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**RCRA PART B PERMIT APPLICATION MARCH
1993 SECTION E: GROUNDWATER MONITORING
SECTION F: PROCEDURES TO PREVENT
HAZARDS; SECTION G: CONTINGENCY PLAN**

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PERMIT

RCRA PART B PERMIT APPLICATION



March 1993

SECTION E: GROUNDWATER MONITORING
SECTION F: PROCEDURES TO PREVENT HAZARDS
SECTION G: CONTINGENCY PLAN

Fernald Environmental Management Project

U.S. EPA Identification No. 0H6890008976
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FERNALD ENVIRONMENTAL MANAGEMENT PROJECT
FERNALD, OHIO
EPA ID NO. OH6890008976
SECTION E: GROUNDWATER MONITORING

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SECTION E - GROUNDWATER MONITORING

RCRA Part B Permit Application
Fernald Environmental Management Project (FEMP)
Fernald, Ohio

Ohio Administrative Code (OAC) 3745-54-90 through 99, OAC 3745-50-44(B) and Title 40 of the Code of Federal Regulations (CFR) 270.14(c)(1) and 40 CFR 264 Subpart F require the FEMP to provide groundwater monitoring information on land based units. The FEMP is only seeking a permit for container storage. Therefore, groundwater requirements for land based units are not addressed in this section. Groundwater monitoring requirements for those land based units the FEMP will close are presented under a separate cover in accordance with ~~the~~ Consent Decree and its ~~proposed amendments~~ Stipulated Amendment, ~~as discussed in the cover letter to this permit application.~~

SECTION F - PROCEDURES TO PREVENT HAZARDS

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SECTION F - PROCEDURES TO PREVENT HAZARDS

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Fernald, Ohio

The information provided in this section is submitted in accordance with the requirements of the Ohio Administrative Code (OAC) 3745-50-44(A)(4) and Title 40 of the Code of Federal Regulations (CFR) Part 270.14(b)(4). Other regulations addressed to complete this section include OAC 3745-54-14, 3745-54-15, 3745-54-17, 3745-54-32, 3745-54-35, 3745-55-74, and 3745-54-76 3745-55-76 (40 CFR 264.14, 264.15, 264.17, 264.32, 264.35, 264.174, and 264.176).

The FEMP is not required to comply with Federal and Ohio hazardous waste laws and hazardous waste regulations, with regard to mixed waste, where compliance will increase the risk to human safety and health or the environment, as stated in Section 3.1 of the Consent Decree and its Stipulated Amendment.

F-1 SECURITY

F-1a Security Procedures and Equipment

General security at the Fernald Environmental Management Project (FEMP) is provided by fencing, gates, and security officers as discussed in Section F-1a(1). The following features also contribute to the safety and security of the hazardous waste storage buildings and the entire facility:

- Ample lighting is provided throughout the site.

- Two-way radios (which can be used to report abnormal conditions to the Communications Center immediately) are required for operations personnel when entering a RCRA storage unit to perform work or inspections. A telephone system is also available for both internal and external communications.
- Employees and contractors are required to show identification badges when reporting for work. Visitors must complete an access request form when entering the site. The request form must be signed by a ~~site employee~~ department manager.

F-1a(1) 24-Hour Surveillance System

The FEMP is under 24 hour surveillance by security officers on mobile and foot patrols. Entry into the facility is monitored through ~~three~~ four controlled entry points, the main gate, turnstiles, ~~the TACOS complex~~ and the administration building during normal working hours. Access is only permitted through the main gate during non-working hours.

F-1a(2) Barrier and Means to Control Entry

F-1a(2)(a) Barrier

The former FEMP production area, which includes the active hazardous waste management areas, is completely surrounded by a seven foot chain-link fence topped by barbed wire.

The facility's primary vehicular access to the former production area is through the main gate located at the southern end of the facility, as described in Section B-4 and shown on Figure B-14.

Personnel access is limited to the main gate, turnstiles, the TACOS complex and administration building during normal working hours. The main gate is manned 24 hours a day to control access. The turnstile, the TACOS complex, and administration entrances are manned during normal working hours and are locked during non-working hours.

F-1a(2)(b) Means to Control Entry

The primary vehicular entrance to the former production area of the facility is the main gate, as discussed in Section F-1a(2)(a). This entry is controlled by a guard 24 hours a day. Personnel access is controlled through the main gate, turnstiles, the TACOS complex and administration building during normal working hours. Employees and contractors are required to present an identification badge when reporting to work. Visitors must sign an access sheet and obtain a visitor's pass. Visitors are permitted to enter only if escorted by facility personnel. Unauthorized visitors are restricted from entering the main facility, and subsequently consequently the active RCRA storage areas, by these practices.

F-1a(3) Warning Signs

Signs which are legible from a distance of 25 feet are posted at the entrance(s) to the individual hazardous waste storage units within the facility.

The signs state:

"Danger -- Authorized Personnel Only"

and

~~"Danger -- No Smoking or Open Flame"~~

No languages other than English are necessary for the signs at this facility.

Additional signs are posted on the entrances and/or gates into the former production area of the facility.

F-1b Waiver

A waiver of the security procedures and equipment requirements is not requested by the FEMP at this time, therefore this section is not applicable.

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F-2 INSPECTION SCHEDULE

The information provided in this section is submitted in accordance with the requirements of OAC 3745-50-44(A)(5) and 3745-54-14 and 40 CFR 270.14(b)(5) and 264.15.

The FEMP is not required to comply with Federal and Ohio hazardous waste laws and hazardous waste regulations, with regard to mixed waste, where compliance will increase the risk to human safety and health or the environment, as applied stated in Section 3.1 of the Consent Decree and its proposed amendments Stipulated Amendment.

F-2a General Inspection Requirements

The FEMP conducts inspections of safety and emergency equipment, operating equipment, and general conditions of the structures. A copy of the current FEMP Inspection Schedule is provided as Attachment F-1. The Inspection Schedule is updated as needed and maintained ~~at the facility~~ in the FEMP's RCRA Operating Record.

Deteriorations or malfunctions revealed by the inspection are remedied as soon as possible. Where a hazard is imminent, or has already occurred, remedial action is taken immediately. If the hazard involving hazardous waste is declared to be an "Emergency", as defined in the Contingency Plan, Section G of this permit application, the contingency plan is implemented.

Inspections are documented by recording results on ~~Inspection Log Forms~~ inspection forms. The completed inspection ~~log~~ forms are maintained for a minimum of three years from the date of inspection. Examples of the ~~Inspection Log Forms~~ inspection forms currently in use are provided in ~~Attachments F-2 and F-3~~ Attachment F-2. The

~~Inspection Log Forms~~ inspection forms are updated as needed and maintained at the facility in the FEMP's RCRA Operating Record.

F-2a(1) Types of Problems

Types of problems that may be encountered during inspections are listed on the Facility Inspection Schedule provided as Attachment F-1. Generally, the inspection verifies the adequacy of emergency equipment and the operating condition of the facility as identified on the inspection schedule.

F-2a(2) Frequency of Inspections

The frequency of inspections at the FEMP is based on the rate of possible deterioration of the equipment and the probability of an environmental or human health incident if deterioration goes undetected between inspections. The frequency of inspections at the FEMP conforms to accepted industry practices, RCRA guidance information and the Consent Decree and its ~~proposed amendments~~ Stipulated Amendment. The frequency of inspection for each item can be found on the Facility Inspection Schedule (Attachment F-1).

The emergency and personnel protection equipment discussed in Section F-3 is inspected weekly. Inspection of the hazardous waste storage units takes place ~~at least~~ weekly.

Until the containers on Plant 1 Pad have been determined not to contain hazardous or mixed waste and/or the containers are placed in an ~~an~~ covered/diked storage areas area, the FEMP will perform daily leakage inspections on these containers on Plant 1 Pad, and will perform weekly inspections in accordance with

OAC 3745-65-15 and 3745-66-74 and 40 CFR 265.15 and 265.174 as stated in the Consent Decree and its Stipulated Amendment.

F-2b Specific Process Inspection Requirements

F-2b(1) Container Inspection

Area Inspection Storage Area Inspections

The container storage areas are inspected weekly for the items identified in the Facility Inspection Schedule (Attachment F-1). Each storage area is inspected for proper drum placement, aisle spacing, stacking, pallet condition, evidence of leaks, or spills and condition of the floor and dikes. The inspector immediately reports to the supervisor if a hazardous waste release is observed.

~~Area Inspection Logs for the RCRA Storage Areas are maintained at the facility. An example of the Area Inspection Log is provided in Attachment F 3 and is subject to change. The example Inspection Logs provided contain items in addition to those specified on the Facility Inspection Schedule (Attachment F 1). These additional items are facility requirements and not RCRA requirements.~~

Completed inspection forms for the RCRA Storage Areas are maintained in the FEMP's RCRA Operating Record. Examples of RCRA Container Storage Area Inspection Forms are provided in Attachment F-2 and are subject to change.

Container Inspection

The containers are inspected at least weekly for evidence of damage or deterioration, and container labels. An example of the RCRA Container Storage Inspection Form is provided as in Attachment F-2 and is subject to change.

F-2b(2) Tank System Inspection

The FEMP is not seeking a RCRA permit to operate a hazardous waste tank.

F-2b(3) Waste Pile Inspection

The FEMP is not seeking a RCRA permit to operate a hazardous waste pile.

F-2b(4) Surface Impoundment Inspection

The FEMP is not seeking a RCRA permit to operate a hazardous waste surface impoundment.

F-2b(5) Incinerator Inspection

The FEMP is not seeking a RCRA permit to operate a hazardous waste incinerator.

F-2b(6) Landfill Inspection

The FEMP is not seeking a RCRA permit to operate a hazardous waste landfill.

F-2b(7) Land Treatment Facility Inspection

The FEMP is not seeking a RCRA permit to operate a hazardous waste land treatment facility.

F-2b(8) Miscellaneous Unit Inspection

The FEMP is not seeking a RCRA permit to operate a miscellaneous hazardous waste unit.

F-2b(9) Subpart AA Inspection

The FEMP has no process vents associated with distillation, fractionation, thin-film evaporation, solvent extraction or air or steam stripping managing hazardous wastes with organic concentrations at least 10 parts per million (ppm). ~~Therefore the FEMP is not subject to this rule at this time.~~

F-2b(10) Subpart BB Inspection

The FEMP has no equipment that contains or contacts hazardous waste with organic concentrations of at least 10 percent by weight that are managed in:

- Units that are subject to the permitting requirements of 40 CFR Part 270, or
- Hazardous waste recycling units that are located on hazardous waste management facilities otherwise subject to the permitting requirements of 40 CFR Part 270.

Therefore the FEMP is not subject to this rule at this time.

F-2c Remedial Action

Repairs or other actions taken to remediate problems identified during an inspection are recorded on the inspection log forms. Deficiencies are reported to the supervisor and arrangements for prompt, appropriate remediation of the problem are made.

Repairs are made in a timely manner so that a situation does not lead to an environmental or human health hazard. Items identified as missing or present in insufficient quantities such as emergency equipment are obtained promptly and placed in the proper location. The remedial response to deficiencies is to restore an item to proper working order, or to restock an item to ensure its availability in an emergency.

Leaking, damaged, or deteriorating containers identified during an inspection are overpacked or redrummed. Drums are overpacked by placing the leaking container into a larger-size container. Redrumming is accomplished by transferring the contents of the damaged drum into a different container.

F-2d Inspection Log

Attachment F-2 (RCRA Container Storage Inspection Form and RCRA Container Storage Area Inspection Forms) and Attachment F-3 (Area Inspection Logs) provide provides examples of the current inspection logs forms. These examples are subject to change. The logs include spaces for the name of the inspector, observations, and remedial actions taken. The inspection logs forms have been designed to readily identify those areas routinely checked for acceptability and highlight conditions which potentially could cause problems.

Inspection Log ~~Forms~~ **forms** include the following information:

- Date of inspection
- Time of inspection
- Name of the inspector
- Notation of the observation(s) made
- ~~Work Request Number requesting remediation of the condition.~~
- **Corrective action(s) taken**
- Date corrected.

F-3 PREPAREDNESS AND PREVENTION REQUIREMENTS

The FEMP does not wish to request a waiver of the preparedness and prevention requirements under OAC 3745-54-30 (40 CFR 264 Subpart C). Requirements of this Subpart are also discussed in **further detail** in Section D, Process Information, and Section G, Contingency Plan, of this application.

F-3a Equipment Requirements

A detailed discussion of the FEMP emergency equipment and communications systems and the capabilities of each item is provided in Section G, Contingency Plan.

F-3a(1) Internal Communications

Communications within a Unit

Voice communication is used within any single RCRA storage unit. Voice communication is adequate to provide immediate emergency instruction to personnel within the building because of the sizes and open configurations of the storage units.

Communications to the Communications Center

Hand-held, two-way radios are immediately available and are required for personnel who work in the RCRA storage units. Additionally, internal telephones are immediately available to personnel working at the RCRA storage units. The two-way radios or internal telephones are used to ~~contact:~~

- 1) ~~contact~~ the Communications Center, or
- 2) other personnel who, in turn, can contact the Communications Center, or
- 3) the area supervisor to report any emergency.

The Communications Center summons additional on-site and off-site assistance as needed.

Signals from manual fire alarm boxes, automatic fire monitoring, and/or suppression systems located within the operating units throughout the facility are automatically transmitted to the Communications Center.

On-site Emergency Warning System

The FEMP has an extensive on-site emergency alarm and communications system for notifying employees and on-site emergency response personnel. This system provides facility-wide, building, and off-site warning systems.

The facility alarm system is controlled in the Communications Center, which operates 24 hours ~~daily per day~~. The facility alarm system, which includes alarm bells or air horn signals, can be activated from the Communications Center. A voice message, following the sounding of a warning signal, is broadcast throughout the facility to transmit appropriate instructions and other important information to FEMP personnel.

F-3a(2) External Communications

Communications Center

External communications are managed by the Communications Center which is staffed 24 hours per day. The Communications Center has the ability to summon additional emergency assistance from local police departments, fire departments, or state and local emergency response teams as needed.

The Communications Center has the following equipment for contacting off-site assistance organizations:

- Conventional and special phone systems capable of summoning off-site emergency assistance including a special phone connected to the National Warning System (NAWAS); portable cellular phones and wired phones connected to the local telephone company and a Mobile Radio mobile radio telephone in the Site Security Truck.

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- Two-way radios capable of internal communications and direct contact with the Hamilton and Butler County Dispatch Centers and the Ohio State Highway Patrol headquarters near Hamilton, Ohio.
- High-frequency single-sideband emergency radio capable of communication directly with the Department of Energy Office in Oak Ridge, Tennessee.
- All-band short wave radio capable of contacting the Amateur Emergency Warning Network.

Off-site Emergency Warning System

The off-site emergency warning system warns citizens within a two-mile radius of the site, when emergencies may affect people outside facility boundaries. Activating the sirens alerts residents to seek shelter immediately and tune to a radio or TV station for an Emergency Broadcast System message for information.

F-3a(3) Emergency Equipment

Each of the FEMP hazardous waste container storage areas is equipped with supplies, materials, and equipment for responding to emergencies. The fire protection, spill control, and decontamination equipment in each storage unit is inspected at least weekly. This information is discussed further in Section F-2.

The emergency equipment at the FEMP is described in detail in Section G, Contingency Plan.

Portable Fire Extinguishers

Portable fire extinguishers are located at the hazardous waste storage units.

Fire Control Equipment

Buildings All buildings storing ignitable hazardous wastes (KC-2 Warehouse - Building 63 and CP Storage Warehouse - Building 56) are protected with a sprinkler system, in addition to portable fire extinguishers. Fire hydrants are located outside of each storage unit. The FEMP also maintains on-site a fully equipped Emergency Response Team, described in Section G, Contingency Plan.

Spill Control Equipment

Protective clothing, boots, gloves, respirators, and face shields are stored in each storage unit for spill removal and cleanup. Spill clean-up equipment and material such as overpack drums, shovels, brooms, rags, and absorbent materials dedicated for hazardous spill cleanup are also stored in each unit.

Decontamination Equipment

A full complement of decontamination equipment is maintained by the site Emergency Response Team, in addition to the spill equipment. This equipment is described in detail in Section G, Contingency Plan. The Emergency Response Team can mobilize, as needed, with the Spill Response Vehicle - Unit 328. The Spill Response Vehicle can pull a trailer which carries supplies used in decontamination of personnel and equipment. In addition, the trailer has equipment to contain the rinse water used in decontamination.

Alarm Systems

The facility alarm and communications horn system is tested weekly on a site-wide basis. The Emergency Message system is tested daily. Failure of any component of the system results in immediate remedial action or implementation of a back-up system.

F-3a(4) Water for Fire Control

Water for fire protection is available from the following sources:

Primary

- Elevated Fire Water Tank 350,000 gallons
- Ground Level Fire Water Tank 300,000 gallons

Backup

- Domestic Raw Water Tank 700,000 gallons
- Elevated Potable Water Tank 250,000 gallons
- Production Wells 3 wells at 900 gallons per minute
(GPM) for 2700 GPM

Water for fire control is distributed through two systems, as described in the next sections below.

High Pressure Distribution System

The High Pressure ~~distribution system~~ Distribution System provides water to the high pressure hydrants, located outside each storage unit, and to building sprinkler systems. The locations of the high pressure hydrants are described in Section G, Contingency Plan. A static pressure of 114 pounds psi (guage) is maintained in the system by the elevated water tower. The fire pump system is activated when the pressure in the system drops. The fire pump system consists of one

electric and two diesel powered pumps, each rated at 2,000 Gallons Per Minute (GPM) gallons per minute (GPM) (at 285 feet of head). The electric pump and the first diesel pump start automatically as the result of low water pressure. The second diesel pump is started manually by the equipment operator, if the system pressure continues to fall. The fire pumps initially obtain their water from the ground level tank, cutting off flow from the elevated water tank. This system is capable of providing sufficient water at sufficient volume and pressure for sprinkler systems.

Low Pressure Distribution System

The low pressure distribution system provides water to low pressure hydrants. This water is provided by the potable water system. The water in this system can be drawn upon by responding fire departments for additional fire fighting needs. The location of the low pressure hydrants is described in Section G, Contingency Plan.

Fire Department Equipment

The facility maintains an on-site Emergency Response Team capable of responding to emergency conditions. The Emergency Response Team can respond with a fully equipped fire engine, an ambulance, a spill response unit and a rescue truck as needed. The full capabilities of the Emergency Response Team are described in Section G, Contingency Plan.

F-3b Aisle Space Requirements

An aisle space of a minimum of 22 inches is maintained between rows of containers. A four foot main aisle is also provided in each area to allow the unobstructed movement of personnel, fire protection equipment, and spill control equipment.

The 22 inch minimum inspection aisle space is adequate because:

- the aisles are adequate for personnel to inspect drums for leaks and deterioration;
- a manually operated gantry crane can be used to remove and move drums. Motorized equipment is not required to move up and down the inspection aisles; and
- a main equipment aisle is provided in each area to allow for unobstructed movement of emergency equipment.

F-4 PREVENTIVE PROCEDURES, STRUCTURES, AND EQUIPMENT

F-4a Prevent Hazards in Unloading Operations

~~Within 72 hours after a Satellite Accumulation Container or newly generated~~ ~~After~~ a hazardous waste container has been filled, labeled and closed, it is transferred to a storage area. Small containers can be moved by equipment such as, but not limited to, handcarts or handtrucks. Large containers may be moved by equipment such as, but not limited to, forklifts, trucks or trailers.

The containers can be unloaded and moved into storage using ramps and forklifts. Containers can be unloaded directly from tractor trailers using an adjustable dock and/or unloaded from small dolly trailers via fork lift equipment.

Plant 1 Pad, and Plant 6 Warehouse - Building 79, and the Receiving and Incoming Materials Inspection Area (RIMIA) Building - Building 82 have loading docks for receiving and shipping hazardous waste. Hazardous waste may be loaded onto or unloaded from transportation vehicles, using the loading docks. A mobile dock is also available for use in loading or unloading in other areas of the facility without a dock. Hazardous waste to be shipped off-site may be staged and loaded from any of the hazardous waste storage units. The Plant 1 Pad, and Plant 6 Warehouse - Building 79, and the RIMIA Building - Building 82 loading docks serve as the main areas for receipt of material from off-site.

Traffic information and sample traffic patterns for the FEMP are discussed in Section B, Facility Description. Facility personnel have been instructed to notify the area supervisor and/or Communications Center, in the event of an accidental spill of hazardous waste in transport or during loading/unloading operations.

Section G, Contingency Plan, provides specific emergency notification and response procedures.

F-4b Prevention of Run-Off to Other Areas

Hazardous Wastes With Free Liquids

Hazardous wastes with free liquids are stored in diked areas capable of holding a minimum of 10 percent of the maximum storage capacity of the unit. Storage areas for liquids are enclosed within structures or buildings preventing accumulation of precipitation in the dikes. In accordance with the provisions of the Consent Decree and its ~~proposed amendments~~ Stipulated Amendment, and the FEMP Drum Management Plan, if storage space which meets RCRA and Ohio hazardous waste storage requirements is not available, the FEMP will store such wastes in a manner as protective of human health and the environment as possible, will perform daily leakage inspections on these containers that are not located under cover, and will, within sixty (60) days of a determination that sufficient RCRA storage space is not available, submit a plan and schedule for OEPA approval for short-term storage of such wastes.

Hazardous Wastes Without Free Liquids

Hazardous wastes without free liquids are stored inside structures or buildings or on the Plant 1 Pad. Indoor storage areas are not subject to precipitation and therefore do not produce precipitation runoff.

Precipitation run-off which contacts containers not located under cover on Plant 1 Pad is directed into the stormwater collection system. The storm water from Plant 1 Pad passes through a ~~monitoring station which checks for acidity and alkalinity in the general facility stormwater system~~ continuous pH monitor before entering the stormwater retention basin.

Stormwater can be diverted to the General Sump System if deemed necessary due to ~~acidity or alkalinity levels~~ unacceptable pH or hazardous waste releases. The General Sump can process the storm water prior to discharge.

Prevention of Flooding

Flooding created by run-on from other areas is prevented from entering the structures, buildings and concrete pads by using concrete slabs and topography which slope away from these areas.

The hazardous waste storage units are in areas outside of the 100 year flood plains for the Great Miami River and Paddy's Run.

F-4c Prevent Contamination of Water Supplies

Contamination of water supplies by hazardous wastes or hazardous waste constituents is prevented by storing the hazardous waste in enclosed structures, in buildings, or on concrete pads and by controlling run-off as described in Section F-4b.

F-4d Equipment and Power Failure

Electrical power is used primarily for lighting in the storage units. Battery powered lights can be used if needed during a power failure. Powered equipment involved in handling materials includes fork lift trucks, barrel stackers and gantry cranes. Since this equipment is internally powered by electric battery or internal combustion engine, it is not subject to a sitewide power failure. A replacement is available, in the event of a mechanical failure of the fork lift and/or barrel stacker, as the facility maintains a large operating supply. The portable gantry crane is manually operated and not susceptible to power failure, but if mechanical failure occurs, the crane is repaired.

Operations Normal operations at the RCRA storage units are suspended if there is a sitewide power outage. Portable generators are available in case of emergencies. Generators are not permitted within areas where ignitable hazardous wastes are stored, unless proper precautions are taken. Precautions may include the use of an explosion-proof generator, or placement of the generator at a safe distance or location from the ignitable hazardous wastes.

F-4e Personnel Protection Equipment

Personnel exposure to hazardous waste is minimized through the use of protective equipment, stored in each warehouse, as well as by safe handling practices. The protective equipment appropriate for employees working in the storage building is specified by the area supervisor and health and safety personnel at the FEMP. Protective equipment can include coveralls, boots, gloves, face shields, and respirators.

Personnel involved in management of hazardous wastes receive training in the use of protective equipment and the proper handling of hazardous wastes. Annual fit-testing of respirators and RCRA refresher training are also provided, as described in Section H, Personnel Training.

F-4f Prevent Releases to Atmosphere

The FEMP is required to prevent release to the atmosphere from process vents and equipment leaks under Subpart AA and BB regulations (40 CFR Part 264). Currently, the FEMP has no equipment that is subject to these rules.

F-5 PREVENTION OF REACTION OF IGNITABLE, REACTIVE AND INCOMPATIBLE WASTES

F-5a Precautions to Prevent Ignition or Reaction of Ignitable or Reactive Wastes

Containers of hazardous waste are inspected for corrosion and other defects to minimize the possibility of ignition or reaction of ignitable or reactive hazardous wastes. Stored containers remain closed except during sampling, when a sample must be obtained for, visual inspections as a part of waste characterization, or during addition or removal of hazardous waste. Some containers are equipped with filters filter vent plugs to prevent the build-up of pressure within the container. An example of a RCRA Container Storage Inspection Form is provided as in Attachment F-2 and is subject to change. This form serves to guide hazardous waste handlers in the proper acceptance and storage criteria for waste containers. Hazardous wastes are acceptable if placed in compatible drums meeting DOT specifications, or their equivalent. The FEMP has some containers that date before the DOE specification requirements. These pre-DOT containers are inspected on the same schedule as all other containers meeting the DOT requirements to ensure their integrity.

The hazardous waste container storage areas are inspected at least weekly as identified in the Facility Inspection Schedule (Attachment F-1). Any leaks or spills are cleaned up immediately, reducing the possibility of adverse reactions. Drums are overpacked to correct a leak or to improve the integrity of the container to preclude future leaks.

Prevention of Ignition

Ignitable hazardous waste containers are stored in areas protected from accidental ignition sources. Smoking is not permitted in these areas. "NO SMOKING" signs are conspicuously posted.

Waste characterization as described in Section C, Waste Characteristics, is performed to provide sufficient information to select the safest hazardous waste storage containers, appropriate hazardous waste storage areas and to accurately characterize the hazardous physical and chemical properties of each waste stream. The following precautionary measures are enforced to prevent fires and/or the release of hazardous waste constituents:

- Hazardous waste containers are identified by Reactivity Group Code (RGC) to ensure that ignitable and reactive hazardous wastes are appropriately stored.
- Approved work permits are required before welding is performed.
- Surveys for combustible gases and vapors are performed by health and safety personnel before performing certain work involving ignition sources such as open flames, and heating elements.
- "NO SMOKING" and "NO OPEN FLAME" signs are conspicuously placed at the entrances to the hazardous waste storage areas.
- Non-sparking tools are used to open and close containers which contain ignitable hazardous waste.
- Hand-held fire extinguishers are available to extinguish small fires. Sprinkler systems are installed in some areas to

control the larger fires that cannot be extinguished by hand-held fire extinguishers.

Prevention of Reaction

Hazardous wastes are marked, separated and segregated according to the Reactivity Group Code (RGC) system maintained at the facility. Figure F-2 is the current RGC Hazardous Waste Compatibility Chart used to determine the segregation of incompatible hazardous waste.

Waste characterization as described in Section C, Waste Characteristics, is performed to provide sufficient information to select the safest hazardous waste storage containers, appropriate hazardous waste storage areas and to accurately characterize the hazardous physical and chemical properties of each waste stream.

F-5b General Precautions for Handling Ignitable or Reactive Wastes and Mixing Incompatible Wastes

Hazardous waste containers stored at the FEMP remain closed during storage and may be opened when a sample must be obtained, for visual inspection as part of the waste characterization, or during addition or removal of hazardous waste. Some containers are equipped with filters filter vent plugs to prevent the build-up of pressure in the container. These vent plugs are installed to provide ventilation to drums of wastes containing free reactive uranium metal that has the potential to generate hydrogen gas. Approximately 3% of all RCRA drums in storage are currently equipped with vent plugs. The 3/4-inch filter vent plug is composed of a carbon-carbon composite high efficiency particulate air (HEPA) filter. The filter vent plug is inserted into the smaller bung opening of the drum lid. The plugs are also installed on all outer drums if the drums are overpacked.

Accidental ignition or mixing of ignitable or incompatible hazardous waste types is unlikely. As discussed in the previous section the FEMP uses a Reactivity Group Code (RGC) marking system to segregate incompatible hazardous wastes. Incompatible hazardous wastes are separated by diked areas and/or stored in separate buildings. At the present time the FEMP is not seeking a permit for any treatment processes which may require mixing of hazardous wastes.

Some examples of mixing of hazardous wastes at the FEMP are listed below:

- Consolidation of the same or similar hazardous wastes into larger containers;
- Consolidation of lab samples into larger containers;
- Packaging of newly generated hazardous wastes.

These practices are only allowed for hazardous wastes which are compatible.

F-5c Management of Ignitable or Reactive Wastes in Containers

Ignitable and reactive hazardous wastes are stored at least 50 feet from the FEMP property line. Figure F-1 (Facility 50 Foot Boundary Line) shows the location of the FEMP hazardous waste storage areas relative to the property line.

The storage practices followed by the FEMP include the use of buildings, structures and pads with concrete bases. Storage areas for hazardous wastes with free liquids are designed with a secondary containment system capable of holding at least 10 percent of the maximum waste volume stored in the area. FEMP container management practices are discussed further in Section D, Process Information.

Inspections are performed at least weekly as identified in the Inspection Schedule (Attachment F-1), to ensure the proper management of hazardous wastes. Inspection procedures are discussed in Section F-2.

A Reactivity Group Coding system (Figure F-2), has been developed to ensure the compatibility of hazardous wastes stored in the same curbed area. The system incorporates "letter code signs" in storage areas. Only drums with Reactivity Group Codes matching the "letter code signs" are permitted to be stored in that area.

F-5d Management of Incompatible Wastes in Containers

Facility personnel responsible for the management, transfer and storage of hazardous waste at the FEMP are trained in proper hazardous waste handling procedures. Hazardous waste containers are approved for storage after confirmation that the containers are closed, properly labeled and are in good condition. Previously used containers are cleaned before reuse. Combining of wastes ~~waste~~ from different sources into the same container is not allowed without review.

Individual storage areas are divided into separate curbed areas or bays. The types of hazardous waste to be stored in these areas are identified by RGC signs. These signs facilitate the weekly inspection process and eliminate storage of incompatible hazardous wastes within the same areas. Separation of the storage areas by curbs prevents mixing incompatible hazardous wastes when ~~if~~ a leak or spill occurs.

F-5e Management of Ignitable or Reactive Wastes in Tank Systems

The FEMP is not seeking a RCRA permit to operate a hazardous waste tank system.

F-5f Management of Incompatible Wastes in Tank Systems

The FEMP is not seeking a RCRA permit to operate a hazardous waste tank system.

F-5g Management of Ignitable or Reactive Wastes Placed in Waste Piles

The FEMP is not seeking a RCRA permit to operate a hazardous waste pile.

F-5h Management of Incompatible Wastes Placed in Waste Piles

The FEMP is not seeking a RCRA permit to operate a hazardous waste pile.

F-5i Management of Ignitable or Reactive Wastes Placed in Surface Impoundments

The FEMP is not seeking a RCRA permit to operate a hazardous waste surface impoundment.

F-5j Management of Incompatible Wastes Placed in Surface Impoundments

The FEMP is not seeking a RCRA permit to operate a hazardous waste surface impoundment.

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F-5k Management of Ignitable or Reactive Wastes Placed in Landfills

The FEMP is not seeking a RCRA permit to operate a hazardous waste landfill.

F-5l Management of Incompatible Wastes Placed in Landfills

The FEMP is not seeking a RCRA permit to operate a hazardous waste landfill.

F-5m Management of Ignitable or Reactive Wastes Placed in Land Treatment Units

The FEMP is not seeking a RCRA permit to operate a hazardous waste land treatment unit.

F-5n Management of Incompatible Wastes Placed in Land Treatment Units

The FEMP is not seeking a RCRA permit to operate a hazardous waste land treatment unit.

SECTION F - PROCEDURES TO PREVENT HAZARDS

FIGURE F-2

HAZARDOUS WASTE COMPATIBILITY CHART

REACTIVITY GROUP DESCRIPTION	REACTIVITY GROUP CODE (RGC)	A	B	C	D	E	F	G	H	I	J	K
Nitriles, Halogenated Organics	A	X	X	O	O	X	X	X	O	O	X	X
Combustibles (hydrocarbons)	B	X	X	O	X	X	X	X	X	O	O	X
Mineral acids and other corrosive mixtures	C	O	O	X	O	O	O	O	O	O	O	O
Caustics	D	O	X	O	X	O	X	X	X	O	O	X
Toxic Metals and Metal Compounds	E	X	X	O	O	X	X	X	X	O	X	X
Fluorides (inorganic)	F	X	X	O	X	X	X	X	X	O	X	X
Water-containing Mixtures	G	X	X	O	X	X	X	X	X	O	O	X
Cyanide Solutions and Compounds	H	O	X	O	X	X	X	X	X	O	O	X
Strong Oxidizers	I	O	O	O	O	O	O	O	O	X	O	O
Free Metals	J	X	O	O	O	X	X	O	O	O	X	O
Ignitable (Alcohols, D001)	K	X	X	O	X	X	X	X	X	O	O	X

X = Compatible
 O = Not Compatible

SECTION F - PROCEDURES TO PREVENT HAZARDS

ATTACHMENT F-1

INSPECTION SCHEDULE
for

Fire Protection Equipment

Located within a Hazardous Waste Management ~~Container Storage~~ Unit

EQUIPMENT	FREQUENCY	TYPE OF PROBLEMS
Portable Fire Extinguisher	Weekly	Missing, obvious physical damage
	Monthly	Operating condition (e.g., gauge pressure, hose condition)
	Annual (multi-years)	Weight and condition of agent (e.g., powder), hydrostatic testing
Sprinklers (if installed)	Weekly	Obvious damage, operating pressure
	Annual	System operation test

SECTION F - PROCEDURES TO PREVENT HAZARDS

ATTACHMENT F-1

INSPECTION SCHEDULE

for

Spill Response and Cleanup Equipment

Located within a Hazardous Waste Management ~~Container Storage Unit~~

EQUIPMENT	FREQUENCY	TYPE OF PROBLEMS
Recovery (Overpack) Drums	Weekly	Quantity, condition
Absorbent Pads	Weekly	Quantity, condition
"PIG" Absorbent/ Containment Boom	Weekly	Quantity, condition
Shovel	Weekly	Quantity, condition
Broom	Weekly	Quantity, condition
Bagged Absorbent	Weekly	Quantity, condition

SECTION F - PROCEDURES TO PREVENT HAZARDS

ATTACHMENT F-1

INSPECTION SCHEDULE
for

Emergency Personal Protective Equipment
Located within a Hazardous Waste Management ~~Container Storage Unit~~

EQUIPMENT	FREQUENCY	TYPE OF PROBLEMS
Respirators and Cartridges	Weekly	Quantity, condition
Rubber Boots	Weekly	Quantity, condition
Rubber Gloves	Weekly	Quantity, condition
Disposable Coveralls	Weekly	Quantity, condition
Leather Palm Gloves	Weekly	Quantity, condition
Emergency Eye Wash and Safety Shower	Weekly	Condition, green light
	Semi-annual	Operating test

SECTION F - PROCEDURES TO PREVENT HAZARDS

ATTACHMENT F-1

INSPECTION SCHEDULE
for

Operation Equipment

Located within a Hazardous Waste Management ~~Container Storage~~ Unit

EQUIPMENT	FREQUENCY	TYPE OF PROBLEMS
Electrical Power	Weekly	Power of lights
Lighting	Weekly	Operating condition
Labeling Supplies	Weekly	Sufficient Quantity
Warning Signs (Interior/Exterior)	Weekly	Present and legible
Two-Way Radio	Daily (when in use), minimum once weekly	Operating condition
Building Audible Warning Alarms	Weekly	Operations test
Automatic Signal Devices	Every other month	Operations test
Fire Alarm Manual Pull- Stations	Every 6 months	Operations test

SECTION F - PROCEDURES TO PREVENT HAZARDS

ATTACHMENT F-1

**SPECIFIC INSPECTION SCHEDULE
for a
RCRA LIQUID CONTAINER STORAGE UNIT**

EQUIPMENT	FREQUENCY	TYPE OF PROBLEMS
Containment Diking (Curbs)	Weekly	Damage, cracks, breaks and operating condition
Ramps	Weekly	Damage and operating condition
Containment Floor Condition	Weekly	Free liquid, damage, cracks (sealant), breaks and operating condition
Sumps and Trenches within Containment	Weekly	Free liquids, damage, cracks, breaks and operating condition
Aisle Spacing	Weekly	Adequate aisle spacing, proper container placement and stacking
Housekeeping	Weekly	Clutter, general condition
Container Condition	Weekly	Container labels, dates, closure, compatibility, damage or deterioration (e.g., hole, dent, bulge, corrosion/paint/rust)

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SECTION F - PROCEDURES TO PREVENT HAZARDS

ATTACHMENT F-1

**SPECIFIC INSPECTION SCHEDULE
for a
RCRA SOLID CONTAINER STORAGE UNIT**

EQUIPMENT	FREQUENCY	TYPE OF PROBLEMS
Floor Condition	Weekly	Cracks, operating condition, liquids (water) from run-on
Aisle Spacing	Weekly	Adequate aisle spacing, proper container placement and stacking
Housekeeping	Weekly	Clutter, evidence of spills
Container Condition	Weekly	Container labels, dates, closure, compatibility, damage or deterioration (e.g., hole, dent, bulge, corrosion/paint/rust)

SECTION F - PROCEDURES TO PREVENT HAZARDS

ATTACHMENT F-1

**INSPECTION SCHEDULE
for
FACILITY FIRE PROTECTION EQUIPMENT**

EQUIPMENT	FREQUENCY	TYPE OF PROBLEMS
Fire Engine/Pumper	Daily (in service unit only)	Inventory of equipment, operating condition
	Annual	Pump capacity test
Ambulance	Daily (in service unit only)	Inventory of equipment, operating condition
Haz-Mat Response Truck	Daily	Inventory of equipment, operating condition
Utility/Supply Vehicle	Daily (in service unit only)	Inventory of equipment, operating condition
Fire Pumps	Weekly	Start-up and operation test of pump and system, diesel fuel level
	Annual	Pump capacity test
Elevated High-Pressure Hydrant Fire Water Tank	Weekly	Water level, operating condition
Ground Level Fire Pump Water Tank	Weekly	Water level, operating condition
Fire Hydrants	Annual	Operating condition, annual flushing, pressure
Fire Alarm System	Monthly	Visual inspection of call boxes and system.
	Yearly	Operations test

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SECTION F - PROCEDURES TO PREVENT HAZARDS

ATTACHMENT F-2

Inspection Forms

- I. RCRA Container Storage Inspection Form
- II. RCRA Container Storage Area Inspection Forms
 - 1. Plant 6 Warehouse (Building 79)
 - 2. KC-2 Warehouse (Building 63)
 - 3. Plant 8 Warehouse (Building 80)
 - 4. Pilot Plant Warehouse (Building 68)
 - 5. Plant 9 Warehouse (Building 81)
 - 6. Plant 1 Pad Storage Area
 - 7. CP Storage Warehouse (Butler Building) (Building 56)

**Fernald Site
RCRA CONTAINER STORAGE INSPECTION**

-4458-

INSPECTOR'S NAME:	INSPECTOR'S BADGE NUMBER:
LOCATION:	DATE:
TIME:	

MCSA INVENTORY NUMBER	OBSERVATIONS MADE *	NATURE OF ANY REPAIRS OR OTHER REMEDIAL ACTIONS TAKEN	DATE CORRECTED
1			
2			
3			
4			
5			
6			
7			
8			
9			
11			
12			
13			
14			
15			

INSPECTOR'S SIGNATURE:	DATE:
SUPERVISOR'S SIGNATURE:	DATE:

COMMENTS: _____

* Observations for container inspection include visually inspecting the following items: damage or deterioration (eg. hole, dent, bulge, corrosion/paint/rust); labels, dates, closed (eg. loose bungs, rings); compatibility.

