnel will perform accountability. Personnel with physical handicaps should have monitors assigned as necessary to assist them during an evacuation.

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

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

The locations of the staging areas are shown on the illustrations in Figures 1 and 2. Within each building the exits are clearly marked and evacuation routes to the staging area are maintained clear of obstacles. The supervisor (or delegate) is responsible for ensuring accountability of personnel at the ISA or FSF.

7.1.2 Take Cover

The area siren will sound to notify personnel of the need to take cover. Personnel shall take cover in the nearest suitable building or trailer, halt work, and if able place equipment in a safe condition. Close windows, exterior doors, interior doors, and/or window blinds for offices with windows, and secure heating, ventilation, and air conditioning (HVAC). If possible, personnel should move to interior hallways, and follow normal exit procedures from radiologically controlled areas in preparation for evacuation.

7.2 Response to Facility Operations Emergencies

Depending on the severity of the event, the BED reviews the sitewide and FFTF emergency response procedure(s) and, as required, categorizes and/or classifies the event. If necessary, the BED initiates area protective actions and Hanford Site Emergency Response Organization activation.

The steps identified in the following descriptions of actions do not have to be performed in sequence because of the unanticipated sequence of incident events.

7.2.1 Loss of Utilities

A loss of utilities is not expected to lead to an emergency condition or require implementation of protective actions.

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

7.2.2 Major Process Disruption/Loss of Plant Control

There are no process upsets or losses of plant control that can have any effect at FFTF (including the 400 Area WMU). The FFTF facility has been deactivated and is currently being operated in accordance with the approved Surveillance & Maintenance Plan.

7.2.3 Pressure Release

Low pressure argon (2 inches to 27 inches wg) is supplied to most sodium and cover gas systems throughout the plant. Due to the very low pressure of the argon supply, there are no scenarios that are expected to lead to an emergency condition or require implementation of protective actions. Because of the density of argon gas, the potential of leaking argon to pockets exists in the lowest areas of the plant. Personnel accessing the lower levels of the plant will do so in accordance with work packages or approved procedures.

7.2.4 Fire and/or Explosion

In the event of a fire and/or explosion, the discoverer activates a fire alarm (pull box), calls 911 (509-373-0911 if using a cellular phone) or verifies that 911 has been called. Automatic initiation of a fire alarm (through the smoke detectors and sprinkler systems) is also possible.

- Unless otherwise instructed, personnel shall evacuate the area/building by the nearest safe exit and proceed to the designated staging area for accountability.
- On actuation of the fire alarm, ONLY if time permits, personnel should shut down equipment and secure waste. The alarm automatically signals the Hanford Fire Department.
- The BED establishes the initial command post, obtains all necessary information pertaining to the incident and sends a representative to meet Hanford Fire Department.
- The BED provides a formal turnover to the IC when the IC arrives at the initial command post.
- The BED informs the Hanford Site ERO as to the extent of the emergency (including estimates of dangerous waste and mixed waste quantities released to the environment).
- If operations are stopped in response to the fire, the BED ensures that systems are monitored for leaks, pressure buildup, gas generation and ruptures.
- Hanford Fire Department firefighters extinguish the fire as necessary.

7.2.5 Hazardous Material, Dangerous and/or Mixed Waste Spill

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

The discoverer notifies the BED and initiates SWIM response:

- **Stops work.**
- **Warns others in the vicinity.**
- **Isolates the area.**
- **Minimizes exposure to the hazards.**

- The BED determines if emergency conditions exist requiring response from the Hanford Fire Department and evaluates the need to perform additional protective actions.
- If the Hanford Fire Department resources are not needed, the spill is mitigated with resources identified in Section 9.0 of this plan and proper notifications are made.
- If the Hanford Fire Department resources are needed, the BED calls 911 (509-373-0911 if using a cellular phone).
- The BED sends a representative to meet the Hanford Fire Department.
- The BED provides a formal turnover to the IC when the IC arrives at the ICP.
- The BED informs the Hanford Site ERO as to the extent of the emergency (including estimates of dangerous waste and mixed waste quantities released to the environment).
- If operations are stopped in response to the spill, the BED ensures that systems are monitored for leaks, pressure buildup, gas generation, and ruptures.
- Hanford Fire Department stabilizes the spill.

7.2.5.1 Damaged or Unacceptable Shipments

During the course of receiving dangerous and/or mixed waste at *FFTF*, an unanticipated event could be discovered resulting in a conformance issue concerning the waste. In some cases, the conformance issue will result from receiving an off-site shipment, manifested pursuant to Permit Condition II.P.1 or WAC 173-303-370 that is damaged or otherwise presents a hazard and cannot be transported. Damaged or unacceptable shipments resulting from onsite transfers are not subject to WAC 173-303-370; however, conformance issues must be resolved in order to maintain proper records.

Regardless of whether the waste is received as an off-site shipment or onsite transfer, the following actions are taken:

- **Operations management is notified of the damaged or unacceptable waste to be received.**
- **If the conformance issue results in a spill or release, actions described in Section 7.2.5 are taken.**
- **The generating organization is notified of the conformance issue.**
- **An operations representative, in conjunction with the generating organization, determines the course of action to resolve the conformance issue.**

7.2.6 Radioactive Material Release

Section 7.2.5 addresses the actions for a radiological material release.

7.2.7 Criticality

Criticality is not a credible event at the FFTF.

7.3 Response to Natural Phenomena

Depending on the severity of the event, the BED reviews Sitewide and FFTF emergency response procedure(s) and, as required, categorizes and/or classifies the event. If necessary, the BED initiates area protective actions and Hanford Site Emergency Response Organization activation.

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. Attachment A provides a list of procedures.

7.3.1 Seismic Event

The Hanford Site EROs' primary role in a seismic event is coordinating the initial response to injuries, fires, fire hazards, and acting to contain or control radioactive, and/or hazardous material releases.

Individuals should remain calm and stay away from windows, steam lines, and hazardous material storage locations. Once the shaking has subsided, individuals should evacuate carefully and assist personnel needing help. The location of any trapped individuals should be reported to the BED or is reported to 911 (509-373-0911 if using a cellular phone).

The BED takes whatever actions are necessary to minimize damage and personnel injuries. Responsibilities include the following:

- Coordinating searches for personnel and potential hazardous conditions (e.g., fires, spills).
- Conducting accountability.
- Securing utilities and facility operations.
- Arranging rescue efforts and notifying 911 (509-373-0911 if using a cellular phone) for assistance.
- Determining if hazardous materials were released.
- Determining current local meteorological conditions.
- Warning other facilities and implementing protective actions if release of hazardous materials poses an immediate danger.
- Providing personnel and resource assistance to other facilities, if required and possible.

7.3.2 Volcanic Eruption/Ash Fall

When notified of an impending ash fall, the BED will implement measures to minimize the impact of the ash fall. BED actions include the following:

- Installing filter media over building ventilation intakes.
- Installing filter media or protective coverings on outdoors equipment that may be adversely affected by the ash (e.g., diesel generators, equipment rooms).
- Shutting down some or all operations and processes.
- Sealing secondary use exterior doors.

If other emergency conditions arise as a result of the ash fall (e.g., fires due to electrical shorts), response is as described in other sections of this plan.

7.3.3 High Winds/Tornadoes

Upon notification of impending high winds, the BED takes steps necessary to secure all outdoor waste and hazardous material containers and storage locations. All doors and windows are shut, and personnel are warned to use extreme caution when entering or exiting the building. Ventilation, utilities, and operations will be shut down as appropriate to lessen the severity of the impact.

7.3.4 Flood

Not applicable.

7.3.5 Range Fire

Responses to range fires are handled by preventive measures (e.g., keeping hazardous material and waste accumulation areas free of combustible materials such as weeds and brush). If a range fire breaches the FFTF boundary, the response is as described in Section 7.2.4.

7.3.6 Aircraft Crash

The response to an aircraft crash is the same as for a fire and/or explosion (Section 7.2.4).

7.4 Security Contingencies

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. Attachment A provides a list of procedures.

7.4.1 Bomb Threat/Explosive Device

7.4.1.1 Telephone Threat

Individuals receiving telephoned threats attempt to get as much information as possible from the caller (using the bomb threat checklist if available). Upon conclusion of the call, or during the call, if possible, notify the BED and Hanford Patrol by calling 911 (do not use wireless communications devices for reporting a bomb threat/explosive device unless beyond 100 feet from the suspected object).

When notified, the BED ensures the FFTF protective actions have been taken and questions personnel at the staging area regarding any suspicious objects. When Hanford Patrol personnel arrive, follow their instructions.

7.4.1.2 Written Threat[2]

Receivers of hard copy written threats handle the letter as little as possible. Notify the BED and Hanford Patrol by calling 911 (do not use wireless communications devices for reporting a bomb threat/explosive

[2] Written threats include, but are not limited to, letters, emails, and text messages.

device unless beyond 100 feet from the suspected object). Depending on the content of the written threat, the BED might evacuate the affected locations. The written threat is turned over to Hanford Patrol and their instructions are followed.

