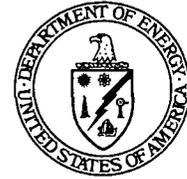




Department of Energy  
Ohio Field Office  
Fernald Environmental Management Project  
P. O. Box 538705  
Cincinnati, Ohio 45253-8705  
(513) 648-3155



MAR 17 2004

Mr. Paul Pardi, RCRA Group Leader  
and FFCA Project Manager  
Ohio Environmental Protection Agency  
Division of Hazardous Waste Management  
401 East 5<sup>th</sup> Street  
Dayton, Ohio 45402-2911

DOE-0195-04

Dear Mr. Pardi:

**REVISION 9.0 OF THE FERNALD CLOSURE PROJECT'S RESOURCE CONSERVATION AND RECOVERY ACT PART B PERMIT APPLICATION, SECTION G (CONTINGENCY PLAN)**

Reference: Letter, W. Taylor to P. Pardi, "Revision 9.0 of the Fernald Closure Project's Resource Conservation and Recovery Act Part B Permit Application," dated January 26, 2004

Enclosed for your review and approval, is a revised Section G (Contingency Plan) of the Fernald Closure Project's (FCP) Resource Conservation and Recovery Act (RCRA) Part B Permit Application (Revision 9.0). The submittal of this section was deferred until March 19, 2004 to incorporate recent changes in the FCP's emergency response program following the award of the contract for these services to Crosby Township (Reference).

Changes to the Contingency Plan have been made using redlines and strikeouts to assist in reviewing. A summary of these revisions is provided as an enclosure.

If you have any questions, please contact Ed Skintik at (513) 648-3151.

Sincerely,

*WJ Taylor*  
William J. Taylor  
Director

FCP:Skintik

Enclosures: As Stated

MAR 17 2004

Mr. Paul Pardi

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DOE-0195-04

cc w/enclosures:

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c w/o enclosures:

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T. A. Poff, Fluor Fernald, Inc./MS65-2

E. Brucken, Fluor Fernald, Inc./MS65-2

RCRA Operating Record, Fluor Fernald, Inc./MS65-2

**SUMMARY OF CHANGES TO SECTION G (CONTINGENCY PLAN) OF FERNALD CLOSURE PROJECT'S (FCP) RCRA PART B PERMIT APPLICATION (REVISION 9.0)**

1. Revisions have been made throughout this section to reflect the award of the contract for providing emergency response services to the Crosby Township Fire Department and Life Squad. Previously, the FCP had maintained an on-site Emergency Response Team with the capability of calling for additional support from off-site emergency response organizations, as needed. The FCP currently has retained some fire and rescue equipment on-site. However, this equipment will be removed from service as site hazards diminish. As a result, DOE has also terminated their participation in Mutual Aid Agreements with Crosby, Colerain and Ross Townships.
2. Additional changes to the Contingency Plan were required to: a) reflect changes in the site's name; b) remove references to the Plant 1 Pad, CP Storage Warehouse (Building 56), Plant 8 Warehouse (Building 80) and the Pilot Plant Warehouse (Building 68) since these units are undergoing remediation and will no longer be used for the storage of hazardous waste; c) add two new hazardous waste storage lockers which are being used for the storage of containers of non-radiologically contaminated hazardous waste; d) indicate the new locations of seven hazardous waste storage lockers that were moved from Plant 1 Pad; e) add the Finished Products Warehouse (Building 77) which is used to stage containers of hazardous waste prior to shipment; and f) revise the description of Quonset Hut #1 (Building 60) to indicate that this building is being used to treat RCRA soil.
3. Section G-1 (General Information) was revised to address the relocation of the Emergency Operations Center (EOC) to Trailer-214 and to remove several organizations from the list to receive copies of the Contingency Plan.
4. Sections G-3 (Implementation) and G-4c (Assessment) were revised to incorporate changes to DOE's event categorization system. Section G-3 was also revised to update emergency contact information.
5. Section G-4(j) (Tank Spills and Leakage) was deleted. The FCP has dismantled all tanks classified as HWMUs and the Liquid Mixed Waste Project Bulk Tanks are considered to be containers in accordance with the Liquid Mixed Waste Project Work Plan.
6. Section G-5 (Emergency Support and Equipment) was revised to identify new primary and alternate locations for the EOC and to address changes in the site's fire water distribution system.
7. The list of emergency contacts and telephone numbers in Table G-1 (Emergency Operation Personnel and Organizations) has been updated. Table G-2 (The FCP Emergency Response Organization) has been revised to

reflect organizational changes. Figure G-1 (Permitted RCRA Storage Units) has been updated and other areas used to manage hazardous waste (Buildings 60 and 77 and the TSCA Bulk Tanks) have been added to the map. Figures G-2 (FCP Emergency Response Organization) and G-3.1 (Training and Participation Requirements), and Figure G-7 (Interorganizational Links) have also been updated.

8. Attachment G-1 (Emergency Procedures, Site Layout and Equipment Information) has been revised to update information on areas at the FCP that are currently used to manage hazardous waste and to remove evacuation maps for all inactive HWMUs (as approved in 12/11/03 e-mail from Phil Harris of Ohio EPA). The maps have been revised to identify Primary and Alternate Rally Points for each area used to manage hazardous waste. However, specific evacuation routes are not provided – these are subject to change due to ongoing remedial activities, which restrict area access and necessitate frequent road closures. Note that specific rally points are not identified for Quonset Hut #1 (Building 60). This building is located inside a remediation area (and is rarely entered). In an emergency, personnel would evacuate to the nearest control point. Since these frequently change, they are not identified on a rally point map. Personnel will be notified of the location of these areas prior to entering the building.
9. Attachment G-2 (Location of FCP Fire Hydrants) has been deleted. This section quickly becomes outdated as remedial activities proceed at the FCP. Mutual Aid Agreements with Crosby, Colerain, and Ross Townships have been removed from Attachment G-3 since the FCP has terminated these agreements. Information regarding the contract with the Crosby Township Fire Department and Life Squad has been added to Attachment G-3.
10. Table G-3 (Emergency Respiratory Equipment), Table G-4 (Types of Pressurized Fire Extinguishers), Figures G-3 (Emergency Coordination), G-4 (Implementation & Notification), G-5.2 (Emergency Action Level Guide), G-9 (Form A – Ohio Hazardous Waste Release, Fire, Explosion Report to Ohio EPA), G-10 (Form B – Notification of Ohio EPA of Implementation of Contingency Plan) and G-11 (Form C – Written Notice to Ohio EPA and Appropriate Local Authorities of Resumption of Hazardous Waste Operations) have not been revised but are included with this submittal in order to provide a complete copy of the Contingency Plan.

# RCRA PART B PERMIT APPLICATION

## REVISION 9.0



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**SECTION G: CONTINGENCY PLAN**

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**MARCH 2004**

FERNALD CLOSURE PROJECT

U.S. EPA Identification No. OH6890008976

**SECTION G - CONTINGENCY PLAN**

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## **SECTION G – CONTINGENCY PLAN**

### **RCRA Part B Permit Application**

Fernald Closure Project

Fernald, Ohio

This Contingency Plan is required by Ohio Administrative Code (OAC) 3745-50-44(A)(7) and Title 40 of the Code of Federal Regulations (CFR) 270.14 (b)(7) in order to provide planned procedures to be followed in an emergency at any hazardous waste facility. This information is submitted for the Fernald ~~Closure Environmental Management Project (FCP)~~ (FEMP), formerly the Feed Materials Production Center (FMPC), in accordance with OAC 3745-54-50 to 56 and 40 CFR 264.50 to 56 as well as other applicable parts of the Ohio Administrative Code. This Contingency Plan addresses the actions to be taken to minimize hazards to human health or the environment from fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water.

The ~~FCP~~ FEMP manages both hazardous waste and mixed waste. Mixed waste is defined as waste that contains both a hazardous component regulated under RCRA and a radioactive component consisting of source, special nuclear, or by-product material regulated under the Atomic Energy Act. Any information included in this section on the radioactive portion of mixed wastes generated or stored at the ~~FCP~~ FEMP is included for informational purposes only and is not intended to be part of the facility's RCRA permit.

### **G-1 GENERAL INFORMATION**

The ~~FCP~~ FEMP is a former production facility which produced uranium metal used in the fabrication of fuel cores for nuclear reactors operated by the United States Department of Energy. During production, several types of hazardous wastes were produced from virgin materials, including (but not limited to): toxic halogenated solvents (from parts cleaning), ignitable oil and lubricants (from machining operations), ignitable and metal-bearing paint residues (from drum reconditioning), corrosive acids and alkalis (from metal and ore digestion and extraction), and pyrophoric non-nuclear metals (from foundry operations). In addition, some non-hazardous materials such as cleaning rags and wastewater sump cakes were contaminated with hazardous wastes, and thus became hazardous wastes themselves.

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All production activities at the facility have ended. Current activities include waste management operations, site remediation, environmental response actions, nuclear materials disposition, and miscellaneous operations such as wastewater treatment. More specifically, waste storage operations are allocated as follows:

~~HWMU No. 19 (CP Storage Warehouse Bldg. 56)~~

~~Location: South of 3rd Street; West of B Street~~

~~Maximum Capacity: 116,160 gallons / 2,112 drums~~

~~Waste Types: Currently not being used for storage of hazardous wastes~~

~~HWMU No. 20 (Plant 1 Pad)~~

~~Location: North of 2nd Street; West of B Street~~

~~Maximum Capacity: 11,222,200 gallons / 198,000 drums~~

~~Waste Types: Various hazard classes (including PCBs, corrosives and ignitable solids (e.g. oxidizers) in the tension support structures and ignitable waste/PCBs in the hazardous waste storage lockers.~~

~~HWMU No. 29 (Plant 8 Warehouse/Bldg. 80)~~

~~Location: Corner of A Street and 1st Street~~

~~Maximum Capacity: 139,260 gallons / 2532 drums~~

~~Waste Types: Currently not being used for storage of hazardous waste.~~

~~HWMU No. 33 (Pilot Plant Warehouse/Bldg. 68)~~

~~Location: Southwest corner of production area~~

~~Maximum Capacity: 16,500 gallons / 300 drums~~

~~Waste Types: Currently being used for the storage of hazardous waste samples. These are primarily environmental media samples but some samples may be ignitable or contain PCBs.~~

HWMU No. 37 (Plant 6 Warehouse/Bldg. 79)

Location: E Street between 1st and 2nd Street

Maximum Capacity: 230,780 gallons / 4,196 55-gallon drums

Waste Types: Combustible and flammable liquids, solids, trash, PCBs. The FCP FEMP is also storing ignitables/PCBs in bulk tanks located outside, north of the Plant 6 Warehouse (Bldg. 79).

Hazardous Waste Storage Lockers (9 lockers, 3 locations)

Location: 4 lockers are located north of the Plant 6 Warehouse (Bldg. 79); 3 lockers are located east of AWWT (Advanced Waste Water Treatment) facility; 2 lockers are located north of the West Parking Lot (near the slab of the former Industrial Relations Bldg.)

Maximum Capacity: 2,640 gallons / 48 55-gallon drums per locker

Waste Types: Combustible and flammable liquids, solids, trash, PCBs.

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Building 60 (Quonset Hut #1)  
 Location: West of B Street; North of 3<sup>rd</sup> Street  
 Waste Types: Soil (bulk treatment/storage)

The FCP FEMP site and mailing addresses are:

**Fernald Closure Environmental Management Project - Site Address**  
 7400 Willey Road  
 Fernald, Ohio 45030  
 (513) 648-3000

**Fernald Office - Mailing Address**  
 U. S. Department of Energy  
 P.O. Box 538705  
 Cincinnati, Ohio 45253-8705  
 (513) 648-3000

Operation missions and program direction are administered through the U.S. Department of Energy (DOE) Office of Environmental Management (EM). The name, address, and telephone number of this office are:

**U. S. Department of Energy**  
**Office of Environmental Management**  
 1000 Independence Avenue Southwest  
 Washington, D. C. 20585  
 (202) 586-5000

This plan describes the actions facility personnel must take in response to a hazardous waste event or emergency such as fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water. This plan applies to all areas of the facility where hazardous waste is being handled or stored. Therefore, in addition to the ten five storage units (9 lockers and 1 building) the FCP FEMP is seeking to permit, all hazardous waste management units, less than 90 day storage areas and hazardous waste treatment/storage areas operated under the site's CERCLA remediation program are discussed in this plan. The location of areas managing hazardous waste at the FCP is the active hazardous waste management units (HWMUs) which the FEMP is seeking to permit as RCRA storage facilities are shown in Figure G-1. Evacuation routes and lists of safety and emergency equipment assigned to each of these areas are included in Attachment G-1. A copy of this Contingency Plan is readily accessible to anyone entering these areas located at each such unit while it is being used for storage of hazardous waste. The location of all

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~~other HWMUs is shown within Attachment G-1 on the inserted map "Location of FEMP Rally Points", located between pages 6 and 7. Since a potential incident could occur at any HWMU, Attachment G-1 describes evacuation routes for all HWMUs and fire and safety equipment available for HWMUs containing hazardous waste.~~

#### **G-1a Emergency Organization**

The Emergency Coordinator/ Assistant Emergency Duty Officer (AEDO) may request support and allocate resources under the responsibilities of any or all of the Emergency Response Support Organizations discussed in this section. Table G-2 provides a roster of the FCP FEMP Emergency Organization. Figure G-2 provides an organizational chart of the FCP FEMP Emergency Response Organization. A contract has been awarded to the Crosby Township Fire Department and Life Squad to provide emergency services at the FCP. This agency is responsible for the emergency response at the site when facility response can not mitigate the event. Any mutual aid agreements are the responsibility of the Subcontracted Community Emergency Response Organization (Crosby Township). The Subcontracted Community Emergency Response Organization has signed mutual aid agreements with other agencies and/or have agreed to provide needed assistance to the FCP at local, county, state and federal levels. Information regarding the contract with the Crosby Township Fire Department and Life Squad is provided in Attachment G-3.

#### **Fernald Closure Environmental Management Project**

##### **Emergency Management**

The Emergency Director (the operating contractor President or his designee) has designated an AEDO/Emergency Coordinator who is responsible for emergency responses at the FCP FEMP. The AEDO is the primary Emergency Coordinator.

The Emergency Coordinator/AEDO manages and controls the response to any event at the FCP FEMP until subcontracted community response forces arrive on-scene. A minimum of one Emergency Coordinator/AEDO is present onsite at all times. Through an extensive Emergency Duty Officer training program coordinated assembled by the Emergency Preparedness Department, the Emergency Coordinator/AEDO is knowledgeable of this Contingency Plan, operations and activities at the FCP FEMP, the locations and characteristics of hazardous waste

at the facility, the location of records within the FCP FEMP, and the facility layout. Figure G-3.1 illustrates the range of training requirements for the Emergency Coordinator/AEDO.

The Emergency Coordinator/AEDO, as Incident Commander, can activate the FCP FEMP emergency response organizations including, but not limited to, the Subcontracted Community Emergency Response Personnel, Emergency Response Team, Monitoring Team, medical staff, security personnel, and the Emergency Operations Center. ~~the Joint Information Center, the Triage Center, and the Staging Area.~~ Figure G-7 provides a table showing the activation methods for all elements of the Emergency Response Organization.

The Subcontracted Community Emergency Response Officer In Charge will assume the Incident Commander responsibilities once they have arrived on-scene. Additional support and mutual aid may be summoned at any time by the Incident Commander.

~~Additional support and mutual aid may be summoned at any time by the Emergency Coordinator/AEDO. The Emergency Coordinator/AEDO establishes a field command post to manage and control all response actions at the incident scene.~~

#### Subcontracted Community Emergency Response Organization Team

The Subcontracted Community Emergency Response Organization Team is responsible for on-scene emergency event mitigation, rescue, damage control, firefighting, environmental monitoring, and medical assistance.

#### **Security Response Organization**

The Security Response Organization maintains the security and integrity of the FCP FEMP. The FCP FEMP security staff consists of qualified security inspectors. The security staff provides surveillance and control at the incident location and the entire facility during an emergency.

#### **Emergency Operations Center (EOC) Staff**

The Emergency Operations Center (EOC) Staff is a functional organization which works with the Emergency Coordinator/AEDO to oversee and direct emergency response actions. The

Emergency Operations Center, located in T-214, ~~the Administration Building,~~ assesses the incident, coordinates protective actions, and coordinates personnel accountability. The Emergency Operations Center also supports and directs protective actions, allocating additional resources as needed and providing notifications and information to employees, appropriate authorities, and the general public. The EOC Staff is composed of three primary teams, the Policy Team, Operations Team, and the Information Management Team. Primary and alternate staff members have been selected for each position.

**Public Information Response**

The Manager of Public Affairs has overall responsibility for the emergency public information program and serves as the designated spokesperson at the FCP FEMP during emergencies. News and information about an emergency is provided to the media through the Public Affairs Department Offices or a Media Information Area which is activated for a major event.

**Medical Response Organization**

The Medical Response Organization provides treatment and stabilization for injuries. ~~At least one state certified Emergency Medical Technician is on duty at all times. At least two state certified Emergency Medical Technicians are on duty at all times as members of the Emergency Response Team.~~

**Communications Center Staff**

Site-based communications are operated by the FCP FEMP Communications Center. The Communications Center ~~coordinates the dispatch of equipment and personnel to emergency events. also dispatches ambulance service in response to ambulance calls on-site.~~ The Communications Center provides communication links between the Emergency Coordinator/AEDO and support groups, implements systems instructions, and makes appropriate notifications when instructed.

**Monitoring Team**

The FCP FEMP monitoring organization consists of Radiological Safety and Industrial Hygiene ~~personnel Technicians~~ for on-site and off-site monitoring of chemicals and radiological

materials.

Monitoring data is provided to the Emergency Coordinator/AEDO. The State of Ohio provides monitoring and assessment support to the counties as requested.

#### U.S. Department of Energy (DOE)

##### **DOE-Fernald Closure Environmental Management Project (DOE-FCP FEMP)**

The DOE-Fernald Closure Environmental Management Project (DOE-FCP FEMP) provides oversight, ensures an effective response, conducts investigations, makes appropriate notifications, and coordinates interactions with the media and requests for assistance during an incident. The DOE-FCP FEMP is responsible for notifying state and federal governmental agencies of an incident as necessary.

##### **DOE Headquarters (DOE-HQ)**

DOE Headquarters (DOE-HQ) Office of Environmental Management has overall responsibility for emergency operations at the FCP FEMP and designates response authority to the Emergency Coordinator to act as the primary AEDO. The FCP FEMP is delegated specific responsibilities for implementing event response and for notifying the DOE Emergency Operations Center (DOE-HQ EOC).

#### State of Ohio

##### **Ohio Emergency Management Agency (OEMA)**

The Ohio Emergency Management Agency (OEMA) coordinates disaster response for all state agencies. OEMA also procures support and assistance from the Federal government as necessary.

##### **Hamilton and Butler Counties**

Hamilton and Butler counties may activate their respective Emergency Operations Centers (Emergency Management Agencies) in an emergency. The counties provide emergency medical service and fire protection support through mutual aid agreements. The county law enforcement organizations provide additional support as needed.

**G-1b Distribution**

Copies of this Contingency Plan and all revisions to this Plan are maintained at the **FCP FEMP** EOC and submitted to the following off-site organizations via certified mail (return receipt) or overnight delivery service:

- Crosby Township Fire Department
- Hamilton County Emergency Management Agency
- Hamilton County Sheriff
- ~~Mercy Hospital~~
- Ohio Emergency Management Agency
- Ohio State Highway Patrol, Post 9
- Mercy Franciscan Hospital - ~~Mount Airy~~
- ~~American Red Cross Disaster Services~~
- Butler County Emergency Management Agency
- Butler County Sheriff
- Colerain Township Fire Department
- ~~Ross Township Fire Department~~
- ~~Ross Township Police Department~~
- University Hospital
- Ohio EPA
- U.S. EPA

**G-2 EMERGENCY COORDINATION**

The **FCP FEMP** Emergency Services staff, ~~headed by the Emergency Services Manager,~~ is in charge of the preparation for an emergency at the **FCP FEMP**. The Emergency Coordinator/AEDO is in charge of emergency response. Figure G-3 depicts the relationships between the key **FCP FEMP** Emergency Services Staff. Figure G-3.1 describes the qualifications for the staff.

The Emergency Operation Personnel & Organizations list in Table G-1 provides emergency phone or pager contact information. Individuals or organizations on this list are contacted through the Communications Center as required.

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### FCP FEMP Emergency Services Staff

#### **Emergency Coordinator/AEDO**

The Emergency Coordinator/AEDO is the Utility Engineer on shift. The Emergency Coordinator/AEDO has authority to initiate all necessary response actions. The Emergency Coordinator/AEDO responds to the event site, assesses and categorizes the event as an emergency or lesser event.

There are currently four personnel assigned to the position of Emergency Coordinator/AEDO. This group works a four-person rotating shift schedule. A status board which lists the Emergency Coordinator/AEDO and ~~Emergency Chief~~ is established for each shift at the Communications Center. At least one Emergency Coordinator/AEDO is on site at all times, who can be reached by radio, telephone or pager. If the shift AEDO should be unavailable for duty, an Alternate AEDO will be summoned. ~~The Emergency Chief will act as AEDO until the Alternate AEDO arrives.~~ Table G-1 lists the pertinent contact information for the designated Emergency Coordinator/AEDO.

As stated in Section G-1, the Emergency Coordinator/AEDO is fully knowledgeable of this Contingency Plan, operations and activities at the FCP FEMP, the locations and characteristics of hazardous waste at the facility, the location of records within the FCP FEMP, and the facility layout. Required training for the Emergency Coordinator/AEDO is listed in Figure G-3.1.

The Emergency Coordinator/AEDO has the authority to activate the FCP FEMP Offsite Emergency Warning System at any time. The Emergency Coordinator/AEDO is a representative of the Emergency Operations Center (EOC) staff and may activate the EOC for response support. Mandatory activation of the EOC is required for all emergencies. All EOC staff members are supplied with personal pagers that can be activated by a group page. Off-duty Emergency Coordinator/AEDO, Security Lieutenants, ~~Fire Fighters/Emergency Response Specialists~~, and Medical personnel may also be summoned in this manner.

#### **Emergency Duty Officer**

The Emergency Duty Officer is the designated, on-call representative of the Emergency Operations Center and senior facility management. The Emergency Duty Officer reviews the emergency assessment with the Emergency Coordinator/AEDO and coordinates the Emergency Operations Center

staff in support of the Emergency Coordinator/AEDO. The Emergency Duty Officer is responsible for proper notification of off-site response organizations.

The Emergency Duty Officer is in control of response operations until the Deputy Emergency Director approves and assumes control of the response organization. Designated senior staff managers rotate as the Emergency Duty Officer.

The Emergency Duty Officer may be reached through the 24-hour-staffed **FCP FEMP** Communications Center by:

- personal digital display pager; or
- conventional telephone service.

Required training for the Emergency Duty Officer is listed in Figure G-3.1 and Section H.

**Emergency Chief (EC)**

~~The Emergency Chief directs the Emergency Response Team's remedial activities. The Emergency Chief reports directly to the Emergency Coordinator. The Emergency Chief is the Fire Fighter/Emergency Response Specialist on shift. At least one Fire Fighter/Emergency Response Specialist is on site at all times.~~

~~The Fire Fighter/Emergency Response Specialist on duty may be reached in the following ways:~~

- ~~• via radio through the 24-hour-staffed FCP FEMP Communications Center~~
- ~~• office~~ (513) 648-4444

~~Required training for Fire Fighter/Emergency Response Specialist is listed in Figure G-3.1 and in Section H.~~

**Release Evaluator**

A Release Evaluator evaluates regulatory requirements for reporting hazardous waste releases. The Release Evaluator is on call on a 24-hour basis through a personal digital pager and assists the

Emergency Coordinator/AEDO and Emergency Duty Officer in determining the need for regulatory reporting and notifications.

**G-3 IMPLEMENTATION**

The first step taken during any incident involves its observance by employees and supervisors on the scene. Actions to be taken in reporting an explosion, fire, or release are described in Attachment G-1.