Inspector's Signature:

Date:

Time:

Facility Owner's Signature:

Date:

Time:

	ITEM DESCRIPTION	ACCEPT	REJECT	N/A	OBSERVATION	CORRECTIVE ACTIONS TAKEN	DATE ACTION COMPLETE
1	Signs: -Danger: Authorized Personnel Only -Danger: No Smoking, Open Flame -Facility Owner and Emergency Information						
2	Boundary Markers (chain, strip)						
3	Condition of area, building, pad and/or unit						
4	Safety equipment						
5	Visible signs of material release						
6	Secondary containment condition						
7	Emergency and spill response equipment						
8	Container management						
9	Compatibility codes						
10	Condition of containers						

* if applicable

Comments:

Facility Owner reviews, signs, and distributes log to:
 Hazardous Waste Compliance and Field Implementation

Hazardous Waste Compliance and Field Implementation Signature:

Date:

CONTAINER STORAGE AREA HAZARDOUS WASTE MANAGEMENT UNIT INSPECTION FORM
FOR HWMU #34, KC-2 WAREHOUSE (BLDG. 63)

4458

Inspector's Signature: _____

Date: _____

Time: _____

Facility Owner's Signature: _____

Date: _____

Time: _____

ITEM DESCRIPTION	ACCEPT	REJECT	N/A	OBSERVATION	CORRECTIVE ACTIONS TAKEN	DATE ACTION COMPLETE
1 Signs: -Danger: Authorized Personnel Only -Danger: No Smoking, Open Flame -Facility Owner and Emergency Information						
2 Boundary Markers (chain, strip)						
3 Condition of area, building, pad and/or unit						
4 Safety equipment						
5 Visible signs of material release						
6 Secondary containment condition						
7 Emergency and spill response equipment						
8 Container management						
9 Compatibility codes						
10 Condition of containers						

*If applicable

Comments:

Facility Owner reviews, signs, and distributes log to:
 Hazardous Waste Compliance and Field Implementation

Hazardous Waste Compliance and Field Implementation Signature: _____

Date: _____

CONTAINER STORAGE AREA HAZARDOUS WASTE MANAGEMENT UNIT INSPECTION FORM
FOR HMU #29, PLANT 8 WAREHOUSE (BLDG. 80)

4458

Inspector's Signature: _____

Date: _____

Time: _____

Facility Owner's Signature: _____

Date: _____

Time: _____

ITEM DESCRIPTION	ACCEPT	REJECT	N/A	OBSERVATION	CORRECTIVE ACTIONS TAKEN	DATE ACTION COMPLETE
1 Signs: -Danger: Authorized Personnel Only -Danger: No Smoking, Open Flame -Facility Owner and Emergency Information						
2 Boundary Markers (chain, strip)						
3 Condition of area, building, pad and/or unit						
4 Safety equipment						
5 Visible signs of material release						
6 Secondary containment condition						
7 Emergency and spill response equipment						
8 Container management						
9 Compatibility codes						
10 Condition of containers						

* If applicable

Comments: _____

Distribution: Facility Owner reviews, signs, and distributes log to:
 Hazardous Waste Compliance and Field Implementation

Hazardous Waste Compliance and Field Implementation Signature: _____

Date: _____

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**CONTAINER STORAGE AREA HAZARDOUS WASTE MANAGEMENT UNIT INSPECTION FORM
FOR HMU #33, PILOT PLANT WAREHOUSE (BLDG. 68)**

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Inspector's Signature: _____

Date: _____

Time: _____

Facility Owner's Signature: _____

Date: _____

Time: _____

	ITEM DESCRIPTION	ACCEPT	REJECT	N/A	OBSERVATION	CORRECTIVE ACTIONS TAKEN	DATE ACTION COMPLETE
1	Signs: -Danger: Authorized Personnel Only -Danger: No Smoking, Open Flame -Facility Owner and Emergency Information						
2	Boundary Markers (chain, strip)						
3	Condition of area, building, pad and/or unit						
4	Safety equipment						
	Visible signs of material release						
6	Secondary containment condition						
7	Emergency and spill response equipment						
8	Container management						
9	Compatibility codes						
10	Condition of containers						

* If applicable

Comments:

Facility Owner reviews, signs, and distributes log to:
Hazardous Waste Compliance and Field Implementation

Hazardous Waste Compliance and Field Implementation Signature: _____

Date: _____

Inspector's Signature:

Date:

Time:

Facility Owner's Signature:

Date:

Time:

	ITEM DESCRIPTION	ACCEPT	REJECT	N/A	OBSERVATION	CORRECTIVE ACTIONS TAKEN	DATE ACTION COMPLETE
1	Signs: -Danger: Authorized Personnel Only -Danger: No Smoking, Open Flame -Facility Owner and Emergency Information						
2	Boundary Markers (chain, strip)						
3	Condition of area, building, pad and/or unit						
4	Safety equipment						
	Visible signs of material release						
6	Secondary containment condition						
7	Emergency and spill response equipment						
8	Container management						
9	Compatibility codes						
10	Condition of containers						

Comments:

Facility Owner reviews, signs, and distributes log to:
 Hazardous Waste Compliance and Field Implementation

Hazardous Waste Compliance and Field Implementation Signature:

Date:

CONTAINER STORAGE AREA HAZARDOUS WASTE MANAGEMENT UNIT INSPECTION FORM
FOR HMU #20 PLANT 1 PAD

4458

Inspector's Signature:

Date:

Time:

Facility Owner's Signature:

Date:

Time:

	ITEM DESCRIPTION	ACCEPT	REJECT	N/A	OBSERVATION	CORRECTIVE ACTIONS TAKEN	DATE ACTION COMPLETE
1	Signs: -Danger: Authorized Personnel Only -Danger: No Smoking, Open Flame -Facility Owner and Emergency Information						
2	Boundary Markers (chain, strip)						
3	Condition of area, building, pad and/or unit						
4	Safety equipment						
5	Visible signs of material release						
6	Secondary containment condition						
7	Emergency and spill response equipment						
8	Container management						
9	Compatibility codes						
10	Condition of containers						

Comments:

Facility Owner reviews, signs, and distributes log to:
 Hazardous Waste Compliance and Field Implementation

Hazardous Waste Compliance and Field Implementation Signature: _____ Date: _____

**CONTAINER STORAGE AREA HAZARDOUS WASTE MANAGEMENT UNIT INSPECTION FORM
FOR HWMU #19 RCRA WAREHOUSE BLDG. 56 (BUTLER BLDG.)**

-4458-

Inspector's Signature: _____

Date: _____

Time: _____

Facility Owner's Signature: _____

Date: _____

Time: _____

	ITEM DESCRIPTION	ACCEPT	REJECT	N/A	OBSERVATION	CORRECTIVE ACTIONS TAKEN	DATE ACTION COMPLETE
1	Signs: -Danger: Authorized Personnel Only -Danger: No Smoking, Open Flame -Facility Owner and Emergency Information						
2	Boundary Markers (chain, strip)						
3	Condition of area, building, pad and/or unit						
4	Safety equipment						
5	Visible signs of material release						
6	Secondary containment condition						
7	Emergency and spill response equipment						
8	Container management						
9	Compatibility codes						
10	Condition of containers						

Comments: _____

Facility Owner reviews, signs, and distributes log to:
 Hazardous Waste Compliance and Field Implementation

Hazardous Waste Compliance and Field Implementation Signature: _____ Date: _____

SECTION G - CONTINGENCY PLAN

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SECTION 6 - CONTINGENCY PLAN

RCRA Part B Permit Application
Fernald Environmental Management Project
Fernald, Ohio

USEPA ID# OH 6890008976

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 management unit facility. This information is submitted for the Fernald Environmental Management Project (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 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 FEMP is included for informational purposes only and is not intended to be part of the facility's RCRA permit.

6-1 GENERAL INFORMATION

The FEMP is a large scale integrated production facility which formerly 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.

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

HWMU No. 37 (Plant 6 Warehouse/Bldg 80)

Location: E Street between 1st and 2nd Street
Maximum Capacity: 230,780 gallons / 4,196 drums
Waste Types: Combustible and flammable liquids, solids, trash

HWMU No. 35 (Plant 9 Warehouse/Bldg 81)

Location: D Street - North of 2nd Street
Maximum Capacity: 86,240 gallons / 1,568 drums
Waste Types: Combustible liquids and solids, corrosives

HWMU No. 34 (KC-2 Warehouse/Bldg 63)

Location: B Street - North of 2nd Street
Maximum Capacity: 200,640 gallons / 3,648 drums
Waste Types: Combustible and flammable liquids

HWMU No. 33 (Pilot Plant Warehouse)

Location: Southwest corner of production area
Maximum Capacity: 13,200 gallons / 240 drums
Waste Types: Ignitable dry wastes, metals, metal salts and oxides

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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: Combustible solids

HWMU No. 20 (Plant 1 Pad)

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

Maximum Capacity: 10,890,000 gallons / 198,000 drums

Waste Types: Various hazard classes;

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

Location: B Street - North of 2nd Street

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

Waste Types: Various hazard classes EXCEPT ignitables.

The FEMP site and mailing addresses are:

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

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

U. S. Department of Energy
Office of Environmental Restoration and Waste 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 seven storage units the FEMP is seeking to permit, all hazardous waste management units are discussed in this plan. The location of the active hazardous waste management units (HWMUs), active and inactive, which the FEMP is seeking to permit as RCRA storage facilities are shown in Figure G-1. A copy of this contingency plan is located at each such unit. The location of all other HWMUs is shown within Attachment G-1 on the inserted map "Evacuation Routes", located between pages 9 and 10; specific route maps are posted at these units. Since a potential incident could occur at any HWMU, Attachment G-1 describes evacuation routes and fire and safety equipment available for each hazardous waste management unit. all HWMUs.

G-1a Emergency Organization

The Emergency Coordinator 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 FEMP Emergency Organization. Figure G-2 provides an organizational chart of the FEMP Emergency Response Organization.

Fernald Environmental Management Project

Emergency Management

The Emergency Director (the operating contractor President or his designee) has designated an Assistant Emergency Duty Officer (AEDO) who is

responsible for emergency responses at the FEMP. The AEDO is the primary Emergency Coordinator.

The Emergency Coordinator (AEDO) manages and controls the response to any event at the FEMP. A minimum of one Emergency Coordinator (AEDO) is present onsite at all times. Through an extensive Emergency Duty Officer training program assembled by the Training Division, the Emergency Coordinator (AEDO) is familiar with knowledgeable of this Contingency Plan, operations and activities at the FEMP, the locations and characteristics of hazardous waste at the facility, the location of records within the FEMP, and the facility layout. Figure G-3.1 illustrates the range of training requirements for the AEDO.

The Emergency Coordinator (AEDO) can activate the FEMP emergency response organizations including, but not limited to, the Emergency Response Team, Monitoring Team, medical staff, security personnel, the Emergency Operations Center, the Joint Public Information Center, the Triage Center, and the Staging Area. 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.

Emergency Response Team

The Emergency Response Team is responsible for on-scene 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 FEMP. The 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 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

Public information spokespersons representing the FEMP, Butler and Hamilton counties, and the State of Ohio assemble at the Joint Public Information Center (JPIC). The FEMP provides administrative support and a technical advisor to the JPIC Team. Technical advisors from other organizations can be summoned as needed.

Medical Response Organization

The Medical Response Organization provides treatment and stabilization for injuries. 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 security personnel. The security staff 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 FEMP monitoring organization consists of Radiological Safety and Industrial Hygiene 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 Office (~~DOE-F0~~) (DOE-FN)

The DOE Fernald Office (~~DOE-F0~~) (DOE-FN) 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-FN 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 Restoration and Waste Management has overall responsibility for emergency operations at the FEMP and designates response authority to the AEDO to act as the primary Emergency Coordinator. The 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.

Butler and Hamilton Counties

Butler and Hamilton counties may activate their respective Emergency

Operations Centers 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 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
- Hamilton County Sheriff
- Mercy Hospital
- Ohio Emergency Management Agency
- Ohio Highway Patrol, Post 9
- Providence Hospital
- American Red Cross Disaster Services
- Butler County Emergency Management Agency
- Butler County Sheriff
- Colerain Township Fire Department
- Ross Township Fire Department
- Ross Township Sheriff's Police Department
- University Hospital
- Ohio EPA
- US EPA

G-2 EMERGENCY COORDINATION

The FEMP Emergency Preparedness staff, headed by the Emergency Coordinator (AEDO), is in charge of the preparation for and response to an emergency at the FEMP. Figure G-3 depicts the relationships between the key FEMP Emergency

Preparedness 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.

FEMP Emergency Preparedness Staff

Emergency Coordinator (AEDO)

The Assistant Emergency Duty Officer (AEDO) has been designated as the primary onsite Emergency Coordinator. 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 five personnel assigned to the position of Utility Engineer. This group works a five-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 (Utility Engineer) **is on site at all times, who can be reached by 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 Coordinators (AEDOs).

The Emergency Coordinator (AEDO) has the authority to activate the 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 Utility Engineers, Security Lieutenants, Safety and Fire Inspectors, 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 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. The Emergency Duty Officer remains part of the Emergency Operations Center staff providing management oversight to the Emergency Coordinator (AEDO). Designated senior staff managers rotate as the Emergency Duty Officer.

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

- personal digital display pager;
- personal portable cellular telephone; or
- by conventional telephone service.

Emergency Chief (EC)

The Emergency Chief directs the Emergency Response Team's remedial activities. The Emergency Chief reports directly to the Emergency Coordinator (AEDO). The Emergency Chief is the Safety and Fire Inspector on shift. At least one Safety and Fire Inspector is on site at all times.

The Safety and Fire Inspector on duty may be reached in the following ways:

- via radio through the 24-hour-staffed
FEMP Communications Center, 513-738-6295
- office, 513-738-6235
- mobile vehicle cellular telephone, 513-535-1367

- by personal digital display pager

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 activation of the Emergency Operations Center (EOC) due to an incident involving hazardous waste, fire, explosion, or release of hazardous waste and hazardous waste constituents implements of the Contingency Plan.~~ The Emergency Coordinator (AEDO) evaluates and categorizes the event according to increasing levels of severity as defined in Figure G-5.1:

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

An event greatest in magnitude is categorized as an Emergency, and determines if the event requires assistance beyond the capabilities of the Emergency Response Team (ERT). Categorization of a hazardous waste incident as an 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 summarized and diagrammed in Figure G-4 ~~Implementation requirements and response actions~~

are summarized in Figure G-5 6-5.1, the Emergency Action Categorization Level Guide. This The Emergency Action Level Guide lists actions for events involving hazardous waste and radioactive material and includes numerical values to assist in evaluating and classifying the event. Implementation of the Contingency Plan is initiated for potential or actual events involving hazardous wastes or hazardous waste constituents.

The Emergency Coordinator (AEDO) after receiving notification of categorizing an event as an 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 emergencies are:

- 4a) ALERT
- 4b) SITE AREA EMERGENCY
- 4c) GENERAL EMERGENCY

The Emergency Coordinator (AEDO) or the Emergency Duty Officer (as directed by the Emergency Coordinator) activates the Emergency Operations Center as necessary. The emergency classification action level may be established or 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 Emergency Coordinator (AEDO) 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;

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

Assistance may be requested from:

Crosby Township Volunteer Fire Department

Telephone: 911 or 825-2260 (Hamilton County Communications Center)

Colerain Township Volunteer Fire Department

Telephone: 911 or 825-2260 (Hamilton County Communications Center)

Ross (Venice) Volunteer Fire Department

Telephone: 911 or 844-1515 (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 a hazardous waste ALERT, SITE AREA EMERGENCY, or GENERAL EMERGENCY.
- 2) The Communications Center (or Emergency Coordinator (AEDO)) notifies Emergency Chief (EC) and Emergency Duty Officer (EDO) of the event categorization.
- 3) The Emergency Duty Officer notifies Emergency Director (ED) and DOE Site Manager of the event categorization.
- 4) The Communications Center completes County Event Report¹ 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

¹ The County Event Report is an emergency event report form used for making notifications to both Butler and Hamilton Counties for events categorized as Alert or higher.

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if necessary, by chemical analyses.

- 7) Concurrently, the Emergency Coordinator (AEDO) assesses possible hazards to human health and/or the environment that may result from the release, fire, or explosion. This assessment will consider both direct and indirect effects of the event.

- 8) 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,
 - FEMP Release Evaluator,
 - DOE-FN 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.

- 9) The DOE-FN ~~DOE-FO~~ Duty Officer provides FEMP Communications Center, as soon as possible, with a written record documenting that the appropriate regulatory agencies have been verbally contacted.

- 10) The DOE-FN ~~DOE-FO~~ Duty Officer is responsible for making and verifying any follow-up notifications communicated to them by the 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 FEMP Emergency Operations Center notifies appropriate local authorities to advise whether protective actions are required. The FEMP Emergency Operations Center provides oral notification immediately to the Ohio Emergency Management Agency. The ~~DOE-FN~~ ~~DOE-F0~~ Duty Officer will provide oral notification immediately to the Ohio EPA Emergency Response Center.

The verbal report will contain the following information²:

- name, address, and telephone number of the reporter;
- 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 FEMP. The FEMP Communications Center will activate the Off-site Emergency Warning System for emergency events that could have significant off-site impact. The FEMP Off-Site Emergency Warning System is utilized to inform the population within a two-mile

²

Form A (Ohio Hazardous Waste Release Fire, Explosion Report to Ohio EPA) may be used as a guideline to facilitate this verbal reporting.

radius of the 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 DOE 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.

6-4b 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 hazardous waste log sheets 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 RCRA operating records Materials Control and Accountability (MC&A) inventory records.
- 3) Samples will be taken for analysis and characterization if the released material cannot be identified by the above methods.

6-4c 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 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

~~Emergencies which involve or affect DOE are grouped into three broad categories defined as Operational, Energy, and Continuity of Government (COG). The Operational category includes emergencies involving hazardous waste. This emergency category is further divided into classes based upon the severity of the event. The following is a description of the Operational Emergency Category as applied to the FEMP.~~

~~Operational Emergencies apply to DOE reactors and other DOE facilities (nuclear and non nuclear) involved with hazardous materials and transportation accidents involving hazardous material under DOE control.~~

~~The three classes of Operational Emergencies are defined as follows and are listed in order of decreasing severity: General Emergency, Site Area Emergency, and Alert.~~

~~As previously noted in Section G-3, the four major event categories, in~~

order of increasing severity, are: Loggable Event, Off-Normal Event, Unusual Occurrence, and Emergency. Events are categorized using the criteria defined in Figure G-5.1, Event Categorization Level Guide. The categorization of a hazardous waste incident as an Emergency activates the Emergency Operations Center (EOC) and implements the contingency plan. Emergency levels are further classified, using the criteria in Figure G-5.2, Emergency Action Level Guide, as Alert (least severe), Site Area Emergency, or General Emergency (most severe) as defined below.

General Emergency

A General Emergency at a non-reactor facility such as the FEMP is declared when an event occurs which involves actual or imminent catastrophic reduction of facility safety systems with potential for loss of containment or confinement integrity. A General Emergency may involve a release of large quantities of hazardous waste to the environment and/or a release of hazardous waste (radiological or non-radiological) that can reasonably be expected to exceed appropriate Protective Action Guide or Emergency Response Planning Guideline exposure levels off-site.

A General Emergency is declared during a transportation incident when an actual or imminent catastrophic reduction in the safety of the shipment has occurred, any release of hazardous waste is expected to exceed appropriate Protective Action Guide or Emergency Response Planning Guideline exposure levels in a general public area, or if the event has occurred on a DOE site and the release is expected to exceed appropriate Protective Action Guide or Emergency Response Planning Guideline exposure levels off-site.

If a General Emergency is declared, the Emergency Coordinator (AEDO) immediately directs the Communication Operator to activate the EOC, the FEMP Off-site Emergency Warning System, and the Sitewide Alarm System, and the Joint Public Information Center (JPIC), to make the required announcements for site protective actions. Emergency Response Team

assistance will be required and notification shall be made as described in Section G-4a. Off-site response assistance and/or response may be required.

Site Area Emergency

A Site Area Emergency at a non-reactor facility such as the FEMP is declared when events are in progress or have occurred which involve actual or likely major failures of facility functions needed for protection of workers and the public. A Site Area Emergency is also declared when a transportation incident has occurred which involves an actual or potential major reduction in the safety of the shipment. Any release of hazardous waste is expected to exceed appropriate Protective Action Guide or Emergency Response Planning Guideline exposure levels onsite or in the immediate vicinity of the transportation incident, but is not expected to exceed the appropriate Protective Action Guide or Emergency Response Planning Guidelines off-site, or in a general public area.

~~A Site Area Emergency declared when a transportation incident has occurred which involves an actual or potential major reduction in the safety of the shipment. Any release of hazardous waste is expected to exceed appropriate Protective Action Guide or Emergency Response Planning Guidelines exposure levels in the immediate vicinity of the accident or incident, but is not expected to exceed the appropriate Protective Action Guide or Emergency Response Planning Guidelines exposure levels in a general public area.~~

If a Site Area Emergency is declared, the Emergency Coordinator (AEDO) immediately directs the Communication Operator to activate the EOC, the Sitewide Alarm System and to make the required announcements for information and for local or site protective actions. Full activation of the EOC is required. The Joint Public Information Center (JPIC) may also be activated. ERT assistance will be required and notifications shall be made as described in Section G-4a. Off-site response assistance and/or

response may be required.

Alert

An Alert is declared at a non-reactor facility such as the FEMP when events are in progress or have occurred which involve an actual or potential substantial impact on the safety of the facility. Any release of hazardous waste is expected to be limited to small fractions of the appropriate Protective Action Guide or Emergency Response Planning Guidelines exposure levels.

An Alert is also declared when a transportation event incident has occurred which involves an actual or potential substantial impact on the safety of the shipment. An event is classified as an Alert if any release of hazardous waste is expected to be limited to small fractions of the appropriate Protective Action Guide or Emergency Response Planning Guidelines exposure levels, both onsite or in the immediate vicinity of the transportation incident.

If an Alert is declared, the The Emergency Coordinator (AEDO) immediately directs the Communication Center Operator to activate the EOC, if an Alert is declared, the Sitewide Alarm System and to make the required announcements for local protective actions and, if required, full staffing of the FEMP EOC. The Joint Public Information Center (JPIC) may also be activated. ERT assistance will be required and notifications shall be made as described in Section G-4a. Off-site response assistance and/or response may be required.

G-4d Control Procedures

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

- explosion
- fire

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- spills or material release.

The FEMP Emergency Response Team is prepared for immediate response to fires, explosions, and spills at all times. Personal protective clothing, pumps, generators, and respiratory equipment are noted in Section 6-5; containment supplies and procedures in Section 6-5(b); and major self-propelled and other "heavy" equipment in Section 6-5(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
- Industrial Mechanics from Garage driving pumper truck and ambulance if requested.
- Security Officer with vehicle
- 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 Emergency Response Team under the direction of the 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 6511, 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 6511, 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) Authorize the request for 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.

~~The Emergency Coordinator, should~~ Should the EC or Emergency Coordinator (AEDO) determine that a fire is out of control and additional personnel are required, ~~the Emergency Coordinator (AEDO)~~ will direct the Communications Operator to initiate the call-in for additional FEMP fire response personnel by activating the Group C pagers.

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

The personnel responding from off-site departments will be under 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.

6-4e 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.

6-4f 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.

6-4g Incompatible Wastes

~~The Emergency Coordinator (AEDO) will ensure that material that is incompatible with the released material is not introduced into the affected area. Containers are marked with Reactivity Group Code (RGC) indicating compatibility.~~

Containers and storage bays are marked with Reactivity Group Codes (RGCs) based upon the results of waste characterizations. The RGC chart is readily available 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 stored in separately bermed areas or 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 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.

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 FEMP. Depleted stocks of materials will be replenished. ~~self-contained breathing apparatus cleaned and refilled, protective clothing cleaned and other emergency equipment will be cleaned or replaced as necessary.~~ 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 Emergency Coordinator (AEDO) will be contacted immediately, if inspectors during the scheduled weekly container inspections or other FEMP personnel observe spills and/or leakage. The Emergency Coordinator (AEDO) will then determine which types of industrial absorbents may be used (if necessary) to stop the spread of the leak or spill. Cleanup residues, along with the original drum's contents, will be overpacked and stored in the same area. For cleanup residues where the identity or waste status is in doubt, all absorbents, washings, etc., will be drummed and transferred to an appropriate temporary holding area, pending analysis, relabeling, and re-storing in accordance with hazardous waste regulations.

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

~~Tank systems or secondary containment systems from which there has been a leak or spill, or a system which is unfit for use will immediately be controlled to preclude the unrestricted flow of hazardous waste.~~ 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.

6-4j(2) Removing Waste

Hazardous wastes are removed from a tank area 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.

6-4j(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 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 will be prevented. Visible contamination of soil or surface water will be cleaned up and disposed of in accordance with all applicable regulatory requirements.

6-4j(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 6-4a. Any release to the environment greater than or equal to the reportable quantity (except a leak or spill

that is less than or equal to one pound and is immediately contained and cleaned up) will be reported to 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.

~~Release to the environment from a tank system components which were not provided with secondary containment. Above ground components which can be visually inspected will be excluded from the secondary containment provision.~~

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 an independent, qualified, 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 and 264.193, DAC 3745-55-92, and DAC 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-4k Surface Impoundment Spills, and Leakage

G-4k(1) Emergency Repairs

Inspections of hazardous waste surface impoundments are conducted weekly and after storms to detect evidence of deterioration, malfunctions, or improper operation of run-on and run-off control systems, adequate free-board, and sudden drops in levels.

Inspection is increased to a daily inspection if evidence of malfunction or deterioration is observed. Inspections, sampling and analysis, and remedial actions will be performed, as necessary, to ensure the safe operation and maintenance of these units that is protective of human health and the environment.

Immediate remedial action is taken where a hazard is recognized as imminent.

G-4k(1)(a) Stopping Waste Addition

~~Activities which generate wastes to the impoundment will be curtailed in instances of impoundment deterioration such as a leak at a high level of the retaining wall to maintain controllable levels.~~ In the event of impoundment liner-leakage or wall-deterioration, activities which generate wastes to that impoundment will be stopped, or those wastes will be diverted to another holding facility.

G-4k(1)(b) Containing Leaks

Surface run-on and run-off and adequate free-board will be maintained at levels to preclude further deterioration or exposure to the environment. Large leaks, from surface impoundments or from overrunning berms surrounding large tank systems, can be pumped to intact surface impoundments or portable tanks, respectively, or through the stormwater drains directly to the general sump or biosurge lagoon. In extreme cases, including during periods of heavy rainfall, the spill can flow into the stormwater drains and be routed to the dual Storm Water Retention Basins (capacity of greater than 10 million gallons), where further appropriate action can be taken.

G-4k(1)(c) Stopping Leaks

~~Leaks will be repaired using substances that are compatible with the impoundment contents and using good engineering practices to prevent further deterioration and stop unwanted flow.~~ Appropriate earth-moving equipment and/or construction materials will be used to repair leaks from impoundments; in

many cases, the waste within the impoundment will be reduced to a level below the failure point, prior to the repair. All repairs of a permanent nature will be certified by a professional engineer as meeting the appropriate design specifications.

G-4k(1)(d) Preventing Catastrophic Failure

The performance of periodic inspections, initiation of timely analyses, and periodic followed by appropriate maintenance or repair are the control methods used to prevent the possibility of catastrophic failure of the hazardous waste surface impoundments.

All repairs of a permanent nature will be certified by a professional engineer as meeting the appropriate design specifications.

G-4k(1)(e) Emptying the Impoundment

~~The FEMP is listed on the National Priorities List (NPL) and the hazardous waste surface impoundments are included in the CERCLA operable units. Closure of each hazardous waste surface impoundment at the FEMP will be consistent with the final closure and remediation of the entire site under the CERCLA program.~~ If situations arise such as a leak, an impending repair, or heavy rains, the contents of the impaired surface impoundment can be pumped through a large diameter hose or pipe to another holding facility; the stormwater retention basin can be emptied via bottom drains.

G-4k(2) Certification

Dike structural integrity will be certified by an independent,

registered professional engineer in the event that a hazardous waste surface impoundment has been removed from service due to actual or imminent dike failure.

6-4k(3) Repairs as a Result of Sudden Drop

~~Upon observance of a sudden drop of the level in a hazardous waste surface impoundment immediate inspections will be performed to determine the presence of leaks. Increased monitoring of surrounding aquifers will be implemented. Determination of the imminent impact to human health and the environment will be made, based upon results from groundwater monitoring. Structural remedial investigations will be implemented to determine the appropriate remedial actions to control or correct the cause of the sudden drop.~~

~~For a hazardous waste surface impoundment that has been emptied and removed from service, an immediate structural remedial investigation will be implemented to determine the appropriate remedial actions to repair the unit. All repairs of a permanent nature will be certified by a professional engineer as meeting the appropriate design specifications.~~

6-4k(3)(a) Existing Portions of Hazardous Waste Surface Impoundments

~~Existing portions of hazardous waste surface impoundments will be subject to weekly inspections and preventive maintenance. A hazardous waste surface impoundment if removed from service as a result of a sudden drop in level, will reflect response actions that are consistent with the CERCLA Consent Agreement, the Consent Decree and its proposed amendments. If a hazardous waste surface impoundment has been emptied and removed from service, response actions will be consistent with~~

The CERCLA Consent Agreement and the Consent Decree and its Stipulated Amendment.

G-4k(3)(b) Liner Repairs to Hazardous Waste Surface Impoundments

~~For the liner portion of the surface impoundment, the repaired liner system must be certified by a qualified engineer as meeting the appropriate design specifications. Other portions of surface impoundments will also be subject to weekly inspections and preventative maintenance.~~

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 FEMP are the Emergency Operations Center (EOC), a Mobile Operations Center (MOC), the Joint Public Information Center (JPIC) in Fairfield, Ohio, 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 FEMP also maintains mutual aid agreements with local emergency response 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 the FEMP Administration Building. EOC staffing and responsibilities are outlined in Section G-1b. Resources available in the EOC include maps, engineering drawings, and other emergency reference materials. The EOC is equipped with an air-purification system, which can sustain air quality and a backup power generator.

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A comprehensive communications system in the EOC includes telephones, telefax, computers, 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 DOE and FEMP frequencies, and an HF radio can be utilized for long distance communication. 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.

Mobile Operations Center

The Mobile Operations Center is designed and equipped to serve as a mobile command/communications post in the event that mobile communications are required at the site of an emergency or if the EOC is rendered unusable. The Mobile Operations Center can also be used by other organizations, such as Butler and Hamilton County officials or other DOE sites in the event they have a need for a portable command center.

The Mobile Operations Center is outfitted with similar capabilities as the FEMP-fixed EOC located in the Administrative Building.

The Mobile Operations Center is equipped with extensive communications capabilities as follows:

- A telephone key system capable of handling a maximum of twelve incoming/outgoing trunk lines and 24 extension lines. There are also provisions for a maximum of 8 external extensions.

- A VHF radio is programmed for various DOE and FEMP frequencies; an amateur band (144 MHz) radio for use with Civil Defense or for other civil emergency situations; and an HF radio for long distance communications capabilities.
- A CB radio in the cab intended for maintaining communications with any vehicles that may accompany the Mobile Operations Center during transportation.

The Mobile Operations Center, which seats 12 people, is also equipped with office supplies, computers, FAX machine, copier, refrigerator, respirators, maps, event status pads, white boards, markers, erasers, and other items required to support the personnel responding to an emergency situation. The computer hardware has the capability to allow the FEMP to analyze the plume direction of a chemical release and predict the expected exposure. The MOC is designed to be self-contained with an independent diesel generator, heat pump for heating and cooling and an internal lighting system.

Joint Public Information Center (JPIC)

~~The Joint Public Information Center is located at 6025 Dixie Highway (State Route 4) in Fairfield, Ohio.~~ The Joint Public Information Center services as a clearinghouse for information for the FEMP and would become the central contact point for information during an emergency. The Joint Public Information Center disseminates necessary and relevant information to the public via the news media. The Joint Public Information Center has a media briefing room, a telephone bank for media inquiries, a media monitoring room, a telephone bank for concerned citizens' inquiries, and clerical support areas. Telephone lines link the Joint Public Information Center with Butler County, Hamilton County, and the FEMP EOC.

Communications Center/Security

Security maintains the safeguard and integrity of the 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, a high-frequency single-sideband emergency radio, a shortwave receiver, 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 FEMP.

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 Operator, using the control panel, activates an alarm via bells and air horns located throughout the facility. This system is used for sounding special two-digit signals to provide warnings and other emergency information. The two-digit warning signals are detailed in Figure G-6 Table G-5.

Each alarm system is tested periodically by safety and fire personnel according to the following schedule, and the results are recorded.

- Manual alarm boxes: Every six months
- Automatic systems: Every two months
- Bells and Horns: Every week

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 have sirens which can be activated from one or more locations. These sirens are used to advise building personnel of the appropriate actions to take as a result of an emergency such as a chemical release, major fire, or explosion. Sirens are tested monthly by safety and fire personnel.~~

All process areas are linked to a Honeywell Evacuation Alarm (loudspeaker) system. In the event of an emergency in any location, dialing 6511 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

~~A manually operated ambulance alarm alerts the medical and emergency response personnel in medical emergencies. This alarm can be activated from the Communications Center.~~

Primary ERT members are notified simultaneously from the Communications Center via special Alert Pagers. A manually operated alarm, activated from the Communications Center, alerts the garage that a call has been made for the ambulance.

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 FEMP. Activating the sirens alerts 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 eleven electronic sirens (seven offsite and four

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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 at the FEMP includes 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 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 53A ~~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 Building 53A, is staffed by physicians, nurses, and technicians. Medical vehicles for emergency use include two fully-equipped ambulance vehicles. 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, air sampling equipment, and protective clothing. 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 (Dräger) 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 FEMP:

- Self-contained breathing apparatus (SCBA) and other respiratory equipment

- Acid suits Chemically resistant clothing, boots, and gloves.
- Showers and eye wash stations in fixed locations throughout the plant
- Emergency power and lighting equipment, including power-failure lighting
- ~~Gasoline pumps and submersible electric pumps~~
- Submersible electric pumps
- Portable gasoline electric generators
- Portable gasoline-powered pumps (@ to 250 gpm)
- Mobile gasoline-powered pump (trailer-mounted, @ 500 gpm).

~~The locations of self contained breathing apparatus are listed in Table G-3. A list of FEMP emergency respiratory equipment and their typical applications and limitations is provided in Table G-4 G-3. A summary of pressurized fire extinguishers is provided in Table G-5 G-4. A summary of FEMP Emergency Alarm Signals is provided in Table G-6 G-5.~~

G-5a Fire Protection Equipment

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

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

Water supply storage at the FEMP consists of several ground level and elevated water storage tanks for both fire protection and potable water supply. Potable water supply consists of one ground level storage tank with a capacity of 750,000 gallons and one elevated storage tank with a capacity of 200,000 gallons. Fire protection storage tanks consist of one ground level storage tank with a capacity of 300,000 gallons plus one elevated tank of 350,000 gallons, for a total fire protection storage capacity of 650,000

gallons.

Underground water main systems supply water to hydrants, sprinkler systems, and stand pipes 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 will be cut-off by valves and the water flow to the area rerouted while repair work is in progress.

Low-pressure (60 psi) and high-pressure (120 psi) fire hydrants are located throughout the site; they are listed in Attachment G-1 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. The Emergency Response Team will immediately proceed to the area where an automatic sprinkler system is activated and take appropriate actions.

The following building are fully sprinklered with dry pipe systems:

- KC-2 Warehouse
- Building 56 Warehouse
- Building 64 Warehouse
- Building 79 Warehouse

- Building 80 Warehouse
- Building 81 Warehouse
- Trane Thermal Liquid Incinerator

The Pilot Plant is a partially sprinklered building with a wet pipe sprinkler system in the extraction area.

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-5, Types of Pressurized Fire Extinguishers, describes the five types of pressurized fire extinguishers used at the FEMP and lists typical applications and limitations for each type of extinguisher.

G-5a(4) 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 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 detectors, and protective clothing.

FIRE AND SAFETY RESCUE UNIT 301

This unit is a 1981 Dodge Collins 1993 Ford F-350 service body

equipped with a two-way two-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.

FIRE AND SAFETY SERVICE UNIT 300

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

TANK TRUCK UNIT 322

One Mack 2,500-gallon tanker is available, equipped with a 500-gpm centrifugal pump, two-way six channel radio, protective clothing, tools, fire extinguishers, two SCBAs, and hose.

FIRE TRUCK - ENGINE NUMBER 311

This fire truck is fully equipped with a 1,000 gpm single-stage centrifugal water pump, 500-gallon booster tank, two-way six-channel radio, SCBAs, protective clothing, extension ladders, deluge gun, tools, and hose.

FIRE TRUCK - ENGINE NUMBER 312

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

AMBULANCES

Two fully-equipped ambulances meeting federal specifications are operated and maintained onsite.

SPILL RESPONSE VEHICLE - UNIT 328 (1988)

This Chevrolet 30-Series van, parked at the rear of Building 53, is stocked with personal protective equipment, environmental monitoring equipment, spill control supplies, absorbents and clean up materials. 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.

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.

HEAVY EQUIPMENT

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

- 2 flatbed trucks
- 2 dump trucks
- 4 tow tractors
- 6 semi-trailers
- 3 semi-tractors
- 1 tank truck
- 32 industrial trucks
- 45 industrial hand stackers
- 1 locomotive engine
- 2 front end loaders
- 4 bulldozers
- 1 road grader
- 2 cranes
- 1 back hoe
- 1 cement mixer

- 1 portable generator

- numerous tractors, pickup trucks, and small vehicles
- 1 vacuum tanker truck, "Super Sucker"

G-5b SPILL CONTROL AND MONITORING EQUIPMENT

SPILL CONTROL AND EMERGENCY SPILL RESPONSE EQUIPMENT

Spill response equipment is available for use at the FEMP. Stockpiles of absorbent material (such as clay absorbent and spill booms or absorbent pillows called "PIGS") along with shovels and brooms 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 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 and in Building 53. 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 HWMUs and the 90 Day Storage Area 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
 - Intrusion alarm
 - Smoke alarms
 - Radiation detection alarms
 - Supervisory alarms, including tampering, equipment malfunction, and pressure varieties
 - Process alarms for temperature and gas detection
 - Storm sewer pH monitors

● Dust collector monitors

(B) Audible Alarm System

- (1) Activated by Communications Center.
- (2) Transmits a coded signal throughout the plant complex to activate vibrating and Kodaire type alarm horns.

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) Monitor readouts are received in digital readout and strip chart analog hard copy in Building 53A.
- (D) Communications Center personnel relay the information to the Emergency Coordinator (AEDO), Emergency Chief (EC) and/or Meteorologist.

G-5d Communication System

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

TWO-WAY RADIOS

The FEMP utilizes five separate high-band radio frequencies. A separate band can be used to communicate with other DOE facilities.

RADIO RECEIVERS

These include the following:

- Scanner - area police and fire departments, and
- All band short-wave receiver - 0.558 Mhz to 32 Mhz

SPECIAL TELEPHONES AND TELEPHONE SERVICE

These include the following:

- National Warning System (NAWAS) equipped with voice-activated recorder.
- Emergency telephone number 6511 (also 6512, which is an automatic switch over, when 6511 is busy).
- Emergency message system through which the Communications Center furnishes information to onsite personnel relative to emergencies and general information
- Mobile and cellular radio telephones utilized by the Security vehicles.

6-5e First Aid and Medical Supplies

6-5e(1) Emergency Treatment

Personnel are provided first aid treatment in the emergency treatment room in Building 53A of Medical Services. 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 transport of ill or injured for treatment is provided at other times, by safety and fire personnel (who are state certified Emergency Medical

Technicians). A minimum of two state certified Emergency Medical Technicians are onsite at all times. 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 FEMP ambulance or through 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 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. ~~Mutual aid agreements are maintained the FEMP Operating Record.~~

Off-site emergency organizations have signed mutual aid agreements and/or have agreed to provide needed assistance to the FEMP at local, county, state and federal levels. All mutual aid agreements are maintained as part of the FEMP Operating Record. ~~Copies of the current agreements are included as Attachment G-3. A list of participants in mutual aid agreements and updated communications links, prefixed by the acronym "MuAid", is provided in the list of Off-Site Organizations in Table G-1. The inter-relationships between Emergency Organizations and delegation of primary authorities for police and fire protection are also described in Section G-1a.~~

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 annual joint emergency exercises (more often if changing conditions warrant). Emergency Preparedness holds a monthly meeting to ensure an adequate level of integrated planning among the FEMP and the off-site emergency organizations.

The Emergency Coordinator (AEDO) will request the Communications Center Operator to initiate the call-in of additional mutual aid assistance if determines a fire or similar emergency is out of control and additional personnel are required. 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-7 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.

~~Personnel will report to predetermined, marked rally points for~~
As determined by the AEDO, personnel may have to perform in-place

~~accountability purposes, in the event evacuation is required from the~~
~~accountability, or in the event evacuation is required, proceed to~~
~~their rally point. The accountability procedures are shown in Figure~~
~~G-8. hazardous waste storage areas.~~ 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 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 recordkeeping / reporting procedures are maintained in the Operating Record in Building 53a.