7.4.2 Hostage Situation/Armed Intruder

The discoverer of a hostage situation or armed intruder reports the incident to 911 (509-373-0911 if using a cellular phone) and to the BED if possible. Hanford Patrol will determine the remaining response actions.

7.4.3 Suspicious Object

The discoverer of a suspicious object reports this object to the BED and to 911 (do not use wireless communications devices for reporting a bomb threat/explosive device unless beyond 100 feet from the suspected object), if possible, and ensures that the object is not disturbed.

7.5 Response to Unexpected/Unidentified Odors

Unexpected and unidentified odors should be investigated by the facility or project safety and health personnel. If the odor can be traced to an identifiable source and controlled safely with local resources, it can be resolved at the facility level. Air monitoring may aid in identification of a source and help determine if the odor is indicative of a health threat or is merely a nuisance. If facility or project safety and health personnel concur that the odor may be indicative of a health threat and cannot be safely controlled with local resources or an odor is found to be the result of an action or condition that requires emergency response, the Hanford Fire Department would be notified and respond accordingly.

7.6 Prevention of Recurrence or Spread of Fires, Explosions, or Releases

The BED, as part of the Incident Command Organization, takes the steps necessary to ensure that a secondary release, fire, or explosion does not occur. The BED will take measures, where applicable, to stop processes and operations; collect and contain released wastes and remove or isolate containers. The BED shall also monitor for leaks, pressure buildups, gas generation, or ruptures in valves, pipes, or other equipment, whenever this is appropriate.

8.0 TERMINATION OF EVENT, INCIDENT RECOVERY, AND RESTART OF OPERATIONS

DOE/RL-94-02, Section 9.0, describes actions for event termination, incident recovery, restart of operations, and incompatible waste.

8.1 Termination of Event

For events where the Hanford EOC is activated, the Site Emergency Director has the authority to declare event termination. This decision is based on input from the BED, IC, and other ERO members. For events where the Hanford EOC is not activated, the IC and staff will declare event termination.

8.2 Incident Recovery and Restart of Operations

Immediately after an emergency, the BED must provide for treating, storing, or disposing of recovered waste, contaminated soil or surface water, or any other material that results from a release, fire, or explosion at *FFTF*. A recovery plan is developed when necessary in accordance with DOE/RL-94-02, Section 9.2.

If this plan was implemented according to Section 4.0 of this plan, Ecology is notified that the *FFTF* is in compliance with cleanup activities, as described in DOE/RL-94-02, Section 5.1.2.2, before operations can resume.

8.2.1 Incompatible Waste

After an event, the BED or the onsite recovery organization ensures that no waste that might be incompatible with the released material is treated, stored, and/or disposed of until cleanup is completed. Clean up actions are taken by *FFTF* personnel or other assigned personnel. DOE/RL-94-02, Section 9.2.3, describes actions to be taken.

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

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

8.2.2 Post Emergency Equipment Maintenance and Decontamination

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

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

9.0 EMERGENCY EQUIPMENT

Emergency resources and equipment for the *FFTF* are presented in this section. Emergency equipment must be tested and maintained to assure its proper operation in time of emergency.

Sufficient space is maintained on the exterior of the FFTF to allow access of personnel and equipment responding to fires, spills, or other emergencies. Unobstructed fire lanes run from main entrance to allow emergency vehicle access to the main entrance and the nearby fire hydrant. The interior space is designed to allow access by emergency response personnel while maintaining barriers to contain releases of gaseous or liquid waste and hazardous substances as defined in WAC 173-303-040.

9.1 Fixed Emergency Equipment

There is no fixed emergency response equipment for FFTF. Due to the reactive properties of the sodium metal, water fire suppression systems have been disconnected. Catastrophic releases, fires, explosions, or natural disasters will be mitigated by the Hanford Fire Department using their response equipment.

9.2 Portable Emergency Equipment

Table 2. Portable Emergency Equipment

PORTABLE EMERGENCY EQUIPMENT		
TYPE	**LOCATION**	**CAPABILITY**
Fire Extinguisher	A fire extinguisher is available at the ISA pad (inside the locked fenced area on the fence near the gate) and at the FSF building (adjacent to the entrance).	Portable Class D fire extinguishers are available for use to respond to fires at the FSF and the ISA
Emergency Response/Spill Kit Contains: PPE for response, boundary control, first aid supplies, emergency lights. Spill Control Materials are: • Absorbent materials • Bags • Step-off pads • Barrier tape • Rags • Scissors	An emergency response/spill kit is maintained at the 400 Area WMU and is located at the Northeast corner of Building 403. All personnel entering the noted areas, regardless of the type of work being performed, must be made aware of the emergency response/spill kit location prior to entering the areas.	Boundary control, , first aid, spill response, and decontamination of materials and equipment.

9.3 Communications Equipment/Warning Systems

Whenever dangerous waste is being poured, mixed, spread, or otherwise handled, or if there is ever just a single employee on the premises while the facility is operating, the employee or employees involved must have immediate access to a *cellular telephone, or radio* **capable of summoning emergency assistance.**

Table 3. Communications Equipment

COMUNICATIONS EQUIPMENT		
TYPE	**LOCATION**	**CAPABILITY**
Fire Alarm Continuous Ringing Bell or Electronic Gong and Strobe	Fire alarm – at or near building exits in buildings 405; 491E, S, & W; 4621E & W; and 4703. When appropriate, personnel at the FSF and ISA will be notified of fire alarms at the 400 Area.	Alerts personnel of a potential fire or other emergency notifications in their area.

Portable two-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 located on a pad west of the main FFTF Plant.	Notify personnel of over or under pressure in the inert cover gas for piping and components containing sodium residuals.

NOTE: Site-wide communications and warning systems are identified in DOE/RL-94-02, Section 5.2.5.

9.4 Personal Protective Equipment

Table 4. Personal Protective Equipment

PERSONAL PROTECTIVE EQUIPMENT		
TYPE	**LOCATION**	**CAPABILITY**
Personnel Protective Equipment (PPE clothing is based on specific job requirements.)	Personal Protective Equipment is available and will be staged when work is performed at the 400 Area WMU location.	Protection from various hazards (e.g., smoke, fumes, chemicals, high airborne radioactivity, radiological contamination, insufficient lighting).

9.5 Spill Control and Containment Supplies

Table 5. Spill Control and Containment Supplies

SPILL KITS AND SPILL CONTROL EQUIPMENT		
TYPE	**LOCATION**	**CAPABILITY**
Emergency Response/Spill Kit Contains: PPE for response, boundary control, First aid supplies, emergency lights Spill Control Materials are: • Absorbent materials • Bags • Step-off pads • Barrier tape • Rags • Scissors	An emergency response/spill kit is maintained at the 400 Area WMU and is located at the Northeast corner of Building 403.	Boundary control, PPE for response, first aid kit, spill response kit and emergency lights.

9.6 Incident Command Post

The IC determines the location of the ICP based on the event and may use the Hanford Fire Department Mobile Command Unit if necessary. Emergency resource materials are stored at each location**.**

10.0 COORDINATION AGREEMENTS

RL has established a number of coordination agreements or memoranda of understanding (MOU) with various agencies to ensure proper response resource availability for incidents involving the Hanford Site. A description of the agreements is contained in DOE/RL 94 02, Section 3.0, Table 3-1.

11.0 REQUIRED REPORTS

Post incident written reports are required for certain incidents on the Hanford Site. The reports are described in DOE/RL-94-02, Sections 5.1.1.2.4 and 5.1.2.2.

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 4.0 of this plan). Within 15 days after the incident, a written report must be submitted to Ecology. The report must include the elements specified in WAC 173-303-201(14)(k) or WAC 173-303-360(2)(k).

12.0 PLAN LOCATION AND AMENDMENTS

Copies of this plan are maintained at the following locations:

MO294, MO287, and the BED Emergency Response Vehicle.

This plan will be reviewed and immediately amended as necessary, in accordance with DOE/RL-94-02, Section 14.3.1.1.

13.0 REFERENCES

DOE/RL-94-02, *Hanford Emergency Management Plan*

Washington Administrative Code 173-303, *Washington State Dangerous Waste Regulations*, Washington State Department of Ecology, Olympia, Washington

***Hanford Facility Resource Conservation and Recovery Act Permit for the Treatment, Storage, and Disposal of Dangerous Waste*, Permit Number WA7890008967, Washington State Department of Ecology, Olympia, Washington.**

ATTACHMENT A

LISTING OF PROCEDURES

U.S. Department of Energy Richland Operations Office DOE-0223, *Emergency Plan Implementing Procedures*, RLEP 1.0, *Recognizing and Classifying Emergencies*, Appendix 1-0.A

U.S. Department of Energy Richland Operations Office DOE-0223, *Emergency Plan Implementing Procedures*, RLEP 1.1, *Hanford Incident Command System and Event Recognition and Classification*.

U.S. Department of Energy Richland Operations Office DOE-0223, *Emergency Plan Implementing Procedures*, RLEP 3.24, *Notification, Reporting, and Processing of Operations Information*.