The Emergency Coordinator/AEDO categorizes the event according to increasing levels of severity as listed below:

- 1) SIGNIFICANCE CATEGORY 5
- 2) SIGNIFICANCE CATEGORY 4
- 3) SIGNIFICANCE CATEGORY 3
- 4) SIGNIFICANCE CATEGORY 2
- 5) RECURRING EVENT CATEGORY
- 6) SIGNIFICANCE CATEGORY 1
- 7) OPERATIONAL EMERGENCY

- 1) LOGGABLE EVENT
- 2) OFF-NORMAL EVENT
- 3) UNUSUAL OCCURRENCE
- 4) OPERATIONAL EMERGENCY

An event greatest in magnitude is categorized as an Operational Emergency, and determines if the event requires assistance beyond the capabilities of the Emergency Response Team. Categorization of a hazardous waste incident as an Operational Emergency activates the Emergency Operations Center (EOC) and thereby implements this Contingency Plan.

The following implementation plan is used to respond to a hazardous waste event. Contingency Plan implementation and notification actions are diagramed in Figure G-4. Implementation of the

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Contingency Plan is initiated for potential or actual events involving hazardous wastes or hazardous waste constituents.

The Emergency Coordinator/AEDO after categorizing an event as an Operational Emergency, begins evaluation and classification of the event per Figure G-5.2, the Emergency Action Level Guide, and advises the Emergency Duty Officer as necessary. By increasing order of severity, the action levels for Operational Emergencies are:

- 7a) ALERT
- 7b) SITE AREA EMERGENCY
- 7c) GENERAL EMERGENCY

The Emergency Coordinator/AEDO or the Emergency Duty Officer activates the Emergency Operations Center as necessary. The emergency action level may be changed by the Emergency Operations Center staff, based on information provided by the Emergency Coordinator/AEDO at the scene and on an assessment of potential health effects or environmental impacts by the Emergency Operations Center staff.

The Incident Commander and the Emergency Coordinator/AEDO ~~retain~~ retains responsibility for directing and coordinating all efforts to resolve the emergency at the field command post with the assistance of the Emergency Operation Center once it is declared operational. Such actions may include, but are not limited to, the following:

- Responding, and assuring the response of others, to all alarms sent over the site-wide alarm system, radiation detection alarm, and emergency message systems;
- Coordinating all emergency response groups;
- Instituting any operational changes necessary to control the emergency, including shut-down of operations as required;
- Directing the Communications Center to send out the necessary alarms and messages for personnel evacuation and accountability;

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- Instructing the Communications Center, when necessary, to obtain mutual-aid assistance such as rescue and fire fighting equipment and crews.

All assistance from the FCP's Subcontracted Community Emergency Response Organization can be summoned by:

Assistance may be requested from:

Grosby Township Fire Department

Telephone: 911 or ~~825-2280~~ 595-8518 (Hamilton County Communications Center)

Colerain Township Fire Department

Telephone: ~~911 or 595-8518~~ (Hamilton County Communications Center)

Ross Township Fire Department

Telephone: ~~911 or 887-3010~~ (Butler County Sheriff's Dispatcher)

- Requesting further assistance, as necessary, from the Butler County and the Hamilton County emergency response agencies. Each agency has prepared a "Response Plan for a Hazardous Materials Emergency at the Feed Materials Production Center".
- Terminating the state of emergency as conditions permit and instructing the Communications Center to sound the appropriate signal.

**G-4 EMERGENCY RESPONSE PROCEDURES**

The following procedures are the responsibility of the Emergency Coordinator/AEDO or his designee whenever the Contingency Plan is implemented.

**G-4a Notification**

**General Notification Activities**

- 1) The Emergency Coordinator/AEDO informs Communications Center that the

Contingency Plan has been implemented and is classified as an ALERT, SITE AREA EMERGENCY, or GENERAL EMERGENCY involving hazardous waste.

- 2) The Communications Center (or Emergency Coordinator (AEDO)) notifies the Subcontracted Community Emergency Response Organization Emergency Chief and Emergency Duty Officer (EDO) of the event categorization.
- 3) The Emergency Duty Officer notifies Emergency Director (ED) and DOE Site Manager, or designee(s), of the event categorization.
- 4) The Communications Center completes County Event Report<sup>1</sup> as directed by the Emergency Coordinator/AEDO.
- 5) The Communications Center Operator activates site-wide alarm system, the site-wide message system, and/or the off-site Emergency Warning System, as directed.
- 6) The Emergency Coordinator/AEDO begins identification of the character, source, amount, and extent of any released materials by observation, for example hazardous waste labels on the container, review of facility records, interaction with facility personnel, and if necessary, by chemical analyses.
- 7) The Communications Center Operator in coordination with the Emergency Operations Center completes all required notifications to:
  - DOE-HQ EOC,
  - State of Ohio Emergency Management Agency (OEMA), who then notifies the appropriate offsite agency(ies) listed in Table G-1, according to the type of incident,
  - Butler and Hamilton counties' 24-hour notification points,

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<sup>1</sup> The County Event Reports notify both Butler and Hamilton counties for events categorized as Alert or Higher.

- Director, Ohio Environmental Protection Agency
- FCP FEMP Release Evaluator,
- DOE- FCP FEMP Duty Officer,
- Appropriate local organizations, if not notified by OEMA,
- Federal and State regulatory agencies, if not notified by OEMA.

The first three agencies listed above are notified within 15 minutes of any hazardous waste emergency.

- 8) The DOE- FCP FEMP Duty Officer provides FCP FEMP Communications Center, as soon as possible, with a written record documenting that the appropriate regulatory agencies have been verbally contacted.
- 9) The DOE- FCP FEMP Duty Officer is responsible for making and verifying any follow-up notifications communicated to them by the FCP FEMP, Emergency Coordinator/AEDO, Emergency Duty Officer or Emergency Operations Center.

#### Initial Oral Notification for Hazardous Waste Emergencies

The Emergency Coordinator/AEDO or the Emergency Operations Center immediately reports to DOE-HQ when the facility has had a release, fire, or explosion which could threaten human health or the environment.

The FCP FEMP Emergency Operations Center notifies appropriate local authorities to advise whether protective actions are required. The FCP FEMP Emergency Operations Center provides oral notification immediately to the Ohio Emergency Management Agency. The DOE- FCP FEMP Duty Officer will provide oral notification immediately to the Ohio EPA Emergency Response Center.

The verbal report will contain the following information<sup>2</sup>:

- name, address, and telephone number of the reporter;

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2 Form A may be used as a guideline to facilitate this verbal reporting (Figure G-9).

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- name and address of the facility;
- the time and date of the incident;
- type of incident (e.g., fire, spill, etc.);
- identification of material(s) involved to the extent known;
- quantity of each material included;
- extent of injuries, if any;
- potential hazards to human health or the environment, outside of the facility; and
- date and time that call was made and person contacted.

#### Local Evacuation Notices

Local agencies are responsible for protective actions required for the population surrounding the FCP FEMP. The FCP FEMP Communications Center will activate the Off-site Emergency Warning System for emergency events that could have significant off-site impact. The FCP FEMP Off-Site Emergency Warning System is utilized to inform the population within a two-mile radius of the FCP FEMP to seek shelter and tune to an Emergency Broadcast System Station for further instructions.

#### Written Notification

A written report notifying Ohio EPA that this Contingency Plan was implemented is submitted to the Ohio EPA by the FCP FEMP within 15 days after an occurrence of an incident that requires implementation of this Contingency Plan. The report will include the following information:

- name, address, and telephone number of the owner or operator of the facility;
- name, address, and telephone number of the facility;
- date of incident;
- time of incident;
- type of incident (e.g. fire, spill);
- type of material(s) involved;
- quantity of material(s) involved;
- the extent of injuries, if any;

- an assessment of actual or potential hazards to human health or the environment, where this is applicable;
- estimated quantity and disposition of recovered material that resulted from the incident; and
- an outline or description of procedures or measures that will be taken to prevent or mitigate such incidents in the future.

#### **Cessation/Resumption of Activities**

The Emergency Coordinator/AEDO must take the preventive measures described in Section G-4e, if the event causes the affected area of the facility to cease activities.

The equipment in the affected area of the facility will be returned to a clean and serviceable condition after an emergency. Waste generated during spill cleanup will be managed in accordance with all applicable regulatory requirements. Ohio EPA regulatory authorities will be notified by the Department of Energy of the readiness to resume hazardous waste activities.

#### **G-4b Identification of Hazardous Materials**

The Emergency Coordinator/AEDO immediately begins identification of the character, exact source, amount, and extent of the event or release.

The Emergency Coordinator/AEDO will begin identification of the hazardous material by using the following procedure:

- 1) Visual inspection of the container labeling will be the initial identification method. The labeling includes all pertinent waste characterization information.
- 2) If labels are obscured or not easily read, site records such as the Material Movement Record or Container Tracking Log may be used to identify the composition and quantity of stored or released material. A detailed inventory of the location of every drum of hazardous waste is maintained and readily available from the Sitewide Waste Information, Forecasting and Tracking System (SWIFTS) Database.

- 3) Samples will be taken for analysis and characterization if the released material cannot be identified by the above methods.

#### G-4c Assessment

The Emergency Coordinator/AEDO will assess potential hazards to human health or the environment from the incident. The assessment will consider both direct and indirect effects of the release such as the effects of any hazardous fumes released. The Emergency Coordinator (AEDO) assesses the event by evaluating:

- The population at risk (both on- and off-site);
- The environmental conditions contributing to the seriousness of the event such as wind speed and direction, precipitation, ground moisture, and temperature;
- Potential radionuclide hazards;
- Protective Action Guide (PAG) or Emergency Response Planning Guideline (ERPG) exposure levels; and
- The capabilities of available equipment.

The existing DOE event categorization system used by the ~~FCP~~ FEMP provides a uniform, shared understanding of event severity. The emergency categorization system classifies emergency events based on the potential or actual impact of the event on facility safety, facility personnel health and safety, and on public health and safety. The site Emergency Plan provides for predetermined responses by the Emergency Coordinator/AEDO based upon the incident categorization criteria.

#### Categorization Systems

Events that operationally involve or affect the ~~FCP~~ FEMP are grouped into ~~eight~~ four categories, by relative ranking of the assessed facility status, to ensure that the urgency of notification is readily identifiable and appropriate response actions are directed immediately. Inputs to the event categorization system include the status of systems, the observation of operating personnel, and the levels of radiological or hazardous materials in areas of the facility or in facility effluent. Incident severity defines the categorization level providing a uniform, shared

understanding of event severity common to all involved groups.

The ~~eight~~ ~~four~~ categories in order of increasing severity are as follows: Significance Category 6, Significance Category 5, Significance Category 4, Significance Category 3, Significance Category 2, Recurring Event Category, Significance Category 1, ~~Loggable Event~~, ~~Off Normal Occurrence~~, ~~Unusual Occurrence~~, and Operational Emergency. The Operational Emergency level has been further subdivided for hazardous material and radiological events into three classes: Alert, Site Area Emergency, and General Emergency. Each are discussed below with detailed definition, classifications of emergencies, and appropriate emergency responses to be taken provided in DOE 151.1 and in the Emergency Action Levels of the ~~FCP~~ FEMP Emergency Plan.

**Operational Emergency Classification**

**Base Program Events**

Operational Emergencies are unplanned significant events of conditions that require time-urgent response from outside the immediate/affected site/facility or area of the incident. Such emergencies are caused by, involve, or affect DOE facilities, sites, or activities and represent, cause, or have the potential to cause the events or conditions describe below. Incidents that can be controlled by employees or maintenance personnel in the immediate/affected facility or area are not Operational Emergencies. Incidents that do not pose a significant hazard to safety, health, and/or the environment and that do not require a time-urgent response are not Operational Emergencies. Note that the initiating events described are not all-inclusive. Other initiating events that warrant categorization as Operational Emergencies shall be included in site/facility-specific procedures. Less severe events are reported through the Occurrence Reporting ~~Unusual Occurrence and Off Normal Occurrence~~ process.

An **Operational Emergency** for a Base Program Event shall be declared when events that represent a significant degradation in the level of safety at a site/facility and that require time-urgent response efforts from outside the site/facility occur. These events do not require further classification (i.e., as Alert, Site Area Emergency, or General Emergency).

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**Hazardous Materials Program Events (Radiological and Non-Radiological)**

Operational Emergencies for a Hazardous Materials Program Event shall be classified as either an Alert, Site Area Emergency, or General Emergency, in order of increasing severity, when events occur that represent a specific threat to workers and the public due to the release or potential release of significant quantities of radiological and non-radiological hazardous materials. Classification aids in the rapid communication of critical information and the initiation of appropriate time-urgent emergency response actions.

Alert (LEPC Level I Emergency Conditional Level): An Alert shall be declared when events are predicted, are in progress, or have occurred that result in one or more of the following:

1. An actual or potential substantial degradation in the level of control over hazardous materials (radiological and non-radiological).
2. The radiation dose from any release to the environment of radioactive material or a concentration in air of other hazardous material is expected to exceed either:
  - a. The applicable Protective Action Guide or Emergency Response Planning Guideline at or beyond 30 meters from the point of release to the environment or;
  - b. a site-specific criterion corresponding to a small fraction of the applicable Protective Action Guide or Emergency Response Planning Guideline at or beyond the facility boundary or exclusion zone boundary.
  - c. It is not expected that the applicable Protective Action Guide or Emergency Response Planning Guideline will be exceeded at or beyond the facility boundary or exclusion zone boundary.

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- d. An actual or potential substantial degradation in the level of safety or security of a facility or process that could, with further degradation, produce a Site Area Emergency or General Emergency.

Site Area Emergency (LEPC Level II Emergency Condition Level): A Site Area Emergency shall be declared when events are predicted, in progress, or have occurred that result in one or more of the following situations.

1. An actual or potential major failure of functions necessary for the protection of workers or the public. The radiation dose from any release of radioactive material or concentration in air from any release of other hazardous material is expected to exceed the applicable Protective Action Guide or Emergency Response Planning Guideline beyond the facility boundary or exclusion zone boundary. The Protective Action Guide or Emergency Response Planning Guideline is not expected to be exceeded at or beyond the site boundary.
2. Actual or potential major degradation in the level of safety or security of a facility or process that could, with further degradation, produce a General Emergency.

General Emergency (LEPC III Emergency Condition Level): A General Emergency shall be declared when events are predicted, in progress, or have occurred that result in one or more of the following situations.

1. Actual or imminent catastrophic reduction of facility safety or security systems with potential for the release of large quantities hazardous materials (radiological or non-radiological) to the environment.
2. The radiation dose from any release of radioactive material or a concentration in air from any release of other hazardous material is expected to exceed the applicable Protective Action Guide or Emergency Response Planning Guideline

at or beyond the site boundary.

**G-4d Control Procedures**

Emergencies involving hazardous waste will fall under three general classifications for the purpose of this Contingency Plan:

- explosion
- fire
- spills or material release.

The ~~FCP FEMP Emergency Response Team~~ is prepared for ~~timely immediate~~ response to fires, explosions, and spills at all times. Personal protective clothing, pumps, generators, and respiratory equipment are noted in Section G-5; containment supplies and procedures in Section G-5(b); and major self-propelled and other "heavy" equipment in Section G-5(a)(4).

The following Emergency Response Team members respond to fire alarms as needed:

- ~~Emergency Chief with Fire & Rescue service vehicle~~
- Emergency Coordinator (AEDO) with vehicle
- ~~Subcontracted Community Emergency Response Organization Team~~ with appropriate emergency apparatus
- Security Officer with vehicle
- ~~Monitoring Personnel with appropriate equipment~~
- ~~Emergency Coordinator/AEDO or Emergency Chief, if required, will request Security to transport a driver from the fire scene to the heavy equipment building to obtain additional equipment (i.e., a second pumper truck).~~

Rescue of persons from an evacuated building or area will be undertaken only by the ~~Subcontracted Community Emergency Response Organization Team~~ under the direction of the ~~Incident Commander, Emergency Chief.~~

Response procedures for ~~the Emergency Response Team and other~~ trained personnel are summarized below:

- 1) Immediately notify personnel to evacuate the danger area and activate the local evacuation alarm while taking action to ensure own personal safety.
- 2) Report urgent situations directly to the Communications Center via the Emergency Phone Number 911, pull manual fire alarm, or have the report relayed to the Communications Center over the site-wide FM radio network, if a person with a portable radio is nearby. Otherwise, report information to a local supervisor who will relay the report to the Communications Center or Emergency Coordinator/AEDO.
- 3) Report the following information to the Emergency Coordinator/AEDO:
  - Location;
  - Type of emergency; fire, explosion, chemical release, and personnel, equipment, and chemicals or hazardous wastes involved and amounts if known;
  - The magnitude of the emergency, such as an estimate of the extent, size, quantity, volume, intensity, area, etc.; and
  - Emergency actions taken.
- 4) If possible, the facility personnel encountering the emergency should remain in the vicinity to direct emergency service groups to the scene.
- 5) Determine need for emergency service groups and summon them by calling 911, pulling manual fire alarms, or relaying the information to the Communications Center via the FM radio network.
- 6) Shut off all operation equipment, air, water, steam, gas, and electricity.

- 7) Remove and segregate all non-burning combustible or otherwise hazardous wastes from the vicinity of the incident, depending on the location of the incident.
- 8) Unlock all doors.
- 9) Evacuate all personnel in the vicinity of the incident not actively involved in responding to the emergency.
- 10) Account for all personnel at location or at the Rally Point.
- 11) Assist the Emergency Coordinator/AEDO if called upon.
- 12) Assess possible human health and environmental hazards of the event and define or assess the hazard impact including:
  - Identify the involved substance and its source;
  - Determine the extent and the amount of materials involved.
- 13) Assess the emergency and establish the initial event categorization.
- 14) ~~If not already done, authorize the request for assistance from the Subcontracted Community Emergency Response Organization, mutual-aid.~~
- 15) Notify the EDO of significant actions prior to EOC being declared operational.
- 16) Set up a field command post to ensure coordination of all EOC instructions. The field command post shall formulate and forward requests for additional resources.
- 17) Initiate the "All Clear" signal when the emergency is under control and/or resolved.
- 18) Initiate necessary precautions to ensure that further fires, explosions and releases do

not occur, recur or spread to other hazardous waste or materials.

- 19) Initiate appropriate monitoring for leaks, pressure build up, gas generation or rupture in valves, pipes, or other equipment.
- 20) Initiate reentry activities including recovery, treatment, storage, and/or disposal of any recovered waste, contaminated soil, surface water, or other materials resulting from the emergency.
- 21) Ensure that all emergency equipment is returned to normal status when the event has been terminated.

~~Should the Incident Commander EC or Emergency Coordinator/AEDO determine that a fire is out of control and additional personnel are required, the Incident Commander will direct the activation of the Subcontracted Emergency Response Organization's mutual aid agreements. Emergency Coordinator/AEDO will direct the Communications Operator to initiate the call-in for additional FEMP fire response personnel by activating the Group 3 pagers.~~

Fire fighting support can be requested from surrounding community fire departments. The members of the arriving mutual aid fire departments will be met at a staging area or at the gate by FCP FEMP personnel, given any pertinent instructions, supplied with Thermal Luminescent Dosimeter (TLD) badges as needed, and escorted to the location of the fire.

The personnel responding from off-site departments will be under FCP FEMP direction. They will be responsible for their own equipment and to their senior officer who will report to the Emergency Coordinator/AEDO for instructions.

**G-4e Prevention of Recurrence or Spread of Hazardous Waste Fires, Explosions or Releases**

Actions to prevent the recurrence or spread of releases or fires include; immediately determining the cause of the incident, stopping of processes and operations where applicable, cleaning up all debris from the incident and maintaining good housekeeping, containing and

collecting released waste, recovering and isolating affected containers, ensuring fires are completely extinguished, and decontaminating affected areas and equipment. Procedures and policies will be reviewed and revised as necessary to prevent a recurrence, upon determining the cause of the incident.

#### **G-4f Storage and Treatment of Released Waste**

The Emergency Coordinator/AEDO or his designee will immediately collect representative samples of all recovered wastes for analysis and characterization after an emergency. Waste will be placed in a compatible container. All waste materials generated during the emergency response will be handled, treated, stored, and/or disposed of in accordance with the applicable hazardous waste regulations.

Methods for containment, cleanup, and decontamination of the affected areas are discussed in Sections G-4i, Container Spills and Leakage, and G-4j, Tank Spills and Leakage.

#### **G-4g Incompatible Wastes**

Containers and storage bays are marked with Reactivity Group Codes (RGCs) based upon the results of waste characterizations. The RGC chart is readily available to personnel accessing the in all RCRA storage units, and is provided as Figure F-2 in Section F, Procedures to Prevent Hazards. Adherence to the codes provides a convenient, reliable system to assure that incompatible wastes will be separated by means of a dike, berm, or other device (e.g. stored on separate spill pallets) stored in separately bermed areas or stored in separate buildings, to prevent mixing in the event of a spill or leak. In addition, since water might commonly be used for flushing or fire suppression, waste material that is incompatible with water is clearly marked as such.

Thus, in the event of (large) spills or leaks, the Emergency Coordinator/AEDO can ensure against the mixing of incompatible substances by maintaining the integrity of the berms, or by creating temporary dikes to divert flow. As necessary, storage unit inventory records will be examined and facility owners consulted to identify released material. As described in Section G-4b, samples will be taken for analysis and characterization if identification proves impossible

due to obliterated drum labels or inaccessible site records.

The recovered materials or wastes generated during cleanup will be characterized and stored in accordance with all applicable regulatory requirements.

~~The only exception to this requirement is containers of samples being staged in the Pilot Plant Warehouse (Building 68) prior to segregation under the Sample Disposition Project. RGCs will be applied to containers of hazardous waste samples after they have been segregated and/or consolidated under this project. These are primarily environmental media samples and samples from various mixed waste treatment projects. The Pilot Plant Warehouse is being used to temporarily store these containers since many of the samples are stored in glass jars and require storage in a heated building. The samples have been overpacked into larger containers filled with packing material and/or absorbent.~~

#### **G-4h Post-Emergency Equipment Maintenance**

Emergency equipment which has been used in the affected area will be decontaminated, cleaned and readied for its intended use before operations are resumed in the affected area(s) of the FCP FEMP. Depleted stocks of materials will be replenished. Self-contained breathing apparatus, protective clothing, and other emergency equipment which cannot be successfully cleaned, repaired, or decontaminated will be replaced as necessary. An inspection of all safety equipment will be conducted by response personnel before operations are resumed in the affected area(s) of the facility.

The State regulatory authorities shall be notified of the readiness of the facility to resume hazardous waste operations after the equipment is returned to a clean and serviceable condition.

#### **G-4i Container Spills and Leakage**

The FCP FEMP has developed specific criteria to facilitate the prioritization of mitigation activities for deteriorated/leaking containers. Consistent with the SACD, the FCP FEMP has classified its containers based upon the container condition. As a result of these

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classifications, those containers of hazardous, mixed and uncharacterized waste that are described as Type I containers are subject to Section 3.8 (c) of the SACD.

The classifications are:

Type 1

Type 1 containers are any container that has actually leaked in such a manner as to allow wastes to be released onto the pallet or the pad.

The following actions will be initiated in response to a Type I container:

- Notify supervisor
- Immediately stop or contain leak. (Note: Employees without the specific training or knowledge of the released material or equipment should not take action to control the spill which may put their safety or that of others at risk).
- Supervisor notifies AEDO
- Complete additional cleanup as necessary
- Identify on inspection form as Type I container requiring further action

After the initial leak is contained, the container will be managed in accordance with OAC 3745-66-71, as soon as possible after detection, but in no event more than 24 hours after discovery unless safety issues require a longer time period. Safety issues to be considered include Nuclear Criticality guidelines, radiological exposure, and/or personnel safety in handling, lifting and movement activities. Safety concerns which impact the completion of these actions within the required time frame will be documented. Once these concerns have been resolved, the final corrective actions will be completed.

If there are no safety concerns or the concerns are resolved, corrective action will be accomplished by repairing the container or repacking/overpacking it. If repair is not possible or not effective, repacking or overpacking will be done. The container will be

staged in an individual secondary containment area such as a spill pallet until this has been accomplished. Type 1 containers take priority over other work activities.

#### Type II

Type II containers exhibit localized evidence of material on the exterior of the container but no material has been released onto the pallet or the pad.

The following actions will be initiated in response to a Type II container:

- Notify supervisor
- Immediately stop or contain leak. (Note: Employees without the specific training or knowledge of the released material or equipment should not take action to control the spill which may put their safety or that of others at risk).
- Complete additional cleanup as necessary
- Identify on inspection form as Type II container requiring further action

After the initial leak is contained, the container will be managed in accordance with OAC 3745-66-71, as soon as practicable after detection, unless safety concerns prevent this. Safety issues to be considered include Nuclear Criticality guidelines, radiological exposure, and/or personnel safety in handling, lifting and movement activities. Safety concerns which impact the completion of these actions will be documented. Once these concerns have been resolved, the final corrective actions will be completed. These may include container repair, overpack or repack.