G-8a Required Written Reports

GENERAL INCIDENT REPORTING

The 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.

A written report within 15 days after the occurrence of an incident that requires implementation of the Contingency Plan, notifying Ohio EPA that this Contingency Plan has been implemented (Form B Notification to Ohio EPA of Implementation of Contingency Plan) shall be submitted to the Ohio EPA by DOE as outlined in Section G-4a. 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.

G-9 AMENDING THE CONTINGENCY PLAN

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

- a) The facility permit is revised; or,
- b) The plan fails in an emergency; or,
- c) The list of emergency coordinators changes; or,
- d) The list of emergency equipment changes; or,
- e) 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>
Braun, F.	[REDACTED]	6431 6295	[REDACTED]	[REDACTED]
Cleeter, M.**	[REDACTED]	6431 6295	[REDACTED]	[REDACTED]
Duckworth, R.	[REDACTED]	6431 6295	[REDACTED]	[REDACTED]
Meeks, J.	[REDACTED]	6431 6295	[REDACTED]	[REDACTED]
Sparks, T.	[REDACTED]	6431 6295	[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 may also be reached by:

- o radio through the 24-hour-staffed FEMP Communications Center, 513-738-6295,
- o office, 513-738-6431,
- o portable cellular telephone, [REDACTED], or
- o mobile vehicle cellular telephone, [REDACTED]

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 Coordinators (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.

** M. Cleeter has been designated the primary emergency coordinator in order to comply with OAC 3745-65-52. The on-site/on-duty Emergency Coordinator (AEDO) at the time of an incident will be the primary Emergency Coordinator (AEDO) for that incident.

Table G-1

OTHER

All Emergencies	738-6511
FEMP Communications Center	738-6295
Security Portable <u>kept in Communications Center</u>	535-7134
DOE Site Office	738-6319
Utility Engineer/Emergency Coordinator (AEDO) Vehicle	535-1365
Emergency Coordinator (AEDO) Portable	535-2197
Fire & Safety Vehicle #301	535-1367
Fire & Safety Portable	535-2917
Security Vehicle	535-1366
Security Portable	535-7133
Industrial Hygiene Vehicle	535-2198
Industrial Hygiene Portable	535-4734
Industrial Hygiene Portable	535-4735
Environment & Radiological Monitoring Techs Portable	535-2918
Medical Portable	543-0783
Release Evaluators (Office)	738-8462
Spradlin, T (Pager)	249-5016
Seifert, Caran (Pager)	249-5019
US EPA Region 5	312-353-2318
USEPA RCRA Hotline	800-424-9346

Table G-1

Off-Site Emergency Operation Personnel & Organizations

OFF-SITE NOTIFICATION

DEPARTMENT OF ENERGY

ORO Emergency Communications Center	FTS 626-1005 Commercial 615-576-1005
DOE Headquarters, Washington, D.C.	(FAX) FTS 896-0420 FTS 896-8100
DOE ORO Environmental Protection Branch	FTS 626-0846 Commercial 615-576-0846
DOE ORO Public Information Officer	FTS 626-0885 Commercial 615-576-0885
DOE Headquarters (Program Manager)	301 903-8141

STATE OF OHIO

Ohio Emergency Management Agency	614-889-7150
Ohio EPA Emergency Response Center	800-282-9378
Ohio EPA Columbus	614-244-0946
Ohio EPA Southwest District Office	513-285-6357
	or 800-686-8930
Ohio Department of Health	614-466-2596
Ohio State Highway Patrol	513-863-4606
ORSANCO	513-421-1151
Ohio State Fire Marshall	800-686-0736

HAMILTON COUNTY

Communications Center	513-825-2280
Civil Defense	513-851-7080
Hamilton Cty. Dept. of Environ. Svces., Air Quality Pgms.	513-651-9437
Southwest Local School District	513-367-4139
Sheriff's Department	513-825-1500

BUTLER COUNTY

Sheriff's Office	513-844-1515
Civil Defense	513-844-8020

LOCAL FIRE DEPARTMENTS

MuAid: Crosby Township	911 or 513-825-2260
MuAid: Ross Township	911 or 513-844-1515
MuAid: Colerain Township	911 or 513-825-2260
	or 513-825-6143

Table G-1

Off-Site Emergency Operation Personnel & Organizations

LOCAL AMBULANCE

Butler County	911 or	513-844-1515
Hamilton County	911 or	513-825-2280
MuAid: Crosby Township Life Squad Mobile Telephone	911 or	513-977-6337

LOCAL HOSPITALS

MuAid: Providence Hospital--Emergency Room.....	513-853-5222
MuAid: Mercy Hospital--Emergency Room	513-867-6450
MuAid: University--Emergency Room	513-558-4571
Fort Hamilton Hughes--Emergency Room	513-867-2266

EMERGENCY CARE CENTER

Franciscan Ambulatory Care Unit (Harrison)	513-367-2222
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EMERGENCY HELICOPTER SERVICE

MuAid: University Air Care	800-826-8100
Non-Emergency	513-558-7522

Chemical Referral Center, CMA	800-262-8200
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Coast Guard/DOT National Response Center	800-424-8802
--	--------------

National Weather Service (Cincinnati).....	513-283-3195
--	--------------

EPA Chemical Emergency Prep. Hotline	800-535-0202
--	--------------

American Red Cross.....	513-579-3000
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Chemtrec	800-424-9300
-----------------------	--------------

Table G-2

The FEMP Emergency Organization Roster

EMERGENCY RESPONSE TEAM

Assistant Emergency Duty Officer
Emergency Chief
Firefighters
Driver-Operators
Emergency Medical Technicians
Radiological Safety Technicians
Industrial Hygiene Technicians

ADDITIONAL FIELD PERSONNEL

Operations Response
Plant Supervisors
Facility Owner
Operations Personnel
Security Response
Shift Lieutenant
Security Inspectors
Communications Center Officer
Security Support Group

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
EOC Supervisor
DOE Liaison
County Notification Advisor (2)
County Liaison (2)
EOC Communications Officer
Information Plotters
Runners
Historian
Administrative Support

The FEMP Emergency Organization Roster

JOINT PUBLIC INFORMATION CENTER TEAM

Joint Public Information Center Manager
DOE PIO
FEMP PIO
FEMP Citizen Hotline Operator
Butler County PIO
Butler County Citizen Hotline Operator
Hamilton County PIO
Hamilton County Citizen Hotline Operator
State PIO
Media Room Duty PIO
Technical Advisor
Administrative Support Supervisor
Media Monitoring Supervisor
Media Query and Citizen Hotline Telephone Banks
Supervisor

Table G-3

Emergency Respiratory Equipment

DESCRIPTION

TYPICAL APPLICATION

LIMITATIONS

Air-purifying full-face MSA Ultravue respirator equipped with chin-mounted canisters approved for HF up to 0.5 percent concentration by volume, radionuclide aerosols not exceeding 100 times DOE limits in DOE Order 5480.1 or other highly toxic particulates.

Environments containing relatively low HF concentrations, radionuclides or other highly toxic particulate contaminants including UF₆.

Only approved for relatively low concentrations of HF and particulate contaminants. Wearers must be satisfactorily fit-tested prior to use.

Airline half-mask respirator or airline hoods respirator provides head protection.

Environments containing relatively high but not immediately dangerous life and health (IDLH) concentrations of contaminants.

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.

Full-faced self-contained breathing apparatus for corrosive contaminants.

Environments with IDLH or unknown concentrations of air contaminants.

Air supply in compressed air bottle is limited to 30 or 60 minutes. Must be used in 2-man teams. 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.

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.

Table G-4
Types of Pressurized Fire Extinguishers

DESCRIPTION	TYPICAL APPLICATION	LIMITATIONS
Pressurized water (stainless steel).	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 ₂ (red tank)	Flammable liquid (Class B) and electrical (Class C) fires.	Not suitable for Class A or Class D fires.
Pressurized dry chemical (red tank).	Flammable liquid (Class B) and electrical (Class C) fires.	Not suitable for Class A or Class D fires.
Pressurized MetL-X (yellow tank).	Metal (Class D) fires.	For metal fires only.
Pressurized dry chemical (small red tank).	Class A, B, and C fires.	May be used on burning uranium but not on other metal fires.

Table G-5

FEMP Emergency Alarm Signals

EMERGENCY SIGNALS TRANSMITTED VIA ALARM HORNS & BELLS

2-2, 2-2 Ambulance, Fire, Security Event

Radio message to ERT. EMS message follows with general information.

3-3, 3-3 Supervisory Alert

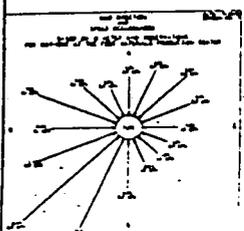
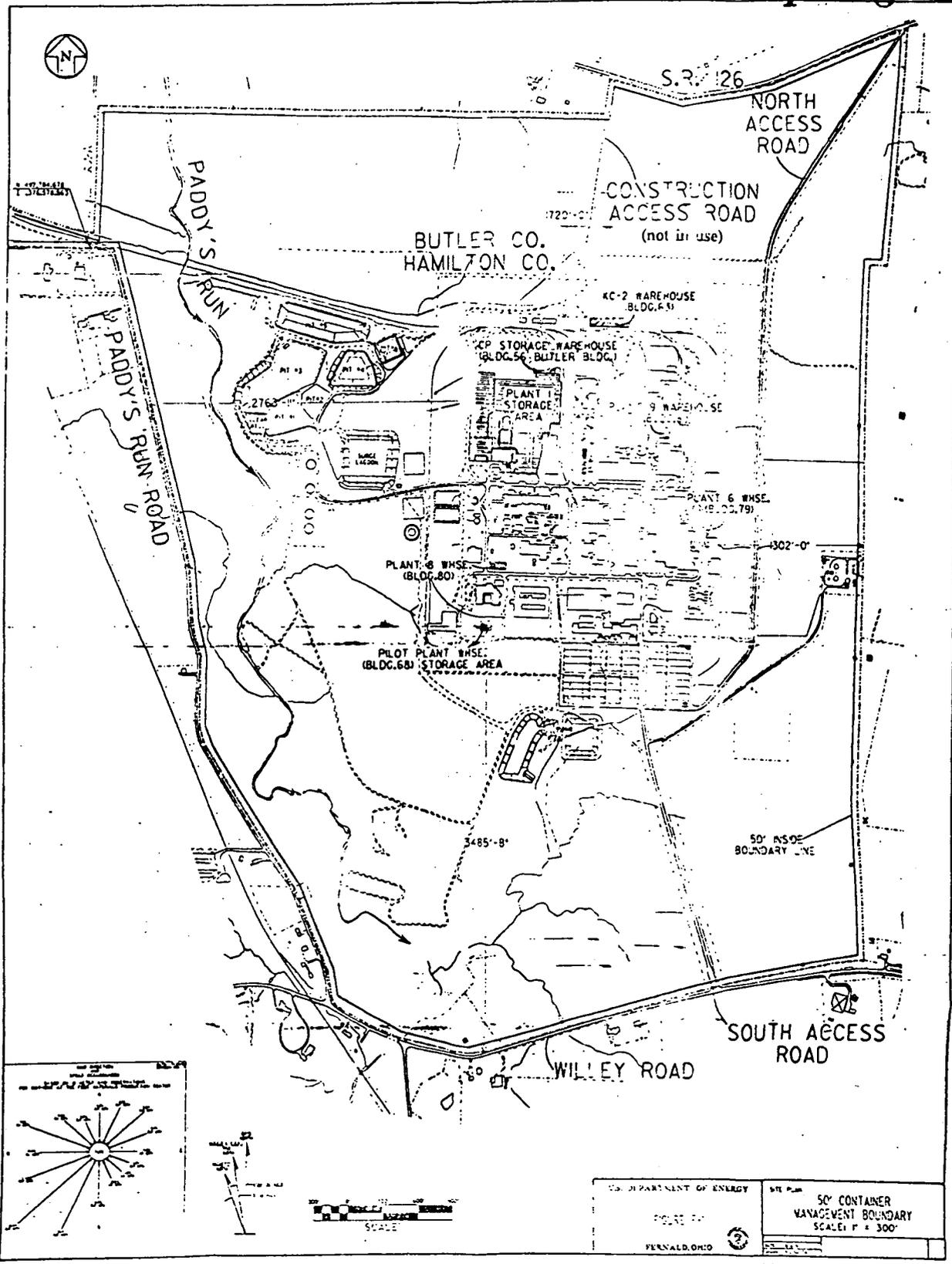
Take appropriate action EMS and radio message follow, may include weather information, all-clear, evacuation, test (every Monday at 2 pm), or other announcements.

4-1 CO Alert

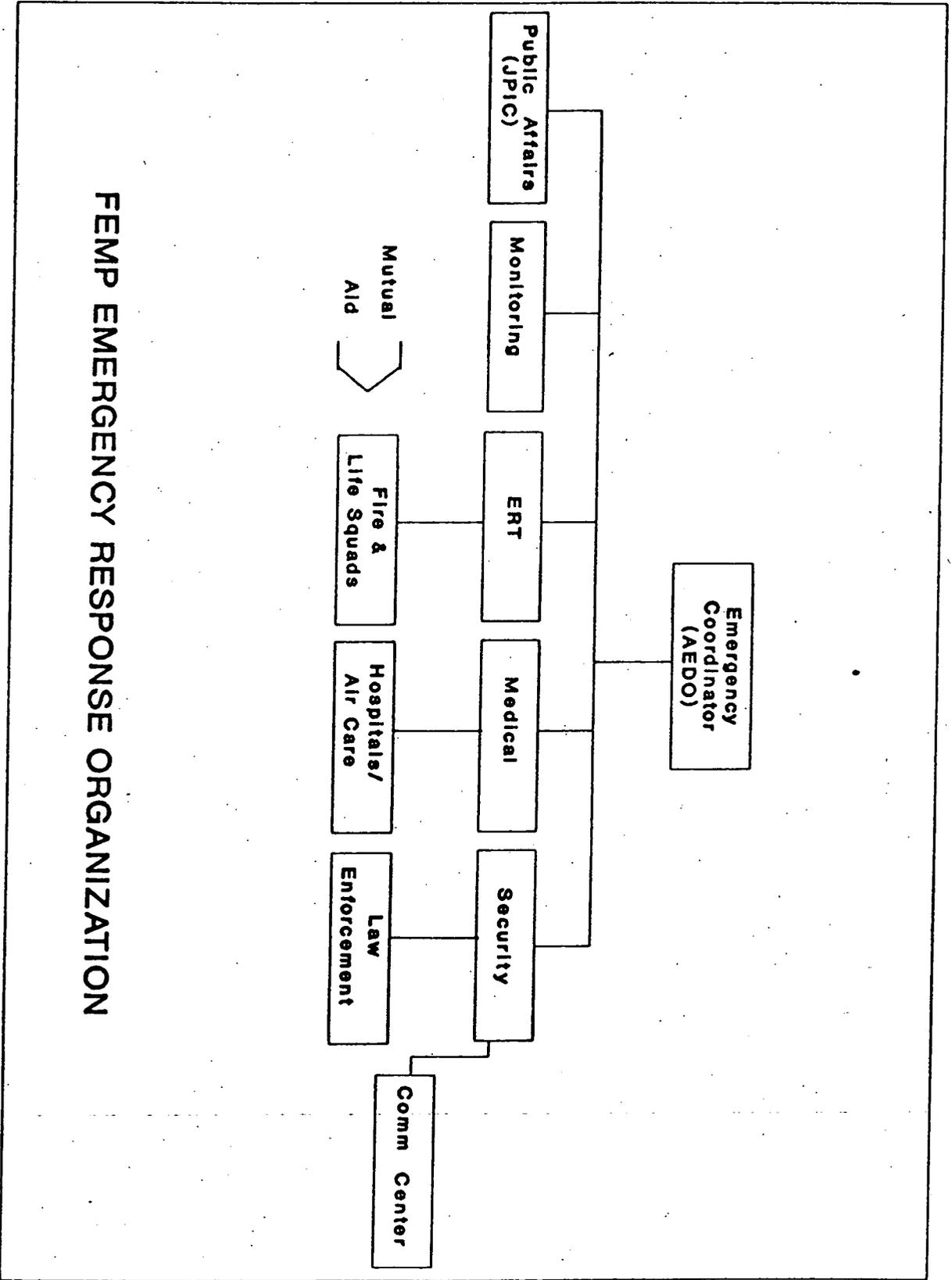
Discontinue use of airline respirators.

TO REPORT ANY EMERGENCY DIAL EXTENSION 6511

4458



U.S. DEPARTMENT OF ENERGY
 TITLE: 50' CONTAINER MANAGEMENT BOUNDARY
 SCALE: 1" = 300'
 FERNALD, OHIO



FEMP EMERGENCY RESPONSE ORGANIZATION

FIGURE G-2

EMERGENCY COORDINATION FLOW

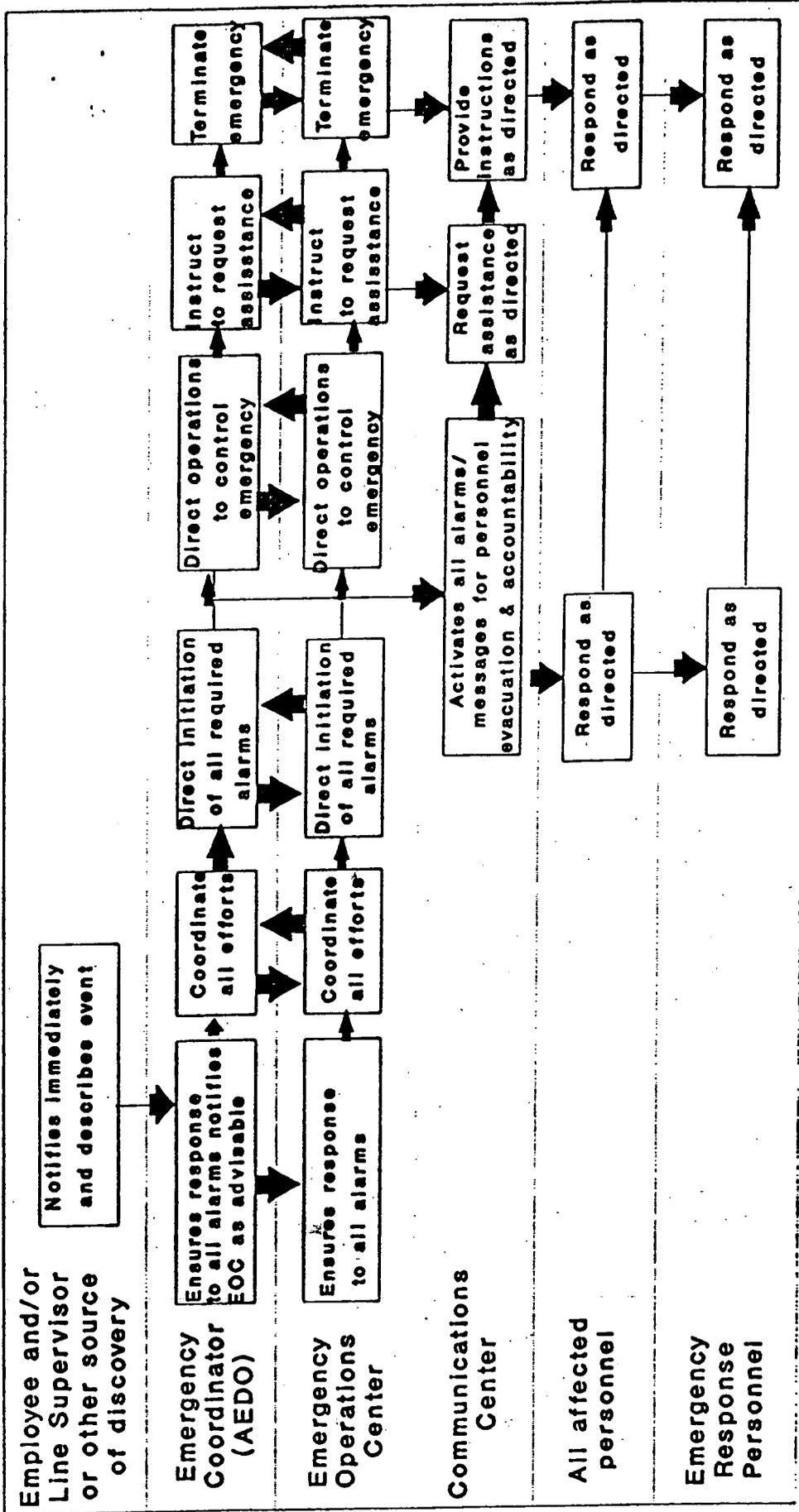


FIGURE G-3

FIGURE G-3.1

EMERGENCY RESPONSE TRAINING REQUIREMENTS	Emergency Medical Technician State Certification	NFPA Firefighter I & II State Certification	24-hour Hazardous Materials	32-hour Incident Command	Module I: EOC Staff Orientation	Module II: EOC Staff Position-Specific Training	Duty Officer Training	Drills and Exercises	Visitor Orientation Training and Video	JPIC Training	Orientation for Emergency Responders	General Employee Training
VISITORS								Some	X			
EMPLOYEES								Some				
EOC STAFF				X				X				X
EDO						X		X				
AEDO		X	X	X		X		X				
EC & ERT	Some	X	X	X		Some		X		X		
SECURITY								X				
COMM. CENTER								X				
MONITORING TEAM								X				
MEDICAL STAFF	X							X				
JPIC								X				
MUTUAL AID										X		
COUNTY EOC STAFFS											Invited	
												Invited

NOTE: This requirements chart is not intended to be all-inclusive of statewide or position-specific training. Additional training may be necessary to fulfill emergency responsibilities.

IMPLEMENTATION AND NOTIFICATION

SEE NEXT PAGE

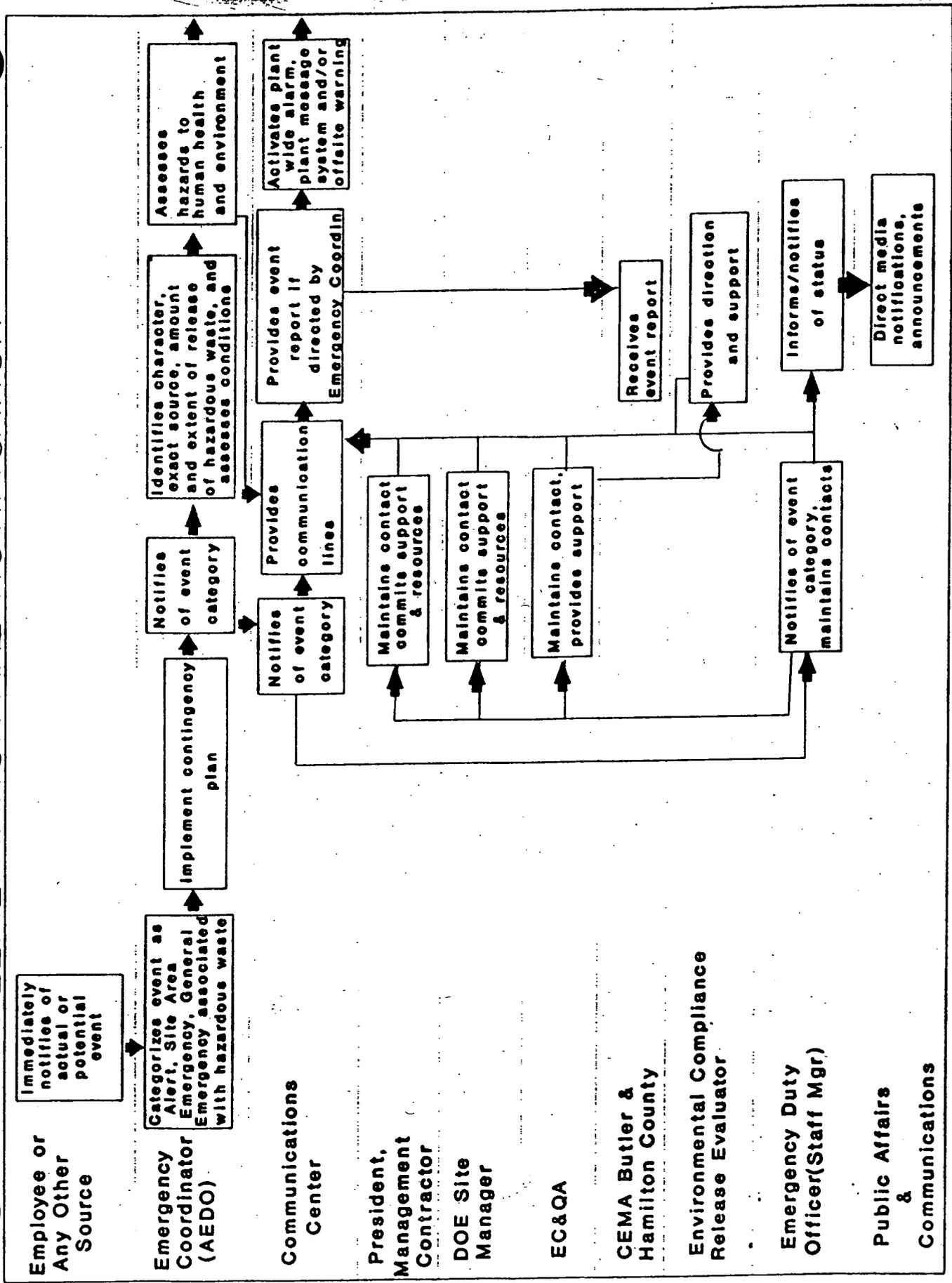


FIGURE G-4

IMPLEMENTATION AND NOTIFICATION

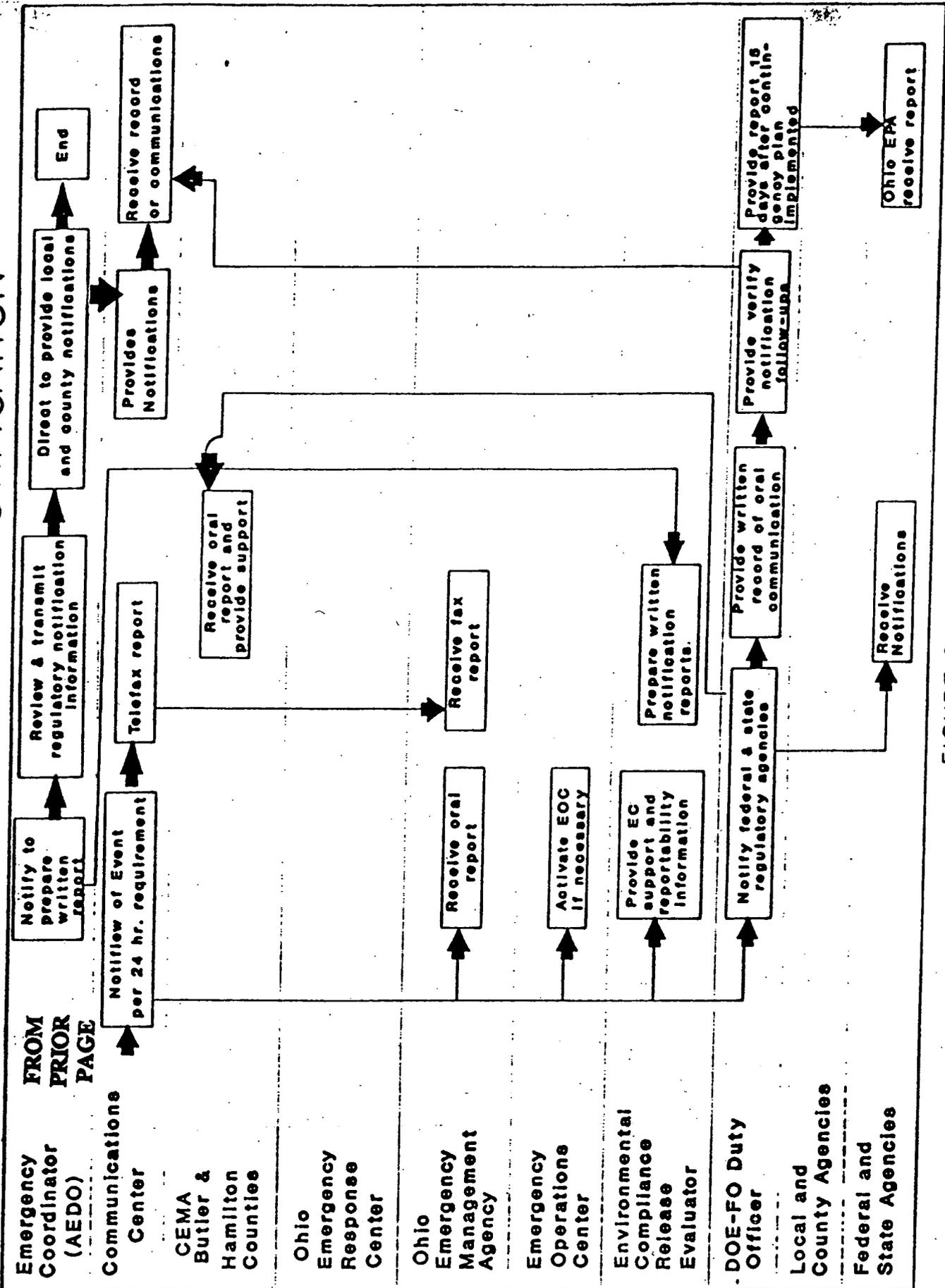


FIGURE G-4 PG.2

EVENT CATEGORIZATION LEVEL GUIDE

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CATEGORIZATION LEVEL	EXAMPLE	VERBAL NOTIFICATION	RESPONSE ACTIONS	WRITTEN REPORTING
LOGGABLE <ul style="list-style-type: none"> Abnormal or unplanned event or condition not reported to DOE or other agencies, but logged by AEDO for internal tracking 	<ul style="list-style-type: none"> False fire alarm Injury, no lost work time, no inpatient hospitalization Spill <RQ Tornado watch; severe weather watch/warning Radiological release <RQ Failure of Offsite Warning System < 10% FTS telephone service out Vehicle or property damage <\$1000 Minor fire, < 10 minutes to extinguish after IERT arrival Severe thunderstorm warning, no damage Data gathering panel for Honeywell Alarm System out 	<ul style="list-style-type: none"> EDO if WEMCO President is notified WEMCO President, immediate only if injury WEMCO Environmental Compliance Release Evaluator immediate for spills only 	<ul style="list-style-type: none"> AEDO responds to event Resolve event Local response/clean-up 	<ul style="list-style-type: none"> AEDO Log
OFF-NORMAL <ul style="list-style-type: none"> Actual or potential adverse affect on safety, environment, health, security or operations 	<ul style="list-style-type: none"> Injury, lost work day Single or cumulative exposure above administrative limits Facility evacuation as precautionary measure Any suspect release reported to outside agencies Unplanned electrical outage affecting >50% of site Failure of emergency diesel generator following power outage Any contamination spread to uncontrolled area Tornado warning Occupational illness or injury resulting in inpatient hospitalization Any confirmed personnel or personnel clothing (not protective clothing) contamination Fire takes > 10 minutes to extinguish after IERT arrival Delay in start-up schedule >= 1 month Contaminated spill in working area Procedure violation resulting in actual equipment damage > \$1000 Failure of >10% Offsite Warning System sirens Failure or significant performance degradation of Class B equipment 	<ul style="list-style-type: none"> EDO Immediate WEMCO President & Fernald Site Manager ASAP Fernald Site Office Duty Officer within 2 hours WEMCO Public Affairs as needed WEMCO Environmental Compliance Release Evaluator immediate for spills only. Regulatory agencies (suspect releases) 	<ul style="list-style-type: none"> AEDO responds to event Resolve event Local response/clean-up 	<ul style="list-style-type: none"> AEDO Log 24-hour Occurrence Report Fact Sheet 10-day Occurrence Report Final Occurrence Report
UNUSUAL OCCURRENCE <ul style="list-style-type: none"> Actual or potential significant impact on safety, environment, health, security or operations 	<ul style="list-style-type: none"> Failure of fire/detection/safety alarm during actual event Evacuation of >=1 building as a result of actual event RDA Activation Entire Honeywell alarm system out Delay in start-up schedule >=12 weeks Any inspection/surveillance reporting improper procedural compliance of Class A equipment or unsatisfactory operation, testing, maintenance or modification Radiological assistance requested by or received from FEMRP Spill > RQ Discovery of groundwater contamination Personnel exposure to hazardous chemicals > occupational safety limits Any event resulting in 5 or more individual contaminations Any contamination spread offsite Releases which cause permit violations (NPDES) Bomb threat Release of radioactive or hazardous material offsite during DOE/site transportation activities 	<ul style="list-style-type: none"> EDO Immediate WEMCO President and Fernald Site Manager ASAP DOE Facility Representative within 2 hours Regulatory agencies (spills >RQ) WEMCO Public Affairs immediate WEMCO Environmental Compliance Release Evaluator immediate, spills only Westinghouse Corp., ASAP (spills >RQ) DOE-HQ BOC/Program Manager 2 hours 	<ul style="list-style-type: none"> AEDO responds to event Resolve event Local response/clean-up 	<ul style="list-style-type: none"> AEDO Log 24-hour Occurrence Report Fact Sheet 10-day Occurrence Report Final Occurrence Report

EMERGENCY SEE FIGURE G-5.2 FOR EMERGENCY LEVELS **FIGURE G-5.1**

EMERGENCY ACTIONS LEVEL GUIDE

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CATEGORIZATION LEVEL	EXAMPLE	VERBAL NOTIFICATION	RESPONSE ACTIONS	WRITTEN REPORTING
<p>ALERT</p> <ul style="list-style-type: none"> • Actual or potential substantial reduction in the level of safety may occur at the facility • Any release is expected to be limited to small fractions of the appropriate Protective Action Guidelines (PAG) or Emergency Response Planning Guidelines (ERPG) exposure levels 	<ul style="list-style-type: none"> • Any event resulting in a request for mutual aid assistance • Actual or credible bomb incidents with potential severe implications • Chemical/Radiological release with significant onsite impact • Severe fire with potential for multiple serious injuries/damage and/or with hazardous materials involved • Tornado strike on FMPC property with severe damage • Spill/release of hazardous waste that threatens human health or the environment 	<ul style="list-style-type: none"> • EDO Immediate • WEMCO President and Fernald Site Manager ASAP • Regulatory agencies (spills >RO) • WEMCO Public Affairs Immediate • WEMCO Services, Compliance Release Evaluator Immediate for spills only • Westinghouse Corp. ASAP (spills >RO) • Counties 15 minutes • DOE-HQ EOC/Program Mgr. 15 min. • DOE Facility Rep. 15 minutes 	<ul style="list-style-type: none"> • AEDO establishes CP • ERT stand-by or activated • EOC activated • Implement onsite protective actions as appropriate • Request mutual aid assistance as needed • Consider JPIC activation • Implement RCRA contingency plan for hazardous waste 	<ul style="list-style-type: none"> • AEDO Log • County Event Report • 24-hour Occurrence Report • Fact Sheet • 10-day Occurrence Report • Final Occurrence Report
<p>SITE AREA EMERGENCY</p> <ul style="list-style-type: none"> • Actual or likely major failure of facility functions necessary for protection of workers and the public • Any release is expected to exceed appropriate PAG or ERPG exposure levels onsite, NOT offsite 	<ul style="list-style-type: none"> • Chemical/Radiological release w/significant onsite impact, little or no offsite impact • Nuclear criticality achieved in a system not intended to reach nuclear criticality • Warning of attack or possible attack on U. S. • Thorium fire and release • Release of contents from 1 chlorine cylinder • Spill/release of hazardous waste that threatens human health or the environment 	<ul style="list-style-type: none"> • EDO Immediate • WEMCO President and Fernald Site Manager ASAP • Regulatory agencies (spills >RO) • WEMCO Public Affairs Immediate • WEMCO Environmental Compliance Release Evaluator Immediate, spills only • Westinghouse Corp. ASAP (spills >RO) • Counties 15 minutes • DOE-HQ EOC/Program Mgr. 15 min. • DOE Facility Rep. 15 minutes 	<ul style="list-style-type: none"> • AEDO establishes CP • ERT Stand-by or activated • EOC activated • Shelter all onsite personnel or alternate protective actions, as appropriate • Implement appropriate response actions • Request mutual aid assistance as needed • Consider JPIC activation • Implement RCRA contingency plan for hazardous waste 	<ul style="list-style-type: none"> • Same as above
<p>GENERAL EMERGENCY</p> <ul style="list-style-type: none"> • Actual or imminent catastrophic reduction of facility safety systems • Actual or likely release of radioactive or toxic material that exceeds appropriate PAG or ERPG exposure levels offsite 	<ul style="list-style-type: none"> • Chemical/radiological release with significant offsite impact • X-65 loss of containment • Release of contents from >1 chlorine cylinder • Propane BLEVE • Direct hit tornado - major damage • Actual attack on U. S. • Spill or release of hazardous waste that threatens human health or the environment 	<ul style="list-style-type: none"> • EDO Immediate • WEMCO President and Fernald Site Manager ASAP • Regulatory agencies (spills >RO) • WEMCO Public Affairs Immediate • WEMCO Services, Compliance Release Evaluator Immediate for spills only • Westinghouse Corp. ASAP (spills >RO) • Counties Immediate • DOE-HQ EOC/Program Mgr. 15 min. • DOE Facility Representative, 15 min. 	<ul style="list-style-type: none"> • AEDO establishes CP • ERT stand-by or activated • EOC activated • Activate Warning Sirens • Shelter all onsite personnel or alternate protective actions, as appropriate • Implement appropriate response actions • Request mutual aid assistance as needed • Consider JPIC activation • Implement RCRA contingency plan for hazardous waste 	<ul style="list-style-type: none"> • Same as above

