ADDENDUM J
CONTINGENCY PLAN

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ADDENDUM J
CONTINGENCY PLAN

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J CONTINGENCY PLAN

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

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

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

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

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

Requirement	Permit Attachment 4 *Hanford Emergency Management Plan* (DOE/RL-94-02)	Building Emergency Plan[1] (HNF-IP-0263-FFTF)	Addendum J
-350(3)(d) - A current list of names, addresses, and phone numbers (office and home) of all persons qualified to act as the emergency coordinator required under 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.		X[5] Sections 3.1and 13.0	X[5] Sections J.2 and J.7
-350(3)(e) - A list of all emergency equipment at the facility (such as fire extinguishing systems, spill control equipment, communications and alarm systems, and decontamination equipment), where this equipment is required. This list must be kept up to date. In addition, the plan must include the location and a physical description of each item on the list, and a brief outline of its capabilities.		X Section 9.0	X Section J.4
-350(3)(f) - An evacuation plan for facility personnel where there is a possibility that evacuation could be necessary. This plan must describe the signal(s) to be used to begin evacuation, evacuation routes, and alternate evacuation routes.	X[6] Figure 7-3 and Table 5-1	X[7] Section 1.5	X[7] Section J.1

An 'X' indicates requirement applies.

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

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

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

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

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

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

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

J.1 Building Evacuation Routing (Building Layout)

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

J.2 Building Emergency Director (BED)

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

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

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

J.3 Implementation of the Plan

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

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

1. The event involved an unplanned spill, release, fire, or explosion,

AND

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

OR

2.b The unplanned fire or explosion occurred at the 400 Area WMU or transportation activity subject to RCRA contingency planning requirements,

AND

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

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

If review of all available information does not yield a definitive assessment of the danger posed by the incident, a worst-case condition will be presumed and appropriate protective actions and notifications will

be initiated. The BED is responsible for initiating any protective actions based on their best judgment of the incident.

The BED must assess each incident to determine the response necessary to protect the personnel, facility, and the environment. If assistance from Hanford Patrol, Hanford Fire Department, or ambulance units is required, the Hanford Emergency Response Number (911 from site office phones/373-0911 from cellular phones) must be used to contact the POC and request the desired assistance. To request other resources or assistance from outside the 400 Area WMU, the POC business number is used (373-3800).

J.3.1 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.

J.3.1.1 Evacuation

When a Fast Flux Test Facility (FFTF) evacuation is ordered or the evacuation siren sounds, non-essential employees will turn off office equipment, obtain car keys and proceed to the staging area. Essential personnel are those who have been previously designated as having an emergency response role, are assigned to the on-shift Operations crew, or are utilized by the Emergency Response Organization during the event (e.g., RCTs, Stationary Operating Engineers). Once at the staging area, personnel will report to their prescribed location to allow for 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 at the north end of 4713-B, next to the Tool Crib door. An 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 segregated 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 Section J.1. Within each occupied 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.

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

J.3.1.2 Take Cover

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

When the "Take Cover" Alarm is activated, personnel shall take cover in the nearest suitable (consider water supply, bathroom facilities, size, etc.) 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.

J.3.2 Response to Facility Operations Emergencies

Depending on the severity of the event, the BED reviews the site-wide 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.

J.3.2.1 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.

J.3.2.2 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

J.3.2.3 Pressure Release

There are no pressure containing systems at FFTF that would result in a potential emergency condition.

J.3.2.4 Fire and/or Explosion

In the event of a fire, the discoverer activates a fire alarm (pull box); calls 911 from site office phones/373-0911 from cellar phones or verifies that the Hanford Emergency Response Number (911 or 373-0911) has been called. Automatic initiation of a fire alarm (through the smoke detectors) 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 proceeds directly to the ICP, 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 ICP.
- The BED informs the Hanford Site Emergency Response Organization as to the extent of the emergency (including estimates of dangerous waste, mixed waste or radioactive material 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.

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

Spills can result from many sources including 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 SWIMS response:
  - **S**tops work
  - Warns others in the vicinity
  - Isolates the area
  - Minimizes exposures to the hazards
  - Requests the BED **S**ecure ventilation
- The BED determines if emergency conditions exist, requiring response from the Hanford Fire Department based on classification of the spill and injured personnel, 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 J.4 and proper notifications are made.
- If the Hanford Fire Department resources are needed, the BED calls 911 from the site phones/373-0911 from cellular phones.
- 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 Emergency Response Organization as to the extent of the emergency (including estimates of dangerous waste, mixed waste, or radioactive material 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.

J.3.2.6 Damaged or Unacceptable Shipments

During the course of receiving an onsite transfer of mixed waste at the 400 Area WMU, an unanticipated event could be discovered resulting in a conformance issue concerning the waste. 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.