#### Type III

Type III containers exhibit severe corrosion without evidence of a release.

The following actions will be initiated in response to a Type III container:

- Evaluate container condition through required inspections to assess further actions
- Overpack/repack container prior to off-site disposition

If a container's condition causes its classification to change (e.g. Type III to Type II), it will be managed in accordance with the container management procedures for the new classification.

Very large spills involving the release of hazardous waste are unlikely in the container storage areas. Secondary containment structures in areas storing hazardous waste with free liquids are capable of holding at least 10% of the maximum volume of hazardous waste stored in that structure. If several drums are spilled simultaneously, the spilled material will be pumped from the containment area and re-containerized to prevent overflow of the containment area before attempting to use absorbent materials. Spilled hazardous waste will be treated, stored, and disposed of in accordance with the appropriate regulatory requirements.

#### G-4j Tank Spills and Leakage

##### G-4j(1) Stopping Waste Addition

~~Addition of hazardous waste into a tank system or secondary containment system will be stopped immediately once a leak or spill is detected in that system. The system will be inspected to determine the cause of release.~~

##### G-4j(2) Removing Waste

~~Hazardous wastes are removed from a tank system by pumping, vacuuming (using a HEPA filter), or absorption using methods and spill response equipment in accordance with documented Emergency Response Team Manual Procedures. The method of removal is determined by the type and amount of hazardous waste spilled, or as directed by the Emergency Coordinator/AEDO. Removal of hazardous waste will be accomplished within 24 hours or as quickly as possible.~~

##### G-4j(3) Containment of Visible Releases

~~Suitable spill cleanup materials are designated for each applicable area. The material used for diking the spill is selected to be compatible with the released hazardous waste. In addition, many large tank systems are located within berms sufficient to~~

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~~contain most of the tanks' contents, and thus allow time for diversion of the spill, or repair and refilling of the tank. Visual examination of the spilled waste will be performed immediately. Based on results of the inspection, the appropriate methods will be selected to prevent further migration of the leak or spill. Visible contamination of soil or surface water will be cleaned up and disposed of in accordance with all applicable regulatory requirements.~~

~~**G-4j(4) Notifications, Reports**~~

~~All events are properly documented as directed by the Emergency Coordinator/AEDO, and/or Release Evaluator. Further information is provided in Section G-4a. Any release to the environment that exceeds a reportable quantity (RQ) under CERCLA or reported as required per RCRA will be reported to the Director of the Ohio EPA and the Regional Administrator within 24 hours of detection.~~

~~**G-4j(5) Provision of Secondary Containment, Repair or Closure**~~

~~Spilled hazardous wastes are prevented from entering floor drains or storm sewers by damming the spill. Released waste will be removed and repairs made as necessary before returning the system to service. The material used for diking the spill is selected to be compatible with the released material. The compatibility of the patching material with the waste will be evaluated before patching dikes or tanks.~~

~~Secondary containment will be provided if the area is designated as a storage area for hazardous waste with free liquids. Temporary diked areas constructed of Herculite material spread over plastic pipes can be used to form an impervious diked area when necessary.~~

~~If a leak to the secondary containment system is detected, the primary tank system will be repaired before returning the primary system to service. The released waste will be cleaned up and removed.~~

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~~If the source of the release was a leak to the environment from a component of a tank system without secondary containment, secondary containment will be provided, unless the leak source is from an aboveground component of the tank that can be visually inspected on a daily basis.~~

~~An aboveground component leak source, which can be inspected visually, will not be returned to service without certification by a registered professional engineer that the repaired component will safely handle hazardous wastes without release for the intended life of the system.~~

~~Components replaced to comply with this subparagraph will satisfy requirements for new tank systems or components specified in 40 CFR 264.192, 264.193, OAC 3745-55-92, and OAC 3745-55-93. In addition, any portion of a component from which a leak has occurred and is not accessible for visual inspection will be provided with secondary containment for the entire component prior to return to service.~~

#### **G-5 EMERGENCY SUPPORT AND EQUIPMENT**

The Emergency Coordinator/AEDO when notified of an event involving hazardous waste or hazardous waste constituents, may utilize the emergency resources, support and equipment summarized below. The facilities and equipment available for use in an emergency at the ~~FCP~~ FEMP are the Emergency Operations Center (EOC), and the Communications Center. Supporting equipment and resources include warning systems (on-site and off-site), response vehicles, personnel decontamination equipment, medical support, radiological monitoring, and industrial hygiene monitoring equipment. The FCP FEMP also maintains a ~~contract~~ mutual aid agreements with ~~a~~ local emergency response organization agencies as described in Section G-6. ~~Copies of Mutual Aid Agreements are maintained as part of the FEMP Operating Records.~~

#### **Emergency Operations Center (EOC)**

The EOC is located in ~~Trailer T-214, the FEMP Administration Building.~~ The dose assessment area is located in Trailer T-76. EOC staffing and responsibilities are outlined in Section G-2. Resources

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available in the EOC include maps, engineering drawings, and other emergency reference materials. The EOC is equipped with a backup power generator.

A comprehensive communications system in the EOC includes telephones, telefax, computers, and portable radios. ~~and a control module for the radio equipment in the Communications Center. The EOC can monitor or augment the FEMP emergency communications control system in the Communications Center. Radio and cellular telephone communications can be utilized as backup communications if telephones are not available. A VHF radio is programmed for various FEMP frequencies.~~ A paging system links response personnel with the Communications Center. All response personnel can be alerted simultaneously or individually, in case of an event.

Computer support systems in the EOC maintain a historical record, perform meteorological and heavy gas modeling, aid in reporting current event status information to local county officials, and aid in drafting and transmitting press releases.

In the event of an emergency, the T-1 Conference Room ~~or the Springdale office~~ can also serve as an alternate location for the EOC.

#### Communications Center/Security

Security maintains the safeguard and integrity of the ~~FCP~~ FEMP and provides communications, as needed in an emergency. The Communications Center is typically the first to be advised of an emergency via plant alarm or personnel.

The Communications Center includes a full complement of one-way and two-way radio communications facilities, including a mobile and portable FM radio network, scanners, special telephone system, and a paging system. Special monitoring systems include a computerized emergency monitoring system. On-site Security Inspectors are equipped with emergency vehicles with lights and siren, portable communications equipment, a mobile radio-telephone, and a bullhorn.

#### Warning Systems

There are on-site, local building, and off-site warning systems at the ~~FCP~~ FEMP.

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### Facility Alarm System

This system is centered in the Communications Center. Signals from manual fire alarm boxes and automatic fire monitoring and/or extinguishing systems located throughout the plant are transmitted to the Communications Center and monitored by a Honeywell Delta 1000 system. The Communications Technician, using the control panel, activates alarms located throughout the facility.

Each alarm system is tested by Firefighter/Emergency Response Specialist (FF/ERS) according to the following schedule, and the results are recorded:

Manual alarm boxes: Every six months

### Emergency Message System

The Emergency Message System is a one-way system used by the Communications Center to transmit verbal instructions and important information to facility personnel following the sounding of a warning signal.

### Local Evacuation Alarm

All process areas are linked to a Honeywell Evacuation Alarm (loudspeaker) system. In the event of an emergency in any location, dialing 911 or calling "CONTROL" by radio will alert Emergency Preparedness via the Control Center. Appropriate evacuation and other messages will be broadcast over the loudspeakers in affected and adjacent locations. The speaker system is tested daily.

### Ambulance Alarm

Primary response personnel ERT members are notified from the Communications Center via special Alert Pagers. The pagers alert garage personnel and assigned response personnel ERT members that a call has been made for the ambulance and the off-site contract fire department is notified to respond to the FCP.

### Offsite Emergency Warning System

In emergencies with offsite implications the Offsite Emergency Warning System warns citizens within the 2-mile immediate notification zone surrounding the FCP FEMP. Activating the sirens alerts

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residents to take shelter immediately, tune to a radio or TV station and listen for an Emergency Broadcast System (EBS) message for information.

The warning system consists of ten electronic sirens (seven offsite and three onsite) and numerous tone-alert radio receivers. The sirens are located within or just outside the 2-mile immediate notification zone. This system is tested on the first Wednesday of each month at noon.

### Fire and Rescue

Fire and rescue equipment furnished by the Subcontracted Community Emergency Response Organization at the FEMP include several vehicles with forcible entry tools, communications equipment, electric lights and generators, portable pumps, protective equipment, and heavy equipment.

Fire protection and extinguishing equipment at the FCP FEMP includes building sprinkler systems (both wet-pipe and dry-pipe), fire and smoke alarm systems, hand-held fire extinguishers, and fire hydrants. Detailed information on fire and rescue equipment appears in Section G-5a(4).

### Decontamination Equipment

Decontamination equipment is stored in the mobile emergency spill response vehicle, and in Building 46. This equipment consists of brushes, soap, diking devices and recovery containers. All of the equipment is designed to be used in conjunction with a portable water supply or water supplied from emergency equipment (pumpers/tankers). The mobile emergency spill response vehicle is described in further detail in Section G-5a(4).

### Medical

Medical Services, located in T195, is staffed by physicians, nurses, and technicians. Medical vehicles for emergency use include one two fully-equipped ambulance vehicle vehicles at this time. There are also various pieces of diagnostic equipment, hospital wards, and other equipment. Detailed information on medical equipment appears in Section G-5e.

### Environmental Radiological Monitoring

Environmental radiological monitoring equipment includes dosimeters, stack alarms (laboratory only),

friskers, and other radiation survey instruments and monitors. Multimedia baselines are continuously established in all areas using airborne radioactivity air sampling pumps and friskers. Should an incident occur, changing and/or radiologically hazardous conditions can be monitored by direct reading dosimeters, swipes, friskers, and personal contamination monitors. This information can be used to establish boundaries of the contaminated area, and to provide control point monitoring of personnel and equipment involved in the incident.

#### **Industrial Hygiene Equipment**

Industrial hygiene equipment includes devices for detecting multimedia hazardous materials and hazardous conditions. Sampling of large or small air spaces for chemical contaminants is accomplished by means such as: photoionization detector, combustible gas analyzer, oxygen meter, hang-on personal dosimeter (for nitrogen dioxide, sulfur dioxide, carbon monoxide, ammonia), direct-reading colorimetric (Draeger) tubes, and mercury vapor monitors. The output from the first two can be analyzed in the field by a portable gas chromatograph or a MIRAN infrared gas analyzer, the latter of which is also a direct-reading analyzer. Non-chemical hygiene hazards can be detected/determined by: sound level meter, microwave survey meter, low-frequency electromagnetic radiation meter, and a light-scattering (airborne) dust monitor.

#### **Emergency Power System**

Dedicated emergency generators supply emergency power for lighting, communications, and for certain designated facilities. The emergency generators are tested at least once each week by the Emergency Coordinator/AEDO according to established procedures. Records of these tests are maintained at the facility. A portable unit is available when a power failure affects the Communications Center and the emergency generator fails to start.

#### **Additional Emergency Equipment**

The following additional emergency equipment is maintained at the FCP FEMP:

- Self-contained breathing apparatus (SCBA) and other respiratory equipment
- Chemically resistant clothing, boots, and gloves;
- Showers and eye wash stations in fixed locations, and as portable units (as needed)

throughout the plant

- Emergency power and lighting equipment, including power-failure lighting
- Submersible electric pumps
- Portable electric generators
- Portable gasoline-powered pumps (to 250 gpm)
- Mobile gasoline-powered pump (trailer-mounted, @ 500 gpm)

A list of FCP FEMP emergency respiratory equipment and their typical applications and limitations is provided in Table G-3. A summary of pressurized fire extinguishers is provided in Table G-4.

#### **G-5a Fire Protection Equipment**

##### **G-5a(1) Plant Water Supplies and Fire Loop Water Supply**

The FCP FEMP water systems and related equipment provide the FCP FEMP with the first line of defense in fighting fires, and supply the primary means of fire extinguishment.

##### **High Pressure Distribution System**

The High Pressure Distribution System provides water to the high pressure hydrants, located outside each storage unit, and to building sprinkler systems. A static pressure of 114 psi (gauge) is maintained in the system by a jockey pump. The fire pump system is activated when the pressure in the system drops. The fire pump system consists of one electric and one-diesel powered pump, rated at 1,250 gallons per minute (gpm) at 125 psig. The electric pump and the diesel pump start automatically as the result of low water pressure. The fire pumps obtain water from the ground level tank. The fire pumps take suction at the bottom of the tank and have access to all 400,000 gallons, while the domestic water pumps take suction approximately eight feet from the bottom of the tank. This limits the domestic water pumps to the top 300,000 gallons and reserves the bottom 100,000 gallons strictly for the fire pumps only. This system is capable of providing sufficient water at sufficient volume and pressure for sprinkler systems.

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~~Water supply storage at the FEMP consists of several ground level and elevated water storage tanks for both fire protection and potable water supply. Primary Fire protection storage tanks consist of one ground level storage tank with a capacity of 400,000 gallons plus one elevated tank of 350,000 gallons, for a total fire protection storage capacity of 750,000 gallons.~~

~~Installation of the new Domestic and Fire Water Storage Tank and Booster has been completed. This station consists of one 400,000 gallon storage tank fed from the City Water line with redundant fire water pumping capability of 1,250 gpm at 125 psig discharge pressure. Also, this station provides the site with domestic water via three domestic water pumps rated from zero to one hundred gpm.~~

~~Underground water main systems supply water to hydrants, and sprinkler systems at all major buildings and processing areas of the FEMP. The water main system is a loop therefore no building will have the water supply cut off under any circumstances. If a leak or plug in a line occurs, the flow to that section of pipe can will be cut off by valves and the water flow to the area rerouted while repair work is in progress.~~

~~Low pressure (60 psig) and high pressure (120 psig) fire hydrants are located throughout the site; they are listed in Attachment G-2.~~

#### G-5a(2) Automatic Sprinklers

Automatic sprinklers are an effective means of fire protection, and will extinguish or contain most fires. Major buildings and processing areas are protected by heat-activated automatic sprinkler systems.

The automatic sprinklers release water when heat at the sprinkler head reaches a predetermined temperature. ~~Emergency response personnel~~ The Emergency Response Team will immediately proceed to the area where an automatic sprinkler system is activated and take appropriate actions.

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~~The following buildings are fully equipped with dry pipe sprinkler systems:~~

- ~~● Building 56~~
- Building 79 Warehouse
- ~~● Building 80 Warehouse~~
- Building 77 (Used to stage shipments of hazardous waste)

Dry pipe sprinklers located inside each hazardous waste storage locker on Plant 1 Pad are plumbed to an outside Fire Department connection. The system can be activated by connection to a fire truck, ~~one of the FEMP's fire trucks.~~

#### G-5a(3) Fire Extinguishers

##### CLASSES OF FIRE EXTINGUISHERS

Fires are placed in one of four classes according to the type of fuel involved. The class of fire determines the method of extinguishment and, for this reason, all fire extinguishers are marked according to class. The various classes of fires are as follows:

- Class A fires involve ordinary combustibles such as wood or paper. These are most readily extinguished by removing the heat. Water extinguishers are best suited here. All-purpose dry chemical extinguishers may also be used.
- Class B fires involve flammable liquids such as gasoline or alcohol. Since these are liquid fires, the application of water may tend to "float" the fire away. The best method of extinguishment here is to remove the oxygen. Carbon dioxide, foam, or dry chemical extinguishers are best suited for Class B fires.
- Class C fires involve energized electrical equipment. Since some extinguishing agents conduct electricity and the best method of extinguishment is to remove the oxygen, carbon dioxide and dry chemicals are recommended here. An electrical fire, if the electricity can be turned off, is usually Class A and can be easily extinguished.

- Class D fires involve certain combustible metals such as magnesium which require specific extinguishing compounds to put them out.

Table G-4, Types of Pressurized Fire Extinguishers, describes the four types of pressurized fire extinguishers used at the ~~FCP~~ FEMP and lists typical applications and limitations for each type of extinguisher.

#### G-5a(4) ~~FCP~~ FEMP Emergency Response Equipment

The facility also has emergency response vehicles and equipment in addition to the automatic fire protection already described. The fire trucks and equipment ~~are discussed below~~ to be used by the Emergency Response Team are properly maintained at all times to ensure readiness in the event of a fire. ~~The fire response vehicles are stocked with standard fire fighting and fire related safety equipment, and are equipped with all standard warning devices.~~

#### ~~FIRE AND SAFETY VEHICLES~~

~~Fire vehicles are equipped with forcible entry tools, communications equipment, electric lights and generators, portable pumps and protective equipment for the fire fighters including breathing apparatus, resuscitators, smoke ejectors, and protective clothing.~~

#### ~~FIRE AND SAFETY RESCUE 27~~

~~This unit is a 1993 Ford F-350 service body equipped with a two-way 32-channel radio, fire extinguishers, self-contained breathing apparatus, explosimeters, tools, protective clothing, and medical supplies. This vehicle is in daily use for routine purposes and is driven by emergency response personnel.~~

#### ~~SUPPORT 27~~

~~This unit is a 1990 Ford Ranger equipped with manuals, SCBAs, preplans, and a two-way, seven-channel radio.~~

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#### TANKER 227

One Mack 2, 600-gallon tanker is available, equipped with a 500-gpm centrifugal pump, two-way 32-channel radio, protective clothing, tools, fire extinguishers, two SCBAs, and hose. Tanker 227 is planned to be removed from service in July 2004.

#### ENGINE 227

This 1993 Boardman custom fire truck is fully equipped with a 1,250 gpm single-stage centrifugal water pump, 500-gallon booster tank, two-way 32-channel radio, SCBAs, protective clothing, extension ladders, deluge gun, tools, and hose. Engine 227 is planned to be removed from service in July 2004.

#### ENGINE 327

~~This is a 1990 Pierce vehicle equipped with a 1,250 gpm single-stage centrifugal pump, 500-gallon booster tank, 50-gallon foam tank, two-way 32-channel radio, SCBAs, hose, ladders, and tools.~~

#### AMBULANCE AMBULANCES

~~One Two fully-equipped ambulance ambulances meeting federal specifications is are operated and maintained onsite. This ambulance is planned to be removed from service in July 2004.~~

#### SPILL RESPONSE VEHICLE - HAZ MAT 27

This Chevrolet 30-Series van, is stocked with a full array of ERT Spill Response Equipment, an on-board communications system. Other types of emergency response equipment stored in this vehicle include:

Personal Protective Equipment: a full range of shoe covers, gloves (nitrile, neoprene, latex, leather, etc), chemically-resistant suits (Saranex, Tyvek, etc), cover suits, SCBAs, respirators (with all potentially needed cartridges), hard hats, boots, goggles, ear plugs, confined space entry hardware and supplies;

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Environmental Monitoring Equipment: Combustible gas monitor, sampling containers, charcoal tubes, pH meter, flashlights;

Spill Control and Clean-up Materials: Absorbent pillows, pigs, and pads, wet vacuum, Spill-X spill guns (solvent, acid, caustic), waste storage drum, traffic cones, soap, small tool kit (hammers, wrenches, pliers, etc);

Communications: Computer and Printer, fax, cellular phone; and, a set of reference books (ACGIH, NIOSH, etc).

Additionally, the Spill Response Vehicle can pull a trailer, which is equipped with renewal supplies and additional equipment, such as: brushes, mops, shovels; spill stoppers, leak plugs, sponges; decon showers and stations; buckets, overpack drums.

#### MOBILE AIR UNIT

This unit consists of a trailer mounted 9-bottle, high pressure cascade system with air-line capability capable of filling up to 70 low pressure SCBA units or 45 high pressure units.

#### HEAVY EQUIPMENT

The following equipment, although not designated specifically for emergency use, is available to support emergency response activities if needed:

- flatbed trucks
- dump trucks
- tow tractors
- semi-trailers
- semi-tractors
- tank truck
- industrial trucks
- industrial hand stackers

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- locomotive engine
- front end loaders
- bulldozers
- road grader
- cranes
- back hoe
- cement mixer
- portable generator
- numerous tractors, pickup trucks, and small vehicles
- vacuum tanker truck, "Super Sucker"
- water sprayer truck

#### **G-5b Spill Control and Monitoring Equipment**

##### **Spill Control and Emergency Spill Response Equipment**

Spill response equipment is available for use at the FCP FEMP. Stockpiles of absorbent material (such as clay absorbent and spill booms or absorbent pillows called "PIGS") along with shovels are located at each storage facility and at certain satellite accumulation points. Runoff can be diverted by temporary diking to prevent entry into the storm sewer. Contents from the storm sewer system can be diverted and held in the Stormwater Retention Basin to control offsite releases.

The FCP FEMP also maintains a mobile emergency spill response vehicle, as described in Section G-5a(4). This vehicle is stocked with appropriate emergency absorbent material and protective equipment.

##### **MONITORING EQUIPMENT**

Equipment used to monitor for contamination, explosive atmospheres, and hazardous releases is located on various emergency vehicles. This equipment includes; detector tubes, air sampling equipment, explosive gas detectors, chemical analyzers and personal dosimeters.

### G-5c Alarm and Electronic Monitoring Systems

Descriptions of alarm systems for areas used to manage hazardous waste HWMUs are included in Attachment G-1. Automatic electronic alarm and monitoring systems consist of the Honeywell D-1000 System and the Meteorological Tower Monitors.

#### HONEYWELL D-1000 SYSTEM

This centralized, computer-controlled system has two main parts:

(A) Multiplex, Digital Alarm System

- (1) Remotely monitors activation of alarm sensors throughout the plant.
- (2) Signals are converted by the Delta-1000 microprocessor to plain language messages.
- (3) The CRT display includes:
  - Alarm type
  - Signal number
  - Location
  - Action to be taken by Communications Center personnel
- (4) Alarm sensors monitor the following:
  - Fire alarms
  - Sprinkler system
  - Smoke alarms
  - Radiation detection alarms
  - Supervisory alarms, including tampering, equipment, malfunction, and pressure varieties
  - Process alarms for temperature and gas detection

(B) Audible Alarm System

- (1) Activated by Communications Center or Honeywell System automatically.

**METEOROLOGICAL TOWER MONITORS**

- (A) Meteorological information collected includes wind speed and direction.
- (B) Information is used to calculate plume direction during a radiological or gaseous hazardous materials emergency.
- (C) Monitors displaying near real-time conditions are located in the Communications Center and Trailer T-76 Building 14 along with computer plume models.
- (D) Communications Center personnel can relay the information to the Emergency Coordinator (AEDO). National Weather Service information is available in case back-up data is needed.

**G-5d Communication System**

The FCP FEMP utilizes other special radios, receivers, telephones and monitoring equipment, in addition to the Alarm Systems described in the previous section. The following communications and monitoring equipment is located in the FCP FEMP Communication Center and is operated by Communications Center personnel on duty, seven days a week:

**TWO-WAY RADIOS**

The FCP FEMP utilizes eight separate high-band radio frequencies.

**RADIO RECEIVERS**

These include the following:

- Radio receiver to monitor Crosby Township Fire Department, and

- Radio receiver to monitor Ross Township Fire Department

#### **SPECIAL TELEPHONES AND TELEPHONE SERVICE**

These include the following:

- Emergency telephone number 911 (also 6511)
- Emergency message system through which the Communications Center. The Communications Center furnishes information to onsite personnel relative to emergencies and general information.
- Mobile and cellular radio telephones utilized by the Security vehicles.

#### **G-5e First Aid and Medical Supplies**

##### **G-5e(1) Emergency Treatment**

Personnel are provided first aid treatment in the emergency treatment room in T195. A doctor is normally on duty and nurses are always on duty during the day shift, Monday through Friday. First aid and/or arrangements for transporting ill or injured personnel for treatment is provided at other times, by Subcontracted Community Emergency Response Organization FF/ERS (who are state certified Emergency Medical Technicians). A minimum of one two state certified Emergency Medical Technician is Technicians are scheduled for each shift on site. Emergency Safety and fire personnel may be summoned by calling the Communications Center in an emergency.

##### **G-5e(2) Ambulance Service - General**

Injured or ill employees will be transported by FCP FEMP Subcontracted Community Emergency Response Organization's ambulance or through their mutual aid equipment to pre-designated area hospitals.