FIGURE G-5.2

COMMUNICATION LINKS

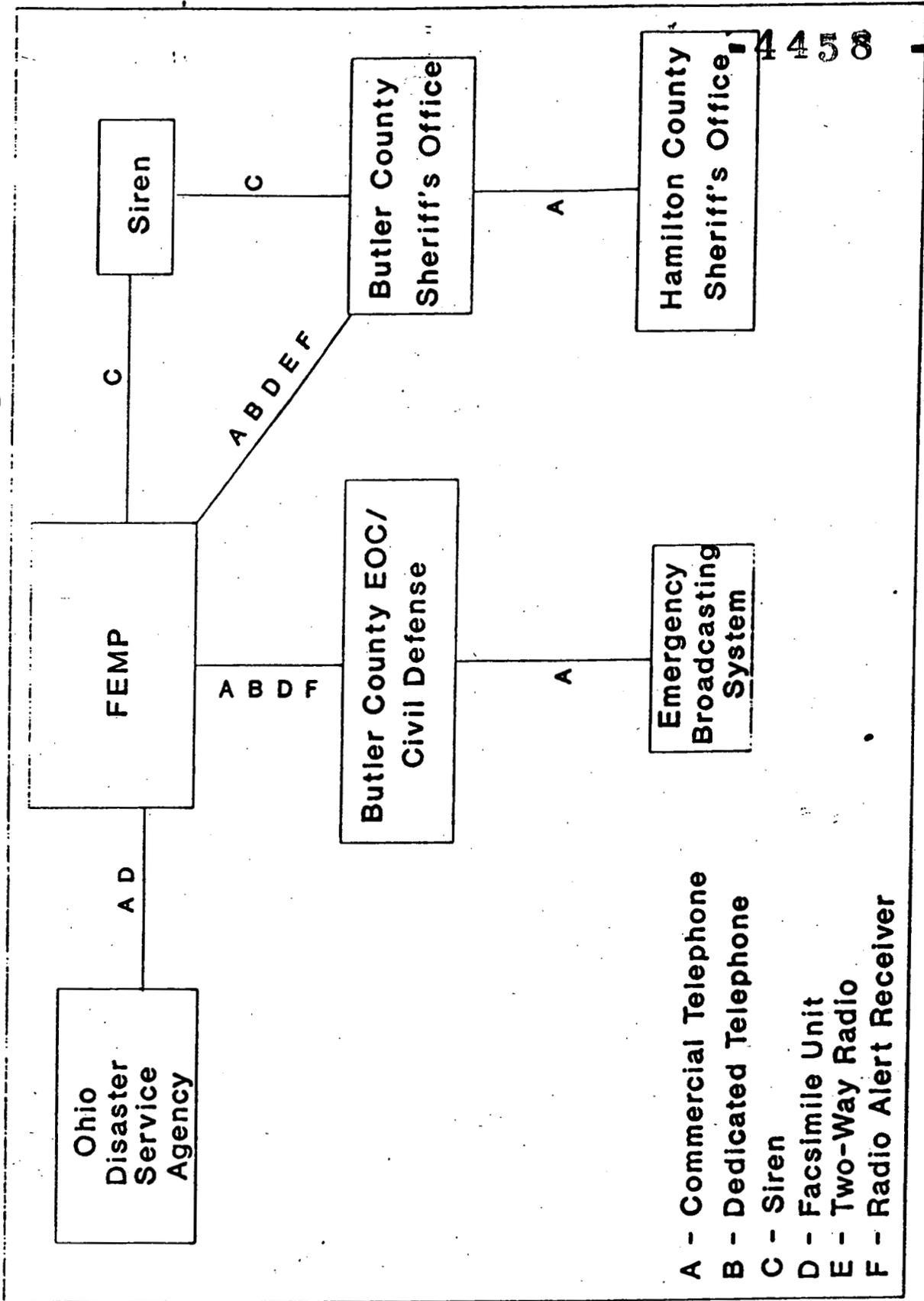


FIGURE G-6

INTERORGANIZATION LINKS

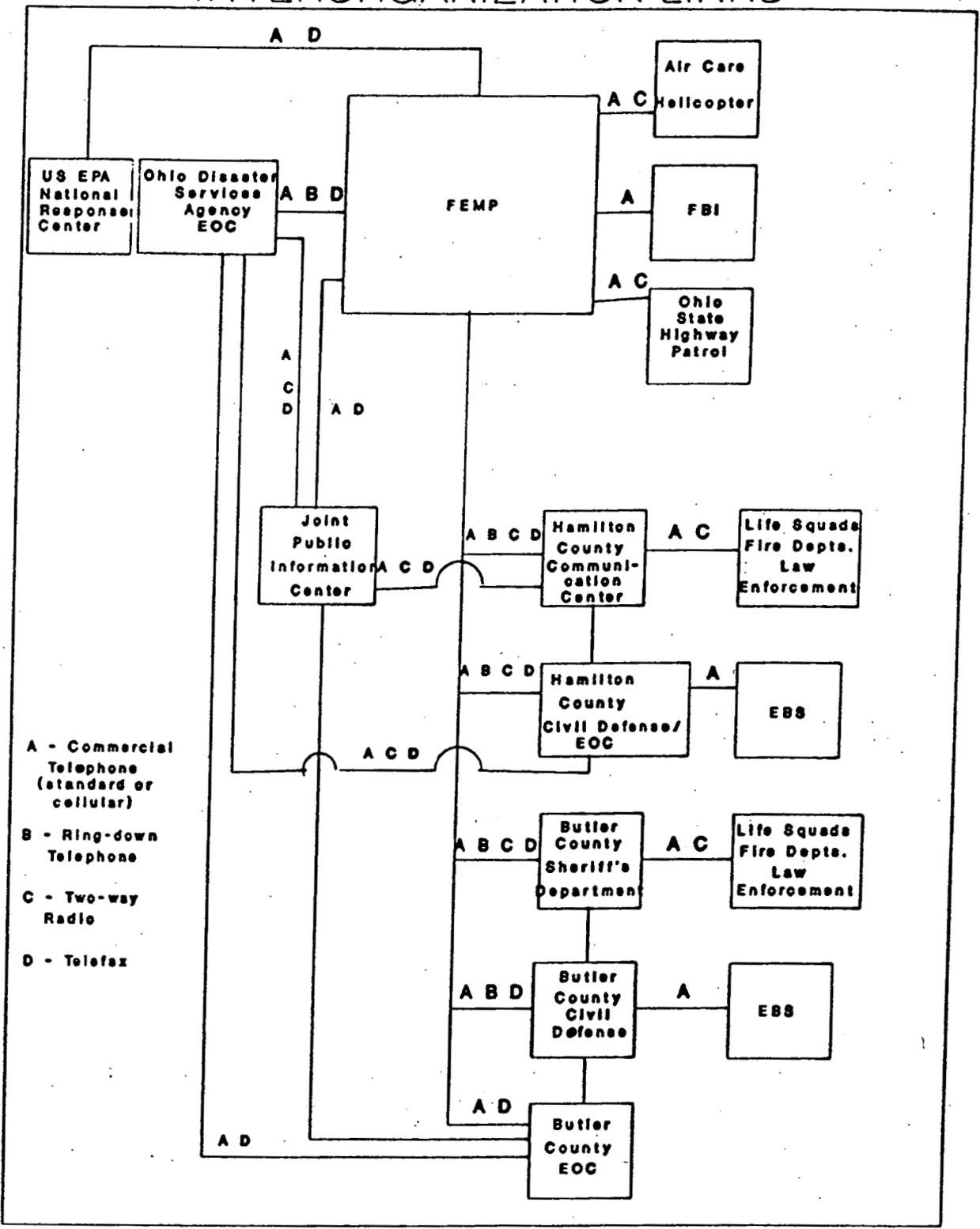


FIGURE G-7

ACCOUNTABILITY-IN PLACE

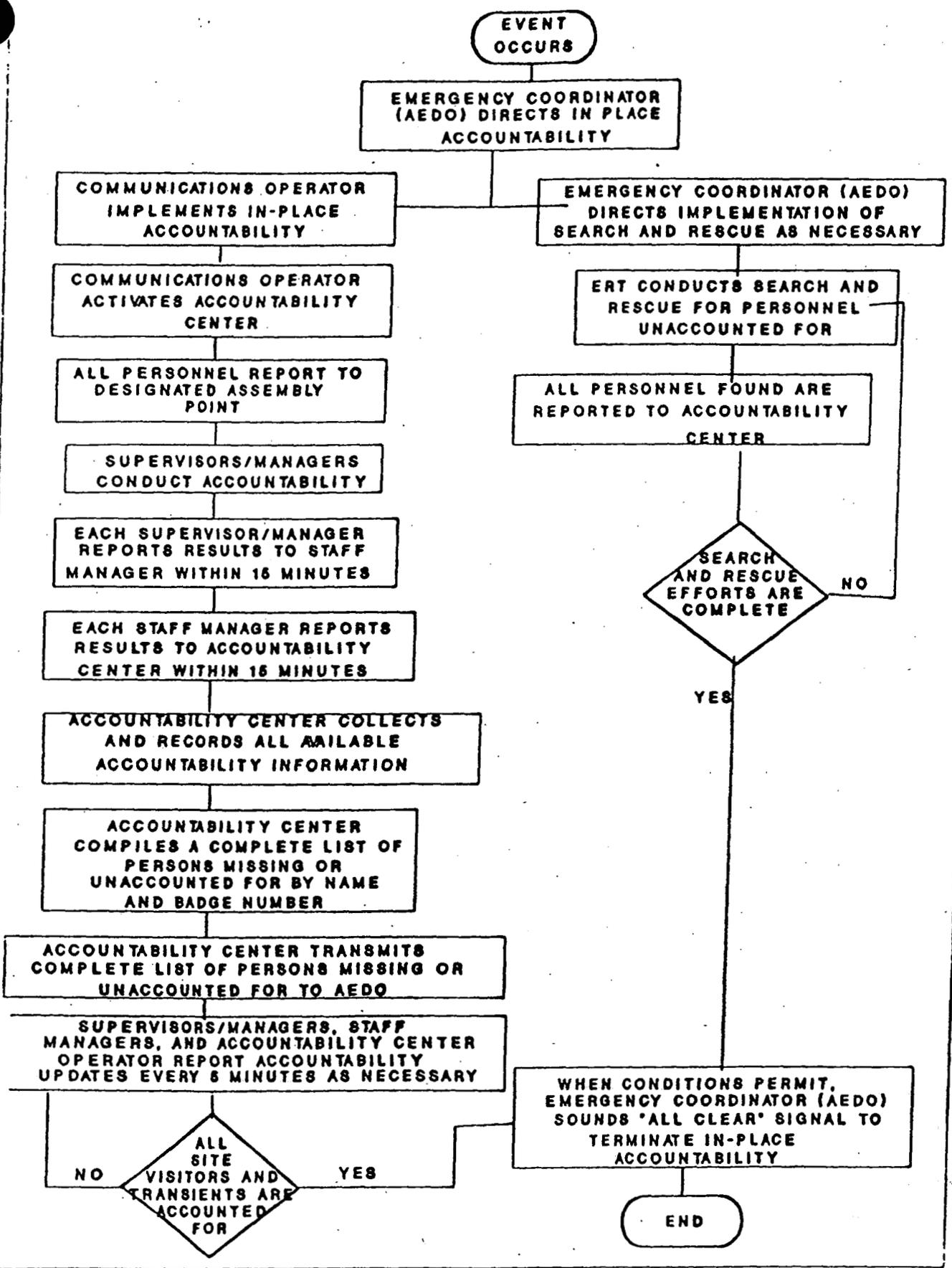


FIGURE G-8

ACCOUNTABILITY-RALLY POINT

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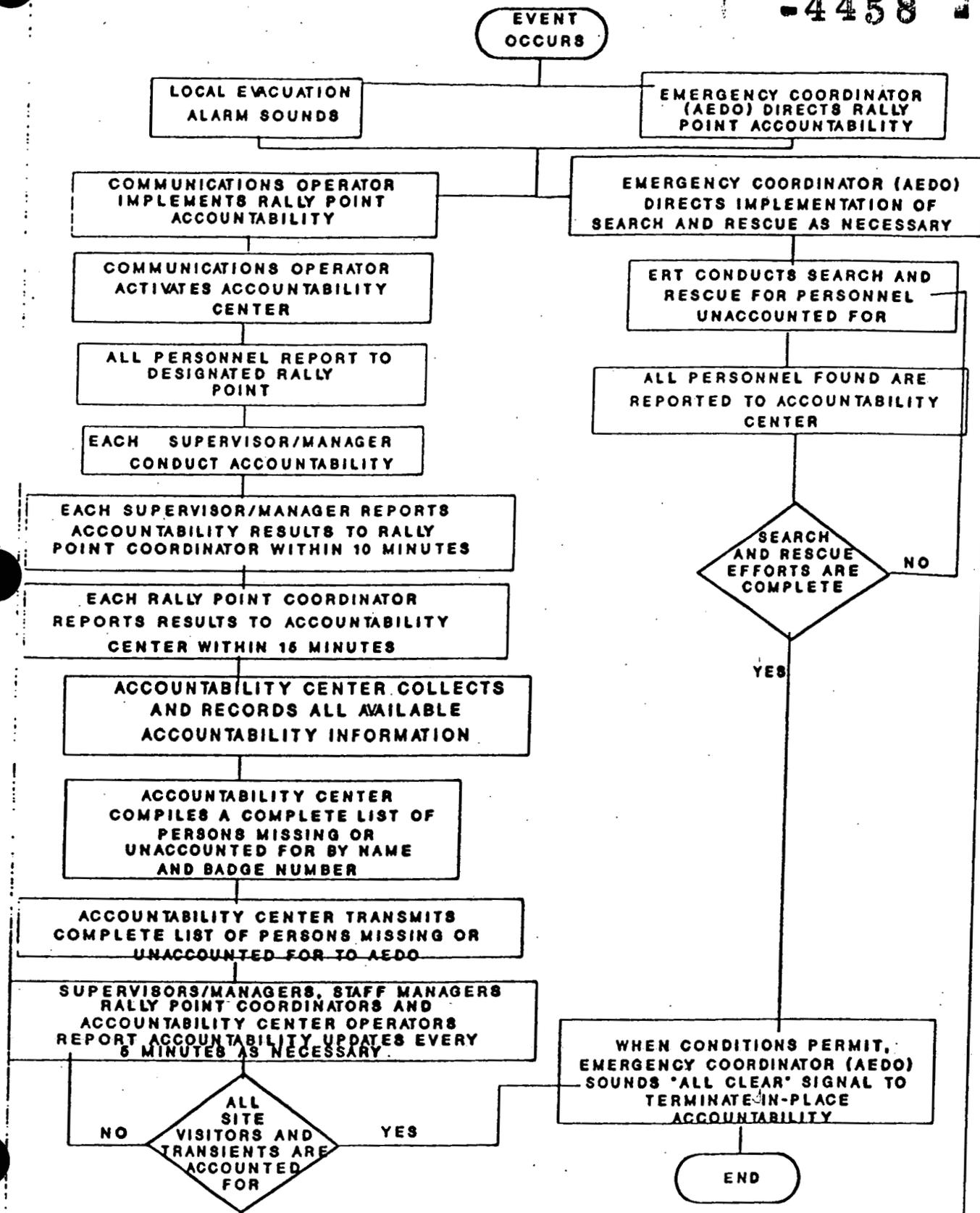


FIGURE G-8 PG.2

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 Owner

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

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 3745-54-56(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 Fernald
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, a listing of safety and emergency equipment and site layouts of the hazardous waste management units (HWMUs). 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 HWMU and the 90 Day Storage Area.

90 Day Storage Area

The 90 Day Storage Area is used to store hazardous wastes in containers 90 days or less. Fire and safety equipment allocated to this area is described in the following pages.

Hazardous Waste Management Units

The following HWMUs are 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. 19 - CP Storage Warehouse-Building 56 (Butler Building)
- HWMU No. 20 - Plant 1 Pad
- HWMU No. 29 - Plant 8 Warehouse (Building 80)
- HWMU No. 33 - Pilot Plant Warehouse
- HWMU No. 34 - KC-2 Warehouse (Building 63)
- HWMU No. 35 - Plant 9 Warehouse (Building 81)
- HWMU No. 37 - Plant 6 Warehouse (Building 79)

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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. 2 - Parts Cleaner in Welding Shop (Maintenance Bldg 12) (Removed)~~
- HWMU No. 3 - Waste Oil Storage in Garage
- 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. 6 - Drummed HF Residue/Associated Storage Areas Inside Plant 4
- HWMU No. 7 - Drummed HF Residue/Associated Storage Areas Northwest of Plant 4
- HWMU No. 8 - Drummed HF Residue/Associated Storage Areas S. of Cooling Towers
- HWMU No. 9 - Nitric Acid Rail Car and Area
- HWMU No. 10 - NAR System Components
- HWMU No. 11 - Tank Farm Sump
- HWMU No. 12 - Wheelabrator (Building 66)
- HWMU No. 13 - Wheelabrator Dust Collector (Building 66)
- HWMU No. 14 - Box Furnace
- HWMU No. 15 - Oxidation Furnace #1
- HWMU No. 16 - Primary Calciner
- HWMU No. 17 - Plant 8 East Drum Storage Pad
- HWMU No. 18 - Plant 8 West Drum Storage Pad
- HWMU No. 21 - Hilco Oil Recovery
- HWMU No. 22 - Abandoned Sump West of Pilot Plant
- HWMU No. 23 - Well Drilling Storage Area
- ~~HWMU No. 24 - Equipment Storage Area~~
- HWMU No. 25 - Plant 1 Storage Building (Building 67)
- HWMU No. 26 - Detrex Still
- HWMU No. 27 - Waste Pit No. 4
- HWMU No. 28 - Trane Thermal Liquid Incinerator

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- HWMU No. 30 - Barium Chloride Salt Treatment Facility
- HWMU No. 31 - Tank for Bulk Storage Solvents, T-5
- HWMU No. 32 - Tank for Bulk Storage Solvents, T-6
- HWMU No. 36 - Storage Pad North of Plant 6
- HWMU No. 38 - HF Tank Car
- HWMU No. 39 - Clearwell
- HWMU No. 40 - Bio-Surge Lagoon
- HWMU No. 41 - Sludge Drying Beds
- HWMU No. 42 - Waste Pit No. 5
- HWMU No. 43 - Lime Sludge Ponds
- HWMU No. 44 - Coal Pile Runoff Basin
- HWMU No. 45 - UST No. 5
- HWMU No. 46 - Uranyl Nitrate Tanks (NFS Storage Area)
- 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)
- HWMU No. 50 - Uranyl Nitrate Tanks (Raffinate Building)
- HWMU No. 51 - Experimental Treatment Facility (ETF)
- HWMU No. 52 - North and South Solvent Tanks (Pilot Plant)
- HWMU No. 53 - Safe Geometry Digestion Sump (Plant 1)

General Information

Hazardous Waste Management Unit (HWMU) and the 90-Day Storage Area emergency procedures are described specifically in this section. Responses to an event are identical for each HWMU and the 90-Day Storage Area 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~~ Some situations may not constitute ~~reach~~ an emergency ~~EMERGENCY level~~, and thus will not cause or the implementation of this Contingency Plan. The situation may nevertheless warrant a protective and remediation response. ~~For example,~~ An ~~an~~ incident that does not involve the Emergency Response Team may be handled by personnel properly trained under the RCRA training curriculum. ~~Small small~~ spills or fires may be handled by immediate action of the individuals discovering the event. Even events that involve response by the Emergency Response Team may, if the Emergency Coordinator (AEDO) so determines, 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 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 fire to the Communication Center by two-way radio or telephone, 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 the Emergency Response Team (ERT).
- 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 ERT.
- 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 Building 53A 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, if an alarm box is not near.
- 2.2.3 Use available fire fighting equipment to fight the fire until the ERT arrives if there is no immediate danger involved and you have proper training and certification. Provide yourself with protection from fire, fumes, and smoke before using this equipment. Close any equipment (such as ventilation) that does not serve to control the fire in the building.
- 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, if there are noticeable vapors, smoke, irritation, or other discernible imminent or immediate danger to your health.
- 2.2.7 Evacuate to the designated rally point, if there is an immediate danger or evidence that the fire cannot be controlled by local action. 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 Building 53A 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

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

2.3.2 Quickly leave the immediate area of the spill in the event of a spill or leak. Alert all other individuals in the area and summon the ERT by pulling the nearest fire alarm. Report the situation and details to the Communication Center by two-way radio or telephone, if an alarm box is not near.

2.3.3 Obtain protection from spills and vapors by using the appropriate, available emergency equipment. If no immediate danger is involved and you have proper hazardous waste training and certification, use available spill control material and equipment to contain the spill until the ERT arrives. Also shut off any equipment that does not serve to control the spill. Ventilation should be left on unless a fire or electrical sparking poses a fire hazard in the building.

NOTE: Only trained personnel equipped with proper respiratory

and skin/eye protection should attempt to contain extensive spills.

2.3.4 Immediately use available emergency equipment to provide first aid for bodily contact with leaked materials and minor injuries.

2.3.5 Supervisor or senior person in charge should take account of all personnel and summon immediate medical attention for seriously injured personnel.

2.3.6 Leave the area promptly by the least dangerous and most direct or designated route to the designated rally point, if there is an immediate danger involved or it is evident that the spill cannot be controlled by local action.

2.3.7 Continue evacuation to the next safe rally point before taking account of all personnel, if this rally point is in the path of spillage or downwind in the path of vapors.

2.3.8 Use any available and appropriate emergency equipment such as eyewash and shower, if exposed to contact with waste materials or other hazardous physical irritations. Notify supervisor and report to medical personnel in Building 53A as soon as possible. Anyone who is aware of any exposure to a fellow worker should see to it that medical help is provided to that person.

SAFETY EQUIPMENT

HWMUs are supplied with varying levels and amounts of safety equipment depending upon the use, occupancy, and contents of the unit. The remainder of Attachment G-1 lists the locations of safety and emergency equipment designated for each 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.

90 DAY STORAGE AREA

The 90 Day Storage Area is a temporary container storage area in Building 64 (between columns 2 and 5).

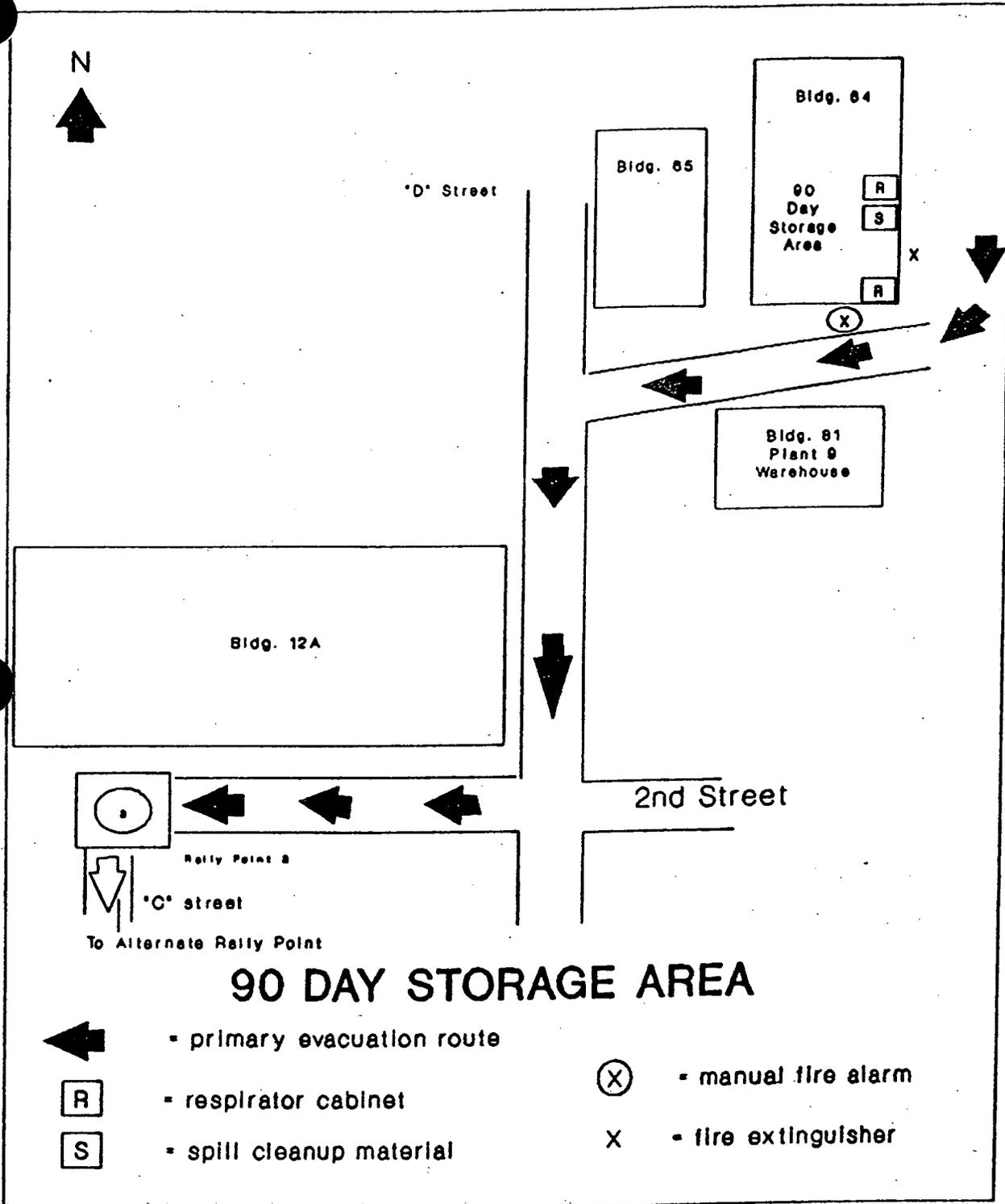
Personnel should evacuate to Rally Point No. 3. Rally Point No. 3 is located at the intersection of 2nd Street and "C" Streets. Movement is south on "D" Street to 2nd Street, then west on 2nd Street to the intersection of "C" Street.

The Alternate Rally Point is No. 5. Rally Point No. 5 is located at the intersection of 1st Street and "D" Streets. Movement from Rally Point No. 3 is south on "C" Street and east on 1st Street to the intersection of "D" Street.

The following is a list of safety equipment assigned to this area.

- Manual Fire Alarms
 - 1) On outside South wall of Building
- Fire Extinguishers
 - 1) 10# ABC On outside East wall
- Spill Cleanup Equipment
 - 1) At [REDACTED] East side [REDACTED] of building
- Respirator Cabinet
 - 1) At East side of building
 - 2) In Building 64 Office (Southeast corner of building)
- Eye Wash / Safety Shower
 - 1) Southwest corner of 90-day holding area, near truck entrance

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HWMU No. 1 - FIRE TRAINING FACILITY

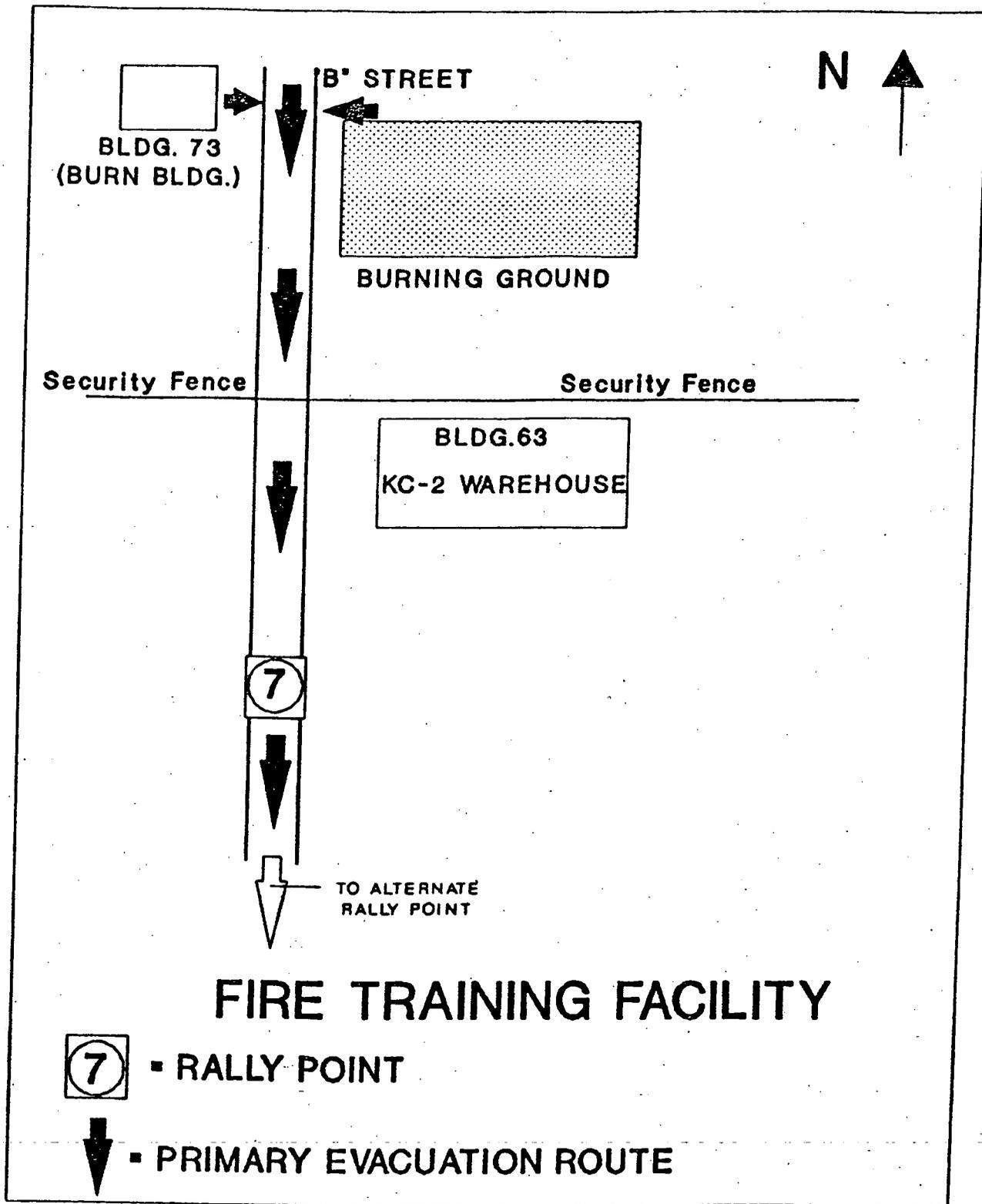
This facility is located due north of the KC-2 Warehouse outside the perimeter fence.

Personnel should evacuate to Rally Point No. 7. Rally Point No. 7 is located on "B" Street at the Northeast corner of Plant 1 Pad. Movement is south on "B" Street to the Northeast corner of Plant 1 Pad.

The Alternate Rally Point is No. 3. Rally Point No. 3 is located at the intersection of 2nd Street and "C" Streets. Movement from Rally Point No. 7 is south on "B" Street and east on 2nd Street until the intersection at "C" Street.

There is no safety equipment assigned to this unit. Those personnel desiring access to this HWMU are required to have a two-way radio for emergency notification purposes, and a key which allows passage through a security fence in the event of an evacuation.

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FERNALD ENVIRONMENTAL MANAGEMENT PROJECT
FERNALD, OHIO
EPA ID NO. OH6890008976
SECTION 6: CONTINGENCY PLAN - ATTACHMENT G-1

RCRA PART B PERMIT APPLICATION
FEMP REVISION 1.0 0393
PAGE 11 OF 71

HWMU No. 2 - PARTS CLEANER IN WELDING SHOP (MAINTENANCE BLDG 12)

This unit consists of a chemical cleaner and vent hood and was used to clean tools and other items with 1,1,1-trichloroethane.

This has been removed from the HWMU list.

HWMU No. 3 - WASTE OIL STORAGE IN GARAGE

This area was located on the West wall of Building 31 (garage). The containers stored oil mixed with hazardous waste.

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

The Alternate Rally Point is No. 4. Rally Point No. 4 is located on "D" Street East of the Security Building (Building 28A). Movement from Rally Point No. 5 is directly south on "D" Street.

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

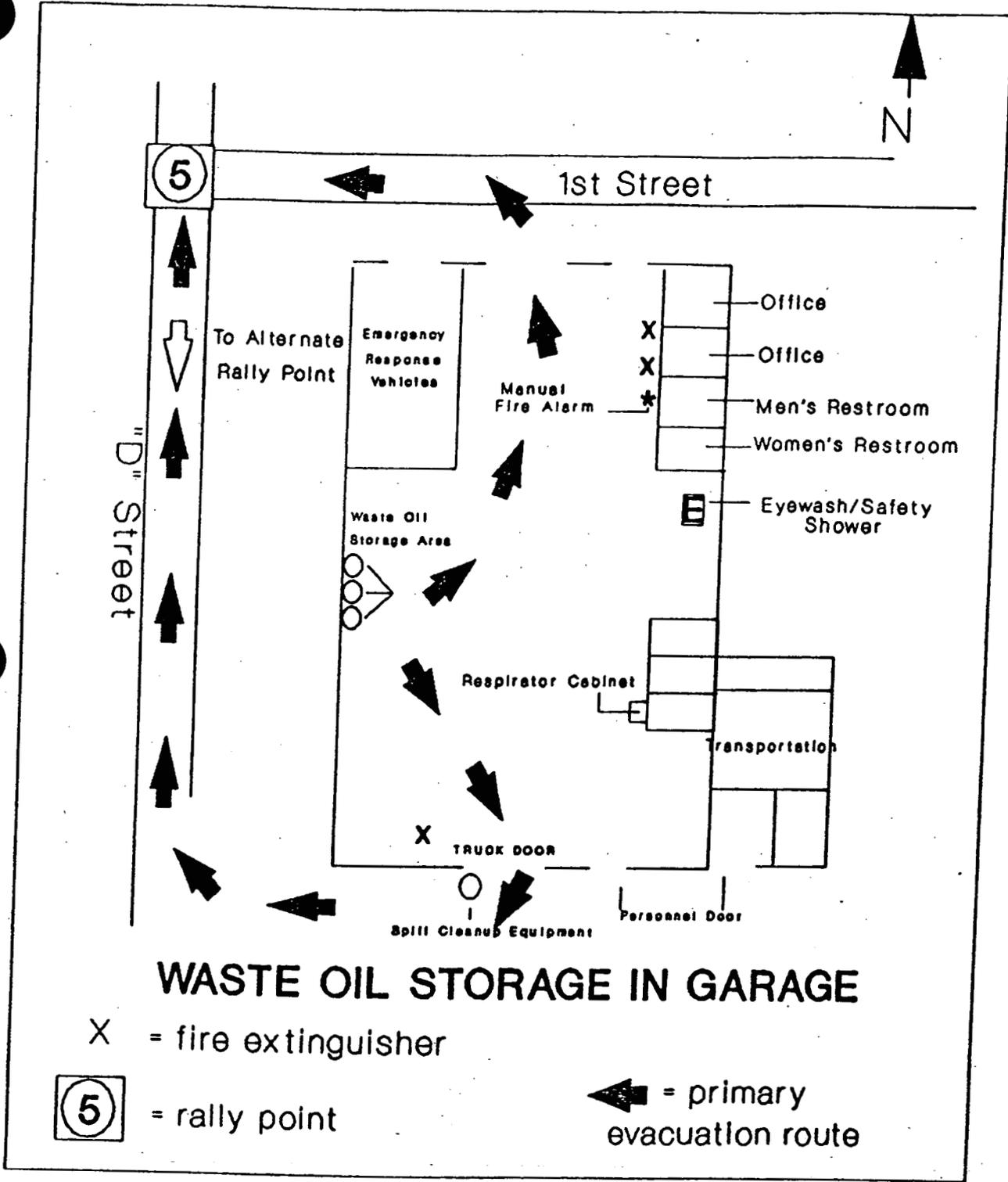
- Manual Fire Alarm
 - 1) Located on East wall by Men's Restroom

- Fire Extinguishers
 - 1) 15# CO₂ North end by office on East wall
 - 2) 10# ABC North end by office on East wall
 - 3) 10# ABC South end by overhead door

- Eye Wash/Safety Shower Station
 - 1) Located on East wall of garage across from HWMU (Portable Unit)

- Spill Cleanup Equipment
 - 1) Outside by South truck door

- Respirator Cabinet
 - 1) Located outside Supervisor's Office on East wall



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

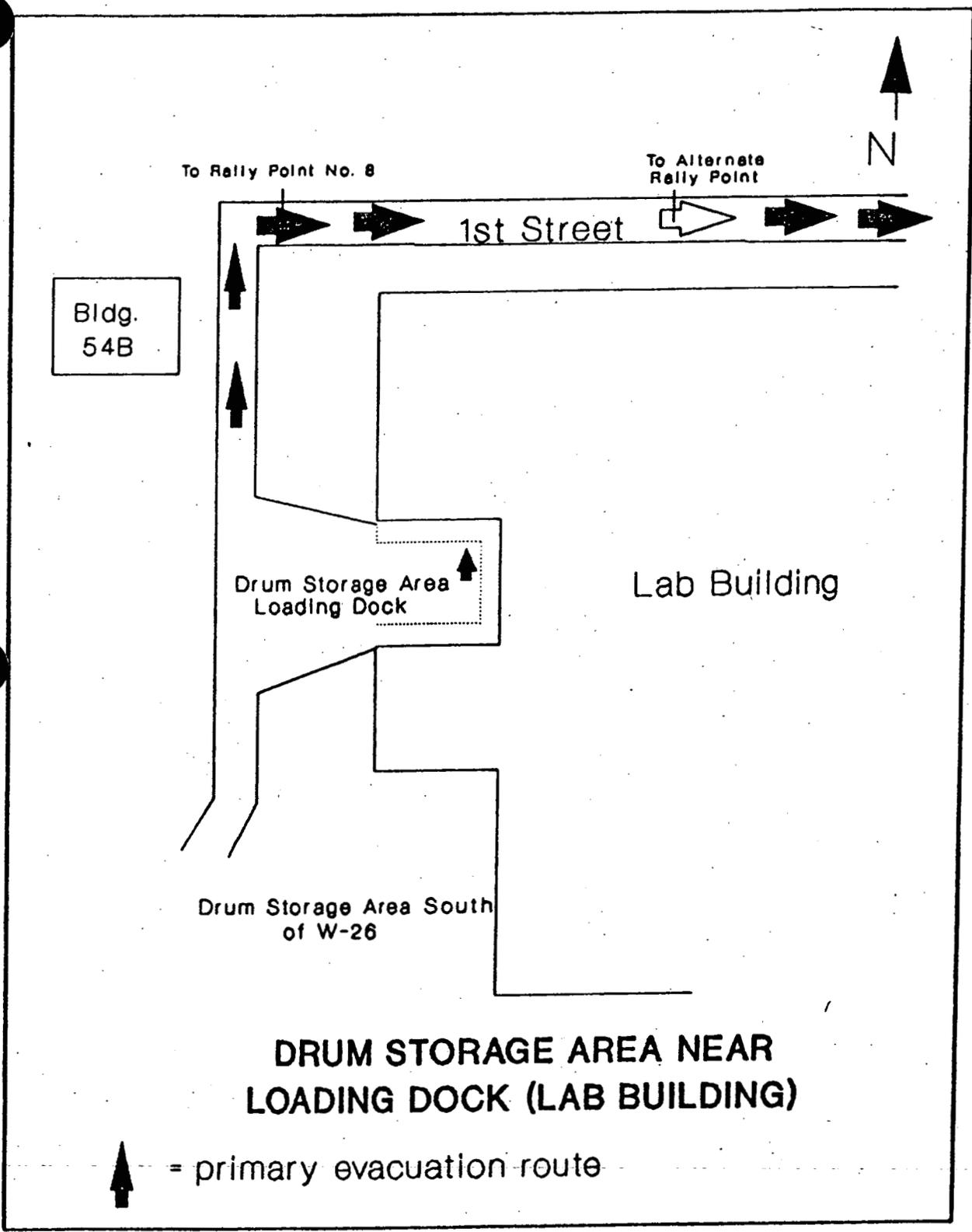
This was a container storage and waste transfer area which operated from 1952 to 1983. The area is presently covered with concrete due to loading expansion.

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. 5. Rally Point No. 5 is located at the intersection of 1st and "D" Street. Movement from Rally Point No. 8 is East on 1st Street to the intersection of "D" Street.

There is no safety equipment assigned to this unit. Those personnel desiring access to this unit are required to have a two-way radio for emergency notification purposes.

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

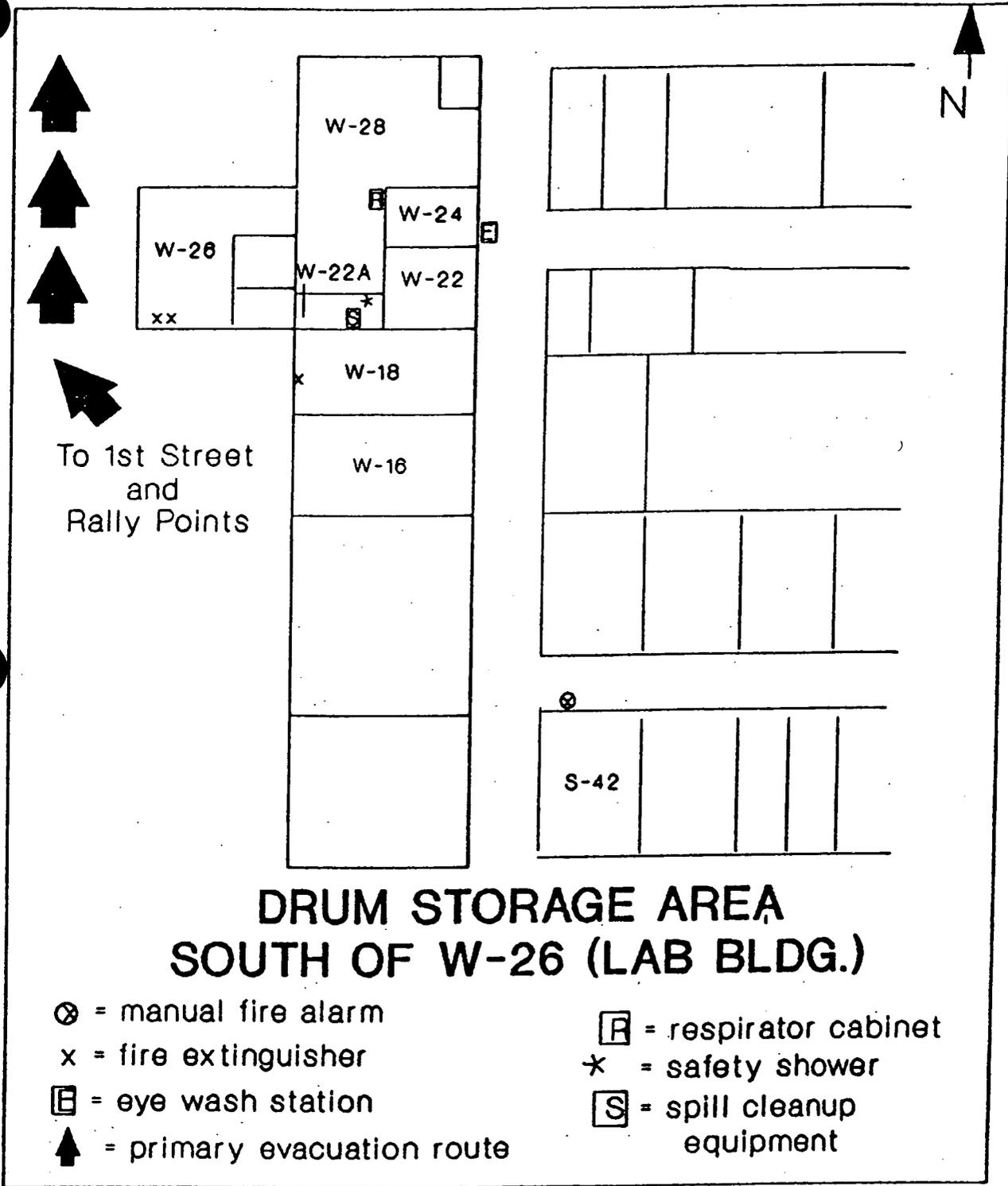
This area was located in an unpaved area near Building 15 and operated from 1983 to 1989.