U.S. Department of Energy Richland Operations Office DOE-0223, *Emergency Plan Implementing Procedures*, RLEP 3.4, *Emergency Termination, Reentry, and Recovery*.

Facility-Specific Emergency Response Procedures

CPCC-PRO-EM-40325, *Radiological/Chemical Hazard Event Response*

Figure 1 – FFTF Primary Staging Area

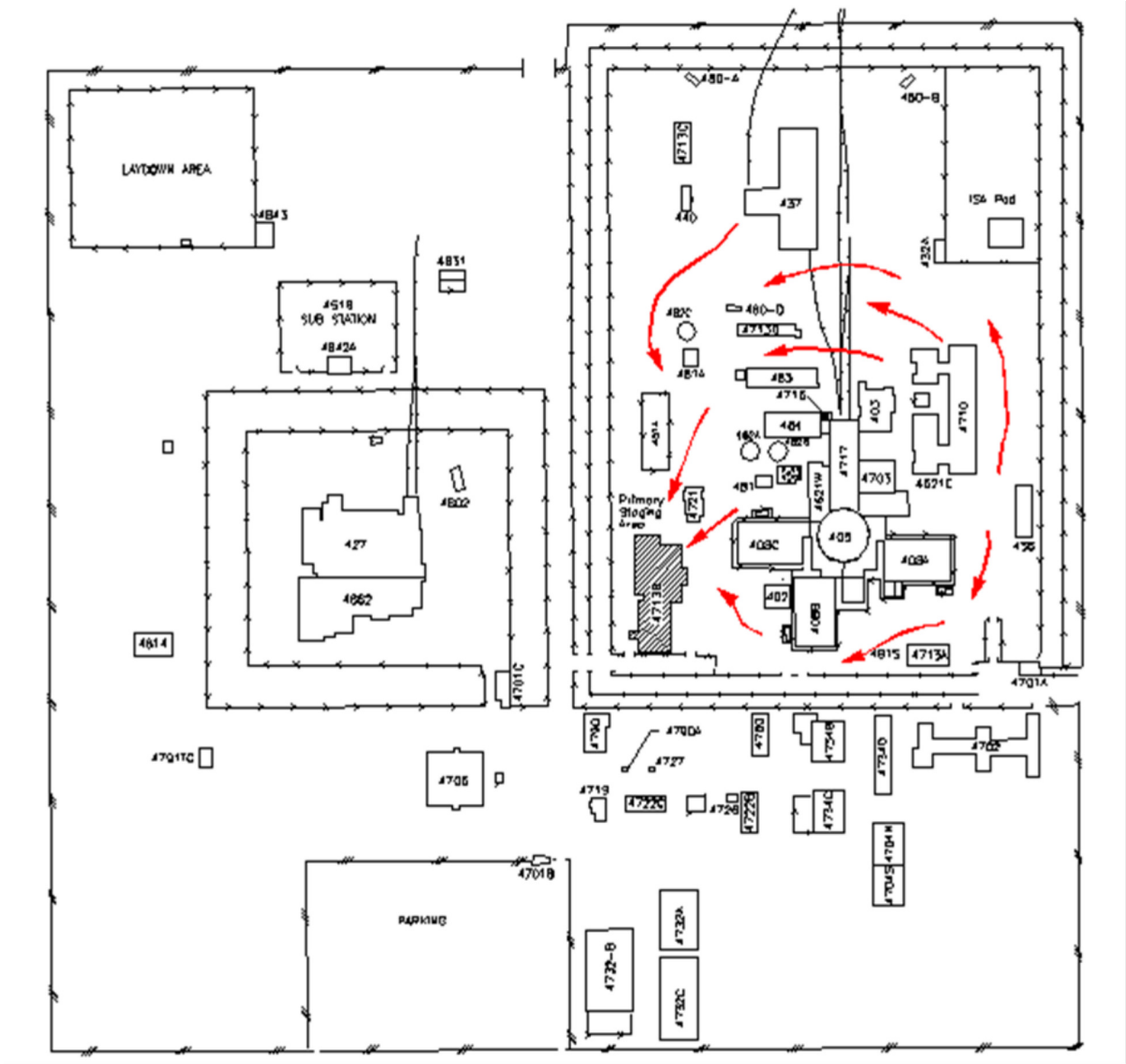
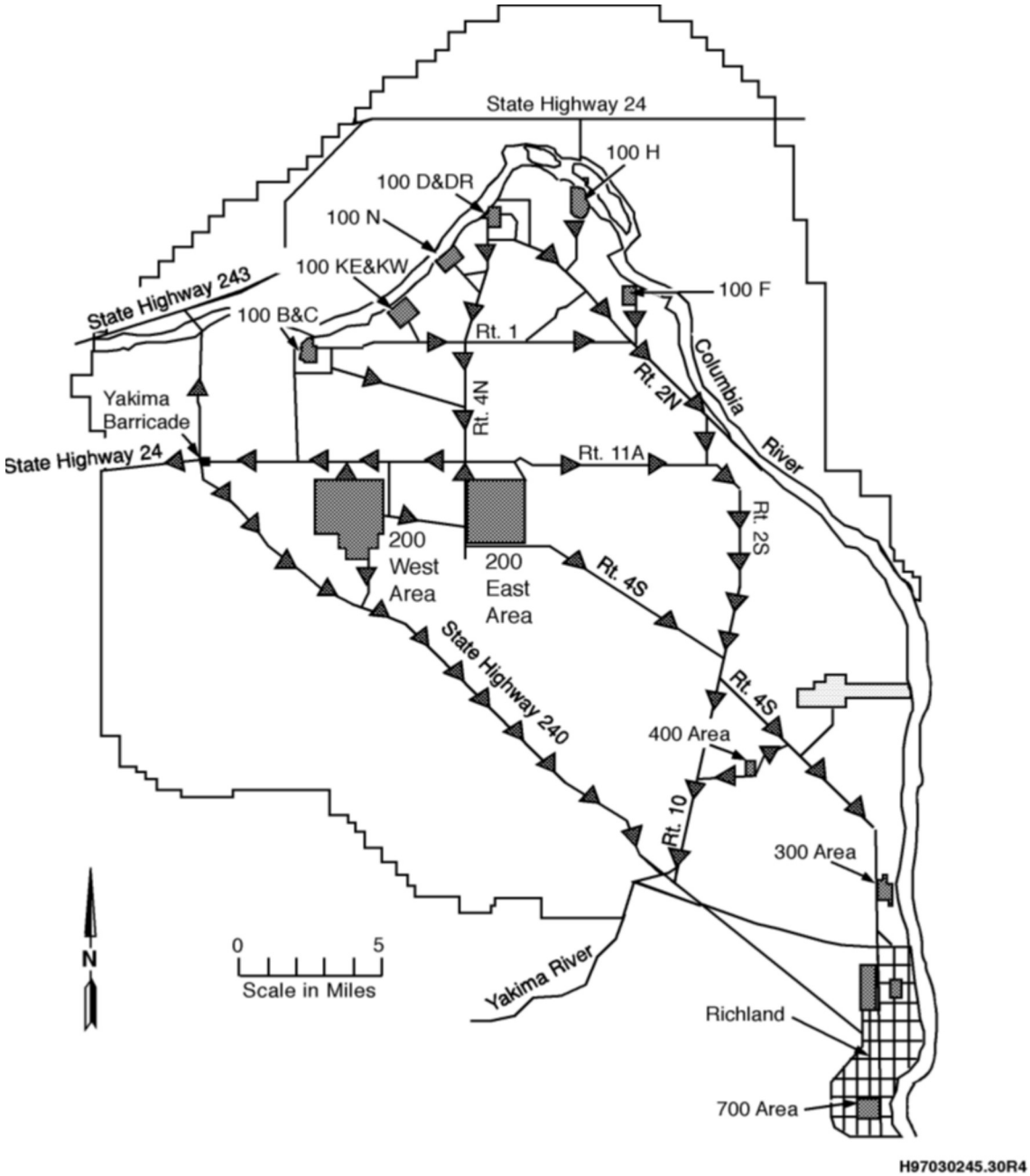


Figure 2. Hanford Site Evacuation Routes



Specific routes will be determined at the time of the event based on the event magnitude, location, and meteorology.