##### **G-5e(3) Ambulance Service, 2nd and 3rd Shifts, Weekends, Holidays, Vacation Shutdown**

Ambulance service is provided during second and third shifts, weekends, and holidays

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in the same manner as during regular day shift hours.

#### G-6 COORDINATION AGREEMENTS

~~The FEMP participates in a mutual aid agreement with other emergency organizations within the FEMP site area and provides assistance to these organizations in the event of a major fire or other serious emergency.~~

A contract has been awarded to a local off-site emergency response agency. This agency is responsible for the emergency response at the site when facility response can not mitigate the event. Any mutual aid agreements are the responsibility of the Subcontracted Emergency Response Organization. The Subcontracted Community Emergency Response Organization has Off-site emergency organizations have signed mutual aid agreements with other agencies and/or have agreed to provide needed assistance to the FCP FEMP at local, county, state and federal levels. Copies of the current agreements are included as Attachment G-1. A list of participants in mutual aid agreements, pre-fixed by the acronym "MuAid", is provided in the list of Off-site Organizations in Table G-1. Attachment G-3 contains information regarding the contract with the Crosby Township Fire Department and Life Squad and the current letters of agreement with Mercy Franciscan Hospital-Mount Airy (formerly Providence Hospital) and University Hospital.

Off-site organizations have been provided information of facility layouts, associated hazardous areas, entrances to the facility and primary evacuation routes to facilitate emergency response. Hospitals have been familiarized with the types of injuries and illnesses which may potentially occur at the facility. In addition, off-site responders are provided with annually updated facility layouts, evacuation routes, floor plans, etc., and are invited to participate in joint emergency exercises conducted every three years (more often if changing conditions warrant). The FCP Emergency Preparedness holds a quarterly meeting to ensure an adequate level of integrated planning among the FCP FEMP and the off-site emergency organizations.

The Incident Commander ~~Emergency Coordinator/AEDO~~ will request the ~~Communications Center Operator~~ to initiate the call-in of additional mutual aid assistance as needed. Equipment dispatched for

such requests operate under the immediate supervision of the responder's senior on-scene official, but under the general direction of the requester's senior on-site official.

The Communications Center Operator, in the event of Contingency Plan Implementation and at the request of the Emergency Coordinator/AEDO, shall request additional assistance by calling one or more of the off-site organizations' telephone numbers listed in Table G-1; see Figure G-4 for interrelationships between these organizations.

**G-7 EVACUATION PLAN**

**EVACUATION OF RCRA FACILITIES**

Personnel will respond to voice warnings from a supervisor, audible alarms, or (when alone without supervision) to their own cognition of the events without the benefit of signals. As determined by the Emergency Coordinator/AEDO, personnel may have to evacuate to their rally point. Personnel will be instructed as to what action to take, if further movement is necessary. A discussion and maps of the evacuation routes and rally points are provided for each area used to manage hazardous waste HWMU in Attachment G-1.

**GENERAL EVACUATION**

All major emergencies require prompt and deliberate action. Following an established set of procedures is required, in the event of any major emergency, for the safe evacuation of personnel. In specific emergency situations, however, the Emergency Coordinator/AEDO may deviate from the procedures to provide a more effective plan for bringing the situation under control. The Emergency Coordinator/AEDO is responsible for advising Management of the necessity for any evacuation.

The following actions, in the event that a facility evacuation is required, will be taken by those present: ~~in the Hazardous Waste Management Unit (HWMU) areas:~~

- (A) The Sitewide Alarm System will be activated at the Communications Center followed by an announcement over the emergency message system.

- (B) Employees shall carry out assigned responsibilities during an emergency shutdown. For example, individuals may have assignments to shut off fuel gas, water, steam, electricity and/or perform other special duties.
- (C) All employees will report to their predetermined rally point for accountability and further instruction. Should the emergency involve a nuclear criticality, all employees will report instead to the specific locations indicated in the Site Criticality Procedure.

**G-8 REPORTS**

Certain notifications and reports may be required by the regulatory authorities, in the event of an emergency that requires implementation of the Contingency Plan. Section G-4a describes the oral notifications and written reports required upon the implementation of the Contingency Plan. Any one or more of these reports may be required depending on the nature and extent of the emergency. Current record keeping/reporting procedures are maintained in the Operating Record.

**G-8a Required Written Reports**

**GENERAL INCIDENT REPORTING**

The FCP FEMP will note in its operating and event reporting records, the time, date, and details of any incident that requires implementation of this Contingency Plan. Within 15 days after an occurrence of an incident, a written report describing the implementation of the Contingency Plan (Form B Notification to Ohio EPA of Implementation of Contingency Plan) is required to be submitted to the Ohio EPA by the FCP FEMP as outlined in Section G-4a. An example of Form B is shown in Figure G-10.

**RESUMPTION OF OPERATIONS REPORTING**

The State regulatory authority shall be notified of the readiness to resume hazardous waste operations by using Form C (Written Notice to Ohio EPA and Appropriate Local Authorities of Resumption of Hazardous Waste Operations). Prior to notification, the equipment must be returned to a clean and serviceable condition (as described in Section G-4h). An example of Form C is shown in Figure G-11.

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#### G-9 AMENDING THE CONTINGENCY PLAN

The FCP will amend the plan and distribute regulatory compliance group has the responsibility for amending the plan, and distributing amended copies, when any of the following occur:

- a) The plan fails in an emergency; or,
- b) The list of emergency coordinators changes; or,
- c) The list of emergency equipment changes; or,
- d) Changes in the facility increase the potential for fires, explosions, or releases of hazardous waste, or change the response necessary in an emergency.

Table G-1

Emergency Operation Personnel & Organizations

EMERGENCY COORDINATORS/ASSISTANT EMERGENCY DUTY OFFICERS  
(Utility Engineers)

<u>NAME</u>	<u>HOME PAGER*</u>	<u>OFFICE</u>	<u>HOME ADDRESS</u>	<u>TELEPHONE</u>
Sharon Kohler**	303-3020	4165	[REDACTED]	[REDACTED]
William Prues**	303-3091	4295	[REDACTED]	[REDACTED]
Duckworth, R.	303-3029	4749	[REDACTED]	[REDACTED]
Bierman, J	303-3009	4749	[REDACTED]	[REDACTED]
McCool, D.	303-3067	4749	[REDACTED]	[REDACTED]
Stacey, E.	303-3113	4749	[REDACTED]	[REDACTED]

\* The most effective means for reaching the on-site Emergency Coordinator/AEDO is via pager, or Radio #202. The on duty Emergency Coordinator/AEDO may also be reached by:

- o radio through the 24-hour-staffed FEMP Communications Center
- o office, (513) 648-4749,
- o portable cellular telephone, (513) 484-2294, or
- o mobile vehicle cellular telephone, (513) 484-2295, or (513) 484-2296

There is an Emergency Coordinator/AEDO on-site at all times, 24 hours per day, 365 days per year. The home addresses and telephone numbers of all Emergency Coordinator/AEDOs (and other Emergency Operations personnel as well) are available on-site from the Communications Center or the Emergency Operations Center, if, for some reason, an off-duty Emergency Coordinator/AEDO would need to be reached.

\*\* S. Kohler W. Prues is the Safety and Health Program Manager, has been designated the Emergency Coordinator. The on-site/on-duty Emergency Coordinator/AEDO at the time of an incident will be the primary incident commander for that incident

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Table G-1

OTHER

All Emergencies .....	(513) 648-6511
FEMP Communications Center .....	(513) 648-4444
DOE Site Office.....	(513) 648-3155
Security Office.....	(513) 648-5614
Fire & Safety Vehicle #301.....	(513) 484-2210
Industrial Hygiene Office (Waste Management Activities) .....	<del>(513) 648-4249</del> <b>(513) 648-4924</b>
Radiological Control Techs Portable .....	(513) 648-4987
Medical Office .....	(513) 648-4433
Release Evaluator (Pager) Evaluators (Office).....	<del>(513) 648-4204</del> <b>(513) 303-3880</b>
Spradlin, T (Pager).....	<del>(513) 303-3112</del>
Campbell, Greg (Pager).....	<del>(513) 303-3016</del>
US EPA Region 5 .....	<del>(312) 353-2000</del> <b>(312) 353-2318</b>
US EPA RCRA Hotline .....	(800) 424-9346

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Table G-1

Off-Site Emergency Operation Organizations

OFF-SITE NOTIFICATION

**DEPARTMENT OF ENERGY**

DOE Headquarters, Washington, D.C.....	(202) 586-5000
DOE Headquarters Emergency Operations Center .....	(202) 586-8100
DOE Ohio Field Office .....	<del>(937) 866-3020</del>
	<b>(513) 246-0021</b>

**STATE OF OHIO**

Ohio Emergency Management Agency .....	(614) 889-7150
Ohio EPA Emergency Response Center (Spill Reporting Hotline) .....	(800) 282-9378
Ohio EPA Columbus (Division Emergency Remedial Response) .....	(614) 644-2924
Ohio EPA Southwest District Office .....	(937) 285-6357
	or (800) 686-8930
Ohio Department of Health .....	(614) 466-3543
Ohio State Highway Patrol .....	(513) 863-4606
<del>ORSANCO .....</del>	<del>(513) 231-7719</del>
Ohio State Fire Marshall .....	(800) 686-0736



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Table G-1

## Off-Site Emergency Operation Organizations

**EMERGENCY MEDICAL SERVICE - CONTINUED**

~~University Hospital.....(513) 584-4571~~  
~~University Air Care.....(800) 826-8100 or (513) 584-7522~~

**LOCAL AMBULANCE**

~~Butler County ..... 911 or (513) 785-1300~~  
~~Hamilton County (Dispatch Center) ..... 911 or (513) 825-2260~~  
~~MuAid: Crosby Township Life Squad Mobile Telephone ..... 911 or (513) 977-6337~~

**LOCAL HOSPITALS**

~~MuAid: Mercy Franciscan (Mt. Airy) - Emergency Room ..... (513) 853-5222~~  
~~MuAid: University - Emergency Room ..... (513) 584-5700~~

**EMERGENCY CARE CENTER**

~~Mercy Franciscan Ambulatory Care Unit (Harrison) ..... (513) 367-2222~~

**EMERGENCY HELICOPTER SERVICE**

~~MuAid: University Air Care ..... (800) 826-8100~~

**OTHER AGENCIES**

~~Chemical Referral Center, CMA ..... (800) 262-8200~~  
~~Coast Guard/DOT National Response Center ..... (800) 424-8802~~  
~~National Weather Service (Wilmington) ..... (937) 383-0031~~

~~N.O.A.A. .... (513) 283-3195~~

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OTHER AGENCIES - CONTINUED

RCRA/EPCRA Superfund Call Center .....	<del>(800) 535-0202</del> <u>(800) 424-9346</u>
American Red Cross .....	(513) 579-3000
Chemtrec .....	(800) 424-9300

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Table G-2

The FCP FEMP Emergency Organization Roster

**EMERGENCY RESPONSE TEAM**

Assistant Emergency Duty Officer/~~Emergency Coordinator~~  
~~Emergency Chief~~  
~~Subcontracted Community Emergency Response Personnel~~  
 Firefighters  
 Driver-Operators  
 Emergency Medical Technicians

**ADDITIONAL SUPPORT PERSONNEL to the EMERGENCY RESPONSE TEAM**

Radiological Safety Technicians (As Needed)  
 Industrial Hygiene Technicians (As Needed)

**ADDITIONAL FIELD PERSONNEL**

**Operations Response**

Plant Supervisors  
 Facility Owner  
 Operations Personnel

**Security Response**

Shift Lieutenant  
 Security Officers  
 Security Support Group

**COMMUNICATIONS CENTER**

Communication Technician  
 Honeywell Alarm Technician

**EMERGENCY OPERATIONS CENTER**

Emergency Duty Officer  
 DOE Site Manager  
 Emergency Director  
 Emergency Management Advisor  
 Deputy Emergency Director  
 Safety and Health Advisor  
 Safety and Health Support  
 Meteorologist  
 Operations Advisor  
 Environmental Advisor  
 Public Information Advisor  
 Public Information Support  
 Security Advisor  
 DOE Liaison  
 Off-site Notification Officer (2)  
~~Off-site Liaison(2)~~

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The FCP FEMP Emergency Organization Roster  
(continued)

**EMERGENCY OPERATIONS CENTER (Continued)**

Field Communicator  
Information Plotters  
Runners  
Historian  
Administrative Support

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**Table G-3**  
**Emergency Respiratory Equipment**

<b><u>DESCRIPTION</u></b>	<b><u>TYPICAL APPLICATION</u></b>	<b><u>LIMITATIONS</u></b>
<p><b>Air-purifying full-face MSA Ultratwin respirator</b> equipped with cartridges approved for HF, organic vapors, acid gases, ammonia, amines, formaldehydes, radionuclide aerosols not exceeding 100 times DOE limits in 10 CFR 835 or other highly toxic particulates.</p>	<p>Environments containing relatively low HF concentrations, radionuclides or other highly toxic particulate contaminants including UF<sub>6</sub>.</p>	<p>Only approved for relatively low concentrations of gases, vapors, and particulate contaminants. Wearers must be satisfactorily fit-tested prior to use.</p>
<p><b>Airline full-face mask respirator</b> or hooded airline respirator.</p>	<p>Environments containing relatively high but not immediately dangerous to life and health (IDLH) concentrations of contaminants.</p>	<p>Requires CGA-Grade D breathing air supply. Length of airline hose station and wearer must not exceed 300 feet. May only be used in confined spaces when equipped with 5-minute compressed air escape bottle.</p>
<p><b>Full-faced self-contained breathing apparatus (SCBA)</b> or positive pressure supplied air respirator equipped with 5-minute compressed air escape bottle.</p>	<p>Environments with IDLH or unknown concentrations of air contaminants.</p>	<p>Air supply in (SCBA) air bottle is limited to 30 or 60 minutes. This equipment must be used in 2-man teams, with at least one additional worker outside IDLH area (two workers outside area for fire-fighting). Wearer must be judged physically fit enough to wear 40 pound SCBA and protective clothing. Wearers must also be trained and drilled in use of this equipment.</p>

NOTE: All personnel must be fit-tested for the proper size of respirator before use. A training session must also be attended prior to fit-testing on the types and uses of equipment available.

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Table G-4

Types of Pressurized Fire Extinguishers

<u>DESCRIPTION</u>	<u>TYPICAL APPLICATION</u>	<u>LIMITATIONS</u>
Pressurized water	Class A fires including wood, paper, trash, etc.	Not suitable for flammable liquid (Class B), electrical (Class C), or metal (Class D) fires.
Pressurized CO <sub>2</sub>	Flammable liquid (Class B) and electrical (Class C) fires.	Not suitable for Class A or Class D fires.
Pressurized dry chemical	Paper, wood, some plastics (Class A) Flammable liquid (Class B) and electrical (Class C) fires.	Not suitable for Class D fires.
Pressurized MetL-X	Metal (Class D) fires.	For metal fires only.

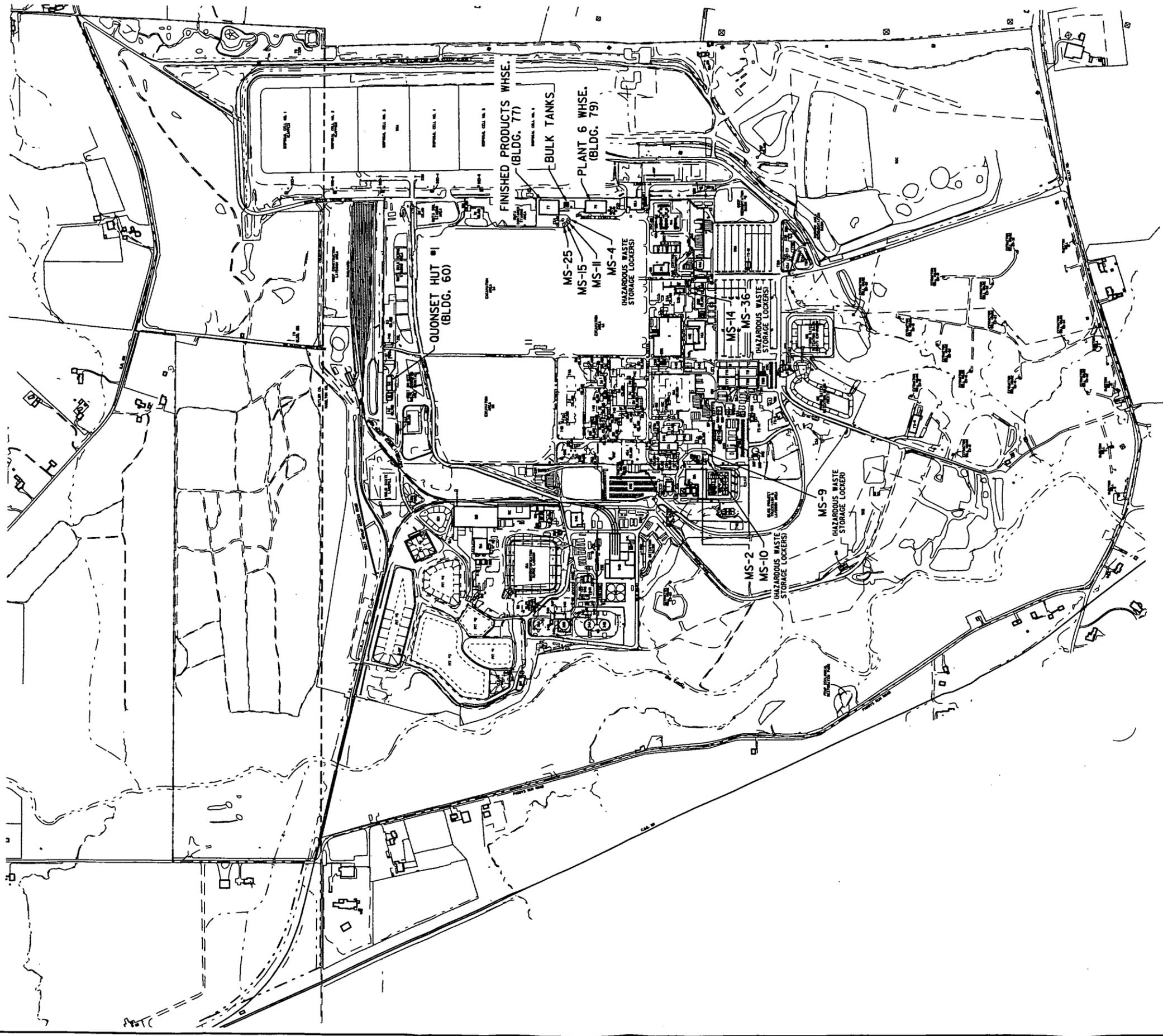
Figure G-7

**Activation methods for all elements of the Emergency Response Organization**

Emergency Response Organization Elements	Pager Group(s)	Activation Method		Approximate Response Time	
		Primary	Backup	Onsite	Offsite
<b>AEDO</b>	All	ERT Pager or radio	Pager, EMS or telephone	Immediate upon notification	Variable, < 45 minutes
<b>EDO</b>	1 & 2	Pager	Telephone		
<b>EOC Staff</b>	1 and/or 2				
<b>Emergency Response Team</b>	3	ERT Pager or radio	Pager, EMS or telephone		
<b>Medical</b>	3				
<b>Security and Accountability</b>	4				
<b>Monitoring Team</b>	5	Pager	Telephone		
<b>Release Evaluator</b>	None	Pager	Telephone		
<b>Public Affairs</b>	1 & 2	Pager	Telephone		
<b>Offsite Responder Mutual Aid</b>	N/A	Crosby Twp. Radio otherwise telephone request	Radio request	Onsite in 10 to 30 minutes	

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NO.		REVISIONS		DATE/DWN. BY	APPD.	REF.	DWG. NO.
FLUOR FERNALD CAD DRAWING DO NOT REVISE MANUALLY.							
CONVENTIONAL DRAWING		DATE		CONSULT ENGINEER		SITE	
APPROVALS		SHEET NO.		DATE		APPROVED	
CIVIL & STR.		ELECTRICAL		ENGINEER		MECHANICAL	
MAINTENANCE		FIRE PROTECT.		WASTE MNGR.		PROJECTS	
Fernald Closure Project <b>FLUOR FERNALD, INC.</b> U.S. DEPARTMENT OF ENERGY							
SITE PLAN				RCRA PART B			
PERMITTED RCRA STORAGE UNITS				FIGURE G-1			
SCALE: 1" = 300'-0"				DATE: 3/03/04			
DRAWN: ELSMOCK				FILE NAME: /RES/305/G2004.DGN			