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. 5. Rally Point No. 5 is located at the intersection of 1st and "D" Street. Movement from Rally Point No. 8 is East on 1st Street to the intersection of "D" Street.

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

- Manual Fire Alarm
 - 1) Located in South corridor by S-42
- Fire Extinguishers - West Corridor
 - 1) 10# CO₂ Southwest corner of W-26
 - 2) 10# CO₂ Southwest corner of W-26
 - 3) 5# CO₂ First Floor at West end of Room W-18
- Eye Wash Station
 - 1) In hallway by W-24
- Safety Shower
 - 1) Located in doorway to Room W-22A
- Spill Cleanup Equipment
 - 1) Located in Room W-22A
- Respirator Cabinet
 - 1) East wall Room W-28 by doorway to W-24



HWMU No. 6 - DRUMMED HF RESIDUE/ASSOCIATED STORAGE AREAS INSIDE PLANT 4

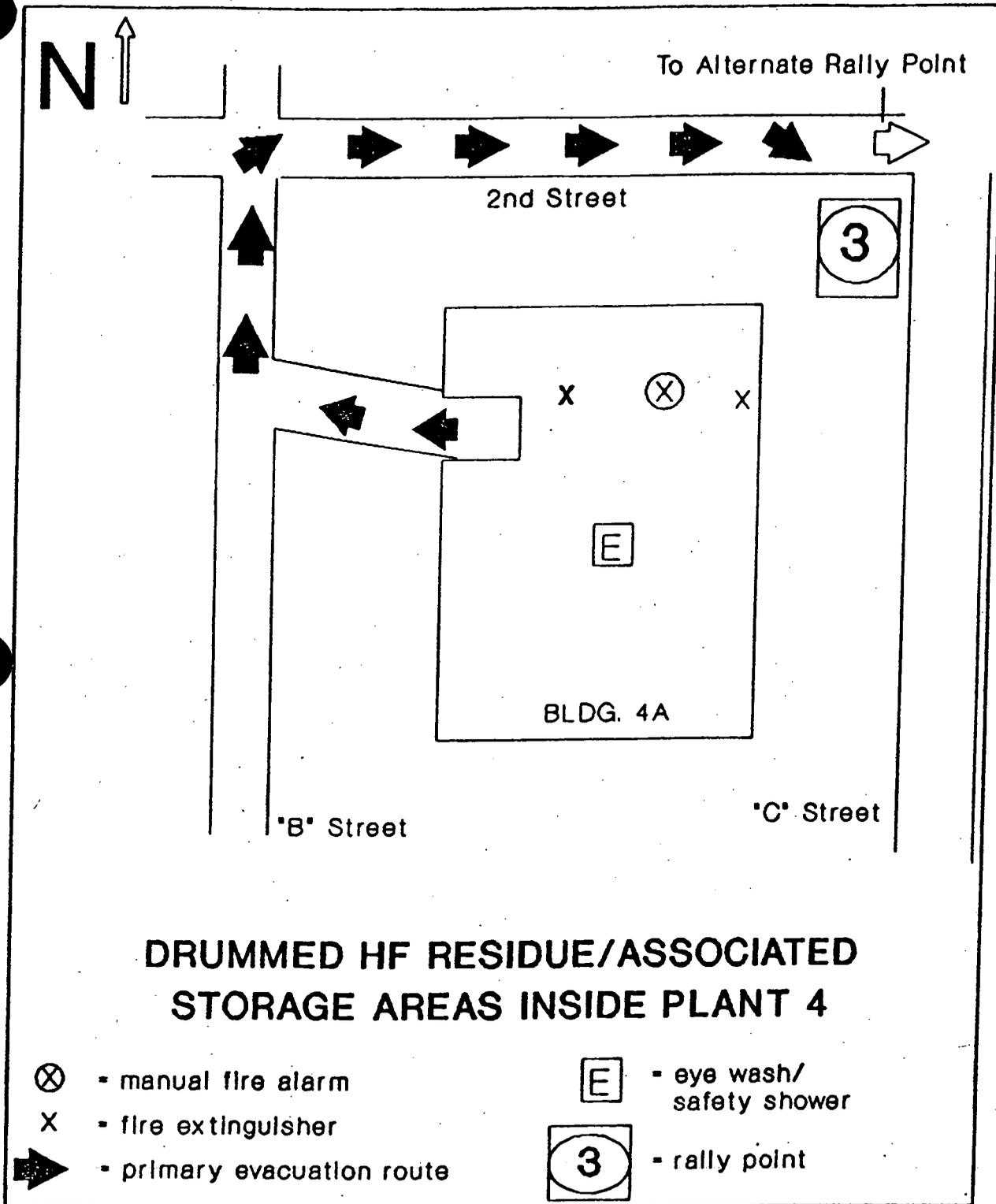
This unit is located in the North section of Plant 4 near the elevator.

Personnel should evacuate to Rally Point No. 3. Rally Point No. 3 is located at the intersection of 2nd Street and "C" Streets. Movement is west to "B" Street, north on "B" Street, and east on 2nd Street to the intersection of "C" Street.

The Alternate Rally Point is No. 5. Rally Point No. 5 is located at the corner of 1st Street and "D" Street. Movement from Rally Point No. 3 is east on 2nd Street and south on "D" Street to the corner of 1st Street.

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

- Manual Fire Alarm
 - 1) First floor at column E-2
- Fire Extinguishers
 - 1) 15# CO₂ First floor North wall next to elevator
 - 2) 10# ABC First floor next to Northeast door
- Eye Wash/Safety Shower Station
 - 1) At column D-6



DRUMMED HF RESIDUE/ASSOCIATED STORAGE AREAS INSIDE PLANT 4

HWMU No. 7 - DRUMMED HF RESIDUE/ASSOCIATED STORAGE AREAS NORTHWEST OF PLANT 4

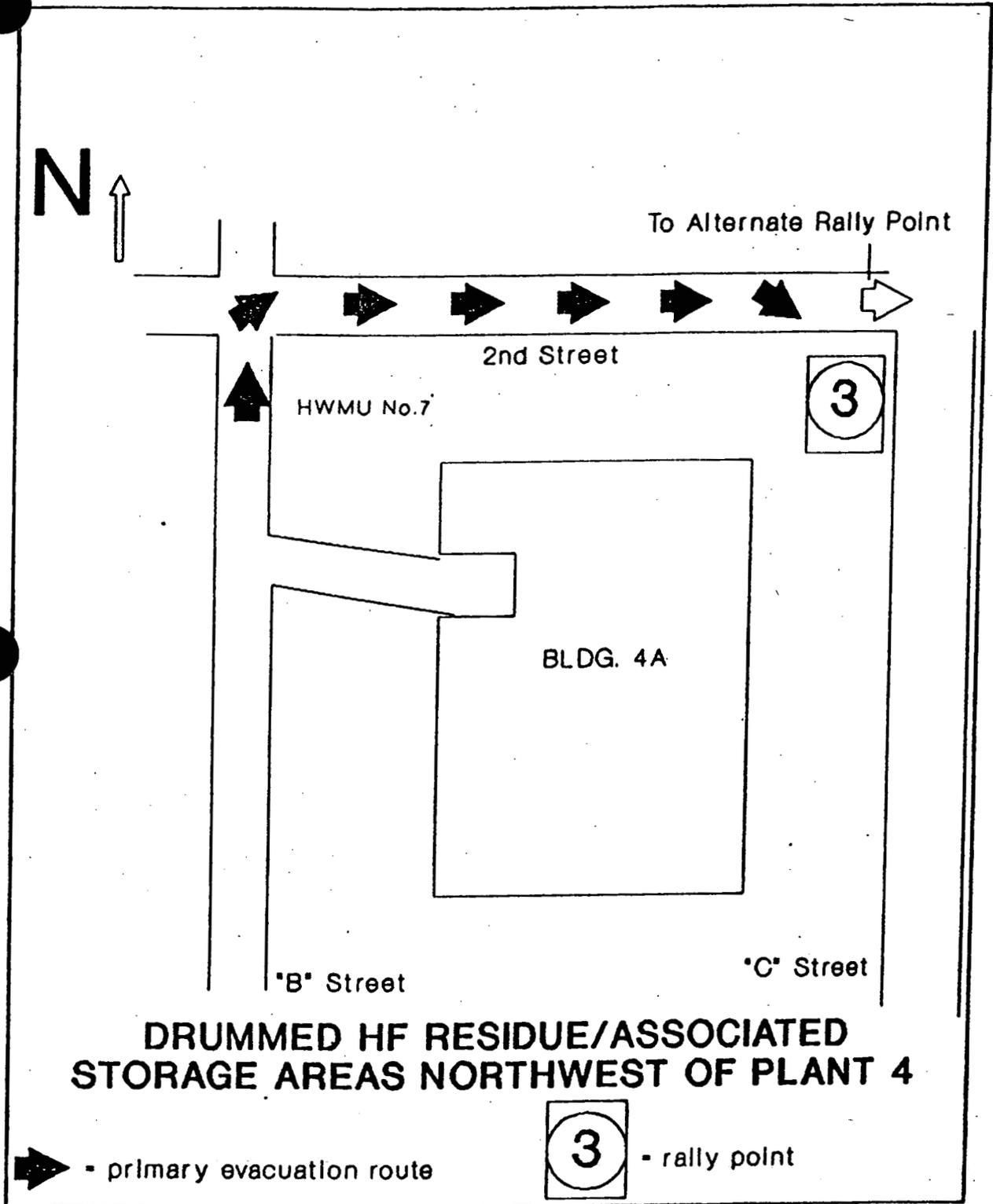
This container storage area was located on a graveled lot Northwest of Plant 4 and was operated from January 1990 to August 1990.

Personnel should evacuate to Rally Point No. 3. Rally Point No. 3 is located at the intersection of 2nd Street and "C" Street. Movement is west to "B" Street, north on "B" Street, and east on 2nd Street to the intersection of "C" Street.

The Alternate Rally Point is No. 5. Rally Point No. 5 is located at the corner of 1st Street and "D" Street. Movement from Rally Point No. 3 is east on 2nd Street and south on "D" Street to the corner of 1st Street.

There is no safety equipment assigned to this unit. Those personnel desiring access to this unit are required to have a two-way radio for emergency notification purposes.

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DRUMMED HF RESIDUE/ASSOCIATED STORAGE AREAS NORTHWEST OF PLANT 4

HMU No. 8 - DRUMMED HF RESIDUE/ASSOCIATED STORAGE AREAS S. OF COOLING TOWERS

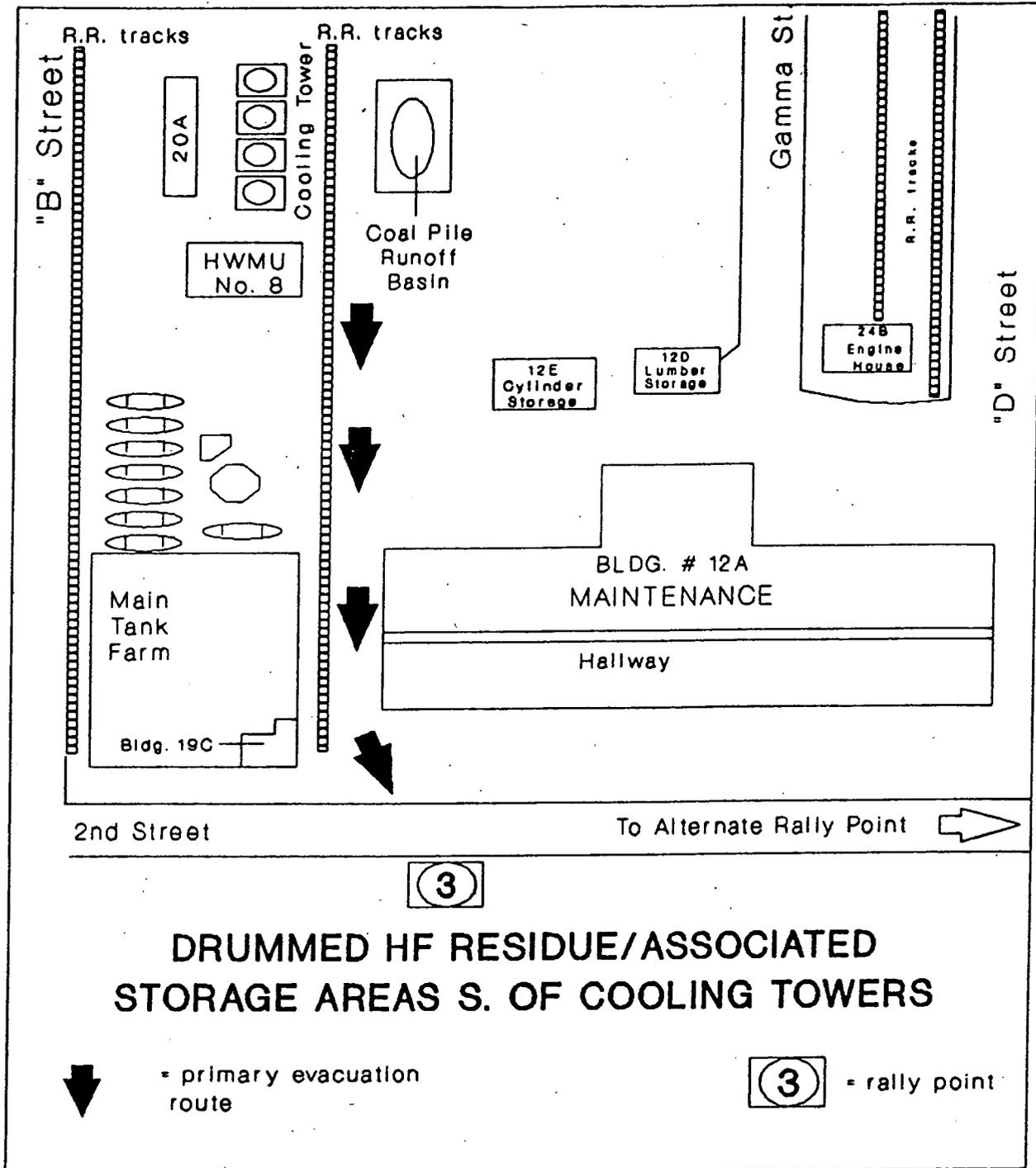
This unit is located in a graveled area South of the Cooling Towers.

Personnel should evacuate to Rally Point No. 3. Rally Point No. 3 is located at the intersection of 2nd Street and "C" Street. Movement is south to 2nd Street and east on 2nd Street to the intersection of "C" Street.

The Alternate Rally Point is No. 5. Rally Point No. 5 is located at the intersection of 1st Street and "D" Streets. Movement from Rally Point No. 3 is east on 2nd Street and south on "D" Street to the intersection of 1st Street.

There is no safety equipment assigned to this unit. Those personnel desiring access to this unit are required to have a two-way radio for emergency notification purposes.

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HWMU No. 9 - NITRIC ACID RAIL CAR AND AREA

The Nitric Acid Rail Car is located near the end of track #2, due East of Building 63 (KC-2 Warehouse). The tank car contains 50 to 100 gallons of waste nitric acid.

Personnel should evacuate to Rally Point No. 7. Rally Point No. 7 is located on "B" Street at the Northeast corner of Plant 1 Pad. Movement is west to "B" Street and south on "B" Street to the Northeast corner of Plant 1 Pad.

The Alternate Rally Point is No. 3. Rally Point No. 3 is located at the corner of 2nd Street and "C" Street. Movement from Rally Point No. 7 is south on "B" Street to 2nd Street, then east on 2nd Street to the intersection at "C" Street.

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

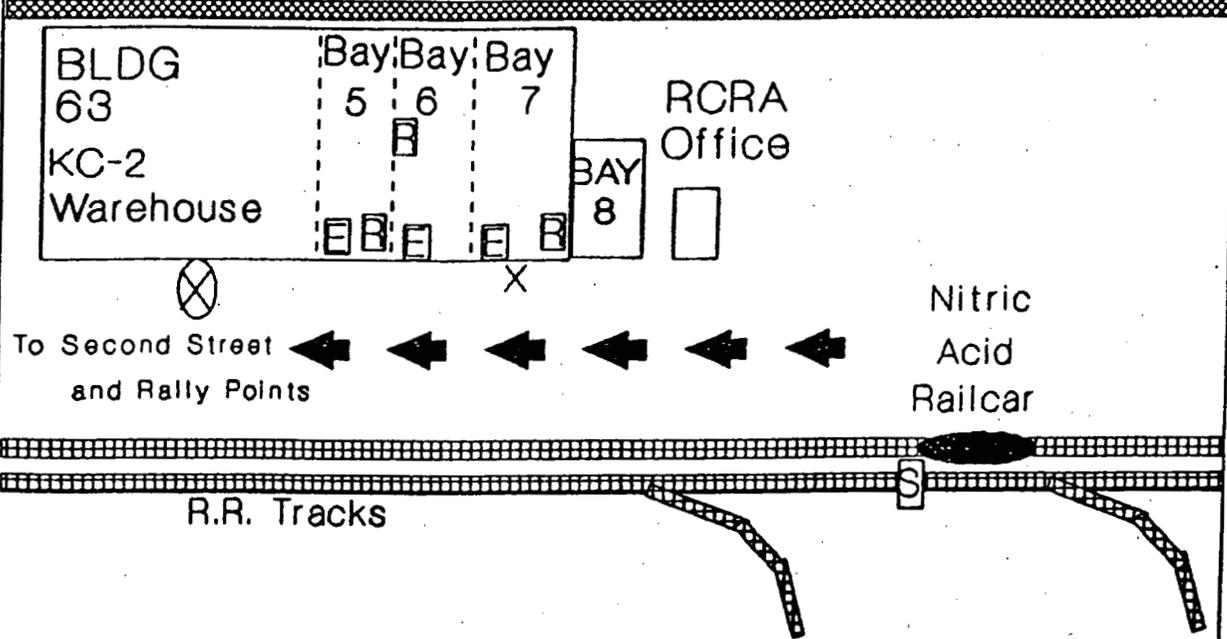
- Manual Fire Alarm
 - 1) Outside on South wall of Building 63 (KC-2 Warehouse)
- Fire Extinguisher
 - 1) 20# ABC on South wall of Building 63 outside Bay 7
- Eye Wash/Safety Shower Stations
 - 1) Use portable eye washes at Bays 5, 6, and 7 of Building 63
- Spill Cleanup Equipment
 - 1) At Southwest corner of Rail Car
- Respirator Cabinets
 - 1) Use respirators in cabinets in Bays 5, 6, and 7 of Building 63

Access to equipment inside Building 63 can be gained only by personnel having a key to Bays 5, 6, or 7. Those personnel desiring access to this unit are required to have a two-way radio to facilitate emergency notification purposes.

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FENCE



NITRIC ACID RAIL CAR AND AREA

- | | |
|---|--|
|  = spill cleanup equipment |  = manual fire alarm |
|  = respirator cabinet | X = fire extinguisher |
|  = eye wash/safety shower |  = primary evacuation route |

HMMU 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.

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 101st ~~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 from Rally Point No. 6 is east to "B" Street, and south on "B" Street to the intersection of 1st Street. ~~south on "A" Street and east on 1st Street to the intersection of "B" Street.~~

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

- Manual Fire Alarms
 - 1) West side of North personnel door in the Denitrification Area
 - 2) West wall of Extraction Area by Column B-8

- Fire Extinguishers
 - 1) 10# ABC First floor Denitrification Area by Column B-14
 - 2) 10# ABC First floor Denitrification Area by Column D-16
 - 3) 10# ABC Inside door of Supervisor's Office

- Eye Wash/Safety Shower Stations
 - 1) First floor Denitrification Area by Column C-17
 - 2) Second floor Denitrification Area West of Column D-18
 - 3) Inside South wall of NAR Tank Farm
 - 4) First floor Extraction Area by Column B-13
 - 5) Second floor Extraction Area by Column C-17

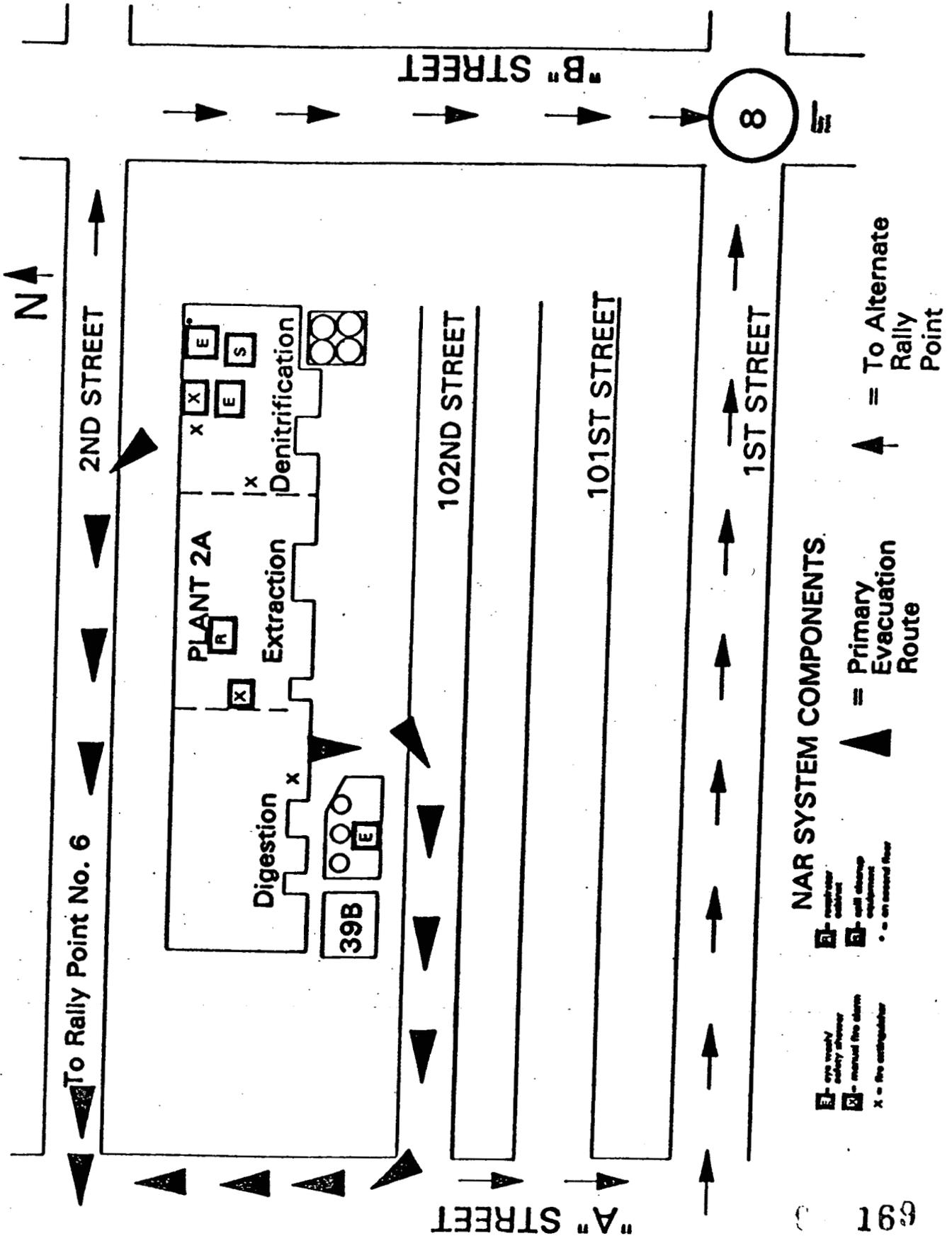
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6) First floor Denitrification Area, East of Column D-15

- Spill Cleanup Equipment

- 1) First Floor Denitrification Area East of Column B-17



NAR SYSTEM COMPONENTS

- = eye wash safety shower
- = manual fire alarm
- = fire extinguisher
- = eye wash
- = safety shower
- = manual fire alarm
- = fire extinguisher
- = fire extinguisher
- = fire extinguisher
- = fire extinguisher

- = Primary Evacuation Route
- = To Alternate Rally Point

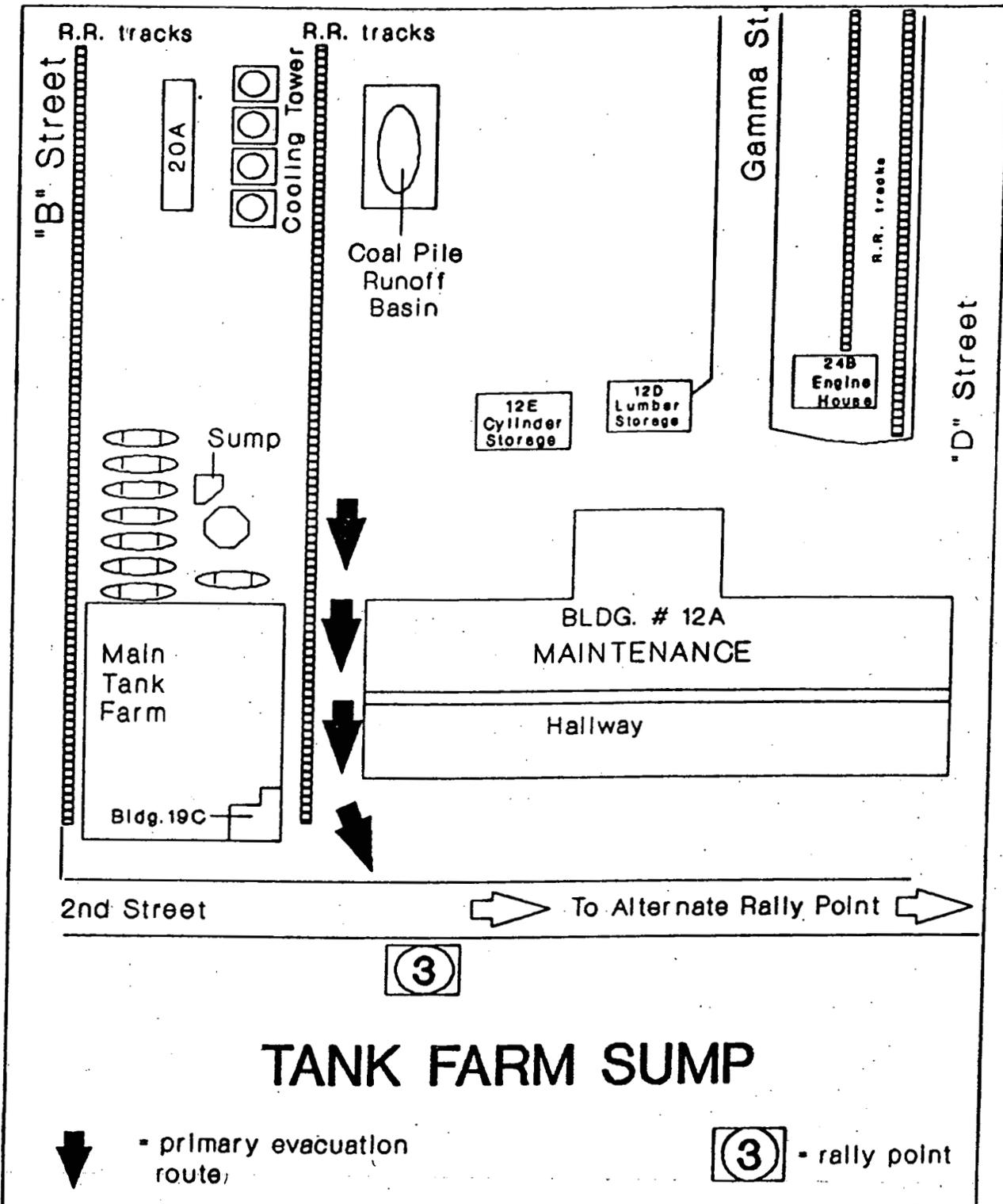
HWMU No. 11 - TANK FARM SUMP

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

Personnel should evacuate to Rally Point No. 3. Rally Point No. 3 is located at the intersection of 2nd Street and "C" Street. Movement is south to 2nd Street and east on 2nd Street to the intersection of "C" Street.

The Alternate Rally Point is No. 5. Rally Point No. 5 is located at the intersection of 1st Street and "D" Street. Movement from Rally Point No. 3 is east on 2nd Street and south on "D" Street to the intersection of 1st Street.

There is no safety equipment assigned to this HWMU. Those personnel desiring access to this unit are required to have a two-way radio for emergency notification purposes.



HMU No. 12 - WHEELABRATOR (BUILDING 66)

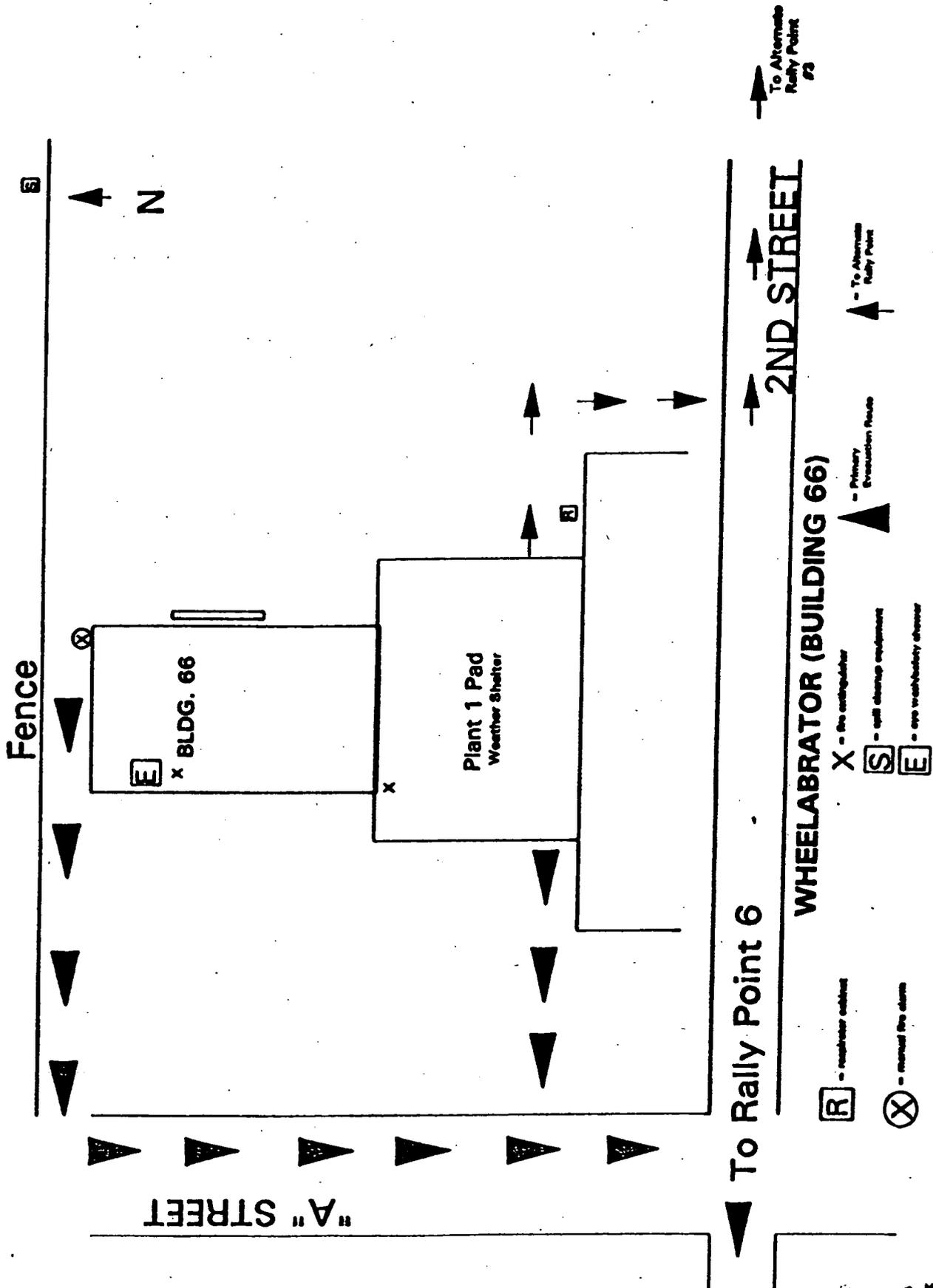
The Wheelabrator was used in the second stage of drum reconditioning to remove paint from old empty drums by an abrasive blasting method using steel shot.

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 south on "A" Street to the intersection of 2nd Street, then west on 2nd Street to the Waste Pit Area access gate.

The Alternate Rally Point is No. 8 ~~3~~. Rally Point No. 8 ~~3~~ is located at the intersection of ~~1st~~ 2nd Street and "B" "C" Street. ~~Movement is south past the east side of Building 1A to 2nd Street, and east on 2nd Street to the Point. from Rally Point No. 6 is south on "A" Street and East on 1st Street to the intersection of "B" Street.~~

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

- Manual Fire Alarm
 - 1) Outside near Northeast corner of Building 1A
- Fire Extinguishers
 - 1) 20# ABC on East side of Drum Dryer
 - 2) 15# CO₂ outside on South end of Building 66 by Wheelabrator
- Eye Wash/Safety Shower Station
 - 1) Inside Building 66 on East side of Drum Dryer
- Spill Cleanup Equipment
 - 1) Behind the fence Northeast of the Building 66
- Respirator Cabinets
 - 1) ~~Outside on North wall of Building 1A~~
Inside Building 1A, in Primary Satellite Clothing Area



HWMU No. 13 - WHEELABRATOR DUST COLLECTOR (BUILDING 66)

The Wheelabrator Dust Collector is a component of the drum reconditioning system in Building 66.

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 south on "A" Street to the intersection of 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 from Rally Point No. 6 is south on "A" Street and east on 1st Street to the intersection of "B" Street.~~

~~The Alternate Rally Point is No. 3. Rally Point No. 3 is located at the intersection of 2nd Street and "C" Street. Movement is south past the east side of Building 1A to 2nd Street, and east on 2nd Street to the Point.~~

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

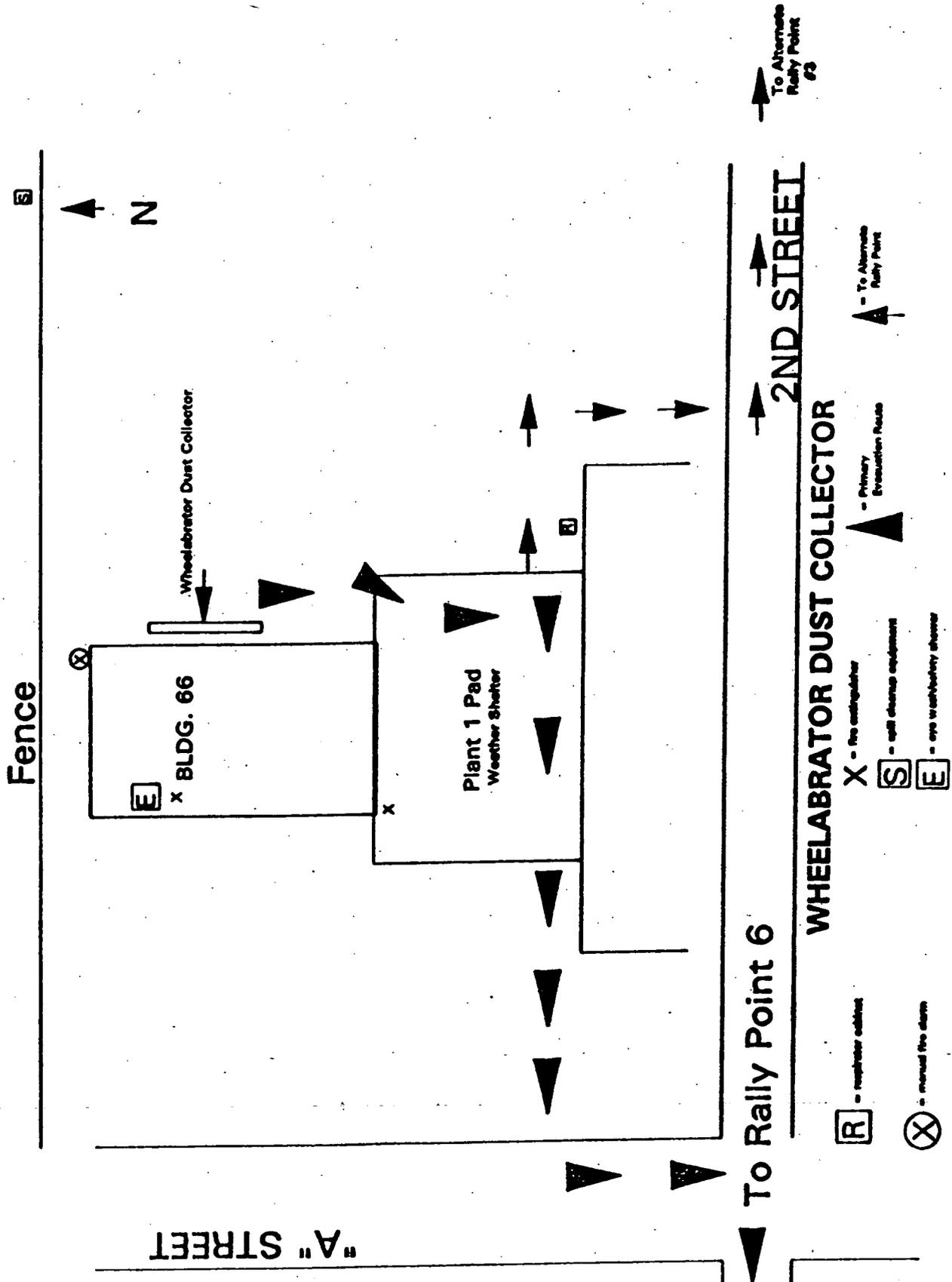
- Manual Fire Alarm
 - 1) Outside on East end of North wall of Building 66
- Fire Extinguishers
 - 1) 20# ABC on East side of Drum Dryer
 - 2) 15# CO₂ Outside on South end of Building 66 by Wheelabrator
- Eye Wash/Safety Shower Station
 - 1) Inside Building 66 on East side of Drum Dryer
- Spill Cleanup Equipment
 - 1) Behind the fence Northeast of the Building 66
- Respirator Cabinets

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1) ~~Outside on North wall of Building 1A~~

~~Inside Building 1A, in Primary Satellite Clothing Area~~



HMMU No. 14 - BOX FURNACE

The Box Furnace is located on the North side of Plant 8. The furnace is lined with refractory brick.

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. 5. Rally Point No. 5 is located at the intersection of "D" Street and 1st Street. Movement from Rally Point No. 8 is east on 1st Street to the intersection of "D" Street.