ATTACHMENT B

RCRA APPLICABILITY MATRIX FOR TSD ACTIVITIES

REQUIREMENT SOURCE	REQUIREMENT DESCRIPTION	SITE LEVEL (How/Where Met)	UNIT LEVEL (How/Where Met)
WAC 173-303-340	Preparedness and prevention. Facilities must be designed, constructed, maintained, and operated to minimize the possibility of fire, explosion, or any unplanned sudden or nonsudden release of dangerous waste or dangerous waste constituents to air, soil, or surface or ground water, which could threaten the public health or the environment. This Section describes preparations and preventive measures, which help avoid or mitigate such situations.	Introductory statement of requirement – requirements are in sections below.	Introductory statement of requirement – requirements are in sections below.
WAC 173-303-340(1)	Required equipment. All facilities must be equipped with the following, unless it can be demonstrated to the department that none of the hazards posed by waste handled at the facility could require a particular kind of equipment specified below:	Introductory statement of requirement – requirements are in sections below.	Introductory statement of requirement – requirements are in sections below.
WAC 173-303-340(1)(a)	(a) An internal communications or alarm system capable of providing immediate emergency instruction to facility personnel;	DOE/RL-94-02, Section 5.2.5.	*BEP section 9.3.*
WAC 173-303-340(1)(b)	(b) A device, such as a telephone or a hand-held, two-way radio, capable of summoning emergency assistance from local police departments, fire departments, or state or local emergency response teams;	DOE/RL-94-02, Section 5.2.12.	*BEP section 9.3* Units summon assistance by calling the Hanford Patrol emergency number. No offsite assistance is requested by the unit itself.
WAC 173-303-340(1)(c)	(c) Portable fire extinguishers, fire control equipment (including special extinguishing equipment, such as that using foam, inert gas, or dry chemicals), spill control equipment, and decontamination equipment; and	DOE/RL-94-02, Sections 11.2.2, 11.2.3, 11.2.4, 11.2.8 and Appendix C.	*BEP section 9.1, 9.2, and 9.5*
WAC 173-303-340(1)(d)	(d) Water at adequate volume and pressure to supply water hose streams, foam producing equipment, automatic sprinklers, or water spray systems.	DOE/RL-94-02, Sections 11.2.2 and 11.2.8.	*BEP section 9.1*
WAC 173-303-340(1)(end)	All facility communications or alarm systems, fire protection equipment, spill control equipment, and decontamination equipment, where required, must be tested and maintained as necessary to assure its proper operation in time of emergency.	DOE/RL-94-02, Sections 11.2, 11.2.8, and 11.3.	*BEP section 9.0*
WAC 173-303-340(2)	Access to communications or alarms. Personnel must have immediate access to the signaling devices described in the situations below:	Introductory statement of requirement – requirements are in sections below.	Introductory statement of requirement – requirements are in sections below.
WAC 173-303-340(2)(a)	(a) Whenever dangerous waste is being poured, mixed, spread, or otherwise handled, all personnel involved must have immediate access to an internal alarm or emergency communication device, either directly or through visual or voice contact with another employee, unless such a device is not required in subsection (1) of this Section;	DOE/RL-94-02, Section 5.2.12	*BEP section 9.3*

REQUIREMENT SOURCE	REQUIREMENT DESCRIPTION	SITE LEVEL (How/Where Met)	UNIT LEVEL (How/Where Met)
WAC 173-303-340(2)(b)	(b) If there is ever just one employee on the premises while the facility is operating, he must have immediate access to a device, such as a telephone or a hand-held, two-way radio, capable of summoning external emergency assistance, unless such a device is not required in subsection (1) of this Section.	DOE/RL-94-02, Section 5.2.12	*BEP section 9.3*
WAC 173-303-340(3)	Aisle space. The owner or operator must maintain aisle space to allow the unobstructed movement of personnel. Fire protection equipment, spill control equipment, and decontamination equipment to any area of facility operation in an emergency, unless it can be demonstrated to the department that aisle space is not needed for any of these purposes.	Requirement is met at the unit level.	The process information chapter of Parts III, V, and VI of the Hanford Facility Dangerous Waste Permit (WA7890008967) include description of how each unit meets this requirement. For CAAs, BEP section 9.0
WAC 173-303-340(4)	Arrangements with local authorities. The owner or operator must attempt to make the following arrangements, as appropriate for the type of waste handled at his facility and the potential need for the services of these organizations, unless the hazards posed by wastes handled at the facility would not require these arrangements:	Introductory statement of requirement – requirements are in sections below.	Requirement is met at the site level.
WAC 173-303-340(4)(a)	(a) Arrangements to familiarize police, fire departments, and emergency response teams with the layout of the facility, properties of dangerous waste handled at the facility and associated hazards, places where facility personnel would normally be working, entrances to roads inside the facility, and possible evacuation routes;	The arrangements agreed to by local police, fire departments emergency response teams to coordinate emergency services are located in DOE/RL-94-02, Sections 3.4, 3.4.1.1, 3.4.1.2, 3.7, and Table 3-1.	Requirement is met at the site level.
WAC 173-303-340(4)(b)	(b) Arrangements to familiarize local hospitals with the properties of dangerous waste handled at the facility and the types of injuries or illnesses which could result from fires, explosions, or releases at the facility;	The arrangements agreed to by local hospitals to coordinate emergency services are located in DOE/RL-94-02, Sections 3.4.1.3, 3.7, and Table 3-1.	Requirement is met at the site level.
WAC 173-303-340(4)(c)	(c) Agreements with state emergency response teams, emergency response contractors, and equipment suppliers; and	The arrangements agreed to by state emergency response teams to coordinate emergency services are located in DOE/RL-94-02, Sections 3.3.1, 3.3.2, 3.7, and Table 3-1.	Requirement is met at the site level.
WAC 173-303-340(4)(d)	(d) Where more than one party might respond to an emergency, agreements designating primary emergency authority and agreements with any others to provide support to the primary emergency authority.	Discussed in the Tri-County Mutual Aid Agreement MOU and Mutual Law Enforcement Assistance MOUs. DOE/RL-94-02, Section 3.7, and Table 3-1.	Requirement is met at the site level.
WAC 173-303-340(5)	Where state or local authorities decline to enter into such arrangements, the owner, or operator must document the refusal in the operating record.	If authorities decline, the documentation will be maintained in the Hanford Facility Operating Record.	Requirement is met at the site level.

REQUIREMENT SOURCE	REQUIREMENT DESCRIPTION	SITE LEVEL (How/Where Met)	UNIT LEVEL (How/Where Met)
WAC 173-303-350(1)	Purpose. The purpose of this section and WAC 173-303-360 is to lessen the potential impact on the public health and the environment in the event of an emergency event, including, but not limited to, a fire, natural disaster, explosion, or unplanned sudden or nonsudden release of dangerous waste, hazardous substance, or dangerous waste constituents to air, soil, surface water, or ground water by a facility. A contingency plan must be developed to lessen the potential impacts of such emergency event, and the plan must be implemented immediately whenever such an emergency event occurs.	DOE/RL-94-02, Sections 1.1 and 1.2.	*BEP section 1.0.* Identified sections of the BEP are part of the contingency plan.
WAC 173-303-350(2)	Contingency plan. Each owner or operator must have a contingency plan at their facility for use in emergencies or any sudden or nonsudden releases which threaten human health and the environment. If the owner or operator has already prepared a spill prevention control and countermeasures (SPCC) plan in accordance with Part 112 of Title 40 C.F.R. , or some other emergency or contingency plan, they need only amend that plan to incorporate dangerous waste management provisions that are sufficient to comply with the requirements of this section and WAC 173-303-360. The owner or operator may develop one contingency plan that meets all regulatory requirements. Ecology recommends that the plan be based on the National Response Team's Integrated Contingency Plan Guidance ("One Plan"). When modifications are made to nondangerous waste (non-Hazardous Waste Management Act or nondangerous waste regulation) provisions in an integrated contingency plan, the changes do not trigger the need for a dangerous waste permit modification.	DOE/RL-94-02, Sections 1.1 and 1.2. Portions of the Hanford emergency response program are used to meet requirements of WAC 173-303-350 and -360 under the provision of -350(2).	*BEP section 1.0* Identified sections of the BEP are part of the contingency plan.
WAC 173-303-350(3)(a)	The contingency plan must contain the following: (a) A description of the actions which facility personnel must take to comply with this section and WAC 173-303-360;	DOE/RL-94-02, Section 1.3.4 provides an overview of how the Hanford Site responds to emergency events. More specific descriptions of actions to meet other requirements of this section and WAC 173-303-360 are identified in those sections of this matrix. The relationship of emergency procedures and description of actions is in footnote[3].	*BEP Section 7.1 and subsections and Sections 7.2, 7.2.1, 7.2.2, 7.2.3, 7.2.4, 7.2.5, 7.2.5.1, 7.3 and subsections*

[3] Sitewide and facility/activity-specific emergency procedures are described and in some cases identified in this plan. The descriptions of actions in this plan are required to accurately describe the emergency procedures. Unless specifically incorporated into the RCRA Permit, these emergency procedures are not subject to permit modification requirements of permit condition I.C.3 simply because they are described or referenced in this plan. If the emergency procedures change and the description is no longer accurate, the revision of the description is subject to permit modification requirements of permit condition I.C.3.