The following actions are taken to resolve the conformance issue:

- 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 J.3.2.5 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.

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

The BED, as part of the ICP, 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.

J.3.4 Incident Recovery and Restart of Operations

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

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

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

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

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

J.3.5 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 400 Area WMU personnel or other assigned personnel. Permit Attachment 4, *Hanford Emergency Management Plan* (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 before storage is preformed, 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.

J.3.6 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. Consumables and disposed materials are restocked. Fire extinguishers are replaced.

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.

J.4 Emergency Equipment

Emergency resources and equipment for the FFTF (including the 400 Area WMU) are presented in this section.

J.4.1 Fixed Emergency Equipment

None refer to Section J.4.2.

J.4.2 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 Kit	An emergency response kit is maintained at the facility. All personnel entering the noted areas, regardless of the type of work being performed, must be made aware of the emergency kit location prior to entering the areas.	Boundary control, PPE for response, first aid kit, and emergency lights.

J.4.3 Communications Equipment/Warning Systems

Communications Equipment		
Type	**Location**	**Capability**
Fire Alarm Continuously Ringing Bell Or Electronic Gong And Strobe or Area Siren	Fire alarm – at or near building exits in buildings 405; 491E, S, & W; 4621E & W; and 4703. Siren alert – The siren can be clearly heard by personnel at the ISA and by support personnel at the FSF when staff are in the building. 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.
2-Way Radio/Cell Phone	At least one with personnel while in the TSD unit location.	Notify personnel to summon emergency assistance.
Argon pressure monitoring system	FFTF argon dewar pad 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 Permit Attachment 4, *Hanford Emergency Management Plan* (DOE/RL-94-02), Table 5.1.

J.4.4 Personal Protective Equipment

Personal Protective Equipment		
Type	**Location**	**Capability**
Personal Protective Equipment	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, oxygen deficient atmosphere, chemicals, high airborne radioactivity, radiological contamination, insufficient lighting). PPE clothing can be based on specific job requirements.

J.4.5 Spill Control and Containment Supplies

Spill Kits And Spill Control Equipment		
Type	**Location**	**Capability**
Spill Control Materials • Absorbent materials • Bags • Step-off pads • Barrier tape • Rags • Scissors	One spill kit will be located at the 400 Area WMU and will be clearly identified. All personnel entering either the ISA or FSF will be made aware of the location of the spill kit.	Control and mitigation of radioactive and chemical spills.

J.4.6 Incident Command Post

The ICPs can be identified in a fixed location or the IC can determine a location appropriate for the event. Emergency resource materials are stored at each location. The IC could activate the Hanford Fire Department Mobile Command Unit if necessary.

J.5 Required Reports

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

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

J.6 Plan Location and Amendments

Copies of this plan are maintained in following locations

- MO-294.

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

J.7 Building Emergency Organization Building Emergency Director

FFTF BEDs		
Title	**Work Location**	**Work Phone**
Facility Operations	MO 294	373-1355