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

- Manual Fire Alarm
 - 1) Inside Building 3A at Southeast entrance door

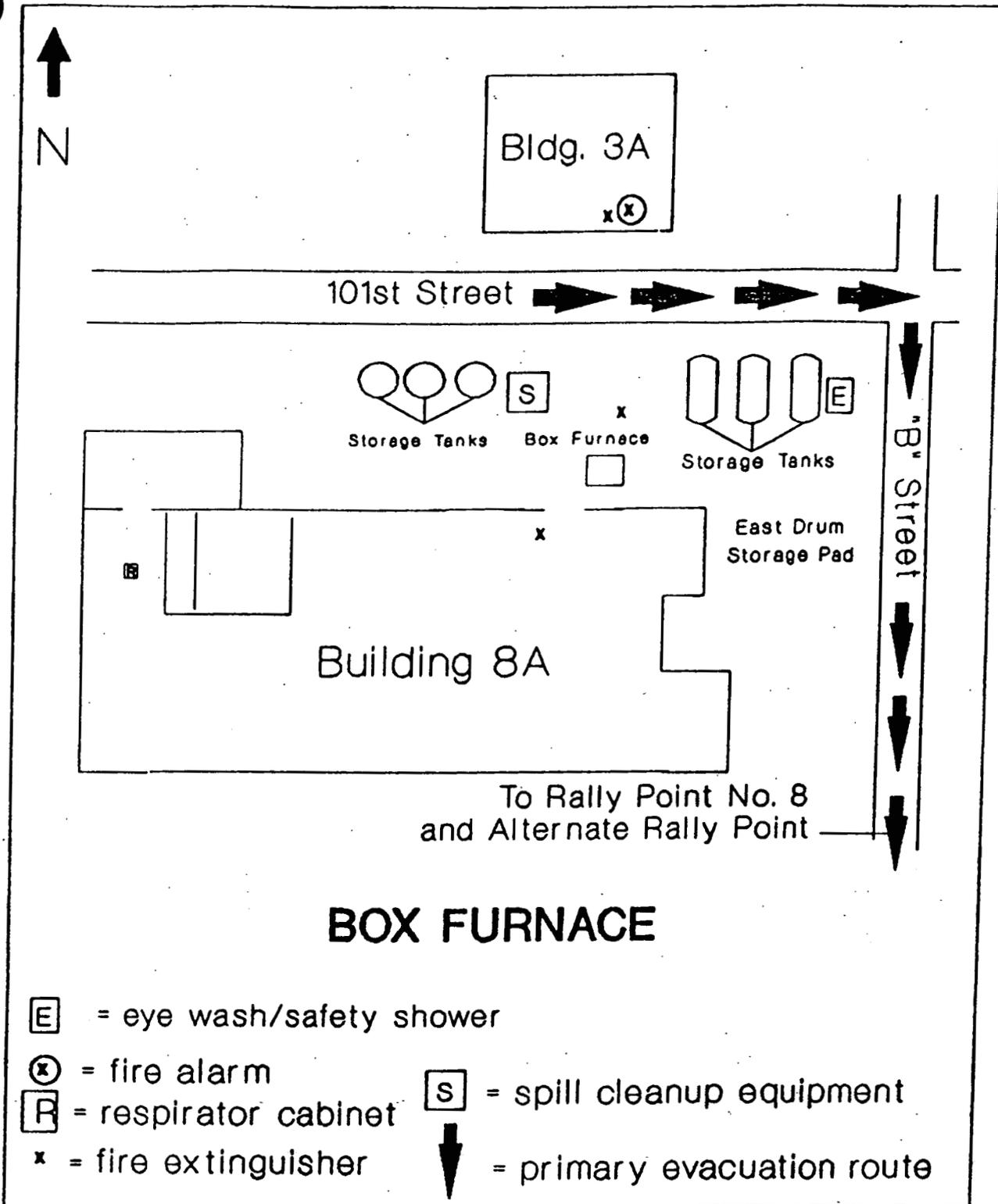
- Fire Extinguishers
 - 1) 10# ABC First Floor Building 8A Column C-10 by overhead door
 - 2) ~~30# M-X~~ ~~10# ABC~~ Box Furnace Pad outside North door
 - 3) ~~15# CO₂ Inside Building 3A (Maintenance) Southeast entrance door~~

- Eye Wash/Safety Shower Station
 - 1) East of NaOH Storage Tank Northeast of Building 8A

- Spill Cleanup Equipment
 - 1) Located North of Building 8A, East of Tank 28A

- Respirator Cabinet
 - 1) 1st Floor Northwest near Office

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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.

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. 5. Rally Point No. 5 is located at the intersection of "D" Street and 1st Street. Movement from Rally Point No. 8 is east on 1st Street to the intersection of "D" Street.

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

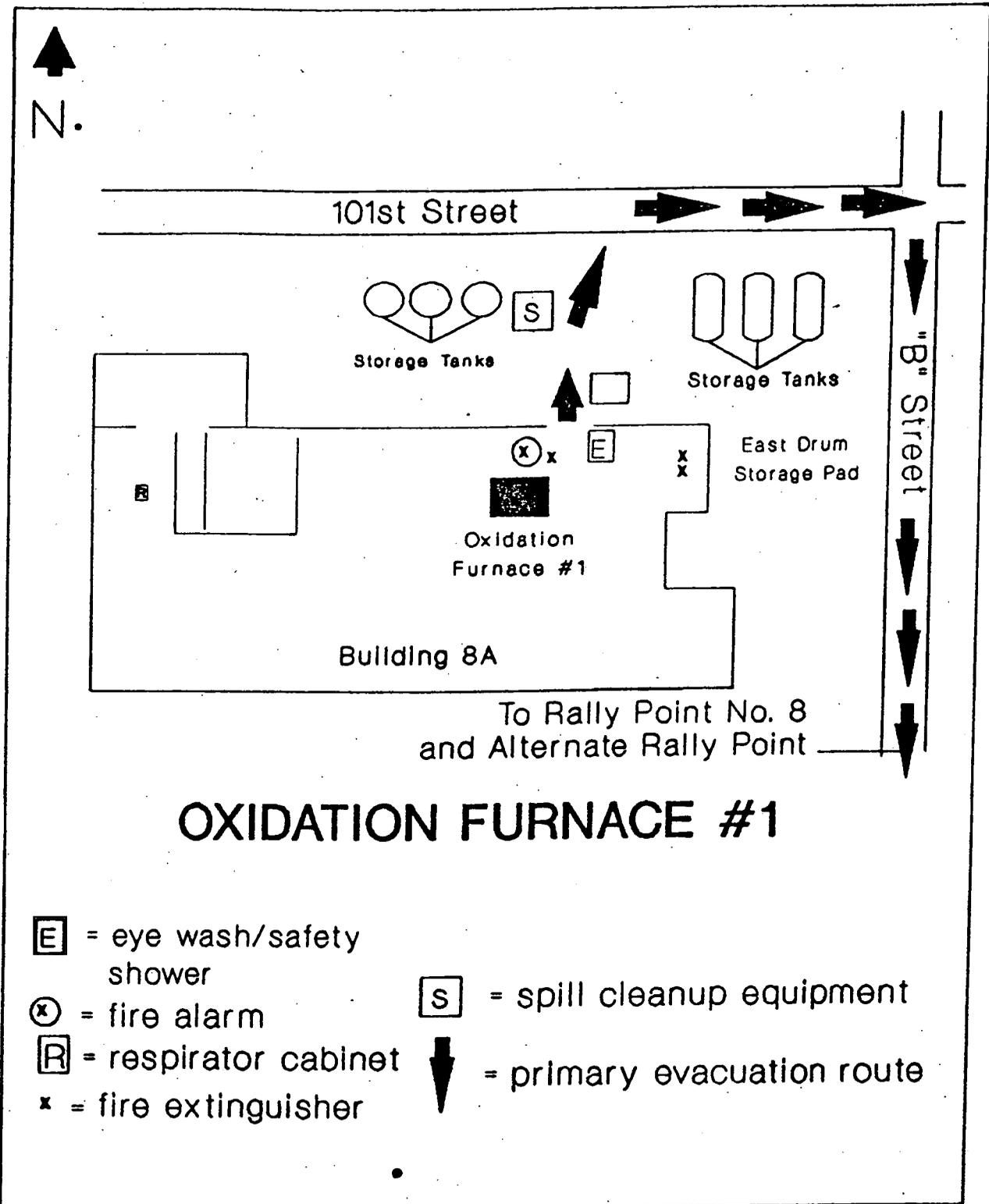
- Manual Fire Alarm
 - 1) Inside by Column C-10

- Fire Extinguishers
 - 1) 10# ABC First Floor Column C-10 by overhead door
 - 2) 10# ABC First Floor at East elevator
 - 3) ~~10# ABC First Floor at East elevator~~

- Eye Wash/Safety Shower Station
 - 1) At East side of nearest roll-up door

- Spill Cleanup Equipment
 - 1) Located North of Building 8A, East of Tank 28A

- Respirator Cabinet
 - 1) 1st Floor Northwest near Office



OXIDATION FURNACE #1

- E = eye wash/safety shower
- X = fire alarm
- R = respirator cabinet
- x = fire extinguisher
- S = spill cleanup equipment
- ↓ = primary evacuation route

HNU No. 16 - PRIMARY CALCINER

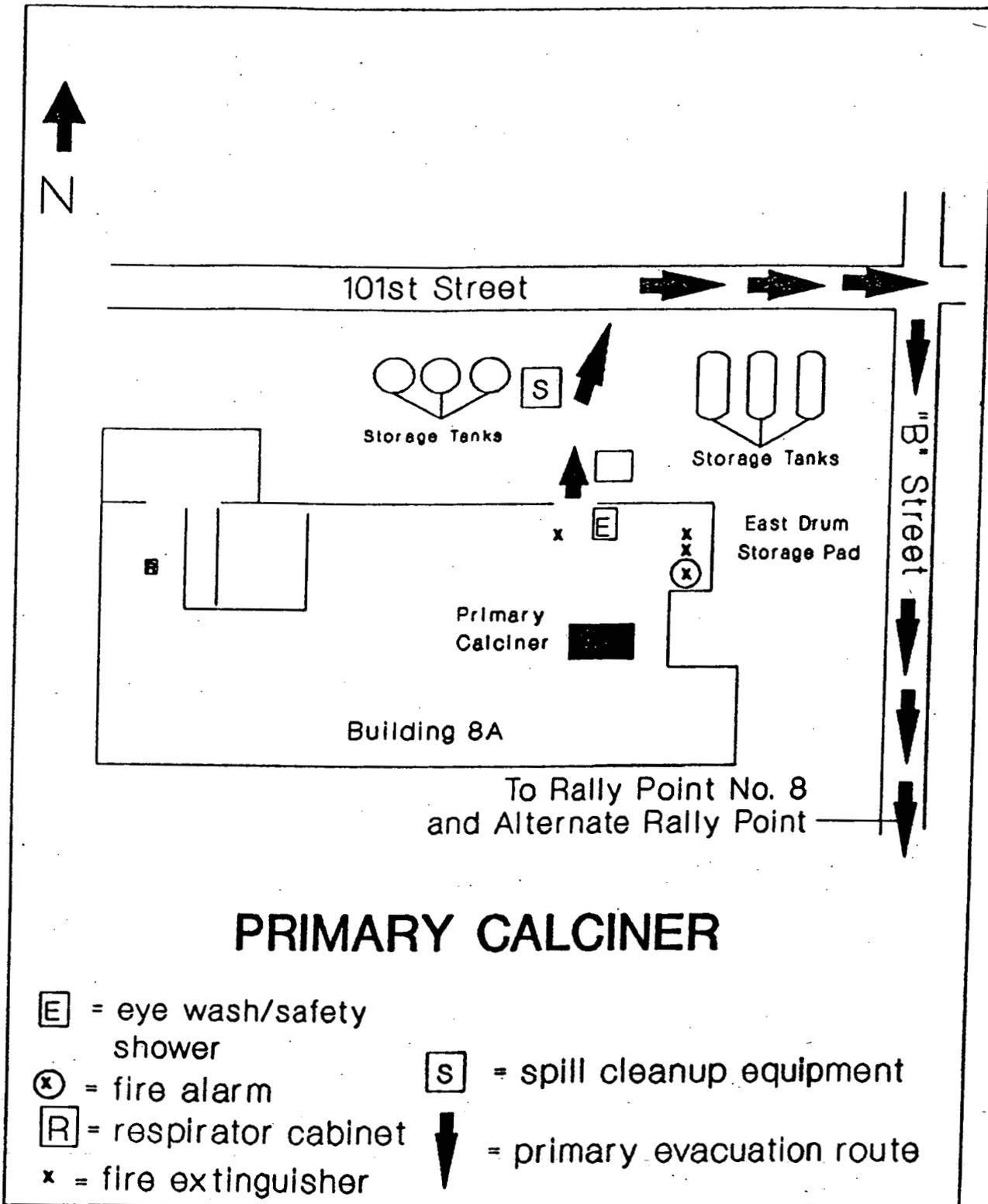
This unit is located in Plant 8 and consists of a steel shell 13 ft 6 inches in diameter with eight refractory brick lined hearths and three burners.

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. 5. Rally Point No. 5 is located at the intersection of "D" Street and 1st Street. Movement from Rally Point No. 8 is east on 1st Street to the intersection of "D" Street.

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

- Manual Fire Alarm
 - 1) East end of building by elevator
- Fire Extinguishers
 - 1) 10# ABC First Floor Column C-10 by overhead door
 - 2) 10# ABC First Floor at East elevator
 - 3) ~~10# ABC First Floor at East elevator~~
- Eye Wash/Safety Shower Station
 - 1) On East side of nearest roll-up door
- Spill Cleanup Equipment
 - 1) Located North of Building 8A, East of Tank 28A
- Respirator Cabinet
 - 1) 1st Floor Northwest near office



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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.

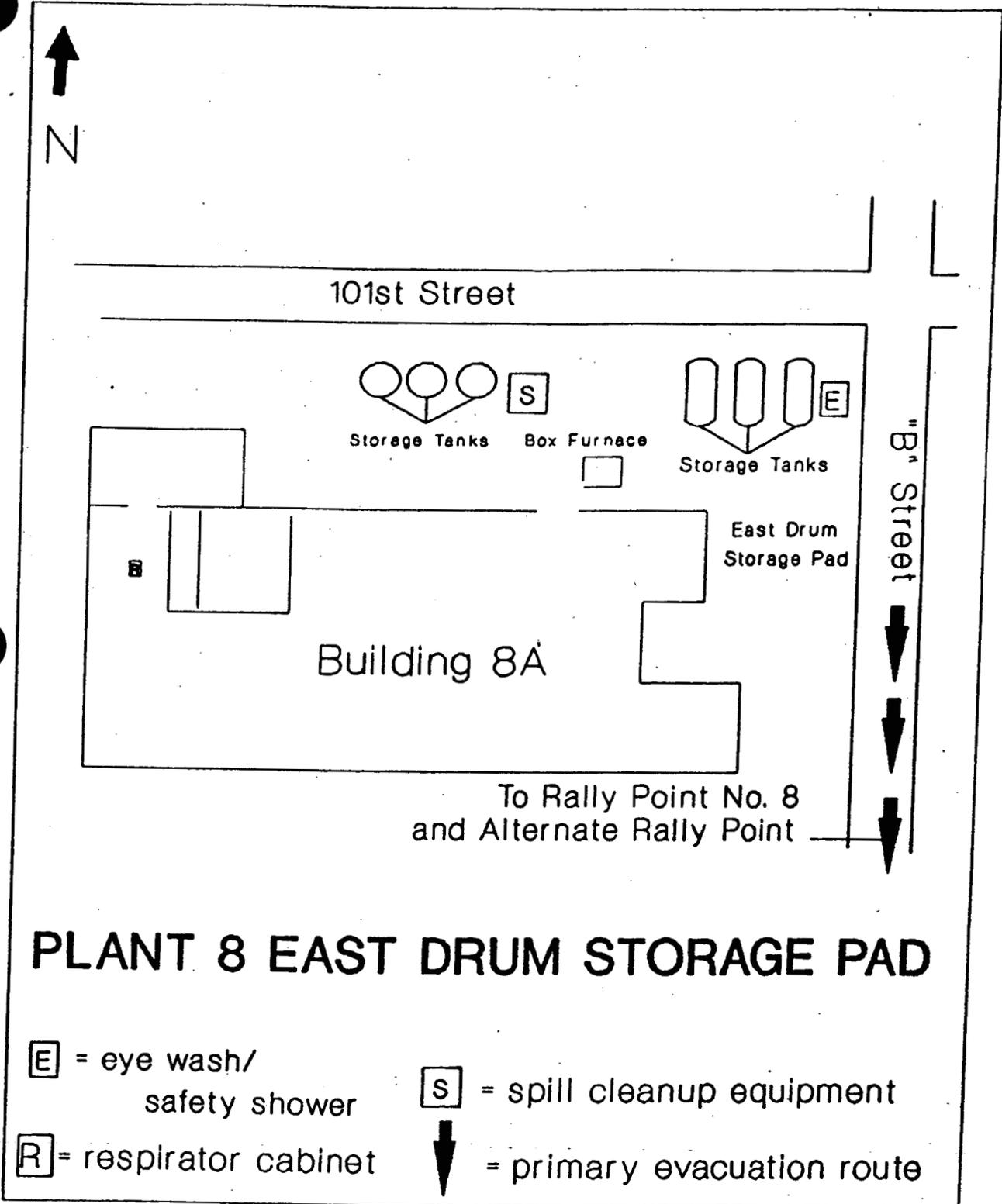
Personnel should evacuate to Rally Point No. 8. Rally Point No. 8 is located at the intersection of 1st Street and "B" Street. Movement is east to "B" Street and south on "B" Street to the intersection of 1st Street.

The Alternate Rally Point is No. 5. Rally Point No. 5 is located at the intersection of "D" Street and 1st Street. Movement from Rally Point No. 8 is east on 1st Street to the intersection of "D" Street.

Those personnel desiring access to this HWMU are required to have a two-way radio for emergency notification purposes.

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

- Eye Wash/Safety Shower Station
 - 1) East of NaOH Storage Tank Northeast of Building 8A
- Spill Cleanup Equipment
 - 1) Located North of Building 8A, East of Tank 28A
- Respirator Cabinet (Plant 8)
 - 1) 1st Floor Northwest near office ~~at Southeast~~
~~Satellite Clothing Area near new Rotary Kill~~



HWMU No. 18 - PLANT 8 WEST DRUM STORAGE PAD

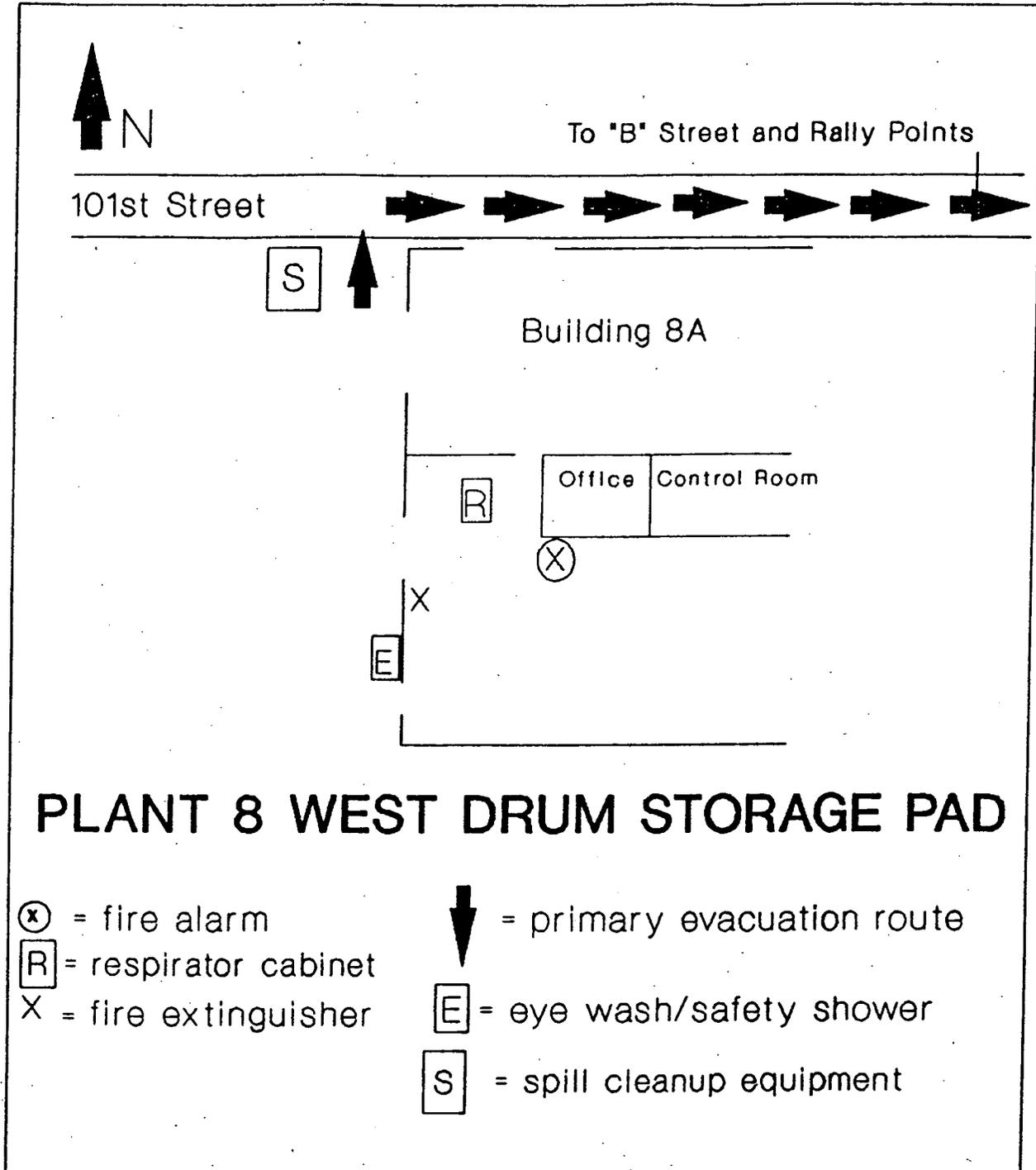
The Plant 8 West Drum Storage Pad is located in the West section of the Production Area.

Personnel should evacuate to Rally Point No. 8 which 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. 5. Rally Point No. 5 is located at the intersection of "D" Street and 1st Street. Movement from Rally Point No. 8 is east on 1st Street to the intersection of "D" Street.

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

- Manual Fire Alarm
 - 1) First Floor Northwest side by Supervisor's Office
- Fire Extinguisher
 - 1) 10# ABC First Floor West side by overhead door
- Eye Wash/Safety Shower Station
 - 1) Outside on West wall of Building 8A
- Spill Cleanup Equipment
 - 1) Outside West off of Northwest corner of Building 8A
- ~~Respirator Cabinet (Plant 8)~~
 - 1) ~~First Floor Northwest side near Supervisor's Office~~



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. This warehouse is being used for the storage of containers of hazardous waste without free liquids.

Personnel should evacuate to Rally Point No. 7 which is located on "B" Street at the Northeast corner of Plant 1 Storage Pad. Movement is east to "B" Street and south on "B" Street to the Northeast corner of Plant 1 Storage Pad.

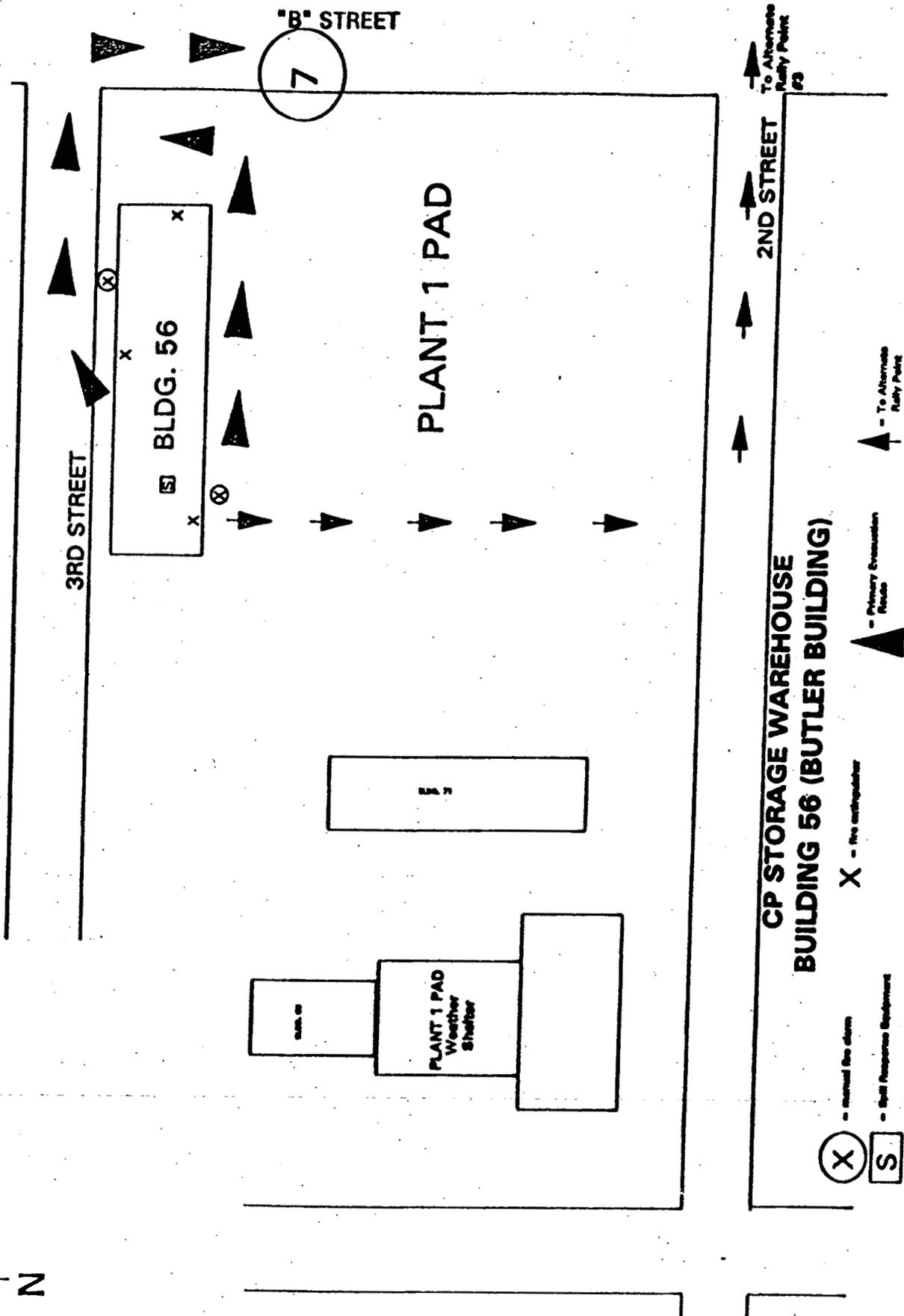
The Alternate Rally Point is No. 3. Rally Point No. 3 is located at the intersection of 2nd Street and "C" Street. Movement from Rally Point No. 7 is south on "B" Street is south across Plant 1 storage pad to 2nd Street, and east on 2nd Street to the intersection of "C" Street.

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

- Fire Extinguishers
 - 1) 20# ABC between South pedestrian door and Southwest truck door
 - 2) 10# ABC on North wall center of building
 - 3) 10# ABC on wall by East truck door

- Spill Cleanup Equipment
 - 1) Located near the West inside wall center of building
 - 2) Located near the East inside wall, center of building
 - 3) Outside, Southwest corner of building near truck door



A
N

HWMU No. 20 - PLANT 1 PAD

The Plant 1 Pad provides indoor and outdoor storage for hazardous waste. 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 south 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. 3 is located at the intersection of 1st 2nd Street and "B" "C" Street. Movement from Rally Point No. 3 is east, then south past the east side of Building 1A to 2nd Street, and east on 2nd Street to the intersection of "C" Street. ~~6 is south on "A" Street and east on 1st Street to the intersection of "B" Street.~~

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

- Manual Fire Alarms
 - 1) Outside Northeast corner of Building 1A
 - 2) Outside on North wall of Building 30A
 - 3) Outside on East end of North wall of Building 66
- Fire Extinguishers
 - 1) 10# ABC Middle of West side of Drum Shelter
 - 2-9) 10# ABC Eight (8) in West Tension Support Structure
 - 10-17) 10# ABC Eight (8) in East Tension Support Structure
- Eye Wash Station
 - 1) Outside of Building 1A by North wall near center
- Spill Cleanup Equipment
 - 1-7) Seven (7) located outside of Tension Support and Sprung Structures
- Respirator Cabinet

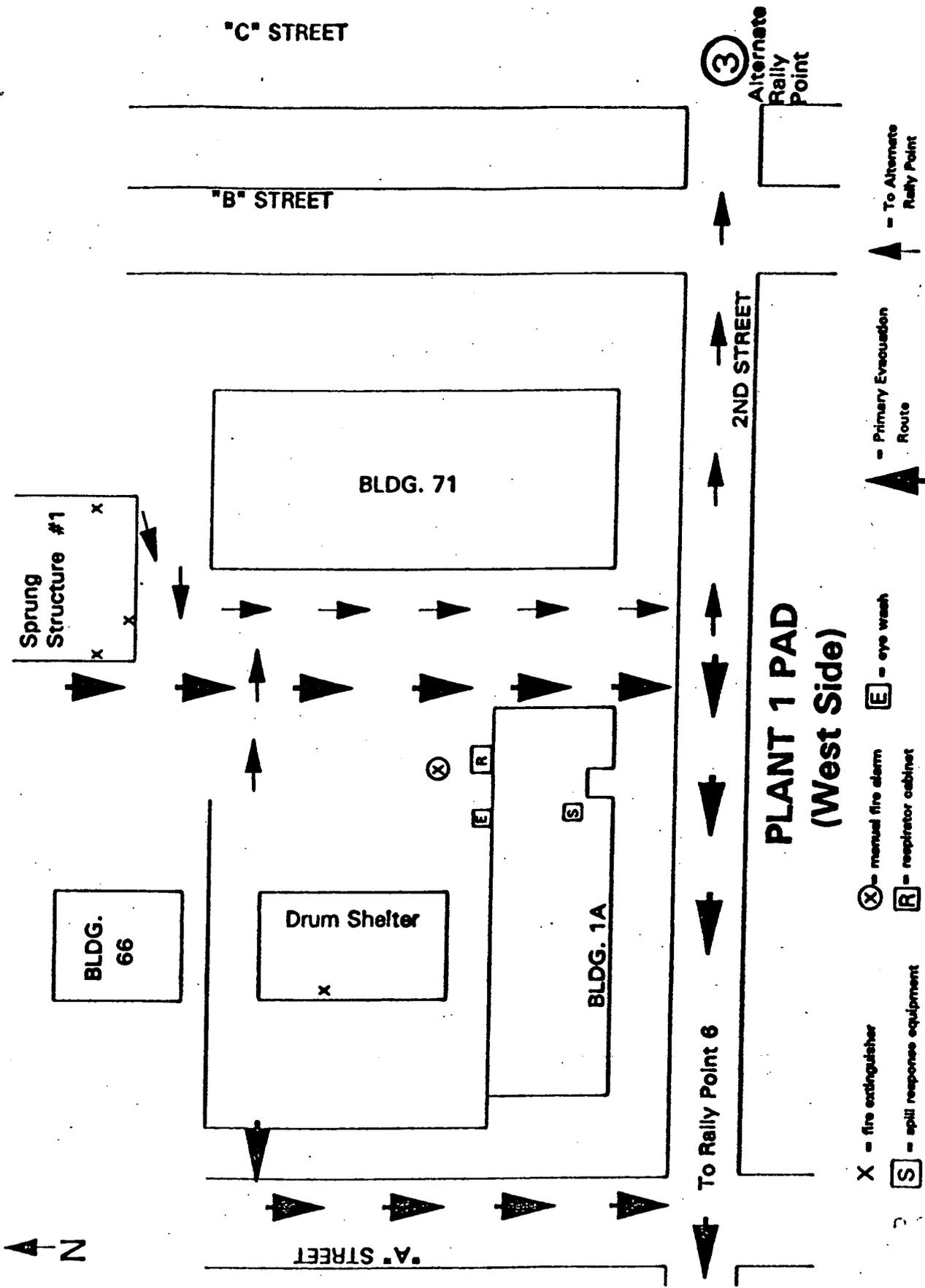
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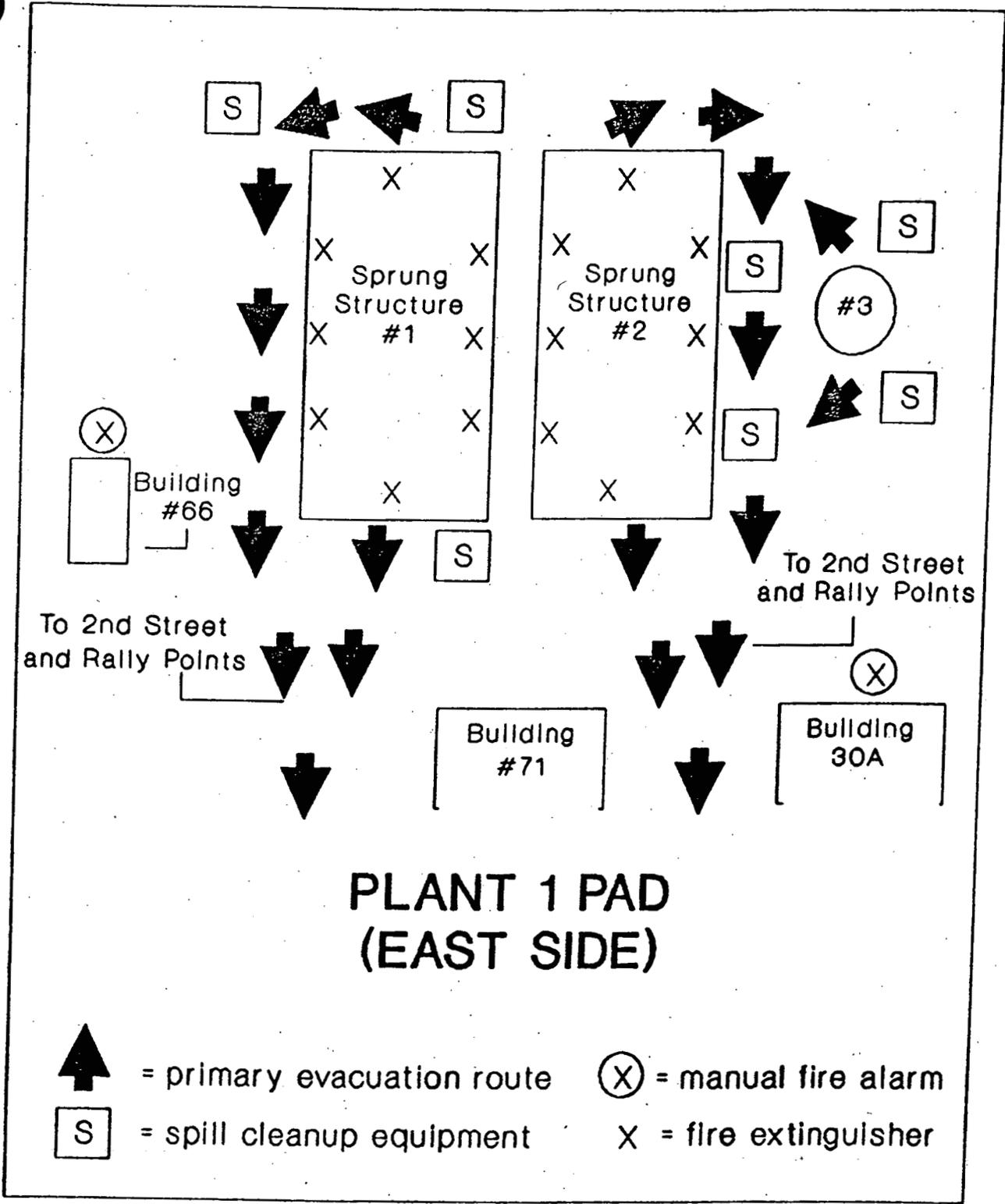
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- 1) ~~Outside of~~ ~~Inside~~ Building 1A against North wall near Supervisor's Office ~~In Primary Satellite Clothing Area~~

Those personnel at this unit are required to have a two-way radio to facilitate emergency notification.

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HWMU No. 21 - HILCO OIL RECOVERY

This unit is located in Plant 5 and consists of an oil holding tank on the second floor of Plant 5. The system has not operated since June 1989.

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 to "D" Street and south on "D" Street to the intersection of 1st Street.

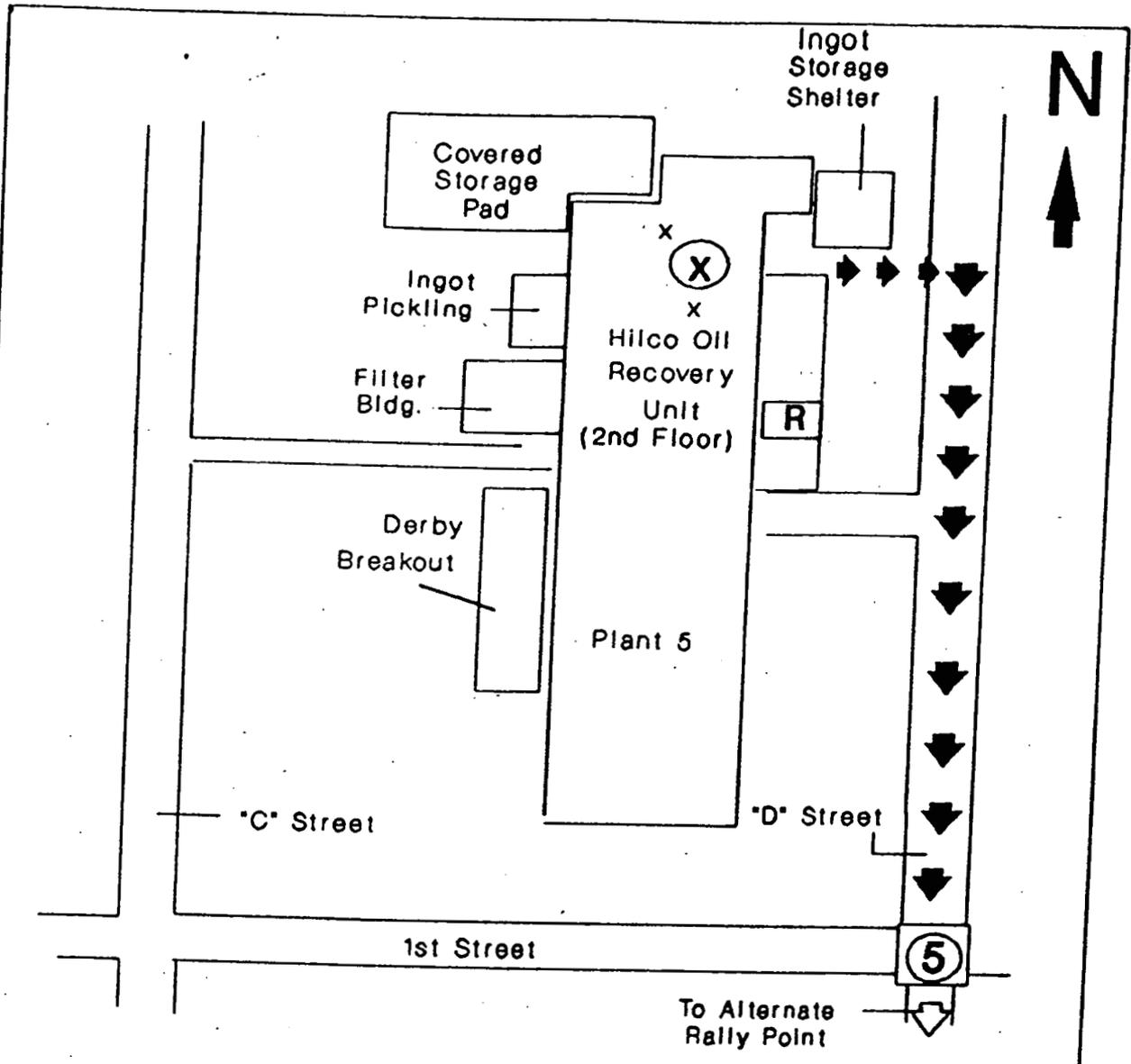
The Alternate Rally Point is No. 4 which is located on "D" Street at the East corner of the Security Building (Bldg 28A). Movement from Rally Point No. 5 is south on "D" Street to the East corner of the Security Building (Bldg 28A).

The following is a list of safety equipment located at this unit:

- Manual Fire Alarm
 - 1) Second floor at location 3D - West of HWMU

- Fire Extinguishers
 - 1) 10# ABC Second Floor at location 3D
 - 2) 10# ABC Second Floor Graphite Shop Southeast corner

- Respirator Cabinet
 - 1) Inside Maintenance Shop East of location F11



HILCO OIL RECOVERY

- R** - respirator cabinet
- 5** - rally point
- ↓** - primary evacuation route
- x** - fire extinguisher
- X** - fire alarm

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. 5. Rally Point No. 5 is located at the intersection of 1st and "D" Street. Movement from Rally Point No. 8 is east on 1st Street to the intersection of "D" Street.