REQUIREMENT SOURCE	REQUIREMENT DESCRIPTION	SITE LEVEL (How/Where Met)	UNIT LEVEL (How/Where Met)
WAC 173-303-350(3)(b)	The contingency plan must contain the following: (b) A description of the actions which will 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 WAC 173-303-370(6), Manifest system, reasons for not accepting dangerous waste shipments;	Requirement is met at the unit level.	*BEP Section 7.2.5.1*
WAC 173-303-350(3)(c)	The contingency plan must contain the following: (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 WAC 173-303-340(4);	The arrangements agreed to by state emergency response teams to coordinate emergency services are located in DOE/RL-94-02, 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 is met at the site level.
WAC 173-303-350(3)(d)	The contingency plan must contain the following: (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 WAC 173-303-360(1). 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 WAC 173-303-810(14)(a)(i)), rather than as part of the permit application;	DOE/RL-94-02, Sections 2.2 and 2.2.1.1 discuss personnel job titles, which will fill duties and responsibilities of the Emergency Coordinator, described in WAC 173-303-360. A list of current assigned or "on-call" BEDs/BWs is maintained at the Patrol Operations Center per II.A.4. A list of BEDs/BWs for each Hanford TSD unit required to have an emergency coordinator is maintained in Permit Attachment 4A. Changing BEDs/BWs is a Class 1 modification, self-implemented.	*BEP Sections 3.1* The BEP includes a list of qualified BEDs/BWs or clearly describes the location where the list is maintained at the unit. The BEP also includes the location where the current or "on-call" BED/BW list is maintained at the unit.
WAC 173-303-350(3)(e)	The contingency plan must contain the following: (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; and	DOE/RL-94-02, Sections 11.2 and 11.2.8, and Appendix C.	*BEP Sections 9.1, 9.2, 9.3, 9.4, 9.5 and 9.6*
WAC 173-303-350(3)(f)	The contingency plan must contain the following: (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.	DOE/RL-94-02, Figure 7-3, and Table 5-1.	*BEP Section 7.1.1*
WAC 173-303-350(4)	Copies of contingency plan. A copy of the contingency plan and all revisions to the plan must be:	Introductory statement of requirement – requirements are in sections below.	Introductory statement of requirement – requirements are in sections below.
WAC 173-303-350(4)(a)	(a) Maintained at the facility; and	DOE/RL-94-02, Section 14.3.7.	*BEP Section 12.0*

REQUIREMENT SOURCE	REQUIREMENT DESCRIPTION	SITE LEVEL (How/Where Met)	UNIT LEVEL (How/Where Met)
WAC 173-303-350(4)(b)	(b) Submitted to all local police departments, fire departments, hospitals, and state and local emergency response teams that may be called upon to provide emergency services.	DOE/RL-94-02, Section 14.3.7.	Requirement is met at the site level. DOE is responsible for offering documents to offsite entities.
WAC 173-303-350(5)	Amendments. The owner or operator must review and immediately amend the contingency plan, if necessary, whenever:	Introductory statement of requirement – requirements are in sections below.	Introductory statement of requirement – requirements are in sections below.
WAC 173-303-350(5)(a)	(a) Applicable regulations or the facility permit are revised;	DOE/RL-94-02, Section 14.3.1.1.	*BEP Section 12.0*
WAC 173-303-350(5)(b)	(b) The plan fails in an emergency;	DOE/RL-94-02, Section 14.3.1.1.	*BEP Section 12.0*
WAC 173-303-350(5)(c)	(c) 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 a way that changes the response necessary in an emergency;	DOE/RL-94-02, Section 14.3.1.1.	*BEP Section 12.0*
WAC 173-303-350(5)(d)	(d) The list of emergency coordinators changes; or	DOE/RL-94-02, Section 14.3.1.1.	*BEP Section 12.0*
WAC 173-303-350(5)(e)	(e) The list of emergency equipment changes.	DOE/RL-94-02, Section 14.3.1.1.	*BEP Section 12.0*
WAC 173-303-355(1)	Owners or operators must coordinate preparedness and prevention planning and contingency planning efforts, conducted under WAC 173-303-340 and -350 with local emergency planning committees established pursuant to Title III of the 1986 Superfund Amendments and Reauthorization Act.	DOE/RL-94-02, Sections 3.1, 3.1.1, and 3.4.	Requirement is met at the site level.
WAC 173-303-355(2)	Appropriate and generally accepted computer models should be utilized to determine the impacts of a potential catastrophic air release due to fire, explosion, or other accidental releases of hazardous constituents. Evacuation plans prepared pursuant to WAC 173-303-350(3)(d) must include those effected persons and areas identified through these modeling efforts.	DOE/RL-94-02, Sections 2.2.2.2.4, and 1.3.3.2.	Requirement is met at the site level.
WAC 173-303-360(1)	Emergency coordinator. At all times, there must be at least one employee either on the facility premises or on call (that is, available to respond to an emergency by reaching the facility within a short period of time) with the responsibility for coordinating all emergency response measures. This emergency coordinator must be thoroughly familiar with all aspects of the facility's contingency plan, required by WAC 173-303-350(2), all operations and activities at the facility, the location and properties of all wastes handled, the location of all records within the facility, and the facility layout. In addition, this person must have the authority to commit the resources needed to carry out the contingency plan.	DOE/RL-94-02, Sections 2.2, 2.2.1, and 2.2.1.1.	*BEP Section 3.1* Permit Attachment 4A lists the BED/BW for each unit.
WAC 173-303-360(2)	Emergency procedures. The following procedures must be implemented any emergency event identified in WAC 173-303-350.	Introductory statement of requirement – requirements are in sections below.	Introductory statement of requirement – requirements are in sections below.
WAC 173-303-360(2)(a)	(a) Whenever there is an imminent or actual emergency situation, the emergency coordinator (or their designee when the emergency coordinator is on call) must immediately:	Introductory statement of requirement – requirements are in sections below.	Introductory statement of requirement – requirements are in sections below.

REQUIREMENT SOURCE	REQUIREMENT DESCRIPTION	SITE LEVEL (How/Where Met)	UNIT LEVEL (How/Where Met)
WAC 173-303-360(2)(a)(i)	(i) Activate internal facility alarms or communication systems, where applicable, to notify all facility personnel; and	DOE/RL-94-02, Sections 2.2.1.1.2(b), 2.2.1.1.3(b), and 5.2.5.	BEP Section 7.1 and subsections, and 7.2 and subsections
WAC 173-303-360(2)(a)(ii)	(ii) Notify appropriate state or local agencies with designated response roles if their help is needed.	DOE/RL-94-02, Sections 1.3.4, and 5.2.1. Units summon assistance by calling the Hanford Patrol emergency number. No offsite assistance is requested by the unit itself.	*BEP Section 4.0*
WAC 173-303-360(2)(b)	(b) Whenever there is a release, fire, or explosion, the emergency coordinator must immediately identify the character, exact source, amount, and areal extent of any released materials.	DOE/RL-94-02, Sections 2.2.1.1.2(f), 2.2.1.1.3(g), and 4.2.	*BEP Section 4.0*
WAC 173-303-360(2)(c)	(c) Concurrently, the emergency coordinator must assess possible hazards to human health and the environment (considering direct, indirect, immediate, and long-term effects) that may result from the release, fire, or explosion.	DOE/RL-94-02, Section 4.2, and 2.2.2.2.4.	*BEP Section 4.0*
WAC 173-303-360(2)(d)	(d) If the emergency coordinator determines that the facility has had a release, fire, or explosion which could threaten human health or the environment, they must report their findings as follows:	Introductory statement of requirement – requirements are in sections below.	Introductory statement of requirement – requirements are in sections below.
WAC 173-303-360(2)(d)(i)	(i) If their assessment indicates that evacuation of local areas may be advisable, they must immediately notify appropriate local authorities. They must be available to help appropriate officials decide whether local areas should be evacuated; and	DOE/RL-94-02, Sections 2.2.1.1.2(a) & (d), 2.2.1.1.3 (a) & (e), 5.1.1, 5.1.1.2, and 5.1.2.1.	*BEP Section 7.1*
WAC 173-303-360(2)(d)(ii)	(ii) They must immediately notify the department and either the government official designated as the on-scene coordinator, or the National Response Center (using their 24-hour toll free number (800) 424-8802).	DOE/RL-94-02, Sections 2.2.1.1.2(a) & (d), 2.2.1.1.3 (a) & (e), 5.1.1, 5.1.1.2, 5.1.2.1, and 5.1.2.2.	*BEP Section 4.0*
WAC 173-303-360(2)(e)	(e) Their assessment report must include: (i) Name and telephone number of reporter; (ii) Name and address of facility; (iii) Time and type of incident (e.g., release, fire); (iv) Name and quantity of material(s) involved, to the extent known; (v) The extent of injuries, if any; and (vi) The possible hazards to human health or the environment outside the facility.	DOE/RL-94-02, Sections 2.2.1.1.2(d), 2.2.1.1.3(e), 5.1.1, 5.1.1.2, 5.1.2.1, and 5.1.2.2.	*BEP Section 4.0*
WAC 173-303-360(2)(f)	(f) During an emergency, the emergency coordinator must take all reasonable measures necessary to ensure that fires, explosions, and releases do not occur, recur, or spread to other dangerous waste at the facility. These measures must include, where applicable, stopping processes and operations, collecting, and containing released waste, and removing or isolating containers.	DOE/RL-94-02, Sections 2.2.1.1, 2.2.1.1.2(f) and 2.2.1.1.3(g).	*BEP Section 7.6*
WAC 173-303-360(2)(g)	(g) If the facility stops operations in response to a fire, explosion, or release, the emergency coordinator must monitor for leaks, pressure buildup, gas generation, or ruptures in valves, pipes, or other equipment, wherever this is appropriate.	DOE/RL-94-02, Sections 2.2.1.1.2(f) and 2.2.1.1.3(g).	*BEP Sections 7.2.4 and 7.2.5*
WAC 173-303-360(2)(h)	(h) Immediately after an emergency, the emergency coordinator must provide for treating, storing, or disposing of recovered waste, contaminated soil or surface water, or any other material that results from a release, fire, or explosion at the facility.	DOE/RL-94-02, Section 9.2.3.	*BEP Section 8.2*