FIGURE G-2

# FCP EMERGENCY RESPONSE ORGANIZATION

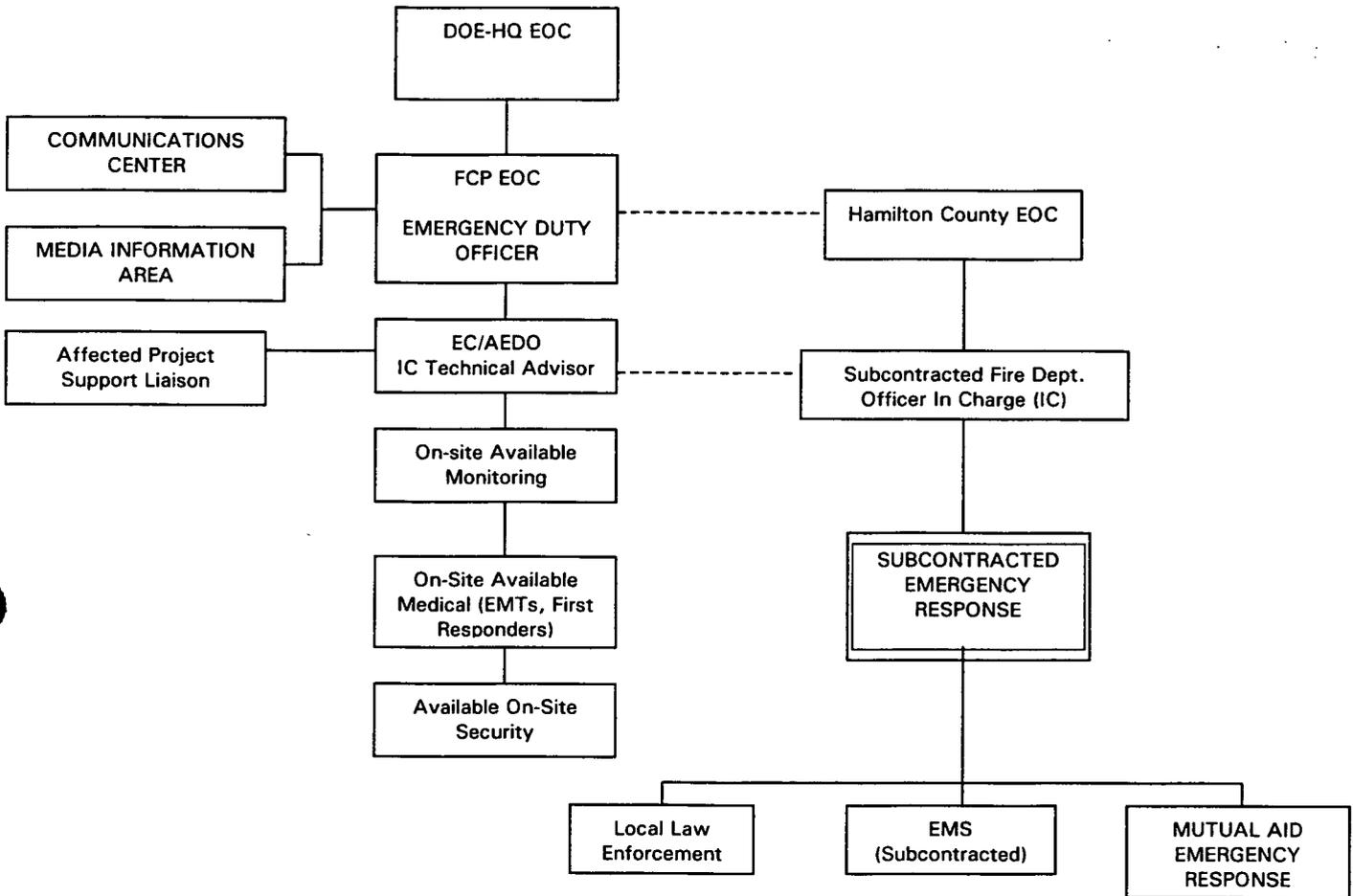


FIGURE G-3

# EMERGENCY COORDINATION FLOW

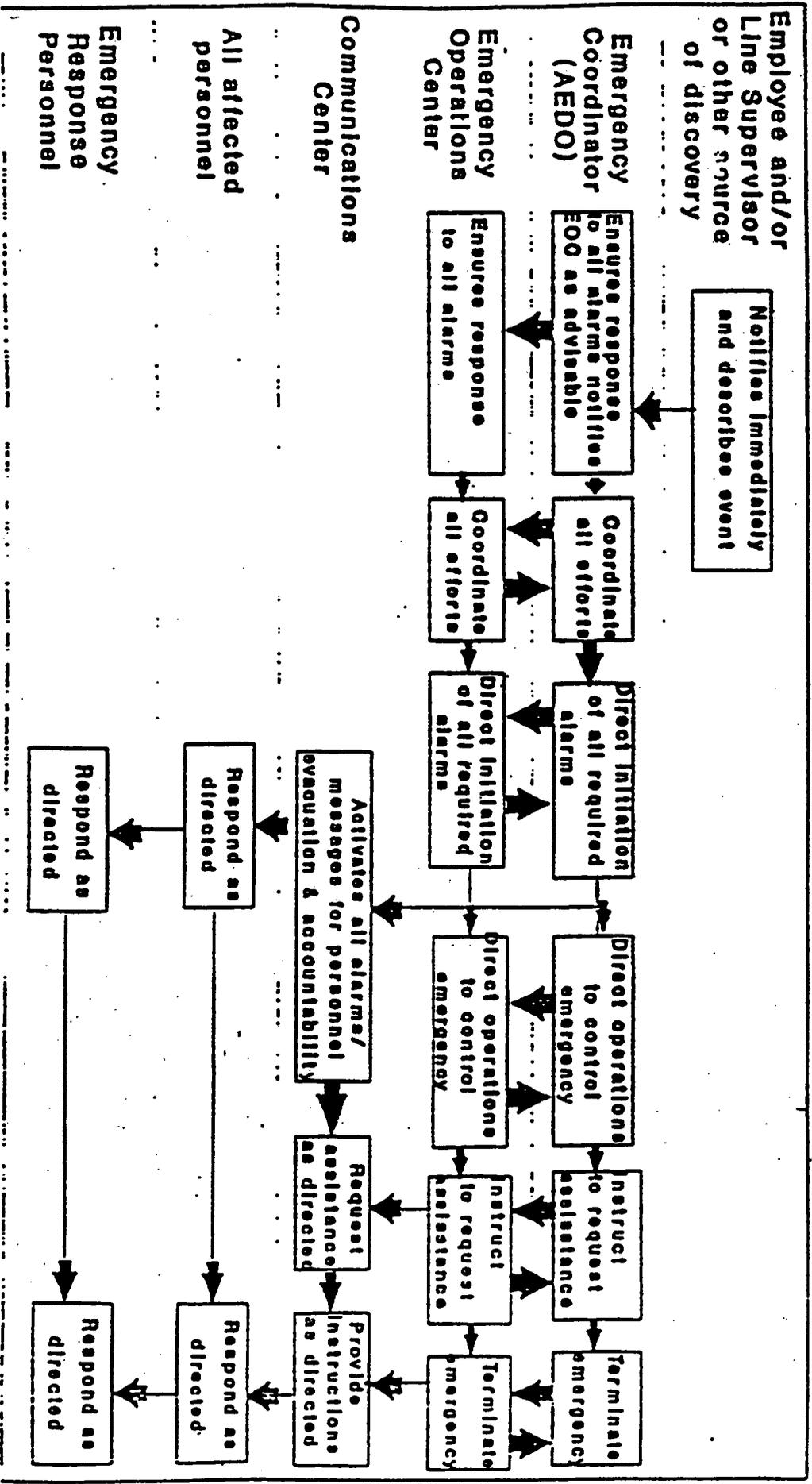


FIGURE G-3.1

Training and Participation Requirements

	Drills & Exercises	EMT - State of Ohio	Firefighter -NFPA	HazMat -NFPA	Incident Command	GET/HAZ WOPER	EOC Staff	JIC Training
Administrative Support								
AEDO								
Comm Center Staff								
Emergency Chief								
Emergency Director								
Emer. Mgmt. Advisor								
ERT								
Employees								
Deputy Emergency								
DOE-FCP FEMP Manager								
DOE Liaison								
Environmental Advisor								
EOC (County & State)	Invited					Invited		
Field Communicator								
Historian								
Information Officer								
Medical Staff								
Meteorologist								
Monitoring Teams								
Mutual Aid Responders	Invited	Invited	Invited	Invited	Invited			
Off-Site Notification								
Operations								
Plotter								
Public Information								
Safety & Health								
S & H Support								
Security								
Visitors								
Key	Full participation req'd			Some participation			Invited	

Figure IS NOT intended to be inclusive of all training that may be required for each position.

FIGURE G-4

Requirements for Notification and Reporting

Notifications and Reporting	Non Emergency			Emergency		
	Loggable Event	Off Normal	Unusual	Alert	Site Area	General
<b>Notification Requirements</b>						
AEDO	Consults with EDO			Activates EOC		
Butler County	Notification by Agreement			15 Minutes		
DOE-Fernald						
DOE-HQ						
DOE-OH			2 Hours			
EDO	Consults with AEDO			Activates EOC		
Hamilton County	Notification by Agreement			15 Minutes		
Occurrence Reporting Team		6 Working hours				
Public Affairs	24 Hours or next working day			EOC		
Release Evaluator	Notified Immediately for Spills only					
State of Ohio				15 Minutes		
<b>Reporting Requirements</b>						
AEDO Log	All events entered in daily log					
Notification Report		Required for all events				
Daily Operations Report						
Final Report						

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FIGURE G-5.2

**GENERAL DESCRIPTION**

Operational Emergency levels and four types of actions are described in the FEMP EAL Guides:

*Radiological Events - Criteria*

Radiological Events	Alert	Site Area	General
<p><b>Criteria</b></p>	<p>Loss of accountable special nuclear material</p> <p>Unplanned release of radioactive material projected to result in an exposure at the facility boundary <math>\geq 100</math> mrem TEDE but <math>&lt; 1</math> rem TEDE</p> <p>Unplanned breach of Silos 1, 2, or 3 resulting in a projected exposure at the facility boundary <math>\geq 100</math> mrem TEDE but <math>&lt; 1</math> rem TEDE</p>	<p>Unplanned release of radioactive material projected to result in an exposure at the facility boundary <math>\geq 1</math> rem TEDE</p> <p>Unplanned breach of Silos 1, 2, or 3 resulting in a projected exposure at the facility boundary <math>\geq 1</math> rem TEDE</p>	<p>Unplanned release of radioactive material projected to result in an exposure at the site boundary <math>\geq 1</math> rem TEDE or <math>\geq 5</math> rem thyroid.</p>
<p><b>Onsite - Protective Actions</b></p>	<p>Shelter in place if possible, evacuate immediate danger area</p> <p>Rally point accountability</p> <p>Employee announcement</p> <p>Bioassay at termination</p>		
<p><b>Offsite - Protective Actions</b></p>	<p>Update counties and state regularly</p> <p>Monitoring onsite and/or offsite</p>		<p>Activate offsite warning system</p> <p>Issue Protective Active Recommendations</p> <p>Implement RCRA plan applicable</p>
<p><b>Event Mitigation Actions</b></p>	<p>Contain event</p> <p>Isolate area</p> <p>Terminate release</p> <p>Monitor onsite/offsite</p> <p>Clean up</p>		
<p><b>Response Groups</b></p>	<p>Emergency Duty Officers</p> <p>Emergency Operations Center</p> <p>Monitoring teams</p> <p>Security (Recall)</p> <p>Medical (Recall)</p> <p>Emergency Response Team (Recall)</p> <p>Mutual Aid (as needed)</p>		

000076

FIGURE G-5.2

*Hazardous Material Events - Criteria*

Hazardous Material Events	Alert	Site Area	General
<p><b>Criteria</b></p>	<p>Unplanned release of a hazardous substance resulting in a projected airborne concentration at the facility boundary <math>\geq</math> ERPG-1 and <math>&lt;</math> ERPG-2.                      If ERPG values are not available, projected airborne concentration at the facility boundary <math>\geq</math> TEEL-1 and <math>&lt;</math> TEEL-2 values.</p>	<p>Unplanned release of a hazardous substance resulting in a projected airborne concentration between the facility boundary and the site boundary is <math>\geq</math> ERPG-2.                      If ERPG values are not available, <math>\geq</math> TEEL-2.</p>	<p>Unplanned release of a hazardous substance resulting in a projected airborne concentration at the site boundary is <math>\geq</math> ERPG-2. If ERPG values are not available, <math>\geq</math> TEEL-2.</p>

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FIGURE G-5.2

*Hazardous Material Events - Actions*

Hazardous Material Events	Alert	Site Area	General
<b>Onsite - Protective Actions</b>	Shelter in place if possible, evacuate immediate danger area. Rally point accountability. Employee announcement. Bioassay at termination.		
<b>Offsite - Protective Actions</b>	Update counties and state regularly. Monitoring onsite and/or offsite.		Activate offsite warning system. Issue Protective Active Recommendations.
<b>Event Mitigation Actions</b>	Contain event. Isolate area. Terminate release. Monitor onsite/offsite. Implement RCRA plan applicable. Clean up.		
<b>Response Groups</b>	Emergency Duty Officers Emergency Operations Center Monitoring teams Security (Recall) Medical (Recall) Emergency Response Team (Recall) Mutual Aid (as needed)		

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FIGURE G-5.2

*Health & Safety - Criteria*

Health & Safety	Operational Emergency
<p><b>Criteria</b></p>	<p>The following events or conditions represent, cause, or have the potential to cause serious health and safety impacts to workers or members of the public.</p> <p>Radioactive or other hazardous material contamination that is causing or may reasonably be expected to cause uncontrolled personnel exposures exceeding protective action criteria.</p> <p>An offsite hazardous material event not associated with DOE operations that is observed to have or is predicted to have an impact on a DOE site such that protective actions are required for onsite DOE workers.</p> <p>An occurrence that causes or can reasonably be expected to cause significant structural damage to DOE facilities, with confirmed or suspected personnel injury or death or substantial degradation of health and safety.</p> <p>Any facility evacuation in response to an actual occurrence that requires time-urgent response by specialist personnel, such as hazardous material responders or mutual aid groups not normally assigned to the affected facility.</p> <p>Any non-transportation-related mass casualty event.</p>

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FIGURE G-5.2

*Health & Safety - Actions*

Health & Safety	Operational Emergency	
Onsite - Protective Actions	Shelter in place if possible, evacuate immediate danger area Rally point accountability Employee announcement Bioassay at termination	
Offsite - Protective Actions	Update counties and state regularly Monitoring onsite and/or offsite	Activate offsite warning system Issue Protective Active Recommendations Implement RCRA plan applicable
Event Mitigation Actions	Contain event Isolate area Terminate release Monitor onsite/offsite Clean up	
Response Groups	Emergency Duty Officers Emergency Operations Center Monitoring teams Security (Recall) Medical (Recall) Emergency Response Team (Recall) Mutual Aid (as needed)	

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FIGURE G-5.2

*Environmental - Criteria*

Environmental	Operational Emergency
<p><b>Criteria</b></p>	<p>The following events or conditions represent, cause, or have the potential to cause serious detrimental effects on the environment.</p> <p>Any actual or potential release of dispersible hazardous material or regulated pollutant to the environment, in a quantity greater than five times the Reportable Quantity (RQ) specified for such material in 40 CFR 302, that could result in significant offsite consequences such as major wildlife kills, wetland degradation, aquifer contamination, or the need to secure downstream water supply intakes.</p> <p>Any release of greater than 1,000 gallons (24 barrels) of oil to inland waters; greater than 10,000 gallons (238 barrels) of oil to coastal waters; or a quantity of oil that could result in significant off-site consequences (e.g., need to relocate people, major wildlife kills, wet-land degradation, aquifer contamination, need to secure downstream water supply intakes, etc.) [Oil as defined by the Clean Water Act (33 U.S.C. 1321) means any kind of oil and includes petroleum.]</p>

*Environmental - Actions*

Environmental	Operational Emergency	
<p><b>Onsite - Protective Actions</b></p>	<p>Shelter in place if possible, evacuate immediate danger area                      Rally point accountability                      Employee announcement                      Bioassay at termination</p>	
<p><b>Offsite - Protective Actions</b></p>	<p>Update counties and state regularly                      Monitoring onsite and/or offsite</p>	<p>Activate offsite warning system                      Issue Protective Active Recommendations                      Implement RCRA plan applicable</p>
<p><b>Event Mitigation Actions</b></p>	<p>Contain event                      Isolate area                      Terminate release                      Monitor onsite/offsite                      Clean up</p>	
<p><b>Response Groups</b></p>	<p>Emergency Duty Officers                      Emergency Operations Center                      Monitoring teams                      Security (Recall)                      Medical (Recall)                      Emergency Response Team (Recall)                      Mutual Aid (as needed)</p>	

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FIGURE G-5.2

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*Offsite Transportation Events - Criteria*

Offsite Transportation Events	Operational Emergency
Criteria	Transportation accident involving a shipment of hazardous or radiological material originating from the FEMP in which the integrity of the shipment is in doubt or cannot readily be determined.

*Offsite Transportation Events - Actions*

Offsite Transportation Events	Operational Emergency
Protective Actions	Offer Protective Action Recommendations to IC Update counties and state regularly in appropriate jurisdiction. Monitoring at event scene (if requested)
Event Mitigation Actions	Support local jurisdictions Public Information Officer Monitoring at event scene (if requested) Contain event (local event) Isolate area (local event) Terminate release (local event) Clean up (local event)
Response Groups	Emergency Duty Officers Emergency Operations Center Monitoring teams Medical (local event) Emergency Response Team (local event)

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**Safeguards & Security Events - Criteria**

Safeguards & Security Events	Operational Emergency
Criteria	<p>The following events or conditions represent, cause, or have the potential to cause degradation of security or safeguards conditions with actual or potential direct harm to people or the environment.</p> <p>Actual unplanned detonation of an explosive device or a credible threatened detonation resulting from the location of a confirmed or suspicious explosive device.</p> <p>Any actual confirmed dissemination/contamination or a credible threat to the site by the use of biological or chemical agents resulting from a malevolent act.</p> <p>An actual terrorist attack or sabotage event involving a DOE site/facility or operation.</p> <p>Kidnapping or the taking of hostage(s) involving a DOE site/facility or operation.</p> <p>Actual theft or loss of a Category I or II quantity of Special Nuclear Materials or other hazardous material that, if released, could endanger workers, the public, or the environment.</p> <p>Damage or destruction of a site or facility by natural or malevolent means sufficient to expose classified information to unauthorized disclosure.</p>

**Safeguards & Security Events - Actions**

Safeguards & Security Events	Operational Emergency
Onsite - Protective Actions	<p>Shelter in place if possible, evacuate immediate danger area.</p> <p>Rally point accountability.</p> <p>Employee announcement.</p> <p>Implement search procedures.</p> <p>Restrict radio communications.</p>
Offsite - Protective Actions	None
Event Mitigation Actions	<p>Implement PL-3055 Fernald Physical Protection Security Plan</p> <p>Isolate area.</p>
Response Groups	<p>Emergency Duty Officers</p> <p>Emergency Operations Center</p> <p>Security (Recall)</p> <p>Assistance from local law enforcement or FBI</p>

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FIGURE G-5.2

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*Other Events - Criteria*

Other Events	Operational Emergency
Criteria	Anytime the AEDO/EDO or DED/ED determine that conditions warrant the declaration of an Operational Emergency

*Other Events - Actions*

Other Events	Operational Emergency	
Onsite - Protective Actions	Shelter in place if possible, evacuate immediate danger area Rally point accountability Employee announcement Bioassay at termination	
Offsite - Protective Actions	Update counties and state regularly Monitoring onsite and/or offsite	Activate offsite warning system Issue Protective Active Recommendations Implement RCRA plan applicable
Event Mitigation Actions	Contain event Isolate area Terminate release Monitor onsite/offsite Clean up	
Response Groups	Emergency Duty Officers Emergency Operations Center Monitoring teams Security (Recall) Medical (Recall) Emergency Response Team (Recall) Mutual Aid (as needed)	

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Figure G-7

Activation methods for all elements of the Emergency Response Organization

Emergency Response Organization Elements	Pager Group(s)	Activation Method		Approximate Response Time	
		Primary	Backup	Onsite	Offsite
<b>AEDO</b>	All	ERT Pager or radio	Pager, EMS or telephone	Immediate upon notification	Variable, < 45 minutes
<b>EDO</b>	1 & 2	Pager	Telephone		
<b>EOC Staff</b>	1 and/or 2				
<b>Emergency Response Team</b>	3	ERT Pager or radio	Pager, EMS or telephone		
<b>Medical</b>	3				
<b>Security and Accountability</b>	4				
<b>Monitoring Team</b>	5	Pager	Telephone		
<b>Release Evaluator</b>	None	Pager	Telephone		
<b>Public Affairs</b>	1 & 2	Pager	Telephone		
<b>Offsite Responder Mutual Aid</b>	N/A	Crosby Twp. Radio otherwise telephone request	Radio request	Onsite in 10 to 30 minutes	

OHIO HAZARDOUS WASTE RELEASE  
FIRE, EXPLOSION REPORT TO OHIO EPA  
OAC 3745-54-56(D)(2)

Ohio EPA

800-282-9378

1. Name of Reporter \_\_\_\_\_
2. Telephone Number of Reporter \_\_\_\_\_
3. Date of Incident \_\_\_\_\_
4. Time of Incident \_\_\_\_\_
5. Type of Incident \_\_\_\_\_
6. Name of Materials to Extent Known \_\_\_\_\_
7. Quantity of Materials to Extent Known \_\_\_\_\_
8. Extent of Injuries, If Any \_\_\_\_\_
9. Possible Hazards to Human Health or the Environment Outside Facility \_\_\_\_\_

EXAMPLE

DATE AND TIME OF CALL AND PERSON RECEIVING CALL

Ohio EPA

Date \_\_\_\_\_ Time \_\_\_\_\_ Person \_\_\_\_\_

NOTIFICATION OF OHIO EPA OF IMPLEMENTATION OF CONTINGENCY PLAN  
OAC 3745-54-56(J)

(Date)

, Director  
Ohio EPA  
1800 WaterMark Drive  
P. O. Box 1049  
Columbus, Ohio 43266-0149

SUBJECT: NOTIFICATION OF IMPLEMENTATION OF FEMP OHIO HAZARDOUS  
WASTE CONTINGENCY PLAN - OAC 3745-54-56(J)

Dear :

The following information is being submitted by the U.S. Department of Energy (DOE) pursuant to OAC 3745-54-56(J). On \_\_\_\_\_, an incident occurred at the Fernald Environmental Management Project (FEMP) which required the implementation of the site's Ohio Hazardous Waste Contingency Plan. The contents of this notice are based on the best available information known at this time.

1. Name, Address, Telephone Number of Origin

U. S. Department of Energy  
Office of Environmental Restoration and Waste Management  
1000 Independence Avenue Southwest  
Washington, D. C. 20585  
(202) 586-5000

2. Name, Address, Telephone Number of Facility

Fernald Environmental Management Project - Site Address  
7400 Willey Road  
Fernald, Ohio 45030  
(513) 738-6200

Fernald Office - Mailing Address  
U. S. Department of Energy  
P.O. BOX 398705  
Cincinnati, Ohio 45239-8705  
(513) 738-6200

3. Date of Incident \_\_\_\_\_

4. Time of Incident \_\_\_\_\_

5. Type of Incident \_\_\_\_\_

6. Name of Materials Involved \_\_\_\_\_

7. Quantity of Materials Involved \_\_\_\_\_

8. Extent of Injuries, If Any \_\_\_\_\_

9. Assessment of Actual or Potential Hazards to Human Health or the Environment, If Applicable

10. Estimated Quantity and Disposition of Recovered Material that Resulted from the Incident

EXAMPLE

Signature

Title

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FORM C

Figure G-11

WRITTEN NOTICE TO OHIO EPA AND APPROPRIATE LOCAL AUTHORITIES  
OF RESUMPTION OF HAZARDOUS WASTE OPERATIONS  
OAC 3745-54-56(F)

(Date)

(Ohio EPA, Hamilton & Butler County Planning Committees)

SUBJECT: NOTIFICATION OF RESUMPTION OF HAZARDOUS WASTE  
OPERATIONS - OAC 3745-5456(F)

This notice is being made to comply with the requirements of OAC 3745-54-56(F).  
On \_\_\_\_\_, there was an OAC 3745-54-56 Emergency Incident at the FEMP  
Environmental Management Project (FEMP) site. The U.S. Department of Energy,  
(DOE) expects to resume operation in the affected areas of the facility on  
\_\_\_\_\_.

No waste which was incompatible with the released materials was treated, stored,  
or disposed of until clean-up procedures were completed. All emergency equipment  
used in the affected area listed in the contingency plan has been cleaned and is  
fit for its intended use.

Signature

Title

## ATTACHMENT G-1

### Emergency Procedures, Site Layout and Equipment Information

Attachment G-1 contains the description of evacuation procedures and general procedures to be followed in the event of an explosion, fire or spill, and a description of the evacuation routes and a listing of safety and emergency equipment for each area currently being used to manage hazardous waste, and site layouts of the hazardous waste management units (HWMUs).

These areas include the following:

- Plant 6 Warehouse (Building 79)
- Hazardous Waste Storage Lockers (9 lockers; 3 locations)
- Liquid Mixed Waste Bulk Tanks
- Quonset Hut #1 (Building 60)
- Finished Products Warehouse (Building 77)

~~Hazardous Waste Management Units for which information is presented are listed below. The listing is followed by a description of the general procedures to be implemented by FEMP personnel in the event of an explosion, fire or spill. The remainder of Attachment G-1 describes the evacuation routes from individual units to Rally Points, and safety and emergency equipment for each hazardous waste storage unit, HWMU, Quonset Hut #1 (Building 60), the Liquid Mixed Waste Project Bulk Tanks, and the 90 Day Hazardous Waste Storage Locker.~~

### Hazardous Waste Management Units

~~The following HWMUs are active storage units for which a permit is being applied for and that have fire and safety and emergency equipment provided at each unit:~~

- ~~HWMU No. 20 Plant 1 Pad~~
- ~~HWMU No. 37 Plant 6 Warehouse (Building 79)~~
- ~~HWMU No. 33 Pilot Plant Warehouse (Building 68)~~

~~The Plant 8 Warehouse (Building 80), and CP Storage Warehouse (Butler Building, Building 56) are also included in the permit application for the storage of containers of hazardous waste. These units are~~

~~currently not being used for hazardous waste storage so that there is minimal safety/emergency equipment identified with these units.~~

~~The following HWMUs are units for which a permit is not being sought. They are included here to present a complete picture of all HWMUs, as discussed on page G-3. Existing fire and safety equipment is listed as available but may not be applicable to each HWMU due to the lack of hazardous waste currently in the area:~~

- ~~• HWMU No. 1 Fire Training Facility~~
- ~~• HWMU No. 4 Drum Storage Area Near Loading Dock (Lab Bldg)~~
- ~~• HWMU No. 5 Drum Storage Area South of W-26 (Lab Bldg)~~
- ~~• HWMU No. 10 NAR System Components~~
- ~~• HWMU No. 11 Tank Farm Sump~~
- ~~• HWMU No. 14 Box Furnace~~
- ~~• HWMU No. 15 Oxidation Furnace #1~~
- ~~• HWMU No. 17 Plant 8 East Drum Storage Pad~~
- ~~• HWMU No. 18 Plant 8 West Drum Storage Pad~~
- ~~• HWMU No. 22 Abandoned Sump West of Pilot Plant~~
- ~~• HWMU No. 27 Waste Pit No. 4~~
- ~~• HWMU No. 36 Storage Pad North of Plant 6~~
- ~~• HWMU No. 42 Waste Pit No. 5~~
- ~~• HWMU No. 47 Uranyl Nitrate Tanks (North of Plant 2)~~
- ~~• HWMU No. 48 Uranyl Nitrate Tanks (Southeast of Plant 2)~~
- ~~• HWMU No. 49 Uranyl Nitrate Tanks (Digestion Area)~~

#### General Information

~~Hazardous Waste Management Unit (HWMU), Quonset Hut #1 (Building 60), the Liquid Mixed Waste Project Bulk Tanks and the 90-Day Hazardous Waste Storage Locker Emergency procedures for areas used to manage hazardous waste~~ are described specifically in this section. Responses to an event are identical for each unit and the details are given for the response to the three types of events:

- 1) an explosion;
- 2) a fire; or

3) a spill of hazardous waste

A response involves the action that endangered personnel must take when encountering an actual or potential explosion, fire, or spill. Personnel may have the knowledge and judgement to discern the severity of the situation. Personnel lacking knowledge sufficient to discern the severity of the situation should immediately move to a safe location and contact the Emergency Coordinator/AEDO. The categorization level of an EVENT may not reach an OPERATIONAL EMERGENCY level, and thus will not cause the implementation of this Contingency Plan. The situation may nevertheless warrant a protective and remediation response. For example, an incident that does not involve the Subcontracted Community Emergency Response Organization Team may be handled by personnel properly trained under the RCRA training curriculum; small spills or fires may be handled by immediate action of the individuals discovering the event. Even events that involve response by the Subcontracted Community Emergency Response Organization Team, if the Emergency Coordinator/AEDO so determines, may not require implementation of this Contingency Plan. See Section G-3 and G-4c for guidelines the Emergency Coordinator/AEDO uses in determining implementation of this Contingency Plan. See Section G-4 of this Contingency Plan for general emergency response procedures.