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

- Manual Fire Alarms
 - 1) Outside on South wall of Pilot Plant near center of building
 - 2) Outside at South end of East wall of Building 13B

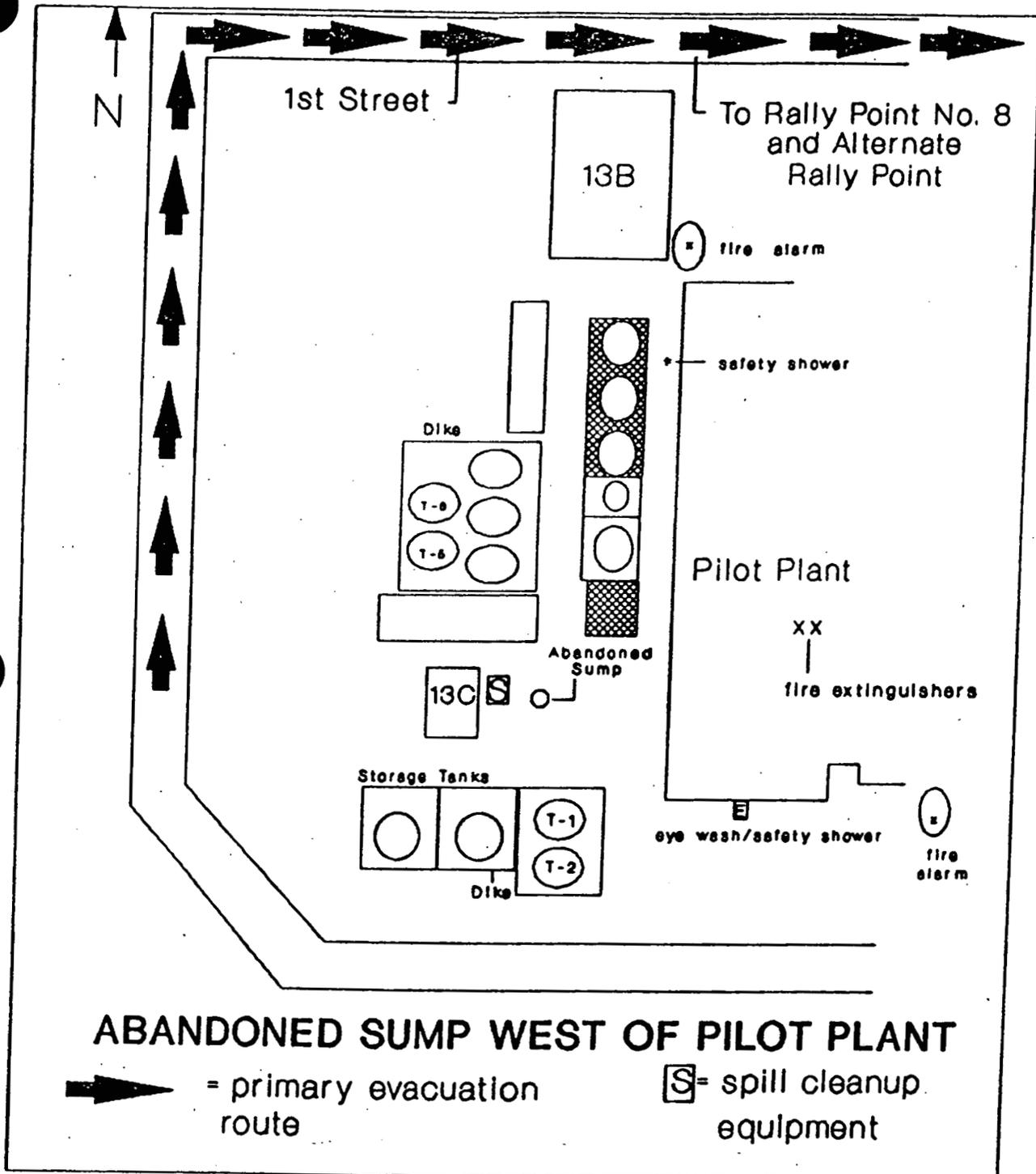
- Fire Extinguishers
 - 1) 10# ABC ~~First Floor Wet Side at Column D-6~~
~~outside West Solvent Tanks Berm~~
 - 2) ~~10# ABC First Floor Wet Side at Column D-6~~

- Eye Wash/Safety Shower Station
 - 1) On outside South wall of Pilot Plant near West end of building

- Safety Shower Station
 - 1) On outside West wall of Pilot Plant

- Spill Cleanup Equipment
 - 1) West of HWMU

Those personnel desiring access to this HWMU are required to have a two-way radio to facilitate emergency notification.



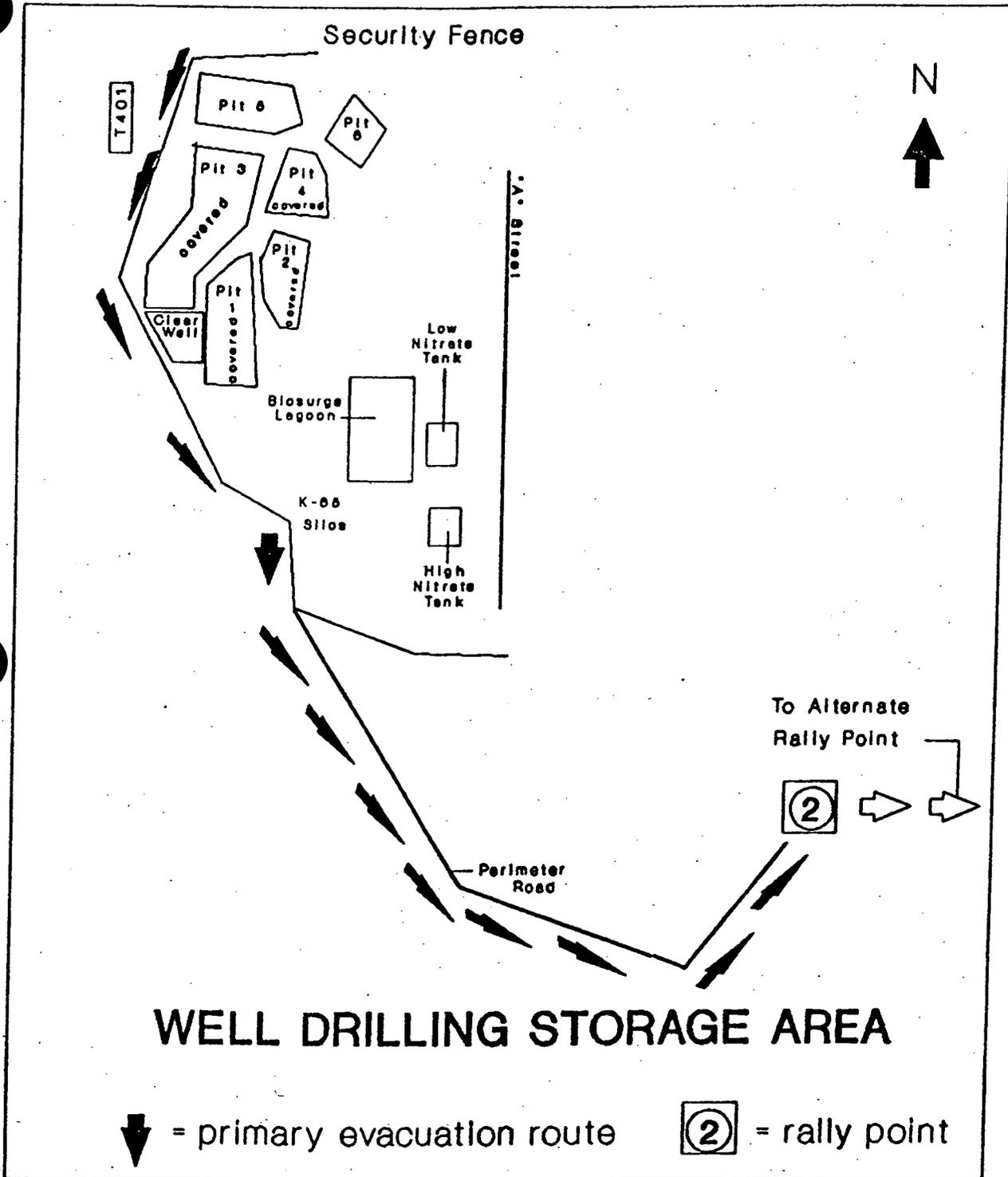
HWMU No. 23 - WELL DRILLING STORAGE AREA

This area is located Northwest of the Waste Pit Area.

Personnel should evacuate using the access road in a southerly direction to the Ash Pit access road, then northeast to Rally Point 2. Rally Point No. 2 is located in the West FEMP parking lot North of the Stormwater Retention Basin.

The Alternate Rally Point is No. 1. Rally Point No. 1 is located East of the FEMP employee parking lot. Movement is towards the East from Rally Point 2.

There is no safety equipment assigned to this unit. Those personnel desiring access to this HWMU are required to have a two-way radio for emergency notification purposes, and a key which allows passage through a security fence in the event of an evacuation.



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HWMU No. 24 - EQUIPMENT STORAGE AREA

This area is a waste accumulation area located Northwest of the Waste Pit Area.
This has been removed from the HWMU list.

HWMU No. 25 - PLANT 1 STORAGE BLDG (BLDG. 67)

The Plant 1 Storage Building (Building 67) is a storage area located West of Plant 1A.

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 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 2nd Street and "B" "C" Street. Movement from Rally Point No. 8 is east through Plant 1B, then south past the east side of Building 1A to 2nd Street, and east to the intersection of "C" Street.

~~6 is south on "A" Street and east on 1st Street to the intersection of "B" Street.~~

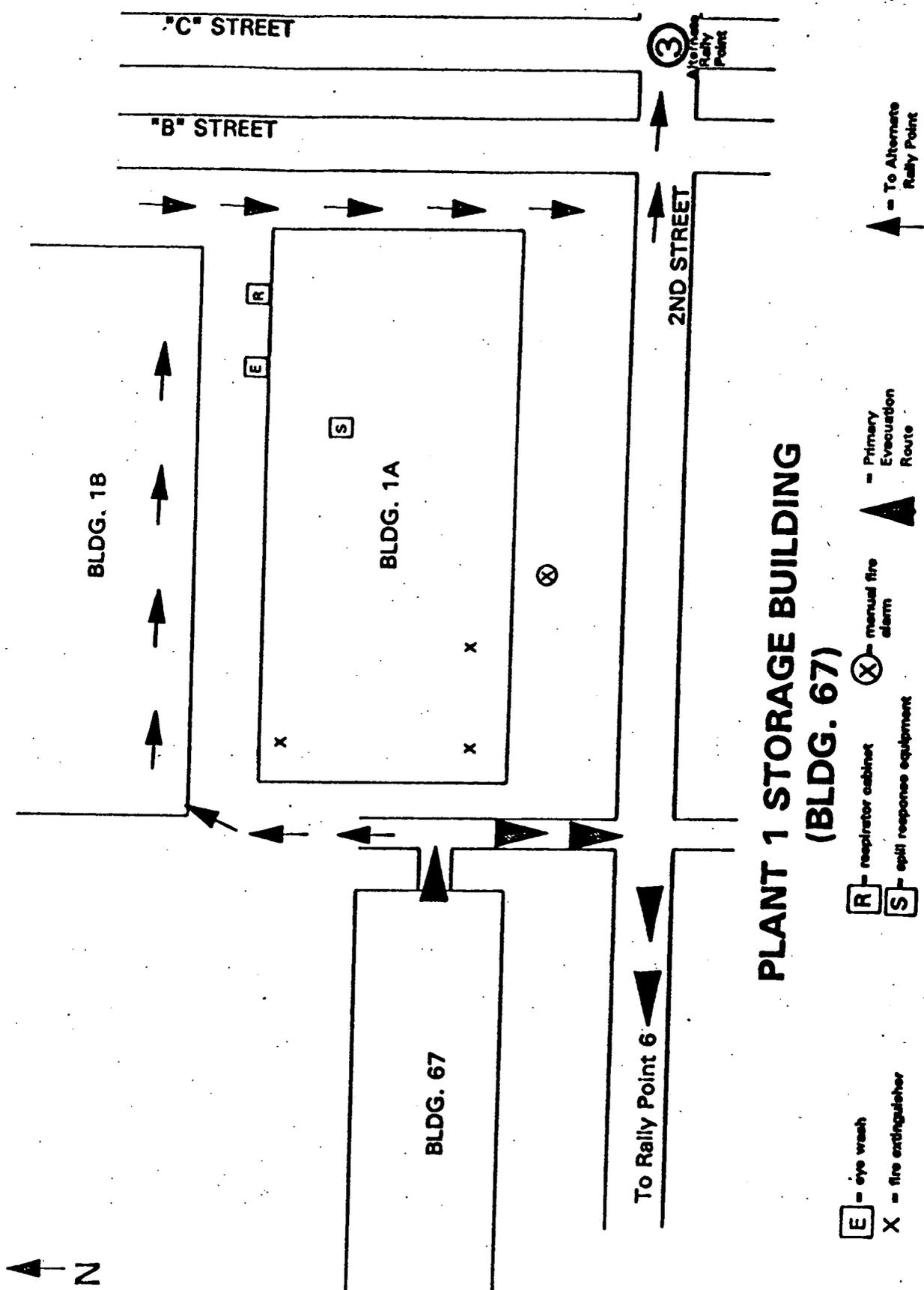
The following is a list of safety equipment assigned to this unit:

- Manual Fire Alarm
 - 1) Outside South wall near center of Building 1A
- Fire Extinguishers
 - 1) 10# ABC Building 1A at Column 2B
 - 2) 15# CO₂ Building 1A at Column 4E
 - 3) 10# ABC Building 1A at Column 2E
- Eye Wash Station
 - 1) None are available at this unit. Use the station outside Building 1A on North wall North of Column 8B
- Spill Cleanup Equipment
 - 1) Use equipment in Building 1A at column 8C

- **Respirator Cabinets**

- 1) None are available at this unit. Use respirators from cabinets located against North wall by Supervisor's Office, Building 1A

Those personnel desiring access to this unit are required to have a Radiation Safety Technician monitor their entry and egress. The Technician is equipped with a two-way radio to facilitate emergency notification.



**PLANT 1 STORAGE BUILDING
 (BLDG. 67)**

- E** - eye wash
- X** - fire extinguisher
- R** - respirator cabinet
- S** - manual fire alarm
- ▲** - Primary Evacuation Route
- ▲** - To Alternate Rally Point

HWMU No. 26 - DETREX STILL

The Detrex Still is located in Plant 1 and was used as a distillation unit for recovery of chlorinated hydrocarbon solvents.

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 south ~~past the West side of Plant 1~~ to 2nd Street and west to the Waste Pit Area access gate.

The Alternate Rally Point is No. 8 ~~3~~. Rally Point No. 8 ~~3~~ is located at the intersection of ~~1st~~ 2nd Street and ~~"B"~~ "C" Street. Movement ~~is south past the East side of Plant 1 to 2nd Street, and east on 2nd Street to the Point.~~ from Rally Point No. 6 is south on "A" Street and east on 1st Street to the intersection of "B" Street.

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

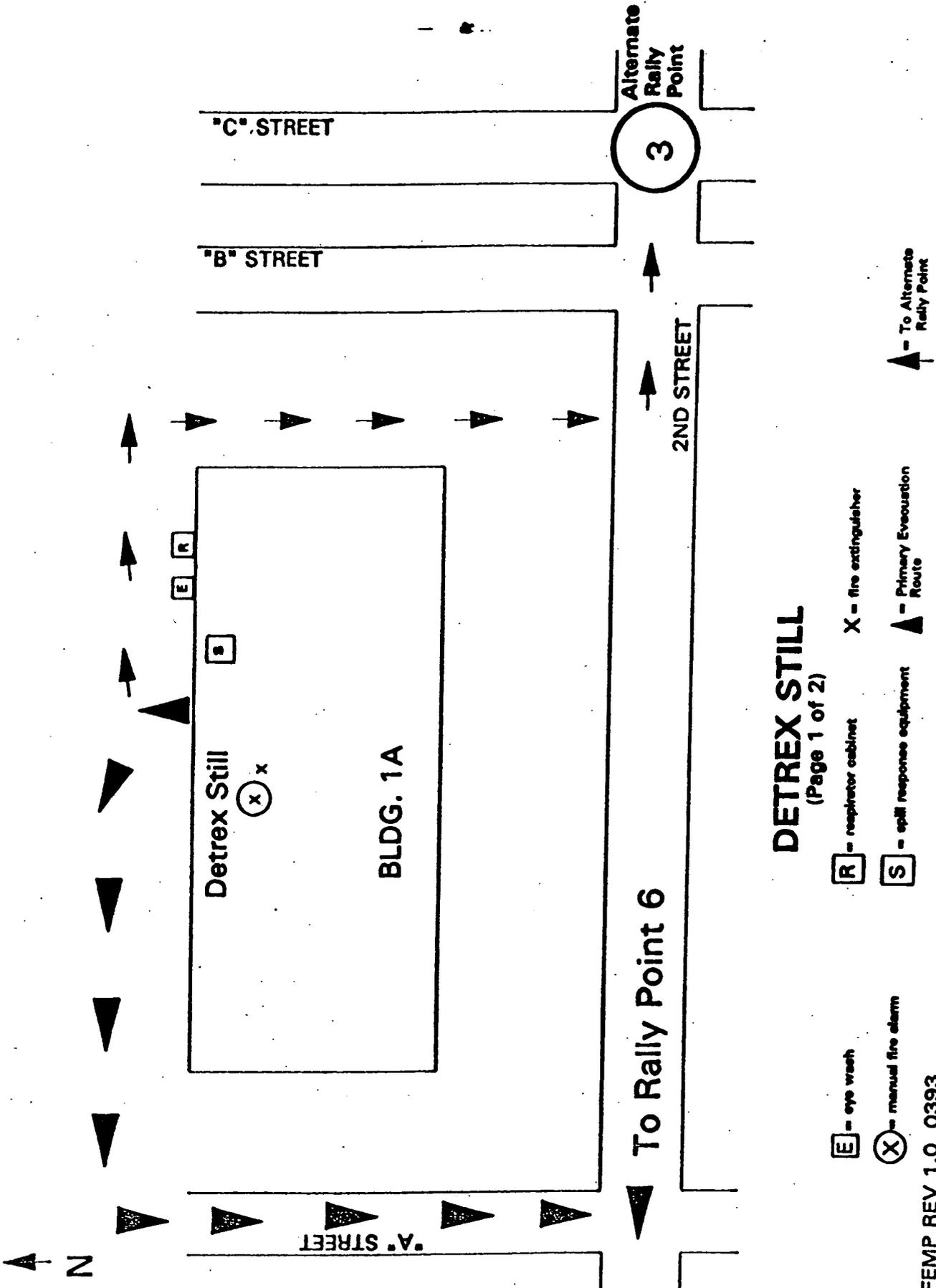
- Manual Fire Alarm
 - 1) West of column 7C

- Fire Extinguisher
 - 1) 10# ABC First Floor at column 7C

- Eye Wash Station
 - 1) Outside against North wall by ~~Supervisor's Office~~ ~~near exit fro~~ ~~Satellite Clothing Area~~

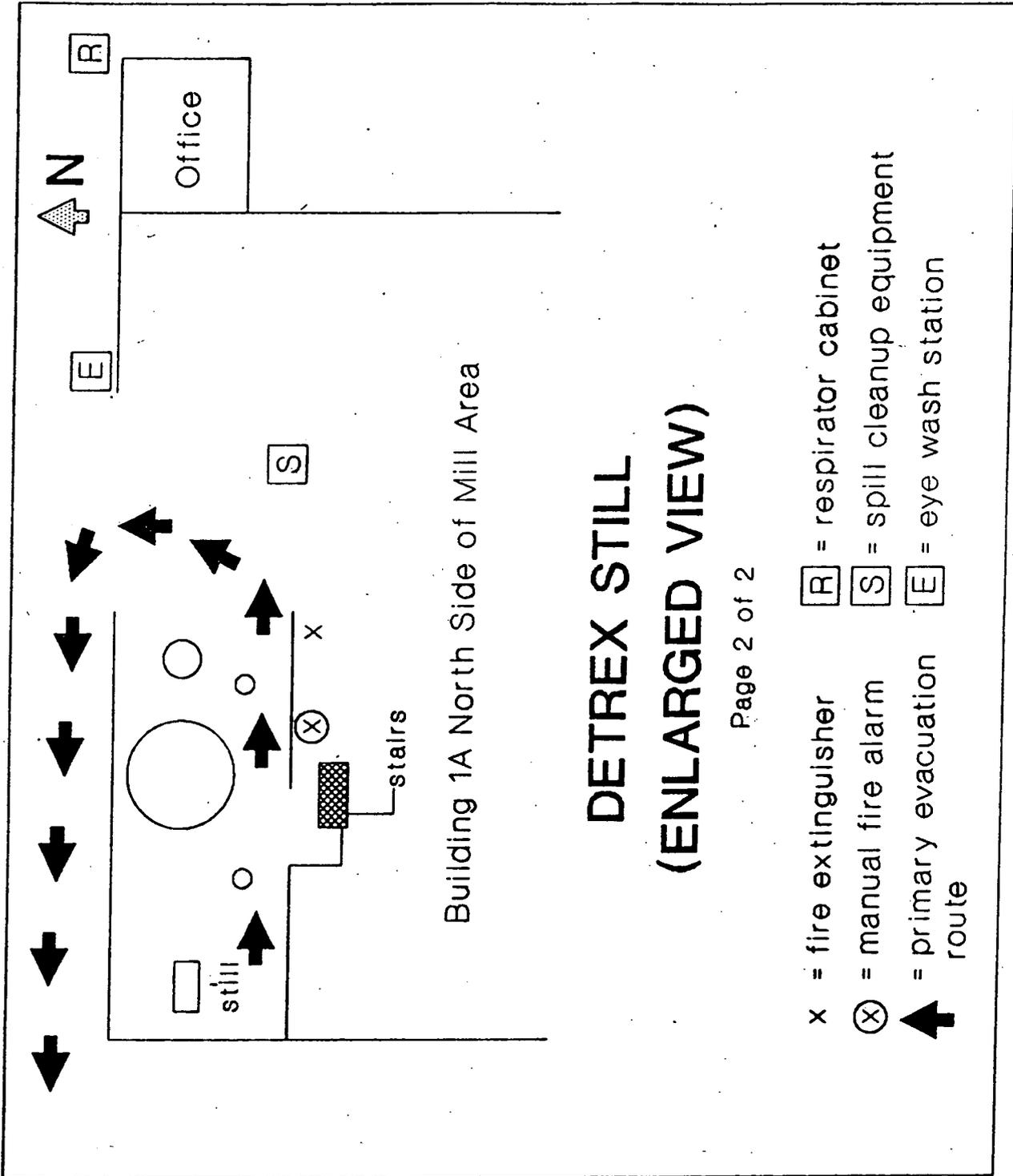
- Spill Cleanup Equipment
 - 1) By Column 8C

- Respirator Cabinet
 - 1) Outside against North wall by Supervisor's Office



DETREX STILL
 (Page 1 of 2)

- E = eye wash
- R = respirator cabinet
- X = manual fire alarm
- S = spill response equipment
- X = fire extinguisher
- = Primary Evacuation Route
- = To Alternate Rally Point



**DETREX STILL
 (ENLARGED VIEW)**

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- x = fire extinguisher
- ⊗ = manual fire alarm
- ➔ = primary evacuation route
- R = respirator cabinet
- S = spill cleanup equipment
- E = eye wash station

HWMU No. 27 - WASTE PIT No. 4

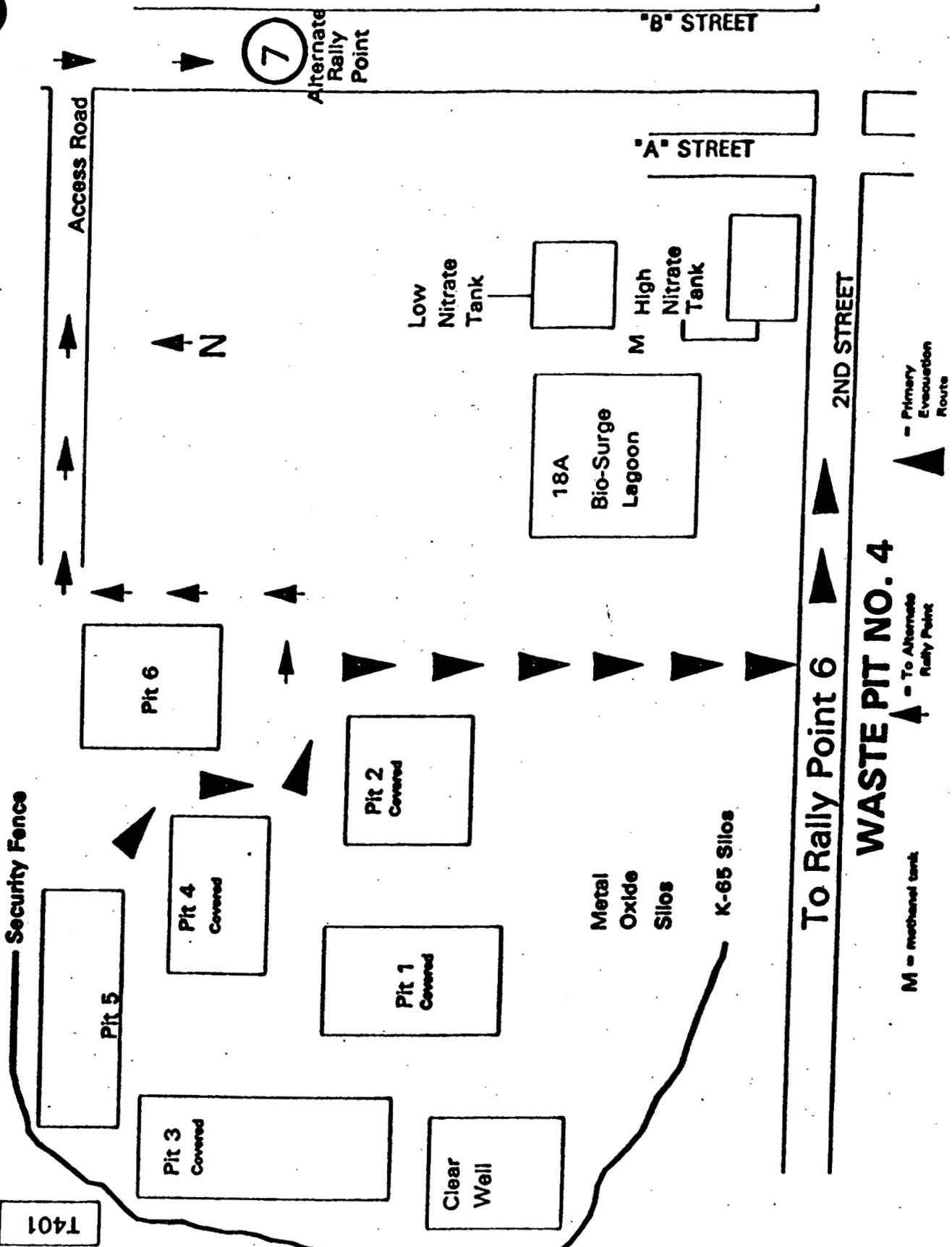
Waste Pit No. 4 is located West of the Production Area in the Waste Pit Area.

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. 8. Rally Point No. 8 is located on ~~1st Street west of the Boiler Plant~~ at the intersection of 1st Street and "B" Street. Movement ~~is north past Pit 6 on the access road, then east to "B" Street and south on "B" Street to the Point.~~ from Rally Point No. 6 is south on "A" Street and east on 1st Street to the intersection of "B" Street.

There is no safety equipment assigned to this unit. The pit is covered. Those personnel desiring access to this unit are required to have a two-way radio for emergency notification purposes.

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HWMU No. 28 - TRANE THERMAL LIQUID INCINERATOR

The Trane Liquid Thermal Incinerator was used to incinerate liquid waste contaminated with radionuclides and liquid hazardous wastes. In addition to the incinerator, it consists of an oil-water separator (Building 39B), Feed Tank F3E-406 located near the Plant 2/3 Combined Raffinate pad, and the Plant 2/3 West Storage Pad.

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 to "A" Street and north on "A" Street to 2nd Street and then west to the Waste Pit Area access gate.

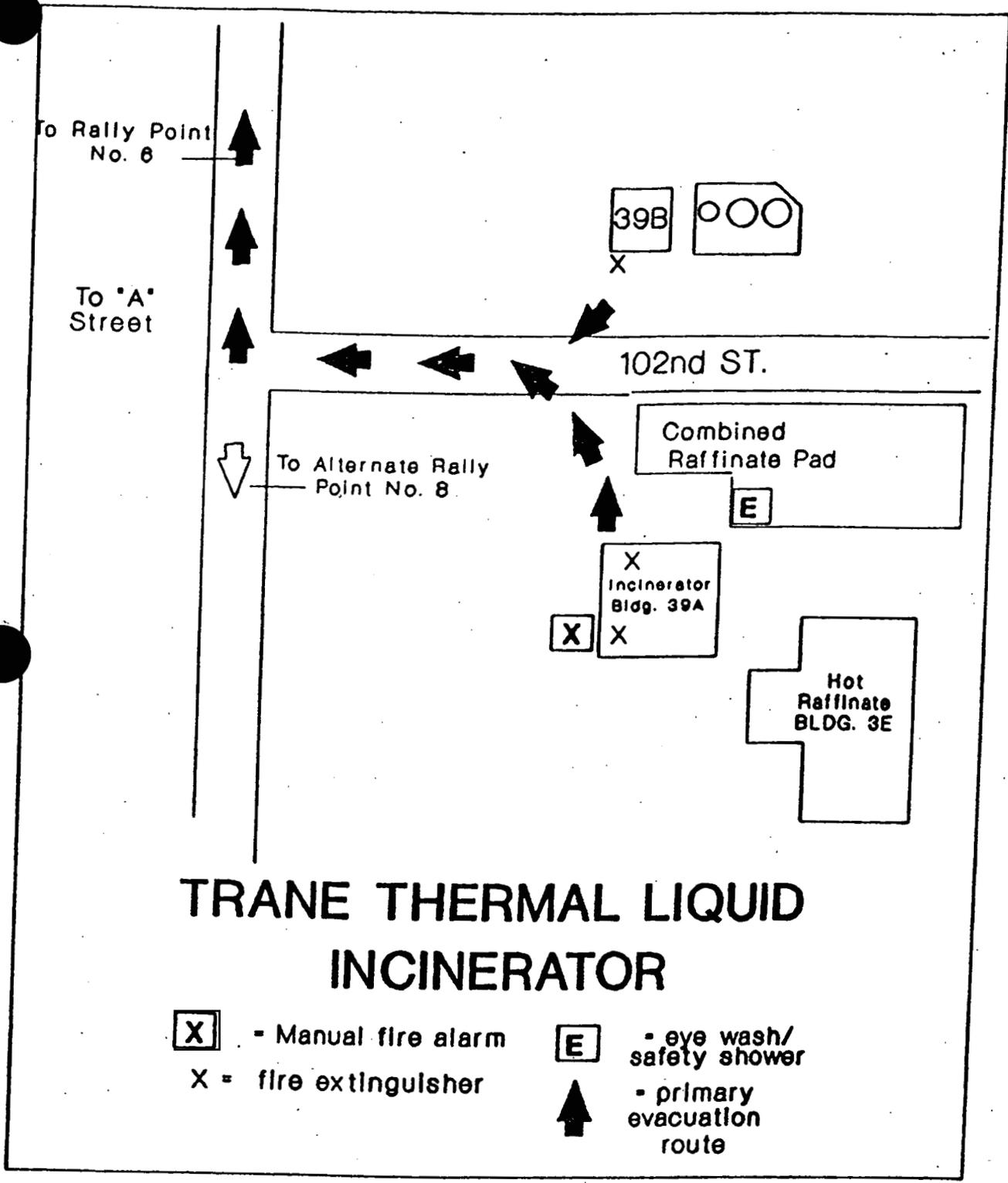
The Alternate Rally Point is No. 8. Rally Point No. 8 is located at the intersection of 1st Street and "B" Street. Movement from Rally Point No. 6 is south on "A" Street and east on 1st Street to the intersection of "B" Street.

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

- Manual Fire Alarm
 - 1) Outside at Southwest corner of Building 39A

- Fire Extinguishers
 - 1) 10# ABC First Floor Incinerator Bldg. (39A) North wall
 - 2) 10# ABC First Floor Incinerator Bldg. (39A) Southwest corner
 - ~~3) 10# ABC Southwest corner of Building 39B~~

- Eye Wash Station and Safety Shower
 - 1) Off Northeast corner of Incinerator Bldg. (39A) in Combined Raffinate Pad area



TRANE THERMAL LIQUID INCINERATOR

- X** - Manual fire alarm
- X** = fire extinguisher
- E** - eye wash/safety shower
- ▲** - primary evacuation route

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HMU No. 29 - PLANT 8 WAREHOUSE (BLDG. 80)

The Plant 8 Warehouse storage unit is a pre-engineered, ribbed, unheated building covered by metal roofing. The warehouse is being used for storage of containers without free liquids.

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. 5. Rally Point No. 5 is located at the north of the West water tower, at the Waste Pit area Access Gate. Movement intersection of "D" Street and 1st Street. Movement from Rally Point No. 8 is north on "A" Street to 2nd Street, then west on 2nd Street to the gate east on 1st Street to the intersection of "D" Street.

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

- Manual Fire Alarms
 - 1) Inside East wall
 - 2) Inside West wall

- Fire Extinguishers
 - 1) 10# ABC East door
 - 2) 10# ABC West door
 - 3) 10# ABC in riser room

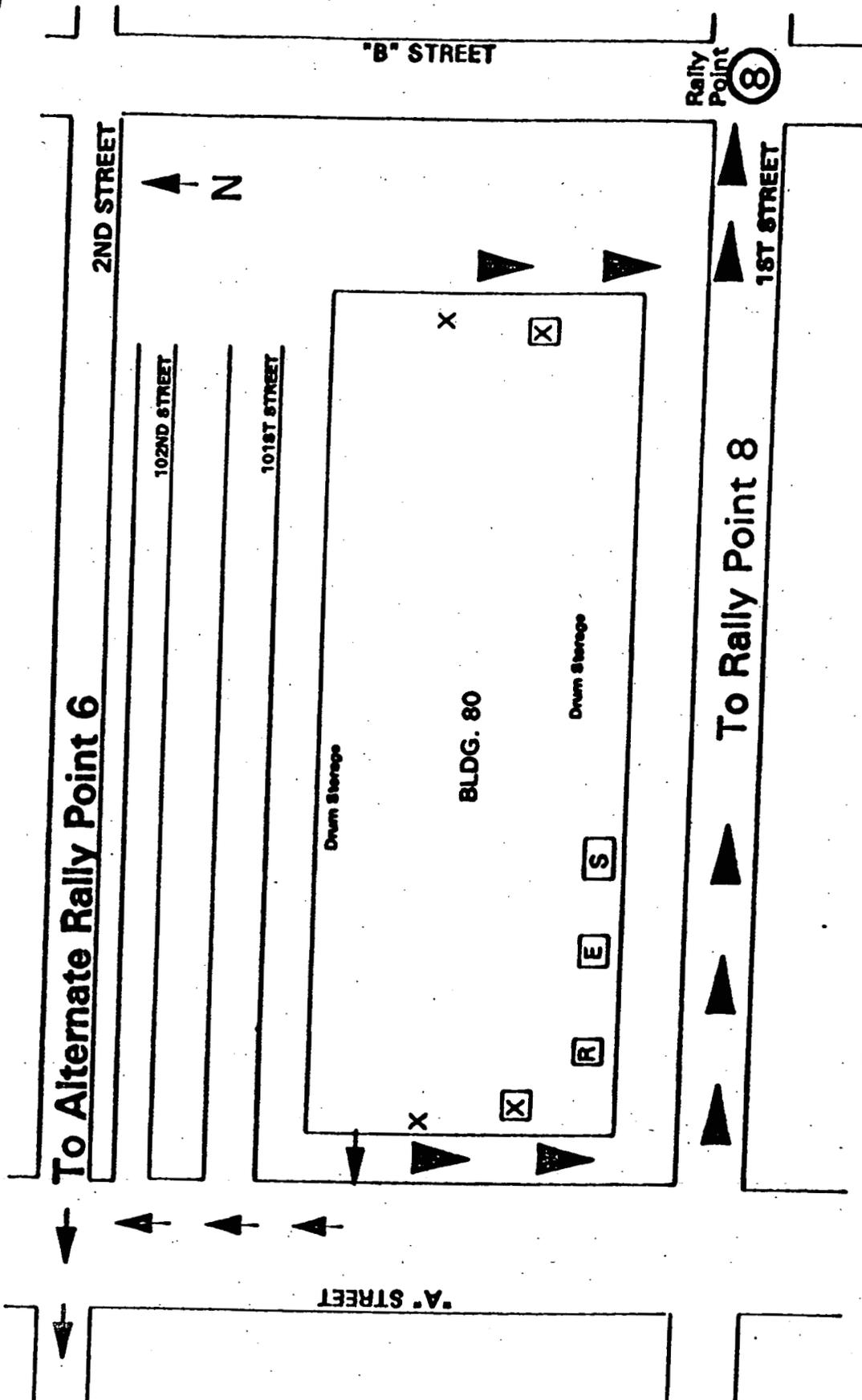
- Eye Wash/Safety Shower Station
 - 1) Near Southwest corner of building behind Office (Portable Unit)

- Spill Cleanup Equipment
 - 1) Near Southwest corner of building behind Office

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- Respirator Cabinet
 - 1) On South wall of building behind Office



PLANT 8 WAREHOUSE (BUILDING 80)

- [R] - respirator cabinet
- [E] - eye wash/safety shower
- [X] - manual fire alarm
- [S] - spill response equipment
- X - fire extinguisher
- ▲ - Primary Evacuation Route
- ▲ - To Alternate Rally Point

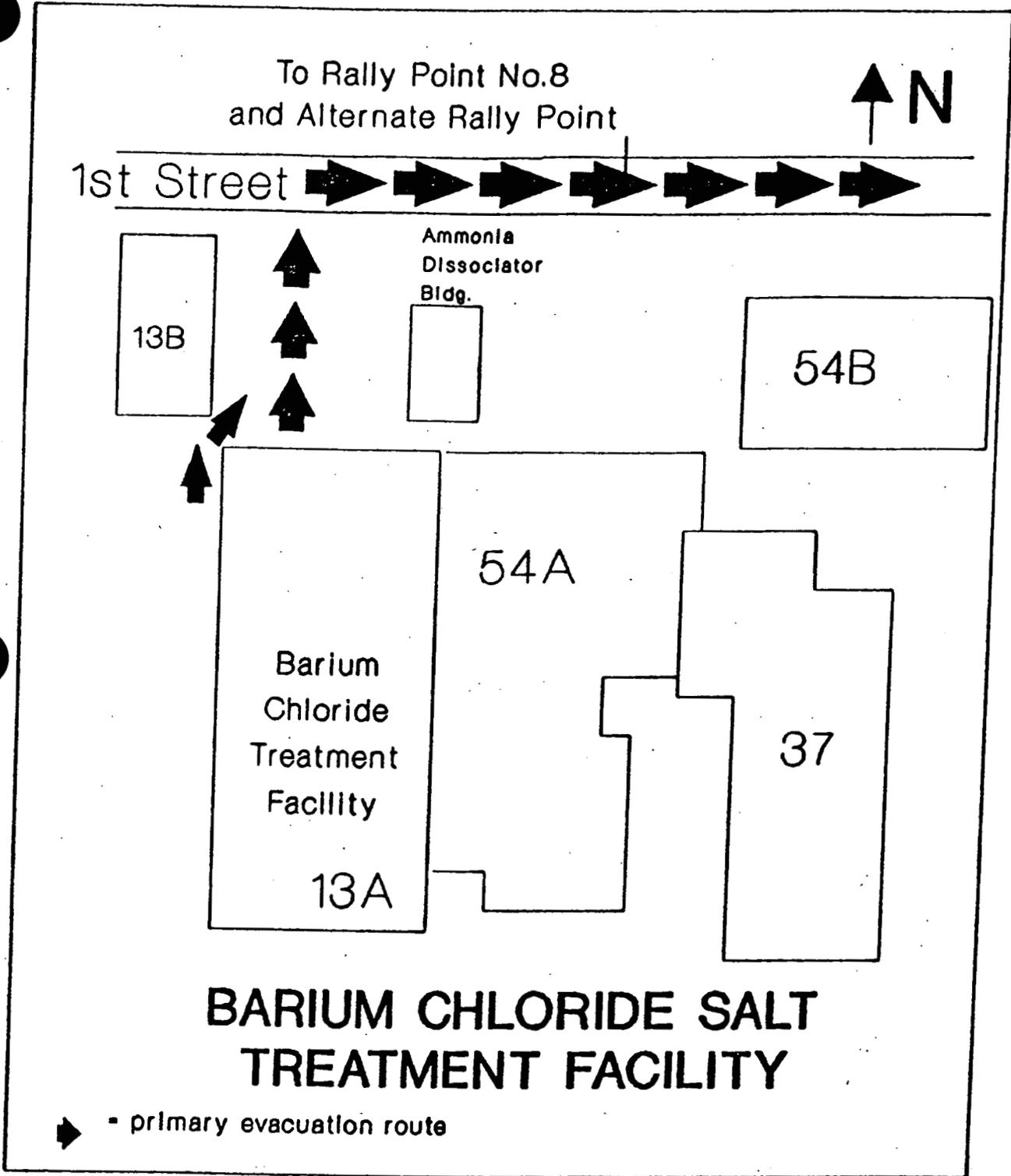
HWMU No. 30 - BARIUM CHLORIDE SALT TREATMENT FACILITY

This unit was used to convert barium chloride into barium sulfate. It has been emptied, cleaned and dismantled in accordance with the Closure Plan schedule.