REQUIREMENT SOURCE	REQUIREMENT DESCRIPTION	SITE LEVEL (How/Where Met)	UNIT LEVEL (How/Where Met)
WAC 173-303-360(2)(i)	(i) The emergency coordinator must ensure that, in the affected area(s) of the facility:	Introductory statement of requirement – requirements are in sections below.	Introductory statement of requirement – requirements are in sections below.
WAC 173-303-360(2)(i)(i)	(i) No waste that may be incompatible with the released material is treated, stored, or disposed of until cleanup procedures are completed; and	DOE/RL-94-02, Section 9.2.3.	*BEP Section 8.2.1*
WAC 173-303-360(2)(i)(ii)	(ii) All emergency equipment listed in the contingency plan is cleaned and fit for its intended use before operations are resumed.	DOE/RL-94-02, Section 11.2.	*BEP Section 8.2.2*
WAC 173-303-360(2)(j)	(j) The owner or operator must notify the department, and appropriate local authorities, that the facility is in compliance with (i) of this subsection before operations are resumed in the affected area(s) of the facility.	DOE/RL-94-02, Section 5.1.2.2.	*BEP Section 8.2*
WAC 173-303-360(2)(k)	(k) The owner or operator must note in the operating record the time, date, and details of any incident that requires implementing the contingency plan. Within fifteen days after the incident, they must submit a written report on the incident to the department. The report must include: (i) Name, address, and telephone number of the owner or operator; (ii) Name, address, and telephone number of the facility; (iii) Date, time, and type of incident (e.g., fire, explosion); (iv) Name and quantity of material(s) involved; (v) The extent of injuries, if any; (vi) An assessment of actual or potential hazards to human health or the environment, where this is applicable, (vii) Estimated quantity and disposition of recovered material that resulted from the incident; (viii) Cause of incident; and (ix) Description of corrective action taken to prevent reoccurrence of the incident.	DOE/RL-94-02, Sections 5.1.2.1 and 5.1.2.2.	*BEP Section 11.0*

ATTACHMENT C

RCRA APPLICABILITY MATRIX FOR GENERATOR ACTIVITIES

REQUIREMENT SOURCE	REQUIREMENT DESCRIPTION	SITE LEVEL (How/Where Met)	UNIT LEVEL (How/Where Met)
WAC 173-303-201	Preparedness, prevention, emergency procedures and contingency plans for large quantity generators.	Introductory statement of requirement – requirements are in sections below.	Introductory statement of requirement – requirements are in sections below.
WAC 173-303-201(1)	Applicability. The regulations of this section apply to those areas of a large quantity generator's facility where dangerous waste is generated or accumulated on site.	Introductory statement of requirement – requirements are in sections below.	Introductory statement of requirement – requirements are in sections below.
WAC 173-303-201(2)	A large quantity generator facility must be designed, constructed, maintained and operated to minimize the possibility of fire, explosion, or any unplanned sudden or nonsudden release of dangerous waste, hazardous substance or dangerous waste constituents to air, soil, or surface or groundwater which could threaten the public health or the environment. This section describes preparations and preventive measures which help avoid or mitigate such situations.	Introductory statement of requirement – requirements are in sections below.	Introductory statement of requirement – requirements are in sections below.
WAC 173-303-201(3)	Required equipment. All areas deemed applicable by subsection (1) of this section must be equipped with the following, unless it can be demonstrated to the department that none of the hazards posed by waste or hazardous substance handled at the facility could require a particular kind of equipment specified below. A large quantity generator may determine the most appropriate locations within its facility to locate equipment necessary to prepare for and respond to emergencies:	Introductory statement of requirement – requirements are in sections below.	Introductory statement of requirement – requirements are in sections below.
WAC 173-303-201(3)(a)	(a) An internal communications or alarm system capable of providing immediate emergency instruction (voice or signal) to facility personnel;	DOE/RL-94-02, Section 5.2.5.	*BEP Section 9.3.*
WAC 173-303-201(3)(b)	(b) A device, such as a telephone (immediately available at the scene of operations) or a hand-held, two-way radio, capable of summoning emergency assistance from local police departments, fire departments, or state or local emergency response teams;	DOE/RL-94-02, Section 5.2.12.	*BEP Section 9.3* Units summon assistance by calling the Hanford Patrol emergency number. No offsite assistance is requested by the unit itself.
WAC 173-303-201(3)(c)	(c) Portable fire extinguishers, fire control equipment (including special extinguishing equipment, such as those using foam, inert gas, or dry chemicals), spill control equipment, and decontamination equipment; and	DOE/RL-94-02, Sections 11.2.2, 11.2.3, 11.2.4, 11.2.8 and Appendix C.	*BEP Section 9.1, 9.2, and 9.5*
WAC 173-303-201(3)(d)	(d) Water at adequate volume and pressure to supply water hose streams, foam producing equipment, automatic sprinklers, or water spray systems.	DOE/RL-94-02, Sections 11.2.2 and 11.2.8.	*BEP Section 9.1*

REQUIREMENT SOURCE	REQUIREMENT DESCRIPTION	SITE LEVEL (How/Where Met)	UNIT LEVEL (How/Where Met)
WAC 173-303-201(4)	Testing and maintenance of equipment. All facility communications or alarm systems, fire protection equipment, spill control equipment, and decontamination equipment, where required, must be tested and maintained as necessary to assure its proper operation in time of emergency.	DOE/RL-94-02, Sections 11.2, 11.2.8, and 11.3.	*BEP Section 9.0*
WAC 173-303-201(5)	Access to communications or alarms. Personnel must have immediate access to the signaling devices described in the situations below:	Introductory statement of requirement – requirements are in sections below.	Introductory statement of requirement – requirements are in sections below.
WAC 173-303-201(5)(a)	(a) Whenever dangerous waste is being poured, mixed, spread, or otherwise handled, all personnel involved must have immediate access (e.g., direct or unimpeded access) to an internal alarm or emergency communication device, either directly or through visual or voice contact with another employee, unless such a device is not required in subsection (3) of this section;	DOE/RL-94-02, Section 5.2.12	*BEP Section 9.3*
WAC 173-303-201(5)(b)	(b) If there is ever just one employee on the premises while the facility is operating, they must have immediate access (e.g., direct or unimpeded access) to a device, such as a telephone (immediately available at the scene of operation) or a hand-held, two-way radio, capable of summoning external emergency assistance, unless such a device is not required in subsection (3) of this Section.	DOE/RL-94-02, Section 5.2.12	*BEP Section 9.3*
WAC 173-303-201(6)	Aisle space. The generator must maintain aisle space to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment to any area of facility operation in an emergency, unless it can be demonstrated to the department that aisle space is not needed for any of these purposes.	Requirement is met at the unit level.	The process information chapters of Parts III, V, and VI of the Hanford Facility Dangerous Waste Permit (WA7890008967) describe how each unit meets this requirement. For CAAs, BEP section 9.0
WAC 173-303-201(7)	Arrangements with local authorities. The large quantity generator must attempt to make the following arrangements, as appropriate for the type of waste handled at its facility and the potential need for the services of these organizations, unless the hazards posed by wastes handled at the facility would not require these arrangements:	Introductory statement of requirement – requirements are in sections below.	Requirement is met at the site level.
WAC 173-303-201(7)(a)	(a) Arrangements to familiarize police, fire departments, and emergency response teams with the layout of the facility, properties of dangerous waste handled at the facility and associated hazards, places where facility personnel would normally be working, entrances to and roads inside the facility, and possible evacuation routes;	The arrangements agreed to by local police, fire departments emergency response teams to coordinate emergency services are located in DOE/RL-94-02, Sections 3.4, 3.4.1.1, 3.4.1.2, 3.7, and Table 3-1.	Requirement is met at the site level.