EVACUATION & SAFETY PLAN FOR FEMP HAZARDOUS WASTE MANAGEMENT UNITS (HWMUs)

1. Purpose and Scope of the Contingency Plan

To protect the lives and property of all personnel inside and in the vicinity of an event at the FCP FEMP, and the prevention of environmental damage.

2. Reason for Activating the Contingency Plan

2.1 Explosion

2.1.1 Any employee who detects an actual or potential explosive situation in the vicinity should immediately alert all nearby workers unless the situation is self evident.

2.1.2 Pull the nearest fire alarm. Report the exact location of the explosion fire to the Communication Center by two-way radio or telephone (Direct line - call 911 or cell phone - call 648-6511), if an alarm box is not near.

- 2.1.3** Leave the area promptly by the least dangerous and most direct or designated route. Continue the escape by evacuating to the designated rally point (Figure G-1) before trying to make a radio report to summon emergency response personnel.
- 2.1.4** Using nearby emergency equipment may not be possible if it is in what appears to be the danger zone.
- 2.1.5** Report the nature of the problem and exact location to the Communication Center by two-way radio or telephone and wait for assistance from the emergency response personnel.
- 2.1.6** Supervisor or senior person in charge should take account of all personnel and summon immediate medical attention to seriously injured personnel.
- 2.1.7** Continue evacuation to the next safe rally point before taking account of all personnel, if it is evident that the explosion poses a threat to the designated Rally Point or if this rally point is downwind in the path of smoke or vapors.
- 2.1.8** Use any available and appropriate emergency equipment such as eyewash and shower, if exposed to fumes, smoke, or other hazardous physical irritations. Notify your supervisor and report to medical personnel in T195 immediately. Anyone who is aware of any exposure to a fellow worker should request immediate medical help for that person.

**2.2** **FIRE**

- 2.2.1** Any employee who detects an actual or potential fire situation in the vicinity should immediately alert all nearby workers.
- 2.2.2** Pull the nearest fire alarm. Report the exact location of the fire to the Communication Center by two-way radio or telephone (**Direct line - call 911 or cell phone - call 648-6511**), if an alarm box is not near.

- 2.2.3 Use available fire fighting equipment to fight the fire until the Fire Department ERT arrives if there is no immediate danger involved and you have proper training.
- 2.2.4 Immediately use available emergency equipment to provide first aid for burns and other minor injuries.
- 2.2.5 Supervisor or senior person in charge should take account of all personnel and summon immediate medical attention to seriously injured personnel.
- 2.2.6 Leave the building quickly and calmly by the least dangerous and most direct or designated route.
- 2.2.7 Evacuate to the designated rally point. Supervisor or senior person in charge should take account of all personnel.
- 2.2.8 Continue evacuation to the next safe rally point, if this rally point is downwind in the path of smoke or fumes, before taking account of all of the personnel.
- 2.2.9 Use any available and appropriate emergency equipment such as eyewash and shower, if exposed to vapors, smoke, or other hazardous physical irritations. Notify your supervisor and report to medical personnel in T195 as soon as possible. Anyone who is aware of any exposure to a fellow worker should see that medical help is provided to that person.

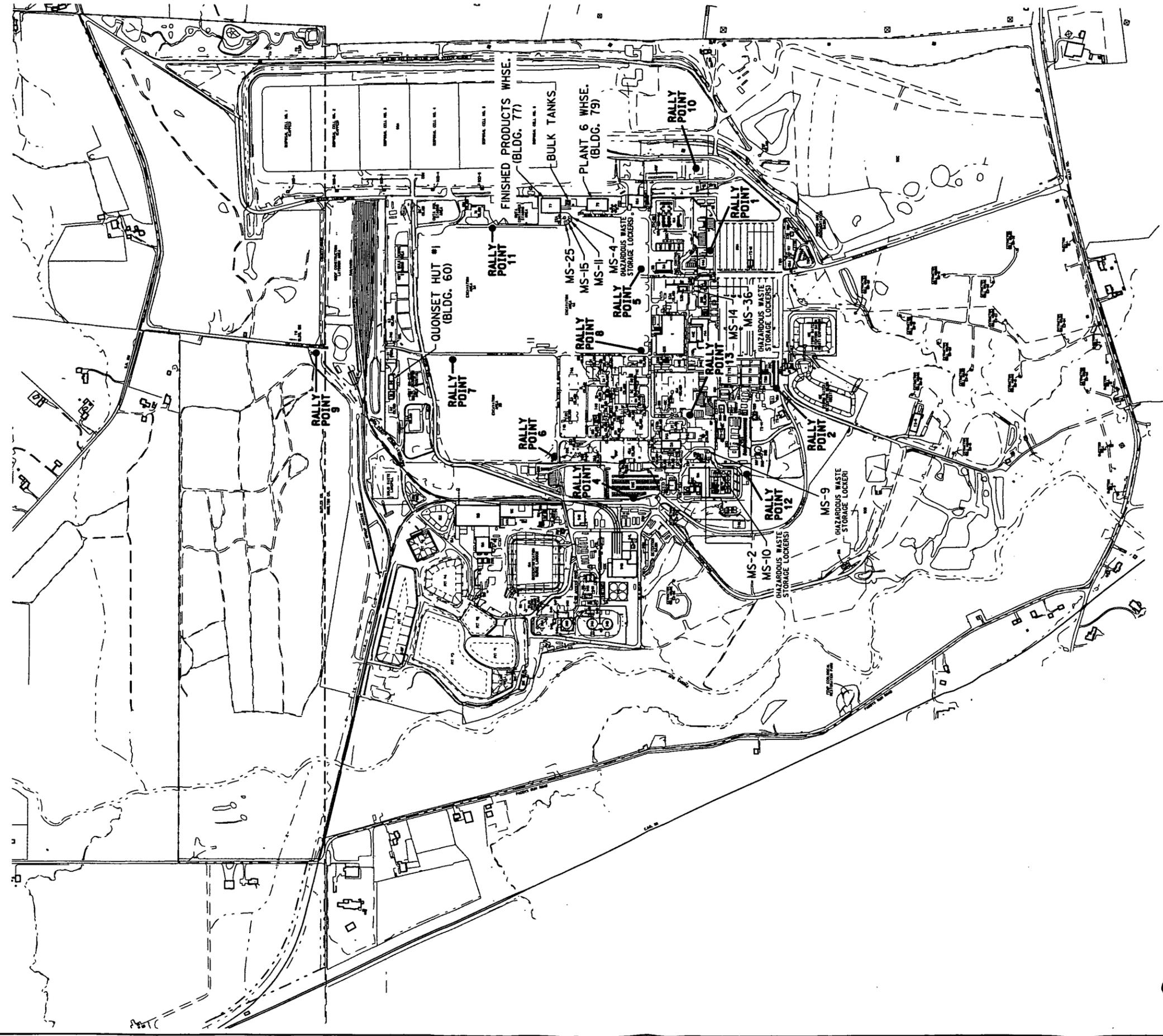
## 2.3 HAZARDOUS WASTE SPILL INCIDENT

### Initial Response

- 2.3.1 Any employee who detects an actual or potential hazardous waste spill situation in the vicinity should immediately alert all nearby workers.

**NOTE: If exposed to waste materials, use appropriate emergency equipment such as eyewash and shower. Notify supervisor and report to Medical.**

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NO.		DATE		BY		APPD.		REF.		DWC. NO.	
REVISIONS											
FLUOR FERNALD CADD DRAWINGS DO NOT REVISE MANUALLY.											
<b>COMPLIANCE DRAWING</b> COMPLIANT DIRECTOR DATE											
CIVIL & STR. ENGINEER ELECTRICAL ENGINEER MECHANICAL ENGINEER SAFETY OFFICER MAINTENANCE FIRE PROTECT. WASTE MNGR PROJECTS											
APPROVALS											
Fernald Closure Project <b>FLUOR FERNALD, INC.</b> U.S. DEPARTMENT OF ENERGY											
SITE PLAN RCRA PART B LOCATION OF FCP RALLY POINTS SCALE: 1" = 300'-0" DATE: 3/20/04 DRAWN: EST/0004 FILE NAME: /RES/0053/RALY2004.DGN											

**2.3.2** If time and conditions permit, conduct an initial evaluation, to determine the extent and seriousness of the event. Take immediate steps, if possible (without risk of injury), to control the source of the discharge, spill, or leak, or to prevent it from migrating. (This may involve such actions as shutting off equipment, closing valves, or using absorbent pads or pigs for blocking/diking).

**NOTE: Employees without specific training or knowledge of the released material or equipment, should not take action to control the spill, which may put their safety, or that of others, at risk.**

**2.3.3** In the event of an emergency incident, contact the Emergency Coordinator/AEDO immediately and evacuate the area.

#### **Hazardous Waste Spill Incident Notification**

**2.3.4** Promptly notify immediate supervision or Emergency Coordinator/AEDO in supervisor's absence, of the magnitude, location, status, and type of material spilled, as well as any other pertinent information.

**2.3.5** For routine spill events/incidents, contact Radiological Safety and/or Industrial Hygiene technicians to perform monitoring and analyses of the spill incident, as necessary, in order to determine material hazards, monitor the extent of contamination, or to specify PPE requirements.

**2.3.6** Initiate spill incident reporting/recording.

#### **Hazardous Waste Spill Incident Cleanup**

**2.3.7** Ensure spill incident cleanup is conducted in accordance with Emergency Coordinator/AEDO's direction and guidance contained in procedures.

#### **SAFETY EQUIPMENT**

**Areas used to manage hazardous waste** HWMUs are supplied with varying levels and amounts of safety equipment depending upon the use, occupancy, and contents of the unit. The remainder of

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Attachment G-1 lists the locations of safety and emergency equipment designated for each area.  
~~HWMU~~. Only personnel with the appropriate training and experience shall utilize the specified safety  
equipment: fire extinguishers, respirators and protective clothing, and spill clean-up equipment.

QUONSET HUT #1 (BUILDING 60)

Quonset Hut #1 is a pre-engineered, single-level structure located in the northern portion of the site, west of the KC-2 Warehouse. It is being used for the bulk storage/treatment of mixed organically-contaminated soil.

Quonset Hut #1 is located inside a remediation area. Personnel should evacuate to the nearest Control Point.

Personnel should evacuate to Rally Point No. 6, which is located at the intersection of 2nd Street and "A" Street. Movement is south on "B" Street, then west on 3rd Street to the intersection of "A" Street.

The following is a list of safety equipment assigned to this unit:

- Eye Wash Station
  - 1) During operations, available to personnel in the area
  
- Spill Cleanup Equipment
  - 1) One Portable spill kit located inside the building

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**HAZARDOUS WASTE STORAGE LOCKERS BY ADVANCED WASTE WATER TREATMENT FACILITY**

Three hazardous waste storage lockers (MS-2, MS-6 and MS-10) are located east of the Advanced Waste Water Treatment Facility. These lockers may be used for the storage of containers of hazardous waste with and without free liquids and ignitable wastes.

Personnel should evacuate to Rally Point No. 12, located south of the Advanced Waste Water Treatment Facility (Building 51). The Alternate Rally Point is No. 13, located by T-207, west of the Building 15 (Laboratory) slab.

The following is a list of safety equipment assigned to this unit:

• **Fire Extinguisher**

- 1) 20# ABC posted outside, west of the storage lockers

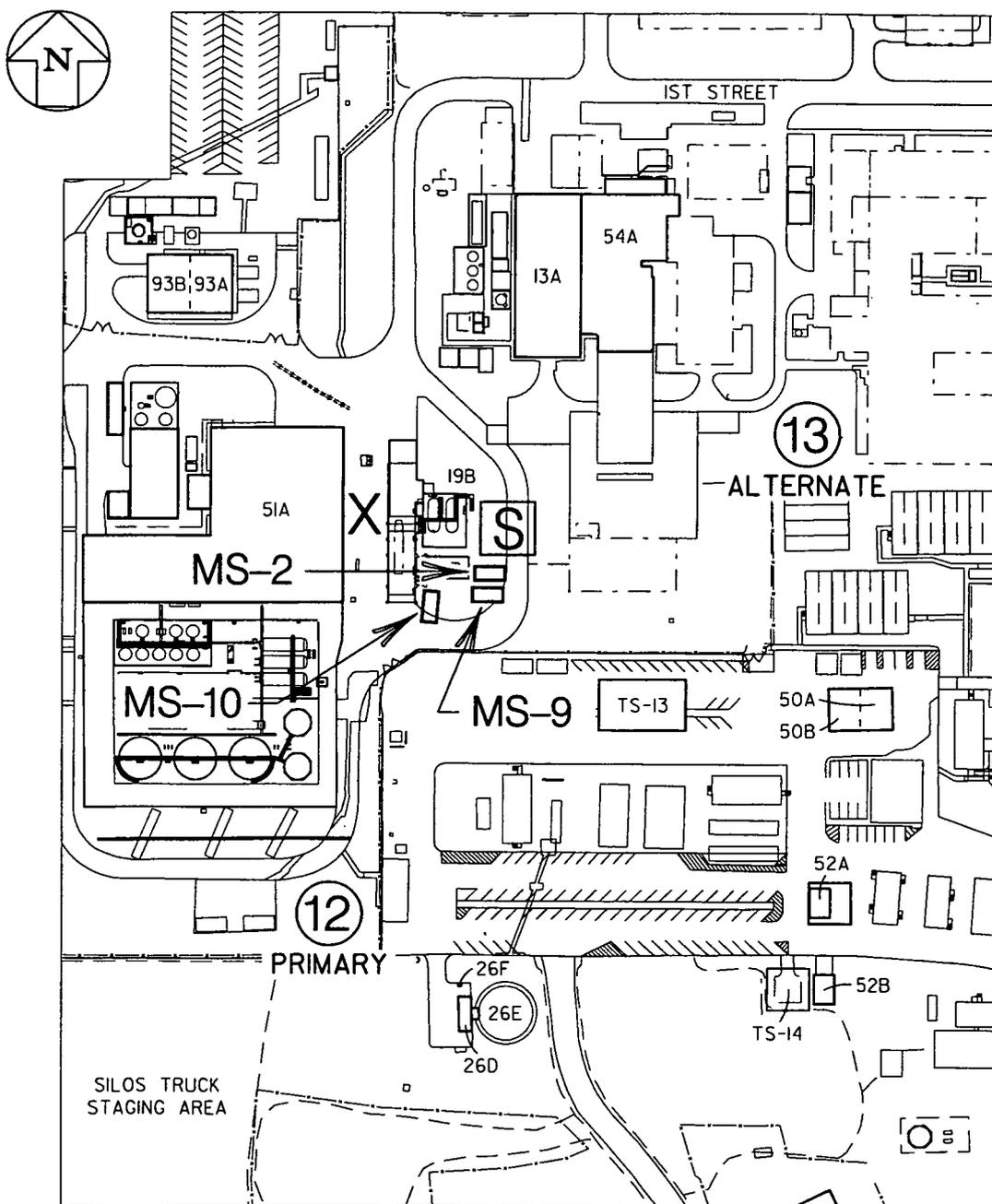
• **Eye Wash Station**

- 1) Available to personnel during operations

• **Spill Cleanup Equipment**

- 1) One Portable spill kit located outside, north of MS-2

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# HAZARDOUS WASTE STORAGE LOCKERS

X FIRE EXTINGUISHER

S SPILL CLEANUP EQUIPMENT

12 RALLY POINT

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### CLEAN-SIDE HAZARDOUS WASTE STORAGE LOCKERS

Two hazardous waste storage lockers (MS-14 and MS-36) are located north of the West Parking Lot. These lockers may be used for the storage of containers of hazardous waste with and without free liquids, PCBs and ignitable wastes.

Personnel should evacuate to Rally Point No. 1, which is located by the east parking lot, south of trailer T-75. The Alternate Rally Point is No. 2, located south of the Medical trailer (T-195).

The following is a list of safety equipment assigned to this unit:

- Fire Extinguisher

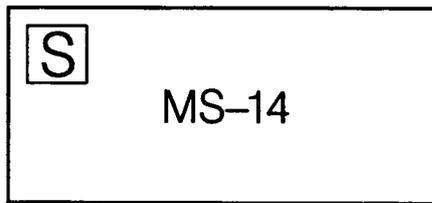
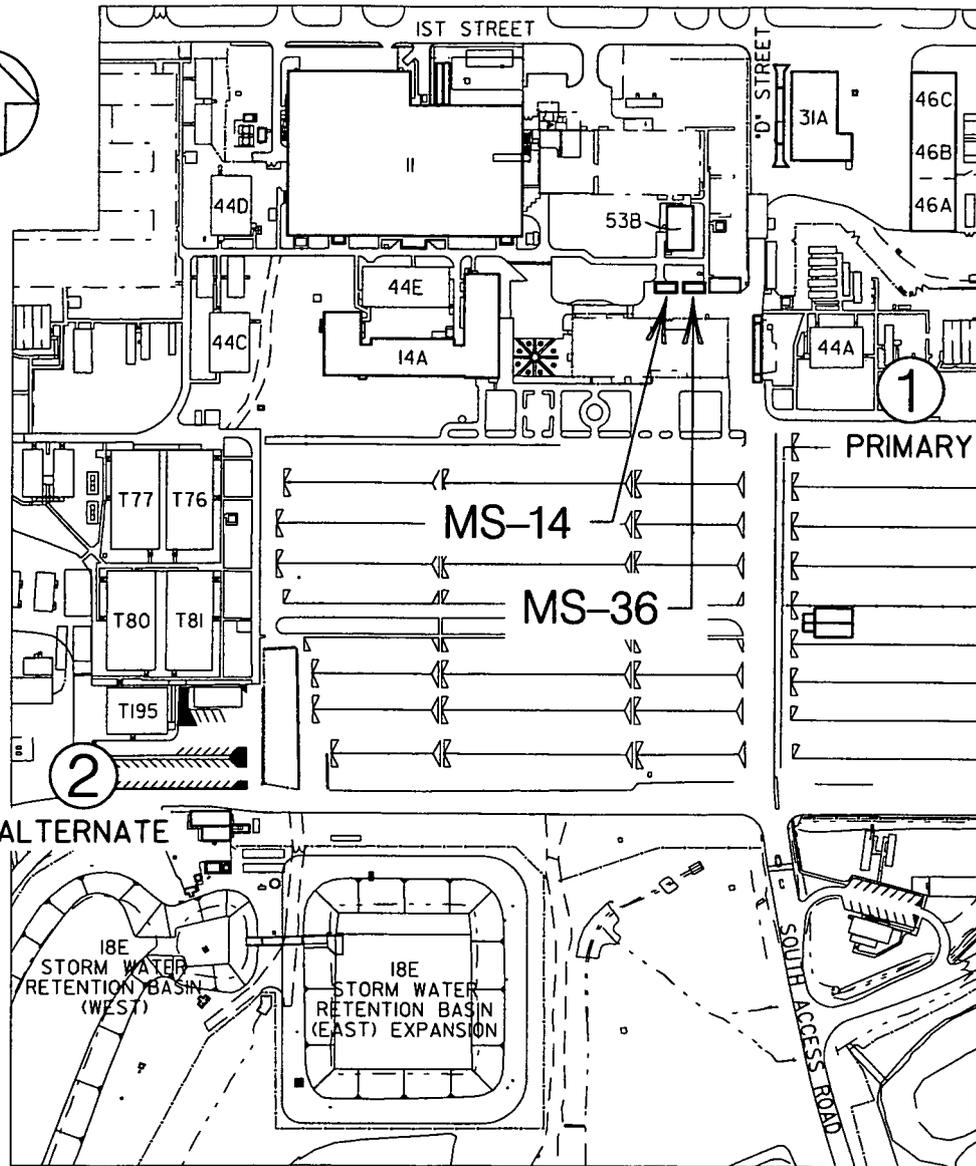
- 1) 20# ABC posted outside, on the south wall of MS-14

- Eye Wash Station

- 1) Available to personnel during operations

- Spill Cleanup Equipment

- 1) One Portable spill kit located inside MS-14



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### CLEAN-SIDE HAZARDOUS WASTE STORAGE LOCKERS

X FIRE EXTINGUISHER

S SPILL CLEANUP EQUIPMENT

1 RALLY POINT

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**LIQUID MIXED WASTE PROJECT BULK TANKS AND HAZARDOUS WASTE STORAGE LOCKERS**

The Liquid Mixed Waste Project Bulk Tanks are located north ~~at the northwest corner outside~~ of Plant 6 Warehouse (HWMU #37). These tanks are used to bulk PCBs/ignitable waste.