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

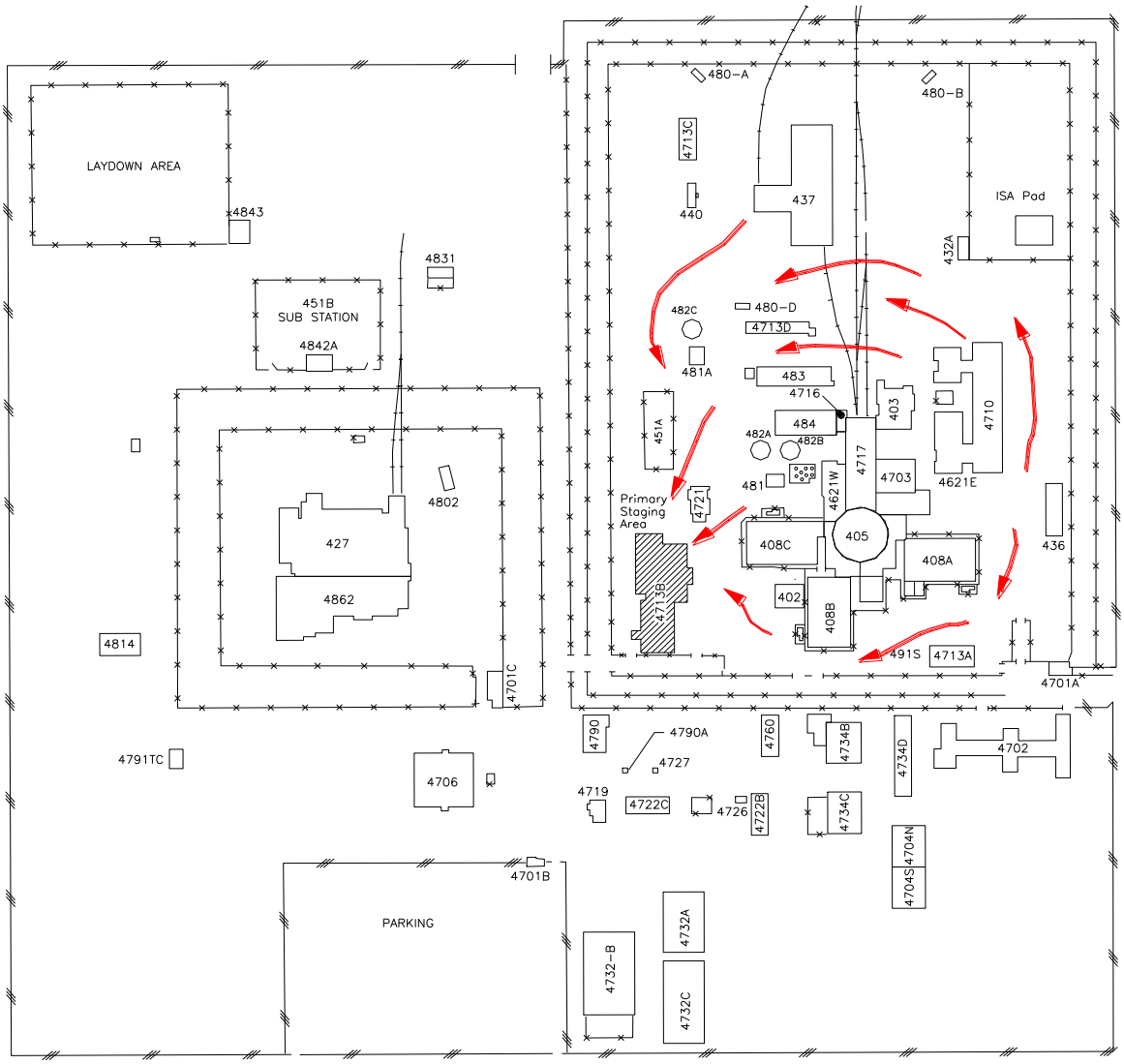

Figure J.1. FFTF Primary Staging Area

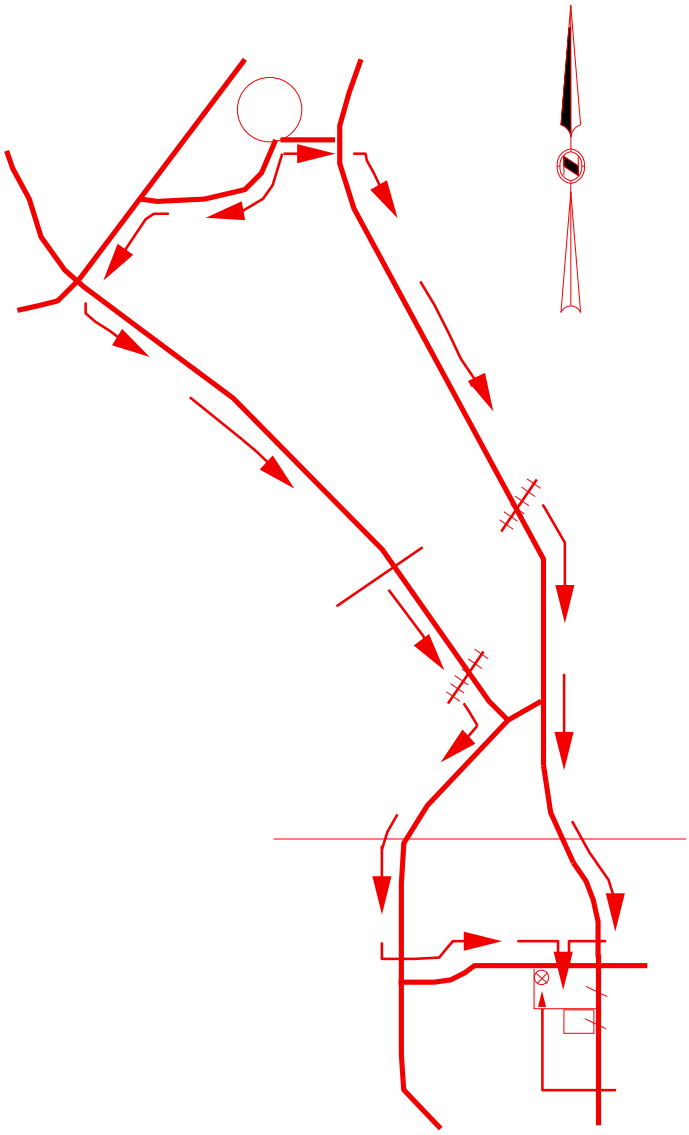

Figure J.2. FFTF Alternate Staging Area

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