REQUIREMENT SOURCE	REQUIREMENT DESCRIPTION	SITE LEVEL (How/Where Met)	UNIT LEVEL (How/Where Met)
WAC 173-303-201(7)(b)	(b) Arrangements to familiarize local hospitals with the properties of dangerous waste handled at the facility and the types of injuries or illnesses which could result from fires, explosions, or releases at the facility;	The arrangements agreed to by local hospitals to coordinate emergency services are located in DOE/RL-94-02, Sections 3.4.1.3, 3.7, and Table 3-1.	Requirement is met at the site level.
WAC 173-303-201(7)(c)	(c) Agreements with state emergency response teams, emergency response contractors, and equipment suppliers;	The arrangements agreed to by state emergency response teams to coordinate emergency services are located in DOE/RL-94-02, Sections 3.3.1, 3.3.2, 3.7, and Table 3-1.	Requirement is met at the site level.
WAC 173-303-201(7)(d)	(d) Where more than one party might respond to an emergency, agreements designating primary emergency authority and agreements with any others to provide support to the primary emergency authority.	Discussed in the Tri-County Mutual Aid Agreement MOU and Mutual Law Enforcement Assistance MOUs. DOE/RL-94-02, Section 3.7, and Table 3-1.	Requirement is met at the site level.
WAC 173-303-201(7)(e)	(e) Where state or local authorities decline to enter into such arrangements, the generator must document the refusal in the operating record; and	If authorities decline, the documentation will be maintained in the Hanford Facility Operating Record.	Requirement is met at the site level.
WAC 173-303-201(7)(f)	(f) A facility possessing twenty-four-hour response capabilities may seek a waiver from the authority having jurisdiction (AHJ) over the fire code with the facility's locality as far as needing to make arrangements with the local fire department as well as any other organization necessary to respond to an emergency, provided that the waiver is documented in the generator's operating record.	Since the Hanford Site has its own Fire Department and its own Fire Marshal this requirement does not apply. Also, Hanford has long standing, Mutual Aid Agreements with the local fire departments. The Mutual Aid Agreements are provided in Appendix B to DOE/RL 94-02.	Since the Hanford Site has its own Fire Department and its own Fire Marshal this requirement does not apply. Also, Hanford has long standing, Mutual Aid Agreements with the local fire departments. The Mutual Aid Agreements are provided in Appendix B to DOE/RL 94-02.
WAC 173-303-201(8)	Contingency plan purpose and implementation.	Introductory statement of requirement – requirements are in sections below.	Introductory statement of requirement – requirements are in sections below.
WAC 173-303-201(8)(a)	(a) The large quantity generator must have a contingency plan for the facility. The purpose of a contingency plan and emergency procedures is to lessen the potential impact on the public health and the environment due to any emergency event such as, but not limited to, a fire, natural disaster, explosion, or any unplanned sudden or nonsudden release of dangerous waste, hazardous substance or dangerous waste constituents to air, soil, surface water, or groundwater.	DOE/RL-94-02, Sections 1.1 and 1.2.	*BEP Section 1.0.* Identified sections of the *BEP* are part of the contingency plan.
WAC 173-303-201(8)(b)	(b) A contingency plan must be developed to lessen the potential impacts of such emergency events, and the plan must be implemented immediately when such emergency events occur.	DOE/RL-94-02, Sections 1.1 and 1.2.	*BEP Section 1.0.* Identified sections of the *BEP* are part of the contingency plan.

REQUIREMENT SOURCE	REQUIREMENT DESCRIPTION	SITE LEVEL (How/Where Met)	UNIT LEVEL (How/Where Met)
WAC 173-303-201(9)	Contents of a contingency plan.	Introductory statement of requirement – requirements are in sections below.	Introductory statement of requirement – requirements are in sections below.
WAC 173-303-201(9)(a)	(a) Each large quantity generator must have a contingency plan at their facility for use in emergencies or any sudden or nonsudden releases which threaten human health and the environment. If the generator has already prepared a spill prevention control and countermeasures (SPCC) plan in accordance with 40 C.F.R.Part 112, or some other emergency or contingency plan, they need only amend that plan to incorporate dangerous waste management provisions that are sufficient to comply with the requirements of this section. The large quantity generator may develop one contingency plan that meets all regulatory requirements. Ecology recommends that the plan be based on the National Response Team's Integrated Contingency Plan Guidance ("One Plan").	DOE/RL-94-02, Sections 1.1 and 1.2. Portions of the Hanford emergency response program are used to meet requirements of WAC 173-303-201(8) through 201(14) under the provision of -201(9).	*BEP Section 1.0* Identified sections of the *BEP* are part of the contingency plan.
WAC 173-303-201(9)(b)	(b) The contingency plan must contain the following:	Introductory statement of requirement – requirements are in sections below.	Introductory statement of requirement – requirements are in sections below.
WAC 173-303-201(9)(b)(i)	(i) A description of the actions which facility personnel must take to comply with subsections (8) through (14) of this section and WAC 173-303-145;	DOE/RL-94-02, Section 1.3.4 provides an overview of how the Hanford Site responds to emergency events. More specific descriptions of actions to meet other requirements of this section are identified in those sections of this matrix. Actions to comply with WAC 173-303-145 are addressed in DOE/RL-94-02, Section 5.1.2.	*BEP Section 7.1 and subsections and Section 7.2, 7.2.1, 7.2.2, 7.2.3, 7.2.4, 7.2.5, and 7.2.5.1*
WAC 173-303-201(9)(b)(ii)	(ii) A description of the actions which will 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 large quantity generator, but cannot be transported, pursuant to the requirements of WAC 173-303-370(6), manifest system, reasons for not accepting dangerous waste shipments;	Requirement is met at the unit level.	*BEP Section 7.2.5.1*

REQUIREMENT SOURCE	REQUIREMENT DESCRIPTION	SITE LEVEL (How/Where Met)	UNIT LEVEL (How/Where Met)
WAC 173-303-201(9)(b)(iii)	(iii) 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 subsection (7) of this section;	The arrangements agreed to by state emergency response teams to coordinate emergency services are located in DOE/RL-94-02, 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 is met at the site level.
WAC 173-303-201(9)(b)(iv)	(iv) A current list of names and emergency telephone numbers of all persons qualified to act as the emergency coordinator required in this section and this list must be kept up to date. 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. In situations where the large quantity generator facility has an emergency coordinator continuously on duty because it operates a twenty-four hours per day, every day of the year, the plan may list the staff position (e.g., operations manager, shift coordinator, shift operations supervisor) as well as an emergency telephone number that can be guaranteed to be answered at all times;	DOE/RL-94-02, Sections 2.2 and 2.2.1.1 discusses personnel job titles, which will fill duties and responsibilities of the Emergency Coordinator, described in WAC 173 -303-201(13). A list of current assigned or "on-call" BEDs/BWs is maintained at the Patrol Operations Center per II.A.4. A list of BEDs/BWs for central accumulation areas and satellite accumulation areas is maintained in Permit Attachment 4A. Changing BEDs/BWs on this list is not subject to permit modification requirements. Updates to the list will be provided to Ecology per II.A.4.a.	*BEP Sections 3.1* The list of BEDs/BWs for CAAs and SAAs is maintained and collocated with the BEP.
WAC 173-303-201(9)(b)(v)	(v) 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; and	DOE/RL-94-02, Sections 11.2 and 11.2.8, and Appendix C.	*BEP Sections 9.1, 9.2, 9.3, 9.4, and 9.5*
WAC 173-303-201(9)(b)(vi)	(vi) 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 (in cases where the primary routes could be blocked by releases of materials or fires).	DOE/RL-94-02, Figure 7-3, and Table 5-1.	*BEP Section 7.1.1*
WAC 173-303-201(10)	Copies of contingency plan. A copy of the contingency plan and all revisions to the plan must be:	Introductory statement of requirement – requirements are in sections below.	Introductory statement of requirement – requirements are in sections below.
WAC 173-303-201(10)(a)	(a) Maintained at the large quantity generator's facility; and	DOE/RL-94-02, Section 14.3.7.	*BEP Section 12.0*
WAC 173-303-201(10)(b)	(b) Submitted by the large quantity generator to all local emergency responders (i.e., police departments, fire departments, hospitals, and state and local emergency response teams) that may be called upon to provide emergency services.	DOE/RL-94-02, Section 14.3.7.	Not applicable at the unit level. DOE is responsible for offering documents to offsite entities.

REQUIREMENT SOURCE	REQUIREMENT DESCRIPTION	SITE LEVEL (How/Where Met)	UNIT LEVEL (How/Where Met)
WAC 173-303-201(11)	Quick reference guide. (a) A large quantity generator who first becomes subject to these provisions and any current large quantity generator who is amending its contingency plan must at that time submit a quick reference guide of the contingency plan to the local emergency responders identified in subsection (10) of this section. (b) Contents of the quick reference guide. This quick reference guide must include the following elements: (i) The types and names of dangerous waste in layman's terms and the associated hazards associated with each dangerous waste present at any one time (e.g., toxic paint waste, spent ignitable solvent, corrosive acid); (ii) The estimated maximum amount of each dangerous waste that may be present at any one time; (iii) The identification of any dangerous waste where exposure would require unique or special treatment by medical or hospital staff; (iv) A map of the facility showing where dangerous wastes are generated, accumulated, recycled and treated and routes for accessing these wastes; (v) A street map of the facility in relation to surrounding businesses, schools and residential areas to understand how best to get to the facility and also evacuate citizens and workers; (vi) The locations of water supply (e.g., fire hydrant and its flow rate); (vii) The identification of on-site notification systems (e.g., a fire alarm that rings off site, smoke alarms); and (viii) The name of the emergency coordinator(s) and seven days/twenty-four-hours emergency telephone number(s) or, in the case of a facility where an emergency coordinator is continuously on duty, the emergency telephone number for the emergency coordinator. (c) Generators must update, if necessary, their quick reference guides, whenever the contingency plan is amended and submit these documents to the local emergency responders identified in this section.	Permit Condition II.A.7 and Permit Attachment 9	Requirement is met at the site level.
WAC 173-303-201(12)	Amendments of a contingency plan. The large quantity generator must review and immediately amend the contingency plan, if necessary, whenever:	Introductory statement of requirement – requirements are in sections below.	Introductory statement of requirement – requirements are in sections below.
WAC 173-303-201(12)(a)	(a) Applicable regulations are revised;	DOE/RL-94-02, Section 14.3.1.1.	*BEP Section 12.0*
WAC 173-303-201(12)(b)	(b) The plan fails in an emergency;	DOE/RL-94-02, Section 14.3.1.1.	*BEP Section 12.0*