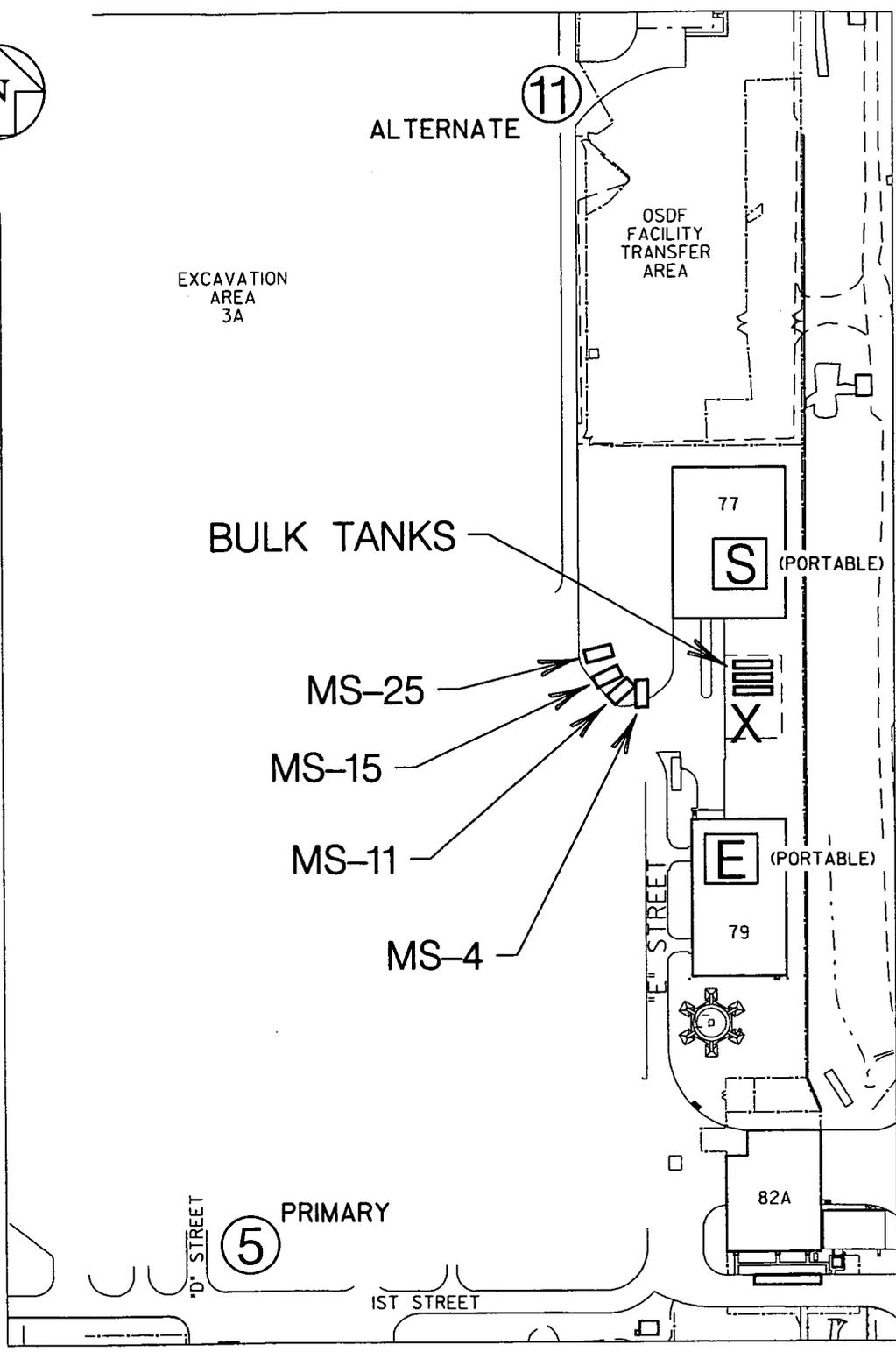
~~Four hazardous waste storage lockers (MS-4, MS-11, MS15 and MS-25) are located northwest of Plant 6 Warehouse. These lockers are used to store containers of hazardous waste with and without free liquids, ignitable waste and PCBs.~~

Personnel should evacuate to Rally Point No. 5. Rally Point No. 5 is located at the intersection of 1st Street and "D" Street. ~~Movement is south on "E" Street and west on 1st Street to Rally Point.~~

The Alternate Rally Point is No. 11. Rally Point No. 11 is located at "E" Street (North), outside the gate of the OSDF Facility Transfer Area. ~~Movement is north on "E" Street, to the gate of the OSDF Facility Transfer Area.~~

The following is a list of safety equipment assigned to the ~~lockers and the~~ bulk tanks:

- Fire Extinguisher
  - 1) 20# ABC posted ~~south~~ ~~in front~~ of the bulk tanks
  
- Eye Wash Station
  - 1) ~~Located in front of the bulk tanks~~ Portable, brought from Building 79
  
- Spill Cleanup Equipment
  - 1) Portable, brought from Building ~~77~~ 79 ~~during bulking~~
  - 2) ~~Additional cleanup equipment is available in Building 79~~



LIQUID MIXED WASTE PROJECT BULK TANKS & HAZARDOUS WASTE STORAGE LOCKERS

- X** FIRE EXTINGUISHER
- 5** RALLY POINT
- E** EYE WASH/SAFETY SHOWER
- S** SPILL CLEANUP EQUIPMENT

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### FINISHED PRODUCTS WAREHOUSE (BUILDING 77)

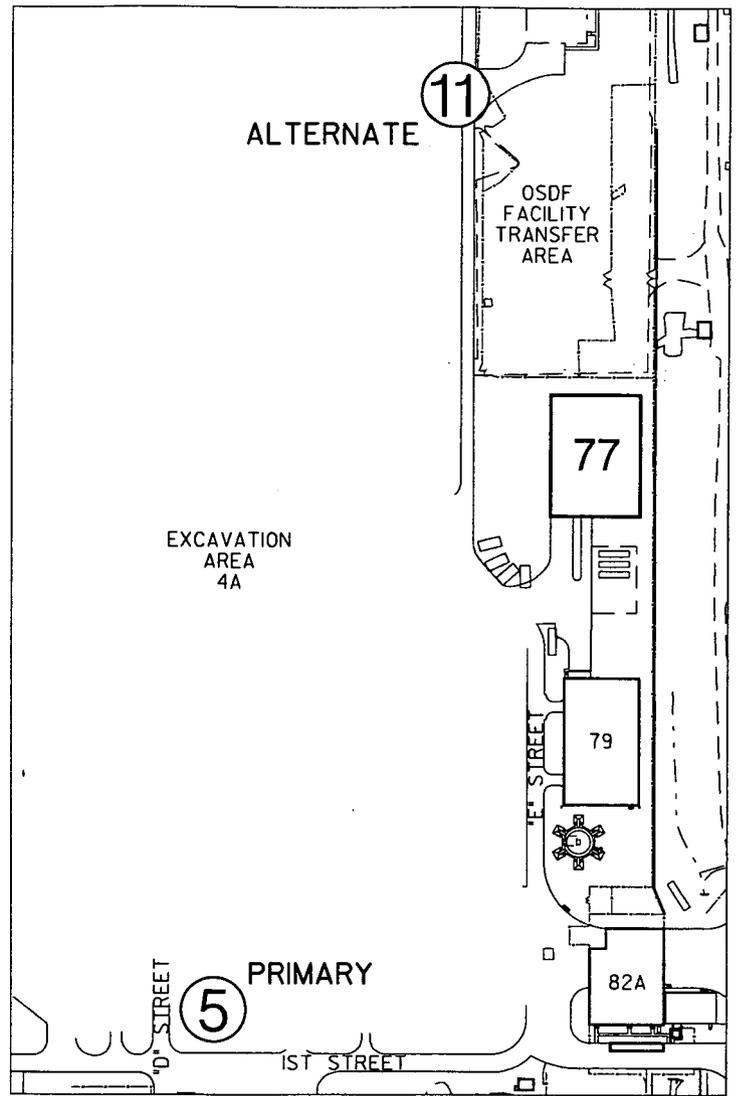
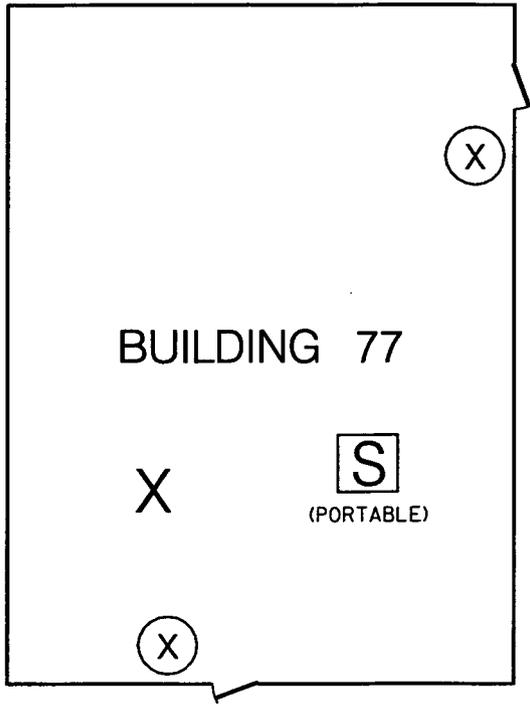
The Finished Products Warehouse (Building 77) is located at the northeast corner of E Street and 2<sup>nd</sup> Street. The building is used to stage containers of hazardous waste prior to off-site shipment.

Personnel should evacuate to Rally Point No. 5. Rally Point No. 5 is located at the intersection of 1st Street and "D" Street.

The Alternate Rally Point is No. 11. Rally Point No. 11 is located at "E" Street (North), outside the gate of the OSDF Facility Transfer Area.

The following is a list of safety equipment assigned to this building:

- Automatic sprinkler system with automatic fire alarms to an attended location
- Manual Fire Alarms
  - 1) By South entrance door
  - 2) By Northeast entrance door
- Fire Extinguisher
  - 1) #20 ABC on a column in the south side of the building
- Eye Wash Station
  - 1) There is one Portable Eye Wash Unit in the building
- Spill Cleanup Equipment
  - 1) There is one portable spill kit in the building



### FINISHED PRODUCTS WAREHOUSE (BLDG. 77)

X FIRE EXTINGUISHER

(5) RALLY POINT

(X) MANUAL FIRE ALARM

(S) SPILL CLEANUP EQUIPMENT

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~~90-DAY HAZARDOUS WASTE STORAGE LOCKER~~

~~The 90-Day Hazardous Waste Storage Locker is a temporary container storage area located east of the Receiving and Incoming Materials Inspection Area (RIMIA). The locker is used to store recyclable materials and hazardous waste that is non-radiologically contaminated for less than ninety days prior to off-site shipment.~~

~~Personnel should evacuate to Rally Point No. 10. Rally Point No. 10 is located north of the North Access Road. Movement to Rally Point No. 10 is south on "F" Street, just before approaching the North Access Road.~~

~~The Alternate Rally Point is No. 5. Rally Point No. 5 is located at the intersection of 1st Street and "D" Street. Movement to Rally Point No. 5 is west of Building 82, south on "E" Street, then west on 1st Street to the intersection of "D" Street.~~

~~● Spill Cleanup Equipment~~

- ~~1) Located inside 90-Day Hazardous Waste Storage Locker~~

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HWMU No. 1 - FIRE TRAINING FACILITY

~~This facility is located due north of the KC-2 Warehouse outside the perimeter fence.~~

~~Personnel should evacuate to Rally Point No. 9. Rally Point No. 9 is located northwest of the Fire Training Facility at the Guard Hut.~~

~~The Alternate Rally Point is No. 1. Rally Point No. 1 is located at the Northeast corner of the FEMP East Parking Lot. Movement is east on the unnamed gravel road to south on the North Access Road to the FEMP East Parking Lot, then north to Rally Point #1 at the Northeast corner of the Parking Lot.~~

~~There is no safety equipment assigned to this unit. Communication devices are available for personnel accessing this unit for emergency notification purposes.~~

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~~HWMU No. 4 - DRUM STORAGE AREA NEAR LOADING DOCK (LAB BLDG.)~~

~~This was a container storage and waste transfer area which operated from 1952 to 1983.~~

~~Personnel should evacuate to Rally Point No. 8. Rally Point No. 8 is located at the intersection of 1st and "B" Street. Movement is north to 1st Street, then east to "B" Street.~~

~~The Alternate Rally Point is No. 6. Rally Point No. 6 is located north of the West Water Tower, at the Waste Pit Area access gate. Movement to Rally Point No. 6 is north to 1st Street, west to "A" Street, then north to 2nd Street and west to the rally point.~~

~~There is no safety equipment assigned to this unit. Communication devices are available for personnel accessing this unit for emergency notification purposes.~~

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~~HWMU No. 5 - DRUM STORAGE AREA SOUTH OF ROOM W-26 (LAB BLDG.)~~

~~This area was located near Building 15 and operated from 1983 to 1989.~~

~~Personnel should evacuate to Rally Point No. 8. Rally Point No. 8 is located at the intersection of 1st and "B" Street. Movement is north to 1st Street, then east to "B" Street.~~

~~The Alternate Rally Point is No. 6. Rally Point No. 6 is located north of the West Water Tower, at the Waste Pit Area access gate. Movement to Rally Point No. 6 is north to 1st Street, west to "A" Street, then north to 2nd Street and west to the rally point.~~

~~There is no safety equipment assigned to this unit. Communication devices are available for personnel accessing this unit for emergency notification purposes.~~

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~~HWMU No. 10 - NAR SYSTEM COMPONENTS~~

~~This unit is located in the NAR Tank Farm and in the Denitrification Area which converted uranyl nitrate to uranium oxide. The tanks are empty and residues have been removed from the pots and ancillary equipment.~~

~~Personnel should evacuate to Rally Point No. 6. Rally Point No. 6 is located North of the Water Tower. Movement can be north out of Building 2A to 2nd Street then west to the Waste Pit Area access gate. Movement can also be south out of the building to 102nd Street, west to "A" Street, north on "A" Street to 2nd Street then west to the Waste Pit Area access gate.~~

~~The Alternate Rally Point is No. 8. Rally Point No. 8 is located at the intersection of 1st Street and "B" Street. Movement is east to "B" Street, and south on "B" Street to the intersection of 1st Street.~~

~~There is no safety equipment assigned to this unit. Communication devices are available for personnel accessing this unit for emergency notification purposes.~~

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~~HWMU No. 11 - TANK FARM SUMP~~

~~The Tank Farm Sump is a surface impoundment located south of the Cooling Towers.~~

~~Personnel should evacuate to Rally Point is No. 6. Rally Point No. 6 is located north of the West Water Tower, at the Waste Pit Area access gate. Movement to Rally Point No. 6 is south on "B" Street, then west on 2nd Street to the Waste Pit Area access gate.~~

~~The Alternate Rally Point is No. 8. Rally Point 8 is at the intersection of 1<sup>st</sup> Street and "B" Street. Movement to Rally Point No. 8 is west on 2<sup>nd</sup> Street and south on "B" Street to the intersection of 1<sup>st</sup> Street.~~

~~There is no safety equipment assigned to this HWMU. Communication devices are available for personnel accessing this unit for emergency notification purposes.~~

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HWMU No. 14 - BOX FURNACE

~~The Box Furnace is located on the North side of Plant 8. Residues have been removed from this unit.~~

~~Personnel should evacuate to Rally Point No. 8. Rally Point No. 8 is located at the intersection of 1st Street and "B" Street. Movement is east to "B" Street and south on "B" Street to the intersection of 1st Street.~~

~~The Alternate Rally Point is No. 6. Rally Point No. 6 is located north of the West Water Tower, at the Waste Pit Area access gate. Movement is west on 101st Street to north on "A" Street, then west on 2nd Street to the rally point.~~

~~There is no safety equipment assigned to this HWMU. Communication devices are available for personnel accessing this unit for emergency notification purposes.~~

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HWMU No. 15 - OXIDATION FURNACE # 1

~~This furnace is located in Plant 8 and functioned as a combined reprocessing, recovery and pre-treatment unit. Residues have been removed from this unit.~~

~~Personnel should evacuate to Rally Point No. 8. Rally Point No. 8 is located at the intersection of 1st Street and "B" Street. Movement is east on 101st Street to "B" Street and south on "B" Street to the intersection of 1st Street.~~

~~The Alternate Rally Point is No. 6. Rally Point No. 6 is located north of the West Water Tower, at the Waste Pit access gate. Movement is west on 101st Street to north on "A" Street, then west on 2nd Street to the rally point.~~

~~There is no safety equipment assigned to this HWMU. Communication devices are available for personnel accessing this unit for emergency notification purposes.~~

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HWMU No. 17 - PLANT 8 EAST DRUM STORAGE PAD

~~This unit is a container storage area located East of Plant 8. The pad is no longer used for the storage of containers of hazardous waste but may be used for the temporary staging of containers of low-level radioactive waste.~~

~~Personnel should evacuate to Rally Point No. 8. Rally Point No. 8 is located at the intersection of 1st Street and "B" Street. Movement is east to "B" Street and south on "B" Street to the intersection of 1st Street.~~

~~The Alternate Rally Point is No. 6. Rally Point No. 6 is located north of the West Water Tower, at the Waste Pit access gate. Movement is north on "B" Street to west on 101st Street, then north on "A" Street to 2nd Street and west to the rally point.~~

~~There is no safety equipment assigned to this HWMU. Communication devices are available for personnel accessing this unit for emergency notification purposes.~~

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HWMU No. 18 - PLANT 8 WEST DRUM STORAGE PAD

~~The Plant 8 West Drum Storage Pad is located in the West section of the Production Area. The pad is no longer used to store containers of hazardous waste but may be used for short term storage of containers of low level radioactive waste.~~

~~Personnel should evacuate to Rally Point No. 8 which is located at the intersection of 1st Street and "B" Street. Movement is east on 101st Street to "B" Street and south on "B" Street to the intersection of 1st Street.~~

~~The Alternate Rally Point is No. 6. Rally Point No. 6 is located north of the West Water Tower, at the Waste Pit access gate. Movement is north on "A" Street to 2nd Street and west to the rally point.~~

~~There is no safety equipment assigned to this HWMU. Communication devices are available for personnel accessing this unit for emergency notification purposes.~~

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~~HWMU No. 19 - CP STORAGE WAREHOUSE BLDG. 56 (BUTLER BLDG.)~~

~~The CP Storage Warehouse is a pre-engineered, ribbed, unheated building covered by metal roofing. There currently are no containers of hazardous waste being stored in the CP Storage Warehouse.~~

~~Personnel should evacuate to Rally Point No. 6, which is located north of the West Water Tower, at the Waste Pit Area access gate. Movement is west on 3rd Street to south on "A" Street, then west on 2nd Street to the rally point.~~

~~The Alternate Rally Point is No. 8. Rally Point 8 is at the intersection of 1<sup>st</sup> Street and "B" Street. Movement is east on 2nd Street and south on "B" to the intersection of 1<sup>st</sup> Street.~~

~~The following is a list of safety equipment assigned to this unit:~~

~~• Manual Fire Alarms~~

- ~~1) On outside Northeast building corner~~
- ~~2) On outside Southwest building corner~~

~~• Spill Cleanup Equipment~~

- ~~1) Portable spill kit in the building~~

~~Communication devices are available for personnel accessing this unit for emergency notification purposes.~~

000117

**HWMU No. 20 - PLANT 1 PAD**

The Plant 1 Pad provides indoor and outdoor storage for hazardous waste. Ignitable hazardous wastes are stored in the hazardous waste storage lockers. Ignitable solids (i.e., oxidizers) are stored in the tension support structures.

Personnel should evacuate to Rally Point No. 6. Rally Point No. 6 is located north of the West Water Tower, near the Waste Pit Area access gate. Movement is south to 2nd Street, then west on 2nd Street to the intersection of "A" Street.

The Alternate Rally Point is No. 8. Rally Point 8 is at the intersection of 1st Street and "B" Street. Movement is east on 2nd Street and south on "B" to the intersection of 1st Street.

The following is a list of safety equipment assigned to this unit:

• ~~Manual Fire Alarms~~

- ~~1) Outside on North wall of Building 30A~~
- ~~2) Inside door on South wall of Trailer #93~~

• ~~Fire Extinguishers~~

- ~~1-18) 10# ABC Eighteen (18) in Tension Support Structure #4~~
- ~~19-36) 10# ABC Eighteen (18) in Tension Support Structure #5~~
- ~~37-44) 10# ABC Eight (8) in Tension Support Structure #6~~
- ~~45) 10# ABC outside T-65 located on the north end of Tension Support Structure #5~~

• ~~Eye Wash Station~~

- ~~1) Inside, south wall of Tension Support Structure #4~~
- ~~2) Inside, south wall of Tension Support Structure #5~~
- ~~3) Inside, southwest corner of Tension Support Structure #6~~

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~~HWMU NO. 20 PLANT 1 PAD (cont.)~~

~~• Spill Cleanup Equipment~~

- ~~1) Inside, at north wall of Tension Support Structure #4~~
- ~~2) Inside, near center of west wall of Tension Support Structure #4~~
- ~~3) Inside, southwest corner in Tension Support Structure #4~~
- ~~4) Outside, southwest of Tension Support Structure #4 by Waste Pit Security Fence~~
- ~~5) Inside, north of Tension Support Structure #5~~
- ~~6) Inside, at southwest wall of Tension Support Structure #5~~
- ~~7) Outside, southeast of Tension Support Structure #5~~
- ~~8) Outside, east of Tension Support Structure #5~~
- ~~9) Outside, west corner of Tension Support Structure #6~~
- ~~10) Inside, near center of south wall of Tension Support Structure #6~~
- ~~11) Inside, near center of east wall of Tension Support Structure #6~~
- ~~12) Outside, northeast of Building #71~~

~~Communication devices are available for personnel accessing this unit for emergency notification purposes.~~

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~~HWMU No. 22 - ABANDONED SUMP WEST OF PILOT PLANT~~

~~This unit is a temporary sump located to the West of the Pilot Plant.~~

~~Personnel should evacuate to Rally Point No. 8. Rally Point No. 8 is located at the intersection of 1st and "B" Street. Movement is north to 1st Street, then east to "B" Street.~~

~~The Alternate Rally Point is No. 6. Rally Point No. 6 is located north of the West Water Tower, at the Waste Pit Area access gate. Movement is north on "A" Street to the intersection of 2nd Street, then west on 2nd Street to the rally point.~~

~~There is no safety equipment assigned to this HWMU. Communication devices are available for personnel accessing this unit for emergency notification purposes.~~

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~~HWMU No. 27 - WASTE PIT No. 4~~

~~Waste Pit No. 4 is located West of the Production Area in the Waste Pit Area.~~

~~Personnel should evacuate to Rally Point No. 6. Rally Point No. 6 is located North of the West Water Tower, at the Waste Pit Area access gate. Movement is southeast to 2nd Street and then east to the Waste Pit Area access gate.~~

~~The Alternate Rally Point is No. 4. Rally Point No. 4 is located on the west side of the parking lot at the intersection of West Access Road and Silo Road. Movement is southeast to railroad track, south along railroad track past the Material Handling Building (91B), to parking lot at intersection of West Access Road and Silo Road.~~

~~There is no safety equipment assigned to this unit. The pit is covered. Communication devices are available for personnel accessing this unit for emergency notification purposes.~~

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~~HWMU No. 29 PLANT 8 WAREHOUSE (BLDG. 80)~~

~~The Plant 8 Warehouse storage unit is a pre-engineered, ribbed, heated building covered by metal roofing. There currently are no containers of hazardous waste stored in the Plant 8 Warehouse.~~

~~Personnel should evacuate to Rally Point No. 8. Rally Point No. 8 is located at the intersection of 1st Street and "B" Street. Movement is south to 1st Street and east on 1st Street to the intersection of "B" Street.~~

~~The Alternate Rally Point is No. 6. Rally Point No. 6 is located north of the West water tower, at the Waste Pit area Access Gate. Movement is north on "A" Street to 2nd Street, then west on 2nd Street to the gate.~~

~~The following is a list of safety equipment assigned to this unit:~~

~~• Spill Cleanup Equipment~~

- ~~1) One Portable spill kit will be kept in the area~~

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~~HWMU No. 33 - PILOT PLANT WAREHOUSE (BLDG. 68)~~

~~The Pilot Plant Warehouse is a pre-engineered fabricated building which is totally enclosed, and sided and roofed with transite. This unit is used for the temporary storage of samples. These are primarily environmental media samples although some of the samples may be ignitable or contain PCBs.~~

~~Personnel should evacuate to Rally Point No. 8. Rally Point No. 8 is located at the intersection of 1st and "B" Street. Movement is East, then north to 1st Street then proceed east to the intersection of "B" Street.~~

~~The Alternate Rally Point is No. 6. Rally Point No. 6 is located north of the West water tower, at the Waste Pit area Access Gate. Movement is west, then north to 1st Street, then east on 1st Street to "A" Street and north on "A" Street to 2nd Street, then west on 2nd Street to the gate.~~

~~The following is a list of safety equipment assigned to this unit:~~

- ~~• Manual Fire Alarm~~
  - ~~1) Inside, southwest corner of Building #68 in west room~~
  
- ~~• Spill Cleanup Equipment~~
  - ~~1) Inside, northwest wall of Building #68 in west room~~
  - ~~2) Inside, northeast wall of Building #68 in west room~~
  
- ~~• Fire Extinguishers~~
  - ~~1) 10# ABC inside, west wall of Building #68 in west room~~
  - ~~2) 10# ABC inside, east wall of Building #68 in west room~~
  - ~~3) 10# ABC inside, east wall of Building #68 in center room~~
  - ~~4) 10# ABC inside, west wall of Building #68 in center room~~
  - ~~5) 10# ABC inside, north wall of Building #68 in center room~~
  - ~~6) 10# ABC inside, south wall of Building #68 in center room~~
  - ~~7) 10# ABC inside, north wall of Building #68 in east room~~
  - ~~8) 10# ABC inside, east wall of Building #68 in east room~~
  - ~~9) 20# ABC outside, north wall, near the center of Building #68~~

~~Communication devices are available for personnel accessing this unit for emergency notification purposes.~~

~~HWMU No. 36 - STORAGE PAD NORTH OF PLANT 6~~

~~This area is North of and adjacent to Plant 6. Containers of hazardous waste are no longer stored in this unit.~~

~~Personnel should evacuate to Rally Point No. 5. Rally Point No. 5 is located at the intersection of 1st Street and "D" Street. Movement is east on 2nd Street to south on "E" Street, then west on 1st Street to the intersection of "D" Street.~~

~~The Alternate Rally Point is No. 11. Rally Point No. 11 is located at "E" Street (North), outside the gate of the OSDF Facility Transfer Area. Movement is north on "E" Street to the gate of the OSDF Facility Transfer Area.~~

~~There is no safety equipment assigned to this HWMU. Communication devices are available for personnel accessing this unit for emergency notification purposes.~~

**HWMU No. 37 - PLANT 6 WAREHOUSE (BLDG. 79)**

The Plant 6 Warehouse is a pre-engineered, ribbed, unheated building covered by metal roofing. Plant 6 Warehouse is designed to store hazardous waste with and without free liquids, ~~PCBs and ignitable wastes, and combustible liquids.~~ The Liquid Mixed Waste Project Bulk Tanks, which are used to bulk PCBs/ignitable wastes, are currently located northwest of the Plant 6 Warehouse.