REQUIREMENT SOURCE	REQUIREMENT DESCRIPTION	SITE LEVEL (How/Where Met)	UNIT LEVEL (How/Where Met)
WAC 173-303-201(12)(c)	(c) The generator's 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 a way that changes the response necessary in an emergency;	DOE/RL-94-02, Section 14.3.1.1.	*BEP Section 12.0*
WAC 173-303-201(12)(d)	(d) The list of emergency coordinators changes; or	DOE/RL-94-02, Section 14.3.1.1.	*BEP Section 12.0*
WAC 173-303-201(12)(e)	(e) The list of emergency equipment changes.	DOE/RL-94-02, Section 14.3.1.1.	*BEP Section 12.0*
WAC 173-303-201(13)	Emergency coordinator. At all times, there must be at least one employee either on the facility premises or on call (that is, available to responds to an emergency by reaching the facility within a short period of time) with the responsibility for coordinating all emergency response measures. This emergency coordinator must be thoroughly familiar with all aspects of the facility's contingency plan, required by subsection (9) of this section, all operations and activities at the facility, the location and properties of all wastes handled, the location of all records within the facility, and the facility layout. In addition, this person must have the authority to commit the resources needed to carry out the contingency plan and to implement the necessary emergency procedures outlined in subsection (14) of this section.	DOE/RL-94-02, Sections 2.2 and 2.2.1.1.	*BEP Section 3.1* Permit Attachment 4A lists the BED/BW for each unit.
WAC 173-303-201(14)	Emergency procedures. The following procedures must be implemented in the event of an emergency.	Introductory statement of requirement – requirements are in sections below.	Introductory statement of requirement – requirements are in sections below.
WAC 173-303-201(14)(a)	(a) Whenever there is an imminent or actual emergency situation, the emergency coordinator (or designee when the emergency coordinator is on call) must immediately:	Introductory statement of requirement – requirements are in sections below.	Introductory statement of requirement – requirements are in sections below.
WAC 173-303-201(14)(a)(i)	(i) Activate internal facility alarms or communication systems, where applicable, to notify all facility personnel; and	DOE/RL-94-02, Sections 2.2.1.1.2(b), 2.2.1.1.3(b), and 5.2.5.	*BEP* Section 7.1 and subsections, and 7.2 and subsections
WAC 173-303-201(14)(a)(ii)	(ii) Notify appropriate state or local agencies with designated response roles if their help is needed.	DOE/RL-94-02, Sections 1.3.4, and 5.2.1. Units summon assistance by calling the Hanford Patrol emergency number. No offsite assistance is requested by the unit itself.	*BEP Section 4.0*

REQUIREMENT SOURCE	REQUIREMENT DESCRIPTION	SITE LEVEL (How/Where Met)	UNIT LEVEL (How/Where Met)
WAC 173-303-201(14)(b)	(b) Whenever there is a release, fire, or explosion, the emergency coordinator must immediately identify the character, exact source, amount, and areal extent of any released materials.	DOE/RL-94-02, Sections 2.2.1.1.2(f), 2.2.1.1.3(g), and 4.2.	*BEP Section 4.0*
WAC 173-303-201(14)(c)	(c) Concurrently, the emergency coordinator must assess possible hazards to human health and the environment (considering direct, indirect, immediate, and long-term effects) that may result from the release, fire, or explosion.	DOE/RL-94-02, Section 4.2, and 2.2.2.2.4.	*BEP Section 4.0*
WAC 173-303-201(14)(d)	(d) If the emergency coordinator determines that the facility has had a release, fire, or explosion which could threaten human health or the environment, they must report their findings as follows:	Introductory statement of requirement – requirements are in sections below.	Introductory statement of requirement – requirements are in sections below.
WAC 173-303-201(14)(d)(i)	(i) If their assessment indicates that evacuation of local areas may be advisable, they must immediately notify appropriate local authorities. They must be available to help appropriate officials decide whether local areas should be evacuated; and	DOE/RL-94-02, Sections 2.2.1.1.2(a) & (d), 2.2.1.1.3 (a) & (e), 5.1.1, 5.1.1.2, and 5.1.2.1.	*BEP Section 7.1*
WAC 173-303-201(14)(d)(ii)	(ii) They must immediately notify the department and either the government official designated as the on-scene coordinator, or the National Response Center (using their twenty-four--hour toll free number (800) 424-8802).	DOE/RL-94-02, Sections 2.2.1.1.2(a) & (d), 2.2.1.1.3 (a) & (e), 5.1.1, 5.1.1.2, 5.1.2.1, and 5.1.2.2.	*BEP Section 4.0*
WAC 173-303-201(14)(e)	(e) Their assessment report must include: (i) Name and telephone number of reporter; (ii) Name and address of facility; (iii) Time and type of incident (e.g., release, fire); (iv) Name and quantity of material(s) involved, to the extent known; (v) The extent of injuries, if any; and (vi) The possible hazards to human health or the environment outside the facility.	DOE/RL-94-02, Sections 2.2.1.1.2(d), 2.2.1.1.3(e), 5.1.1, 5.1.1.2, 5.1.2.1, and 5.1.2.2.	*BEP Section 4.0*
WAC 173-303-201(14)(f)	(f) During an emergency, the emergency coordinator must take all reasonable measures necessary to ensure that fires, explosions, and releases do not occur, recur, or spread to other dangerous waste at the facility. These measures must include, where applicable, stopping processes and operations, collecting, and containing released waste, and removing or isolating containers.	DOE/RL-94-02, Sections 2.2.1.1, 2.2.1.1.2(f) and 2.2.1.1.3(g).	*BEP Section 7.6*
WAC 173-303-201(14)(g)	(g) If the facility stops operations in response to a fire, explosion, or release, the emergency coordinator must monitor for leaks, pressure buildup, gas generation, or ruptures in valves, pipes, or other equipment, wherever this is appropriate.	DOE/RL-94-02, Sections 2.2.1.1.2(f) and 2.2.1.1.3(g).	*BEP Sections 7.2.4 and 7.2.5*
WAC 173-303-201(14)(h)	(h) Immediately after an emergency, the emergency coordinator must provide for treating, storing, or disposing of recovered waste, contaminated soil or surface water, or any other material that results from a release, fire, or explosion at the facility.	DOE/RL-94-02, Section 9.2.3.	*BEP Section 8.2*

REQUIREMENT SOURCE	REQUIREMENT DESCRIPTION	SITE LEVEL (How/Where Met)	UNIT LEVEL (How/Where Met)
WAC 173-303-201(14)(i)	(i) The emergency coordinator must ensure that, in the affected area(s) of the facility:	Introductory statement of requirement – requirements are in sections below.	Introductory statement of requirement – requirements are in sections below.
WAC 173-303-201(14)(i)(i)	(i) No waste that may be incompatible with the released material is treated, stored, or disposed of until cleanup procedures are completed; and	DOE/RL-94-02, Section 9.2.3.	*BEP Section 8.2.1*
WAC 173-303-201(14)(i)(ii)	(ii) All emergency equipment listed in the contingency plan is cleaned and fit for its intended use before operations are resumed.	DOE/RL-94-02, Section 11.2.	*BEP Section 8.2.2*
WAC 173-303-201(14)(j)	(j) The large quantity generator must notify the department, and appropriate local authorities, that the facility is in compliance with this subsection (14)(i) of this section before operations are resumed in the affected area(s) of the facility.	DOE/RL-94-02, Section 5.1.2.2.	*BEP Section 8.2*
WAC 173-303-201(14)(k)	(k) The large quantity generator must note in the operating record the time, date, and details of any incident that requires implementing the contingency plan. Within fifteen days after the incident, they must submit a written report on the incident to the department. The report must include: (i) Name, address, and telephone number of the generator; (i) Name, address, and telephone number of the facility; (ii) Date, time, and type of incident (e.g., fire, explosion); (iii) Name and quantity of material(s) involved; (iv) The extent of injuries, if any; (v) An assessment of actual or potential hazards to human health or the environment, where this is applicable; (vi) Estimated quantity and disposition of recovered material that resulted from the incident; (vii) Cause of incident; and (viii) Description of corrective action taken to prevent reoccurrence of the incident.	DOE/RL-94-02, Sections 5.1.2.1 and 5.1.2.2.	*BEP Section 11.0*