Personnel should evacuate to Rally No. 5. Rally Point No. 5 is located at the intersection of 1st Street and "D" Street. ~~Movement is south on "E" Street and west on 1st Street to the intersection of "D" Street.~~

The Alternate Rally Point is No. 11. Rally Point No. 11 is located at "E" Street (North), outside the gate of the OSDF Facility Transfer Area. ~~Movement is north on "E" Street, to the gate of the OSDF Facility Transfer Area.~~

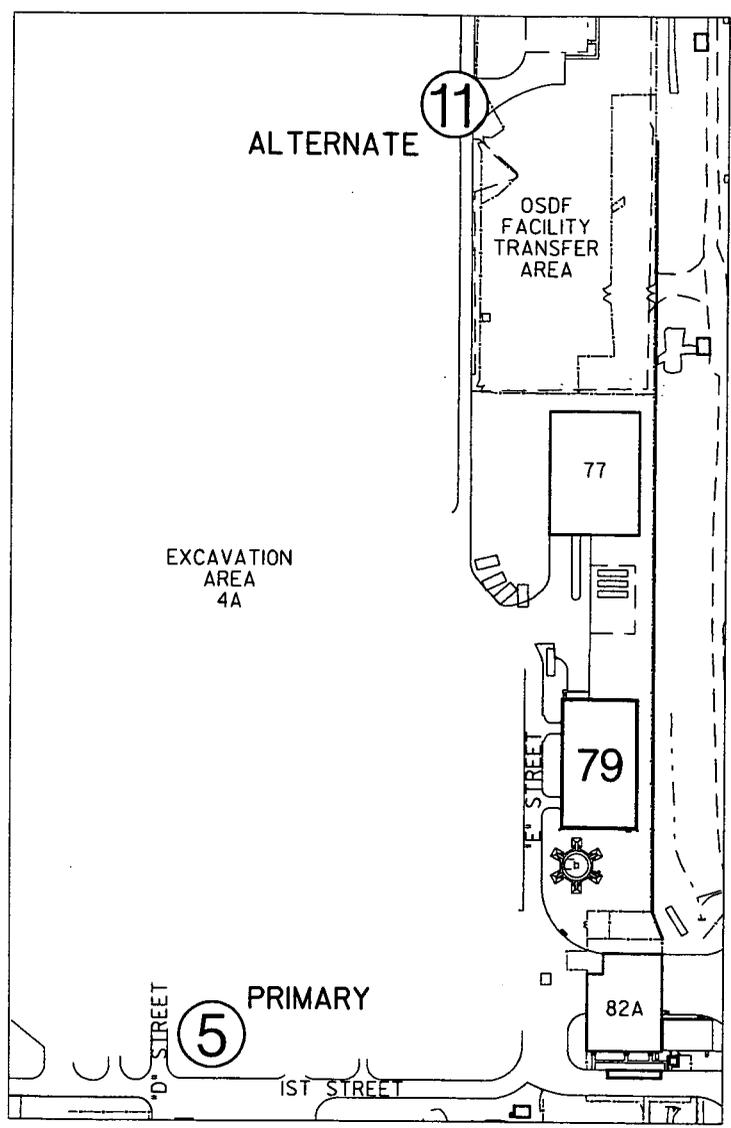
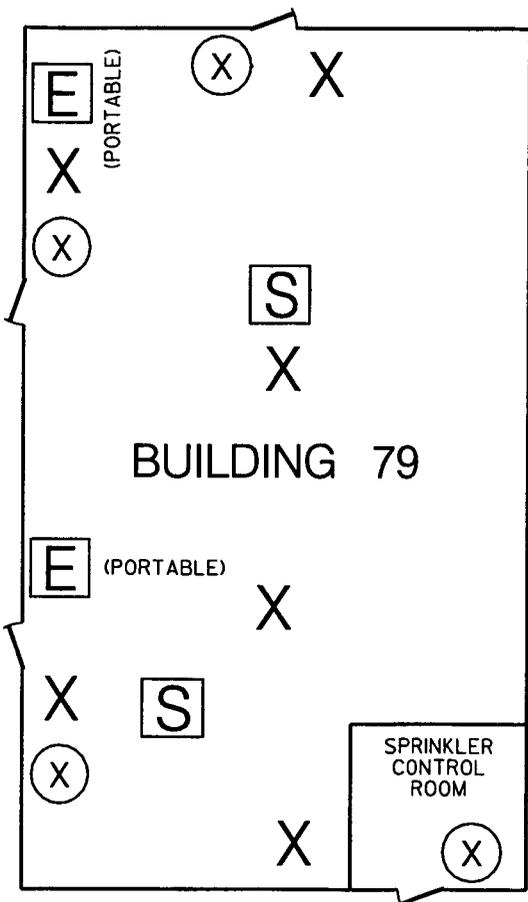
The following is a list of safety equipment assigned to this unit:

- ~~Automatic sprinkler system with automatic fire alarms to an attended location~~
- Manual Fire Alarms
  - 1) By Southwest entrance door
  - 2) By Northwest entrance door
  - 3) North entrance door at Loading Dock
  - 4) Inside Sprinkler Control Room. Sprinkler Control Room is located in the Southeast corner of Building 79.
- Fire Extinguishers
  - 1) 20# ABC on the North wall in the center
  - 2) 20# ABC on the South Wall in the center
  - 3) 20# ABC on the West wall near the North end
  - 4) 20# ABC on the West wall near the South end
  - 5) 20# ABC on a column in the center of building (towards North end)
  - 6) 20# ABC on a column in the center of building (towards South end)
  - 7) ~~10# ABC inside Sprinkler Control Room located inside Building 79~~
  - 7) 20# ABC outside, north, near the Bulking Tanks

HWMU No. 37 - PLANT 6 WAREHOUSE (BLDG. 79) (cont.)

- Eye Wash/Safety Shower Station
  - 1) There are two (2) Portable Eye Wash Units in the building
  
- Spill Cleanup Equipment
  - 1) Middle of west wall
  - 1) West side of Bay A
  - 2) By southwest door

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PLANT 6 WAREHOUSE (BLDG. 79)  
HWMU #37

X FIRE EXTINGUISHER

(X) MANUAL FIRE ALARM

(E) EYE WASH/SAFETY SHOWER

(5) RALLY POINT

(S) SPILL CLEANUP EQUIPMENT

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~~HWMU No. 42 - WASTE PIT NO. 5~~

~~Waste Pit No. 5 is a land disposal unit in the Waste Pit Area northwest of the Production Area which covers 4.1 acres.~~

~~Personnel should evacuate to Rally Point No. 6. Rally Point No. 6 is located North of the West Water Tower, at the Waste Pit Area access gate. Movement is southeast to 2nd Street and then east to the Waste Pit Area access gate.~~

~~The Alternate Rally Point is No. 4. Rally Point No. 4 is located on the west side of the parking lot at the intersection of West Access Road and Silo Road. Movement is southeast to railroad track, south along railroad track past the Material Handling Building (91B), to parking lot at intersection of West Access Road and Silo Road.~~

~~There is no safety equipment assigned to this unit. Communication devices are available for personnel accessing this unit for emergency notification purposes.~~

~~HWMU No. 47 - URANYL NITRATE TANKS (NORTH OF PLANT 2)~~

~~This unit consists of three above-ground UNH Tanks. These tanks are empty.~~

~~Personnel should evacuate to Rally Point No. 6. Rally Point No. 6 is located north of the West Water Tower, at the Waste Pit Area access gate. Movement is west on Second Street to the Waste Pit access gate.~~

~~The Alternate Rally Point is No. 8. Rally Point No. 8 is located at the intersection of 1st Street and "B" Street. Movement is north to 2<sup>nd</sup> Street, east to "B" Street, and south on "B" Street to the intersection of 1st Street.~~

~~There is no safety equipment assigned to this HWMU. Communications devices are available for personnel accessing this unit for emergency notification purposes. This area is restricted from entry unless personnel are wearing protective clothing due to asbestos contamination.~~

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~~HWMU No. 48 - URANYL NITRATE TANKS (SOUTHEAST OF PLANT 2)~~

~~This unit is near the southeast corner of Plant 2 and consists of one above ground storage tank. This tank is empty.~~

~~Personnel should evacuate to Rally Point No. 6. Rally Point No. 6 is located north of the West Water Tower, at the Waste Pit Area access gate. Movement is west on 102nd Street to "A" Street, North on "A" Street to 2nd Street, then west on 2nd Street to the Waste Pit Area access gate.~~

~~The Alternate Rally Point is No. 8. Rally Point No. 8 is located at the intersection of 1st Street and "B" Street. Movement is east to "B" Street, and south on "B" Street to the intersection of 1st Street.~~

~~There is no safety equipment assigned to this HWMU. Communication devices are available for personnel accessing this unit for emergency notification purposes. This area is restricted from entry unless personnel are wearing protective clothing due to asbestos contamination.~~

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~~HWMU No. 49 - URANYL NITRATE TANKS (DIGESTION AREA)~~

~~This unit consists of eight above ground steel tanks located within Plant 2 at the western end in the Digestion Area. These tanks are empty.~~

~~Personnel should evacuate to Rally Point No. 6. Rally Point No. 6 is located north of the West Water Tower, at the Waste Pit Area access gate. Movement is west out of Plant 2 to "A" Street, north on "A" Street to 2nd Street and then west on 2nd Street to the Waste Pit Area access gate.~~

~~The Alternate Rally Point is No. 8. Rally Point No. 8 is located at the intersection of 1st Street and "B" Street. Movement is east to "B" Street, and south on "B" Street to the intersection of 1st Street.~~

~~There is no safety equipment assigned to this HWMU. Communication devices are available for personnel accessing this unit for emergency notification purposes. This area is restricted from entry unless personnel are wearing protective clothing due to asbestos contamination.~~

**STATEMENT OF WORK**

**EMERGENCY RESPONSE**

**April 15, 2003**

**Introduction**

Fluor Fernald is seeking an established community area Fire Department or group of departments under one jurisdiction to provide a customer oriented/performance based fire and emergency medical response service for the Fernald Closure Project (FCP). The successful candidate fire department will be expected to provide a full service, emergency response operation, to include fire fighting, emergency medical service and hazardous material response, that is compliant with applicable State of Ohio codes, rules, regulations, laws and standards as well as other identified regulations and requirements. Performance of the services required herein shall be in compliance with applicable state and local requirements governing emergency services response. NFPA standards are only applicable to the extent required by the state.

The Seller will be responsible for the mitigation of fire and hazardous materials occurrences and medical emergencies at the FCP. The need for rapid Emergency Response is considered a critical element of the site's safety envelope and protection of site employees as well as the general public. The site is considered a remediation clean and closure site and it must ensure that there is no unacceptable impact to the surrounding communities due to a fire or any other unplanned event. The site handles toxic and hazardous materials including uranium, thorium, and radium bearing material and related residues / wastes as well as managing chemicals listed on the Superfund Amendment and Reauthorization Act (SARA) 311 & 312 Reports and other various non listed chemicals. The site is listed on the National Priority List as a Hazardous Waste Site. The requirements of 29 CFR 1910.120 are enforceable at the FCP as a result of this designation. Fluor Fernald maintains a 24- hour, 7 days a week operations schedule.

It is Fluor Fernald's intent to work closely with the affected stakeholders and the candidate fire department in order to make this transition in a non-disruptive and community responsible manner.

**C.1 Emergency Reporting**

Emergencies at the FCP reported by telephone, alarm system or radio are received in the FCP Communication Center, T-194. The FCP Communications Center will immediately call the designated County Communications Center identified by the Seller and then dispatch the FCP Emergency Coordinator to the emergency event. As the clean up of the site progresses, alarms maybe transmitted from a central station monitoring facility to the designated county communication center rather than through the FCP Communications Center.

The on duty FCP Emergency Coordinator shall immediately begin to assess the event or provide initial medical treatment to the injured / ill person until relieved by the Seller's officer in charge or representative. Upon declaration of an EMERGENCY, the on duty FCP Emergency Coordinator can activate the FCP Emergency Operations Center (EOC) to provide technical support to the Seller in its response to the FCP's emergency event.

The following chart depicts the number of on-site runs that have been experienced since 1999:

YEAR	EMS	FIRE / HAZ MAT / OTHER
1999	38	36
2000	26	28
2001	25	27
2002	40	30

Fluor Fernald will provide information during the transition period and as required thereafter, designed to give fire department members a general familiarization of site activities, hazards, Emergency Plan contents, Emergency Coordinator responsibilities, communication mechanisms, and Radiation Worker Training. Fluor Fernald will also provide current and updated information for the Seller to use in keeping their pre response plans current and accurate.

The site maintains it's own water distribution system for water supplied by the Cincinnati Water Works. This system has a 400,000-gallon ground storage tank, and 2 automatic fire pumps [one electric and one diesel, both rated at 1250 gallons per minute. The underground firemain system has post indicator valves (PIV) and functional fire hydrants, which are located throughout the site. The hydrant and PIV locations are depicted on existing pre fire plans. The various system components are maintained and tested by Fluor Fernald in accordance with National Fire Protection Association (NFPA) criteria.

**C.2 Scope of Work:**

**C.2.1** The Seller must be technically capable of providing the services as stated in this document 24 hours a day, 7 days a week. This capability must include: trained / certified personnel, all required personnel protective equipment, extinguishing agents and application equipment, vehicles for the delivery of extinguishing agents and application equipment, transportation vehicles for personnel, transportation vehicles for patients (injured / sick), necessary medical supplies, specialty rescue equipment, and auxiliary breathing air supplies. If the Seller is not available for whatever reason, contingency plans must be in place to furnish the listed services through alternate means. Such contingency plans must be automatically implemented by the Seller's primary dispatch center.

**C.2.2** The primary function of this contract is to ensure the safety of personnel and preservation of property at the FCP. This is achieved through effective manual fire fighting / suppression, basic and advanced emergency medical care, hazardous materials mitigation/clean-up and technical rescue. Seller response protocols must be such that they sufficiently limit undue hazards to employees, threat to the public welfare, adverse effects to the environment and loss of DOE property. Performance of the services required herein shall be in compliance with applicable state and local requirements governing emergency services response. NFPA standards are only applicable to the extent required by the state.

**C.2.3** Fluor Fernald and the Seller will respond to FCP site emergencies in accordance with the response concepts described in the FCP Emergency Plan. The Emergency Plan is not designed or intended to direct fire department or Emergency Response operations. However, it does serve as the basic framework for incident management in all emergencies. The use of an incident command system by the Seller shall be required; the size and complexity of the event will determine the structure and size of the command. The Seller will utilize the pre fire plans for their initial response.

**C.3 Requirements****C.3.1 The five (5) categories of work/services included in this contract:**

- 1) Basic & Advanced Life Support - Emergency Medical Services (field treatment and transport)
- 2) Fire Suppression and Search & Rescue
- 3) Mass Casualty Response & Coordination
- 4) Technical Rescue (high angle, low angle, trench rescue, surface water, vehicle and heavy rescue / extrication) and Confined Space Stand-by.
- 5) Hazardous Materials Mitigation.

**C.3.1.1 Basic & Advanced Life Support – Emergency Medical Services**

The Seller shall provide Basic Life Support (BLS), Intermediate Life Support (ILS) and Advanced Life Support (ALS) services [as defined in the Ohio Revised Code 4765.37 (BLS), 4765.38 (ILS), and 4765.39 (ALS)] for the FCP including transportation to licensed medical treatment facilities. Therefore, the cost to transport an individual to an off site licensed medical treatment facility shall be at no additional cost to the individual being transported.

Although remote, there is the possibility that ambulances, equipment and personnel could become contaminated with radiological or chemical contaminants while providing EMS care at the FCP. Emergency decontamination facilities for non-life threatening injuries / illness are currently available at the site medical treatment facility. Site radiological safety technicians with the appropriate monitoring equipment will address specific radiological concerns and assist emergency responders as needed. Technicians may accompany the contaminated injured / ill person to the hospital or follow in a separate vehicle to limit the spread of contamination and perform radiological monitoring of the ambulance and hospital facility.

**C.3.1.2 Fire Suppression and Search & Rescue**

The Seller shall provide all equipment and personnel necessary to safely conduct the activities involved in controlling or extinguishing fires that may occur at the FCP. Fire suppression includes all activities performed at the scene of a fire incident or adjacent locations that expose Seller personnel to the dangers of heat, flame, smoke, or other products of combustion, explosion, or structural collapse.

If personnel are reported missing as the result of an emergency or evacuation, the FCP Emergency Coordinator will notify the responding officer in charge. It will be the responding Seller's responsibility to conduct a complete search of affected area(s) to determine if missing personnel are within that area and if possible remove them to a safe location.

**C.3.1.3 Mass Casualty Response & Coordination**

The Seller shall maintain the equipment and training necessary to mitigate mass casualty response and the coordination of qualified personnel and equipment necessary to mitigate such an event.

**C.3.1.4 Technical Rescue and Confined Space Stand-by**

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The Seller shall maintain equipment and training to conduct technical rescue (high angle, low angle, trench rescue, surface water, vehicle & heavy rescue extrication) or have the capability to access qualified personnel and equipment.

**Confined Space** - A "confined space," is defined as an area that is large enough and so configured that a worker can bodily enter the space and perform assigned work, has limited or restricted means for entry and exit, and is not designed for continuous occupancy and is subject to the accumulation of toxic or flammable contaminants or has an oxygen deficient atmosphere. Confined Spaces are identified at the FCP and a listing of these locations will be available for inclusion in the Seller's pre fire plans.

The officer in charge shall ensure that fire fighters entering and/or conducting rescue inside a permit required confined space are properly protected to assure that individual's safety. Entries into Immediately Dangerous to Life & Health (IDLH) atmospheres can only be made at the direction of the Seller's officer in charge and with the appropriate personal protective equipment.

**C.3.1.5 Hazardous Materials Mitigation**

The Seller's hazardous materials team (Haz-Mat Team) shall be responsible for the stabilization of chemical releases and/or spills that may or may not contain radioactive constituents that may occur at the site. Fluor Fernald will supply technical guidance relating to the released chemical and it's compatibility with other materials. If radioactive constituents are present, FCP Radiological Technicians will be available to support the Haz Mat team's activities.

FCP personnel will supply the Seller's Haz Mat Team with technical expertise, monitoring equipment and personnel, and available neutralizers and absorbents. Fluor Fernald will be fully responsible for the final clean up, transfer, and remediation of all spills / releases and disposal of used materials and equipment.

**C.3.2 Project Specific Activities**

**C.3.2.1 Required Drills**

Fluor Fernald will initiate and the Seller shall participate in approximately 4 drills/exercises each calendar year conducted at the FCP with the involvement of the FCP Emergency Coordinator and FCP Emergency Operations Center. These drills /exercises will be coordinated in advance with the Seller. The time estimated for preparation and participation in each drill is 6 hours.

**C.3.2.2 Confined Space Standbys**

Scheduled work activities at the FCP require that site personnel enter permit required confined spaces for maintenance or other work activities. Such access may require the standby of emergency equipment and emergency personnel. Normally such a standby can be scheduled. The Supplier shall plan for this to occur four (4) times during a year. No time estimate is available for this activity.

**C.3.2.3 Refilling Breathing Air Bottles**

Fluor Fernald will retain approximately 25 self-contained breathing apparatus units and spare air bottles for non emergency use; the Seller will be requested to fill these air bottles as necessary.

**C.3.2.4 Fire Hydrants**

It will be the responsibility of Fluor Fernald to maintain and service the fire hydrants on site. As the project moves to closure the hydrant system will be greatly reduced or eliminated. Fluor Fernald will notify the Seller whenever changes are made to the water supply system.

**C.3.2.5 Equipment Monitoring & Decontamination**

Fluor Fernald will be responsible for the monitoring, decontamination and or replacement of any contaminated equipment utilized during emergency response activities at site.

**C.3.2.6 Bioassay Program**

Individuals who respond to an emergency may be required to participate in Fluor Fernald's Bioassay Program. This could result from a suspected exposure to a radionuclide contaminate or as a precautionary measure based on the event that occurred. When necessary, personnel will be required to leave a urine sample prior to their departure from the site. Analysis of the sample will be conducted by Fluor Fernald and the results furnished directly to the individual that furnished the sample.

If TLDs (thermo-lucent dosimeter) are required they will be supplied to the individuals responding to the emergency by Fluor Fernald's on-duty Emergency Coordinator.

As standard practice, individuals are restricted from entering a radiologically controlled area if total (external plus internal) exposures, in any one calendar year, exceed 1,000 mrem Total Effective Dose Equivalent (TEDE).

5376

# The University Hospital

Health Alliance™

234 Goodman Street  
Cincinnati, OH  
45219-2316  
513-584-1000

Feb. 29, 2000

Jack Craig, Director  
Department of Energy  
Fernald Environmental Management Project  
P.O. Box 538705  
Cincinnati, OH 45253-8705

FERNALD  
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Dear Mr. Craig:

This letter will serve to acknowledge our continued commitment to provide emergency medical care to your employees in the event of a medical emergency arising at the Fernald Environmental Management Project (FEMP), located near Fernald, Ohio.

This commitment is a further extension of the letter of agreement, last revised in December 1992 (Terry White to Milan Marshall, Dec. 29, 1992). While our management has changed from the University of Cincinnati to the University Hospital, Inc. (a part of the Health Alliance of Greater Cincinnati), we will continue to honor this commitment. In the case of an emergency that requires our support, University Hospital will provide treatment in our Center for Emergency Care. If deemed necessary and appropriate, care and/or transport can be made by our University Air Care emergency air medical helicopters.

University Hospital is a verified Level I Trauma Center and Level I Burn Center. As such we are committed to serving the needs of the ill and injured throughout the tri-state, including the employees and visitors at the FEMP site. We are pleased to have this opportunity to provide our services to you and your staff should the need arise.

Sincerely,



Elliot G. Cohen  
Senior Vice President

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## LETTER OF AGREEMENT

THIS LETTER OF AGREEMENT, is effective on the 1st day of December, 1992, by and between Flow Daniel Environmental Restoration Management Company, hereinafter called "FERMCO" and Providence Hospital and Franciscan MediCenter at Harrison, 2446 Kipling Avenue, Cincinnati, Ohio 45239, hereinafter called "Providence".

1. This letter of agreement delineates the areas of responsibility of FERMCO and Providence concerning emergency medical services to be provided by Providence Hospital to FERMCO employees in the event of a medical emergency at employee's place of employment, the Fernald Environmental Restoration Project, Fernald, Ohio hereinafter called "FEMP".
2. Providence agrees to provide emergency medical treatment to FERMCO employees in the Franciscan MediCenter at Harrison or the Emergency Room of Providence Hospital in case of sickness or accident.
3. FERMCO agrees to monitor all employees prior to admission to the Providence Emergency Room to determine the level of radioactivity present, if any, on the employee's skin or clothing. Efforts will be made by FERMCO to reduce contamination, if present, to a level as low as practical. If serious injuries or sickness is/are present and the need for immediate emergency treatment precludes decontamination, FERMCO will give Providence medical personnel appropriate precautionary instructions. All FERMCO employees who have not been decontaminated shall be sent directly to Providence Hospital as the Franciscan MediCenter at Harrison does not have decontamination equipment.
4. If Providence equipment or supplies become contaminated with radioactive or toxic materials as a direct result of radioactive or toxic materials which may be carried into the Emergency Room by the FERMCO employee being treated, FERMCO will provide for the decontamination or replacement thereof at no charge to Providence.
5. This Agreement may be terminated by either party upon 30 days written notice to the other party. Providence and FERMCO can modify this Letter of Agreement by mutual written consent.
6. Providence shall act as an independent contractor in the delivery of emergency services. FERMCO shall neither have nor exercise any control over the methods by which Providence delivers such services. The sole interest of FERMCO is to assure that Providence services shall be performed in a competent, efficient, and satisfactory manner.

Providence Hospital of Cincinnati

By: [Signature]

Title: Vice President

Date: 11-7-92

Flow Daniel Environmental Restoration Management Company

By: [Signature]

Title: V.P. Acquisition & Finance

Date: 11/7/92

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