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. 5. Rally Point No. 5 is located at the intersection of 1st and "D" Street. Movement from Rally Point No. 8 is east on 1st Street to the intersection of "D" Street.

There is no safety equipment assigned to this unit. Those personnel desiring access to this HWMU are required to have an escort carrying a two-way radio to facilitate emergency notification.



HWMU No. 31 - TANK FOR BULK STORAGE OF SOLVENTS, T-5

This unit is an above ground storage tank located 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. 5. Rally Point No. 5 is located at the intersection of 1st and "D" Street. Movement from Rally Point No. 8 is east on 1st Street to the intersection of "D" Street.

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

- Manual Fire Alarms
 - 1) Outside on South wall of Pilot Plant near center of building
 - 2) Outside at South end of East wall of Building 13B

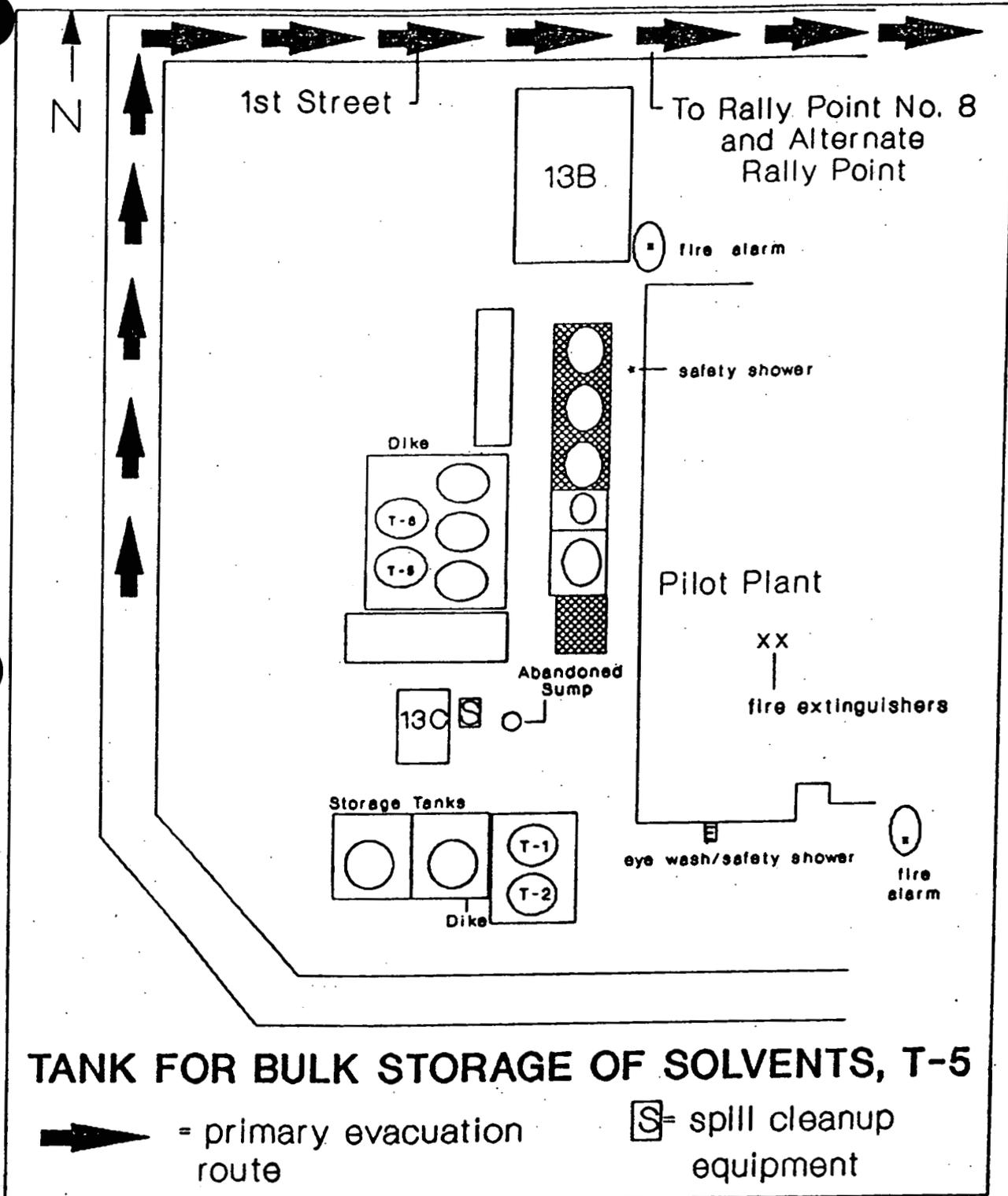
- Fire Extinguishers
 - 1) 10# ABC ~~First Floor Wet Side at Column D-6~~
~~at West Solvent Tanks Berm~~
 - 2) ~~10# ABC First Floor Wet Side at Column D-6~~

- Eye Wash/Safety Shower Station
 - 1) On outside South wall of Pilot Plant near West end of building

- Safety Shower Station
 - 1) On outside West wall of Pilot Plant

- Spill Cleanup Equipment
 - 1) East of Bldg. 13C

Those personnel desiring access to this HWMU are required to have a two-way radio to facilitate emergency notification.



HWMU No. 32 - TANK FOR BULK STORAGE OF SOLVENTS, T-6

This unit is an above ground storage tank located 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. 5. Rally Point No. 5 is located at the intersection of 1st and "D" Street. Movement from Rally Point No. 8 is east on 1st Street to the intersection of "D" Street.

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

- Manual Fire Alarms
 - 1) Outside on South wall of Pilot Plant near center of building
 - 2) Outside at South end of East wall of Building 13B

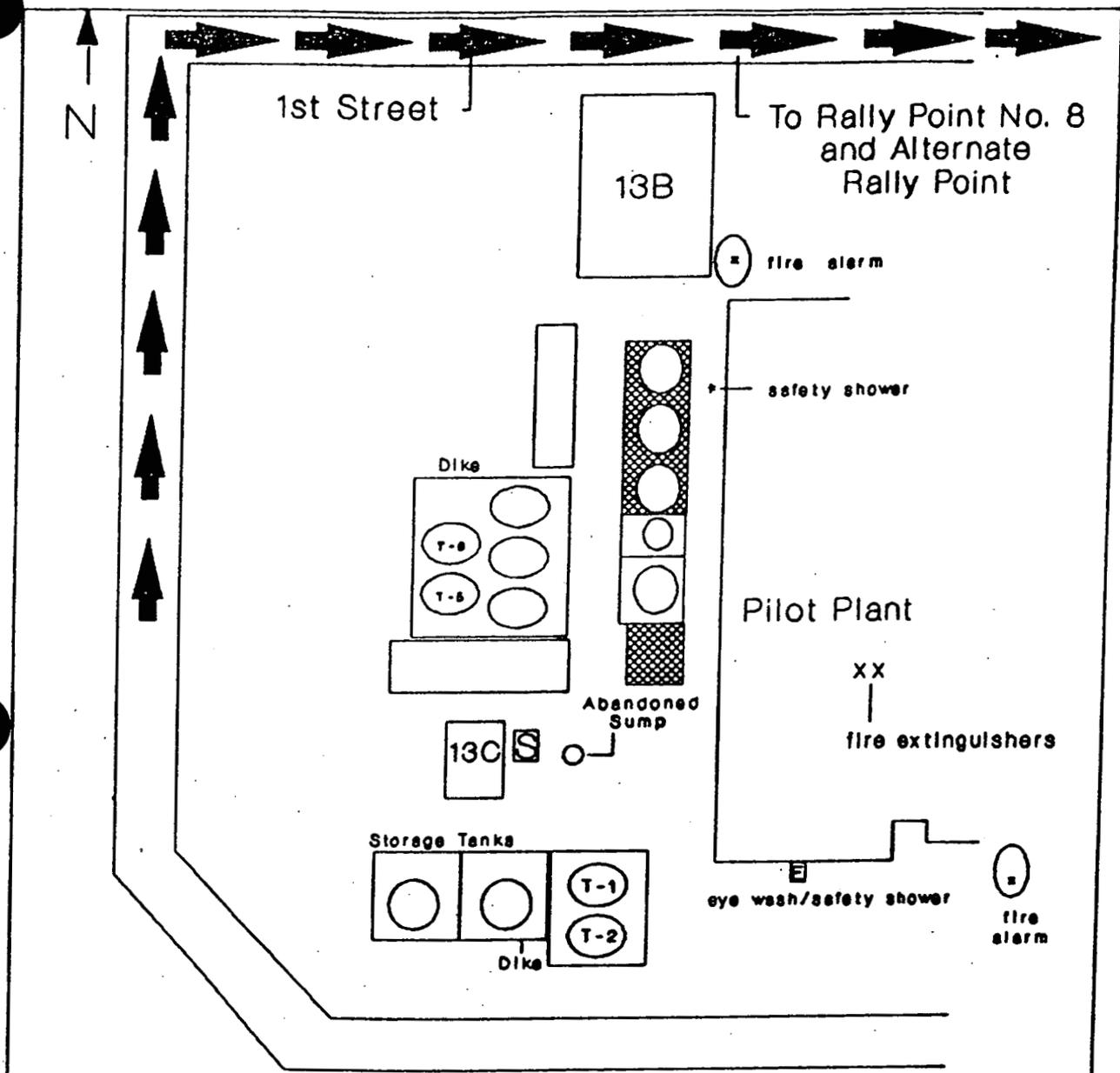
- Fire Extinguishers
 - 1) ~~10# ABC First Floor Wet Side at Column D-6~~
~~at West Solvent Tanks Room~~
 - 2) ~~10# ABC First Floor Wet Side at Column D-6~~

- Eye Wash/Safety Shower Station
 - 1) On outside South wall of Pilot Plant near West end of building

- Safety Shower Station
 - 1) On outside West wall of Pilot Plant

- Spill Cleanup Equipment
 - 1) East of Building 13C

Those personnel desiring access to this HWMU are required to have a two-way radio to facilitate emergency notification.



TANK FOR BULK STORAGE OF SOLVENTS, T-6

➔ = primary evacuation route

☐S☐ = spill cleanup equipment

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

The Pilot Plant Warehouse is a pre-engineered metal fabricated building which is totally enclosed, and sided and roofed with Transite and covered by metal roofing. Hazardous waste is stored in a diked area approximately 62' x 7' in the warehouse.

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. 5. Rally Point No. 5 is located at the north of the West water tower, at the Waste Pit area Access Gate intersection. Movement is west, then north to 1st Street, then east on 1st Street to "A" of 1st and "D" Street. Movement from Rally Point No. 8 is east along 1st to the Street and north on "A" Street to 2nd Street, then west on 2nd Street to the gate intersection of "D" Street.

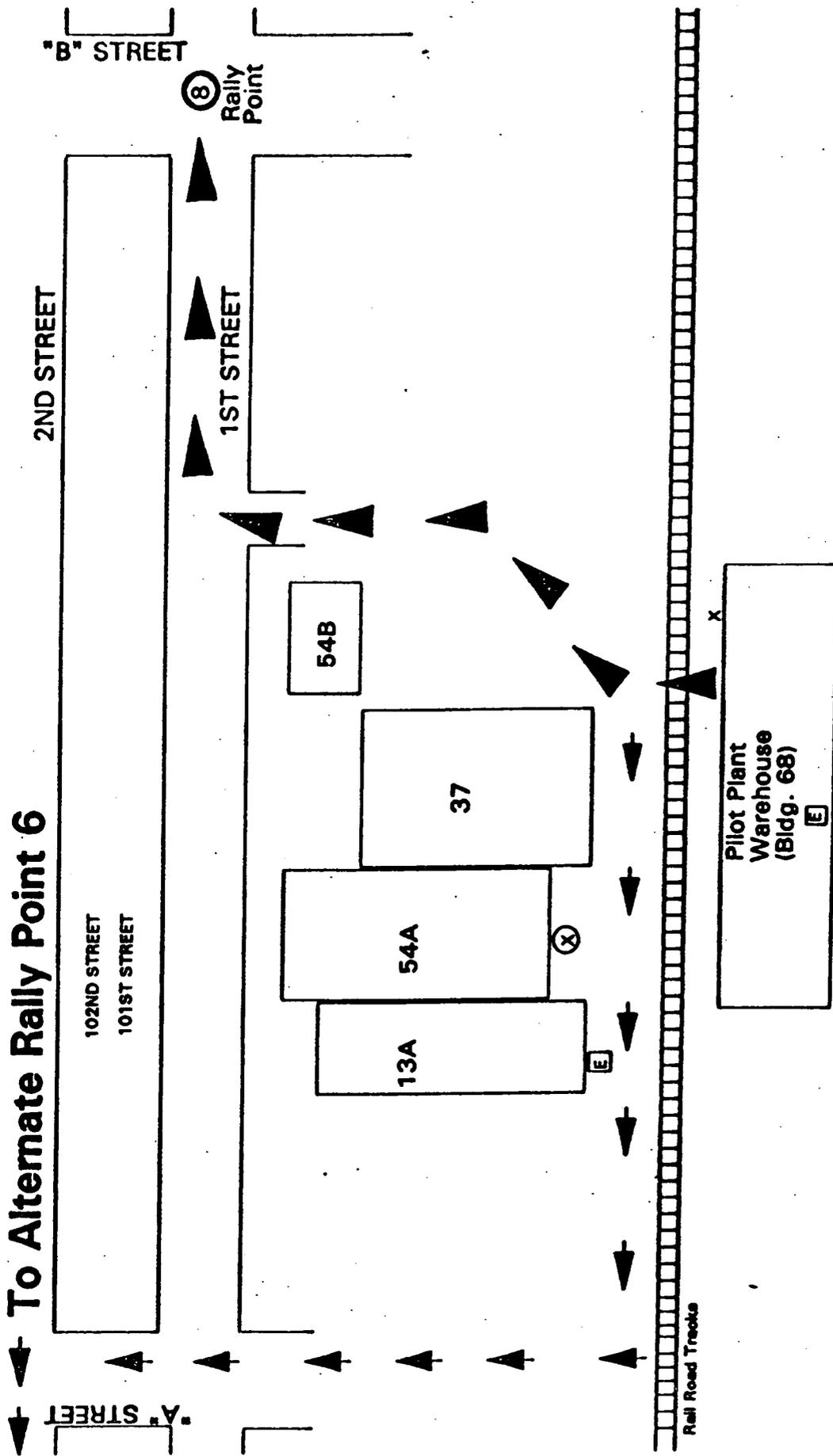
The following is a list of safety equipment assigned to this unit:

- Manual Fire Alarm
 - 1) On outside South wall of Pilot Plant near center of building
- Fire Extinguisher
 - 1) 20# ABC North wall on outside of building
- Eye Wash Station and Safety Showers
 - 1) On outside south wall of Pilot Plant near West end
 - 2) ~~Inside South end of Building 68~~

Those personnel desiring access to this unit are required to have a Radiation Safety Technician monitor their entry and egress. The Technician is equipped with a two-way radio to facilitate emergency notification.

To Alternate Rally Point 6

PILOT PLANT WAREHOUSE (BLDG. 68)



- X = fire extinguisher
- E = eye wash/safety shower
- (X) = manual fire alarm
- ▲ = To Alternate Rally Point
- ▲ = Primary Evacuation Route

HWMU No. 34 - KC-2 WAREHOUSE (BLDG. 63)

The KC-2 Warehouse (Bldg 63) is a pre-engineered, ribbed, unheated building covered by metal roofing. The warehouse is divided into eight bays. Each bay is constructed as a separate containment storage unit. The warehouse is used to store hazardous waste with and without free liquids.

Personnel should evacuate to Rally Point No. 7. Rally Point No. 7 is located on "B" Street at the Northeast corner of Plant 1 Pad. Movement is west to "B" Street and south on "B" Street to the Northeast corner of Plant 1 Pad.

The Alternate Rally Point is No. 3. Rally Point No. 3 is located at the intersection of 2nd Street and "C" Street. Movement from Rally Point No. 7 is south east on "B" to "D" Street, to 2nd Street south on "D" Street to 2nd Street, then east west on 2nd Street until the intersection at "C" Street.

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

- Manual Fire Alarm
 - 1) Outside South wall center of building
- Fire Extinguishers
 - 1) 20# ABC by West door of Bay 1
 - 2) 20# ABC outside South door of Bay 1
 - 1) 15# CO₂ at the riser between Bays 3 and 4
 - 2) 20# ABC between Bays 4 and 5
 - 3) 20# ABC between Bays 5 and 6
 - 5) 20# ABC between Bays 6 and 7
 - 4) 20# ABC East of Bay 7 door
 - 5) 20# ABC inside North end of Bay 5
 - 6) 20# ABC inside North end of Bay 6
 - 7) 20# ABC inside North end of Bay 7
 - 8) 14) 20# ABC inside North end of Bays 2, 3, 4, 5, 6, 7, 8

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- 15) 207 ABC inside North end of Bay B
- 16) 207 ABC east of Bay B door

HWMU No. 34 - KC-2 WAREHOUSE (BLDG. 63)

- Eye Wash/Safety Shower Stations
 - 1) ~~Inside Bay 5 (Portable Unit)~~
 - 2) ~~Inside Bay 6 (Portable Unit)~~
 - 3) ~~Inside Bay 7 (Portable Unit)~~

Four (4) portable, all in Bay 1 during winter months;
three are moved to Bays 5, 6, 7 during summer, and when
personnel are working in those bays.

- Spill Cleanup Equipment
 - 1) Inside Bay 5
 - 2) Inside Bay 6
 - 3) Inside Bay 7
 - 4) ~~Inside Bay 1~~

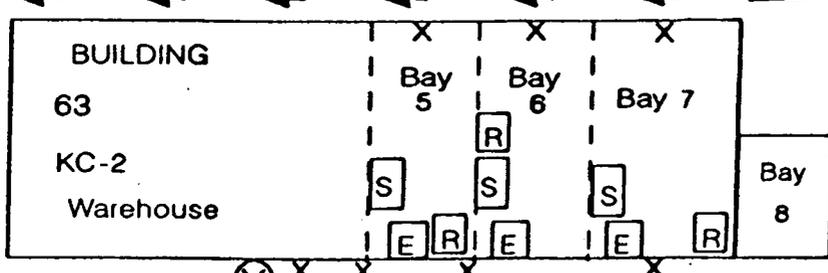
- Respirator Cabinets
 - 1) Inside Bay 5
 - 2) Inside Bay 6
 - 3) ~~Inside Bay 7~~

Access to equipment inside Building 63 can be gained only by personnel having a key to Bays 5, 6, or 7. Those personnel desiring access to this unit are required to have a two-way radio to facilitate emergency notification.

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FENCE



R.R. Tracks

7

B Street

2nd Street

3

C Street

D Street

**KC-2 WAREHOUSE
 (BUILDING 63)**

- 7** = rally point
- S** = spill cleanup equipment
- R** = respirator cabinet
- E** = eye wash/safety shower

- = alternate route
- X** = manual fire alarm
- X** = fire extinguisher
- = primary evacuation route

HWMU No. 35 - PLANT 9 WAREHOUSE (BLDG. 81)

The Plant 9 Warehouse storage unit is an 80' X 100' single story, pre-engineered, ribbed, metal building covered with metal roofing. The warehouse is constructed to store hazardous waste with and without free liquids and is equipped with a sprinkler system to provide fire protection for the storage of combustible hazardous wastes.

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

The Alternate Rally Point is No. 5 which is located at the intersection of 1st Street and "D" Street. Movement ~~from Rally Point No. 3 is south on "C" Street and east on 1st Street to the intersection of "D" Street.~~

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

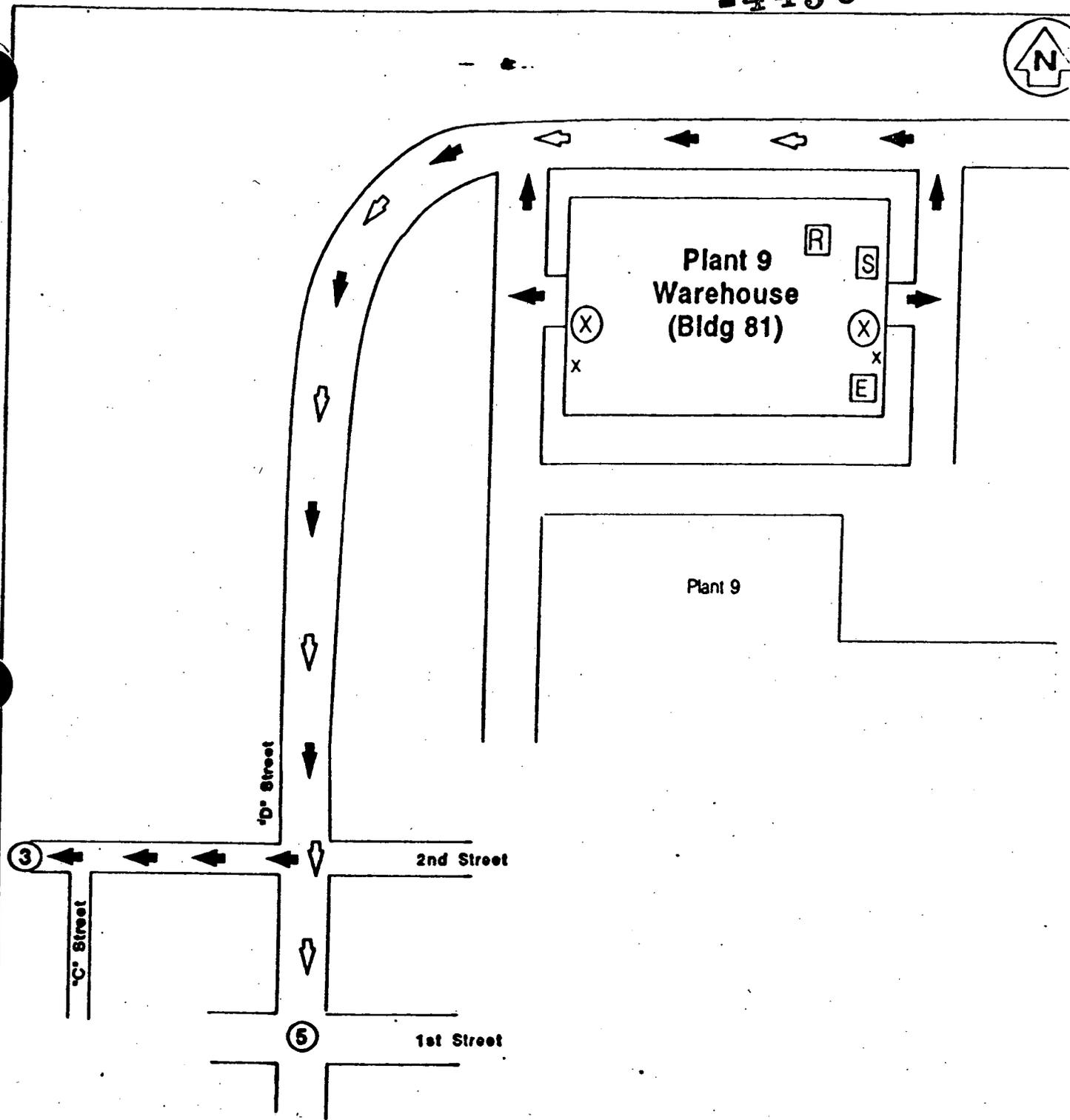
- Manual Fire Alarms
 - 1) Inside East wall
 - 2) Inside West wall

- Fire Extinguishers
 - 1) 10# ABC East personnel door
 - 2) 10# ABC West personnel door
 - 3) 10# ABC In riser room

- Eye Wash/Safety Shower Station
 - 1) At Southeast corner of building near office (Portable Unit)

- Spill Cleanup Equipment and Respirator Cabinet
 - 1) At East end North of roll up door

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PLANT 9 WAREHOUSE (BLDG. 81)

- ⑤ = rally point
- [S] = spill cleanup equipment
- [R] = respirator cabinet
- [E] = eye wash/safety shower
- x = fire extinguisher
- (X) = manual fire alarm
- = primary route
- - - → = alternate route

HMMU No. 36 - STORAGE PAD NORTH OF PLANT 6

This area is North of and adjacent to Plant 6.

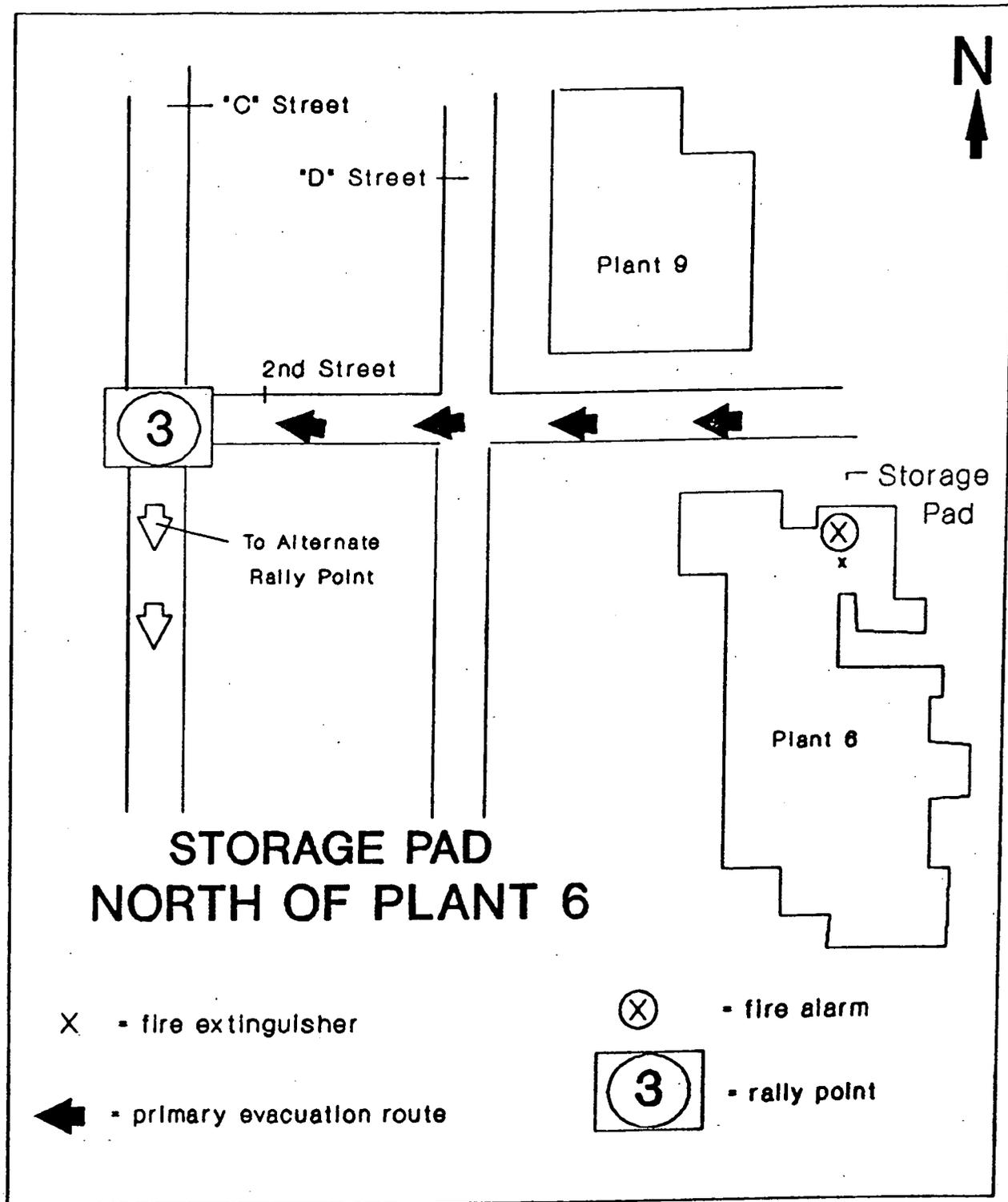
Personnel should evacuate to Rally Point No. 3. Rally Point No. 3 is located at the intersection of 2nd Street and "C" Street. Movement is west on 2nd Street to the intersection of "C" Street.

The Alternate Rally Point is No. 5. Rally Point is located at the intersection of 1st Street and "D" Street. Movement from Rally Point No. 3 is south on "C" Street and east on 1st Street to the intersection of "D" Street.

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

- Manual Fire Alarm
 - 1) Inside Plant 6 Northwest corner near Restroom
- Fire Extinguisher
 - 1) 10# ABC First Floor North next to fire alarm

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**STORAGE PAD
NORTH OF PLANT 6**

X - fire extinguisher

(X) - fire alarm

← - primary evacuation route

(3) - rally point

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 and combustible liquids.

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. 43. Rally Point No. 43 is located on "D" Street at the East corner of the Security Building (Bldg 28A). ~~at the intersection of 2nd Street and "C" Street.~~ Movement from Rally Point No. 5 is south north on "D" Street to the East corner of the Security Building (Bldg 28A). ~~2nd Street, and west on 2nd Street to the Point.~~

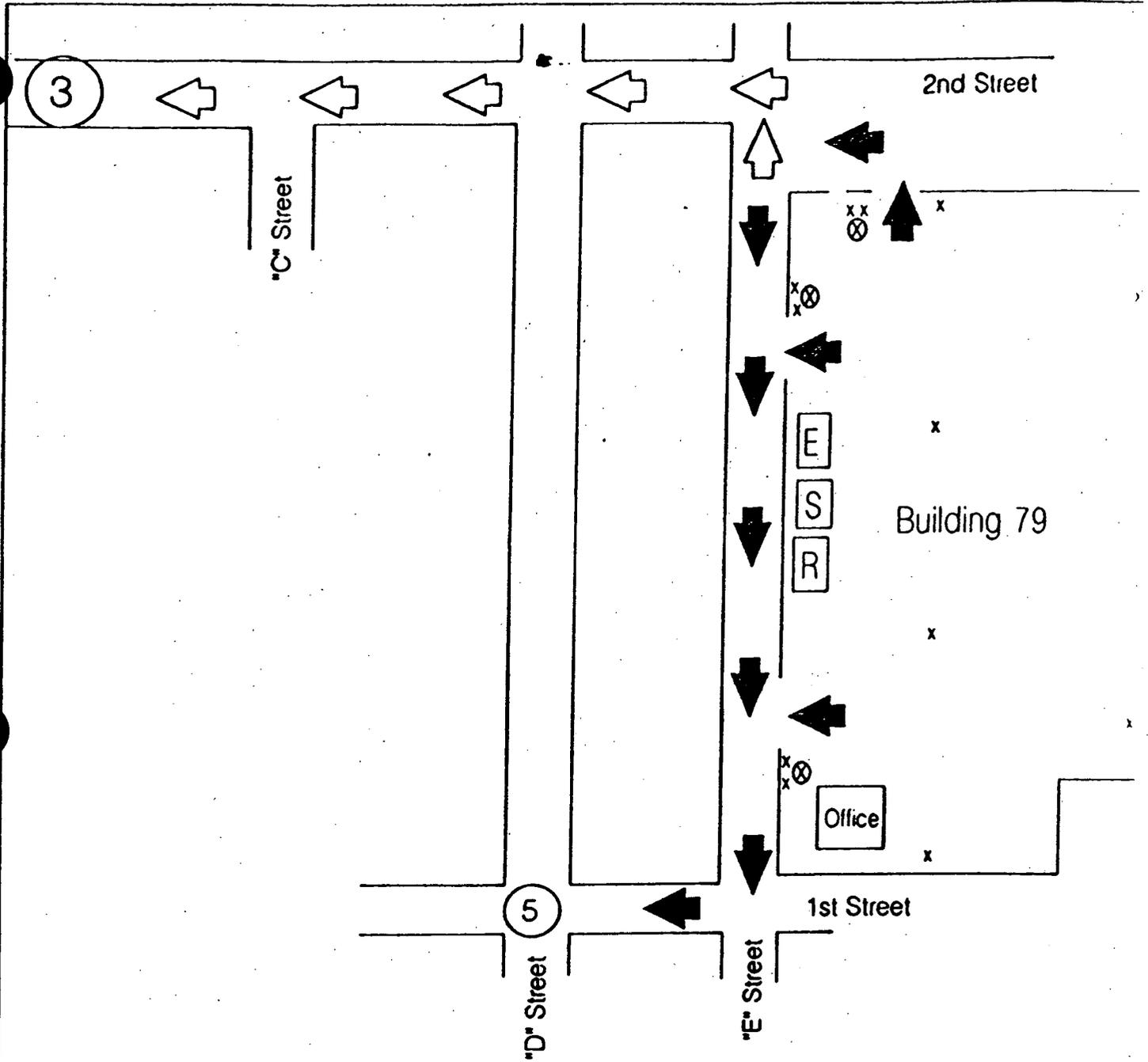
The following is a list of safety equipment assigned to this unit:

- Manual Fire Alarms
 - 1) By Southwest entrance door
 - 2) By Northwest entrance door
 - 3) North entrance door at Loading Dock
 - 4) ~~Inside Southeast Sprinkler Control Room~~
- Fire Extinguishers
 - 1) ~~10# ABC At the North door~~
 - 2) ~~10# ABC At the North door~~
 - 3) ~~10# ABC At the Northwest door~~
 - 4) ~~10# ABC At the Northwest door~~
 - 5) ~~10# ABC At the Southwest door~~
 - 6) ~~10# ABC At the Southwest door~~
 - 7) 20# ABC on the North wall in the center
 - 8) 20# ABC on the South Wall in the center
 - 9) 20# ABC on the East wall near the North end
 - 10) 20# ABC on the East wall near the South end

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

- 11) 5) 20# ABC on a column in the center of building (towards North end)
- 12) 6) 20# ABC on a column in the center of building (towards South end)
- 7) 10# ABC in riser room (Southwest corner)

- Eye Wash/Safety Shower Station
 - 1) At West wall near center
- Respirator Cabinet
 - 1) At West wall near center
- Spill Cleanup Equipment (Middle of West wall)
 - 1) Pigs and absorbent pads
 - 2) All purpose absorbent material
 - 3) 17 55-gallon Salvage drums (16)
 - 4) 85-gallon overpack salvage drum
 - 5) Cleaning utensils (shovels and brooms)
 - 6) Portable HEPA vacuum industrial cleaner
 - 7) Drum straps



PLANT 6 WAREHOUSE (BLDG. 79)

- X = fire extinguisher
- ⊗ = manual fire alarm
- ⇨ = alternative route
- ⇦ = primary route

- (5) = rally point
- [R] = respirator cabinet
- [E] = eye wash/safety shower
- [S] = spill cleanup equipment

HMMU No. 38 - HF TANK CAR

The HF Tank Car (# OROX177501) is a railroad car located on the railroad spur immediately off the Northwest corner of Building 12A. Currently this unit contains waste dilute hydrofluoric acid (DHF).

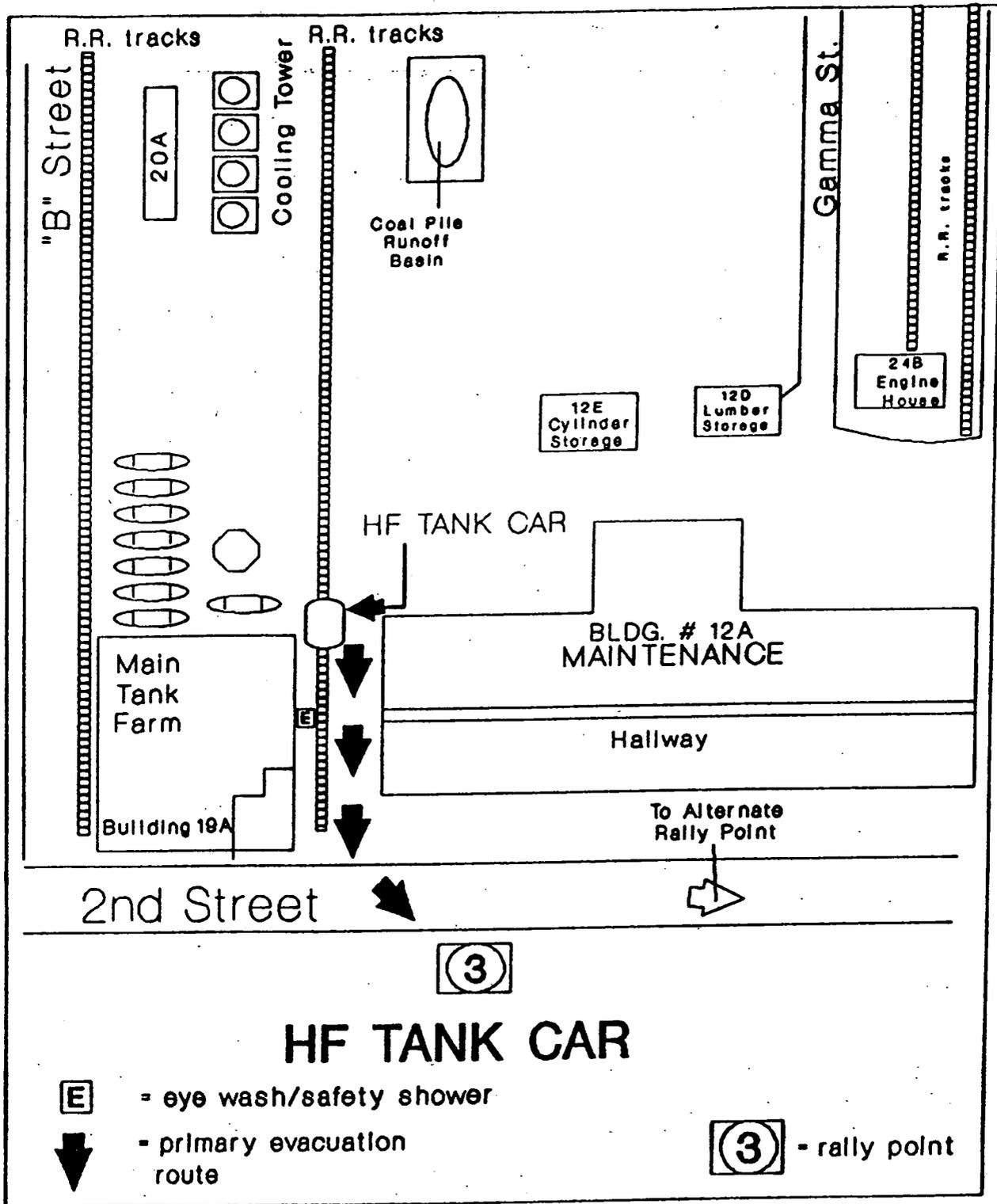
Personnel should evacuate to Rally Point No. 3. Rally Point is located at the intersection of 2nd Street and "C" Street. Movement is south to 2nd Street and east on 2nd Street to the intersection of "C" Street.

The Alternate Rally Point is No. 5. Rally Point No. 5 is located at the intersection of 1st Street and "D" Street. Movement from Rally Point No. 3 is south on "C" Street and east on 1st Street to the intersection of "D" Street.

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

- Eye Wash/Safety Shower Station
 - 1) Yellow painted walk-in unit between track and Tank Farm

Those personnel desiring access to this HMMU are required to have a two-day radio for emergency notification purposes.



HWMU No. 39 - CLEARWELL

The Clearwell is a surface impoundment 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.

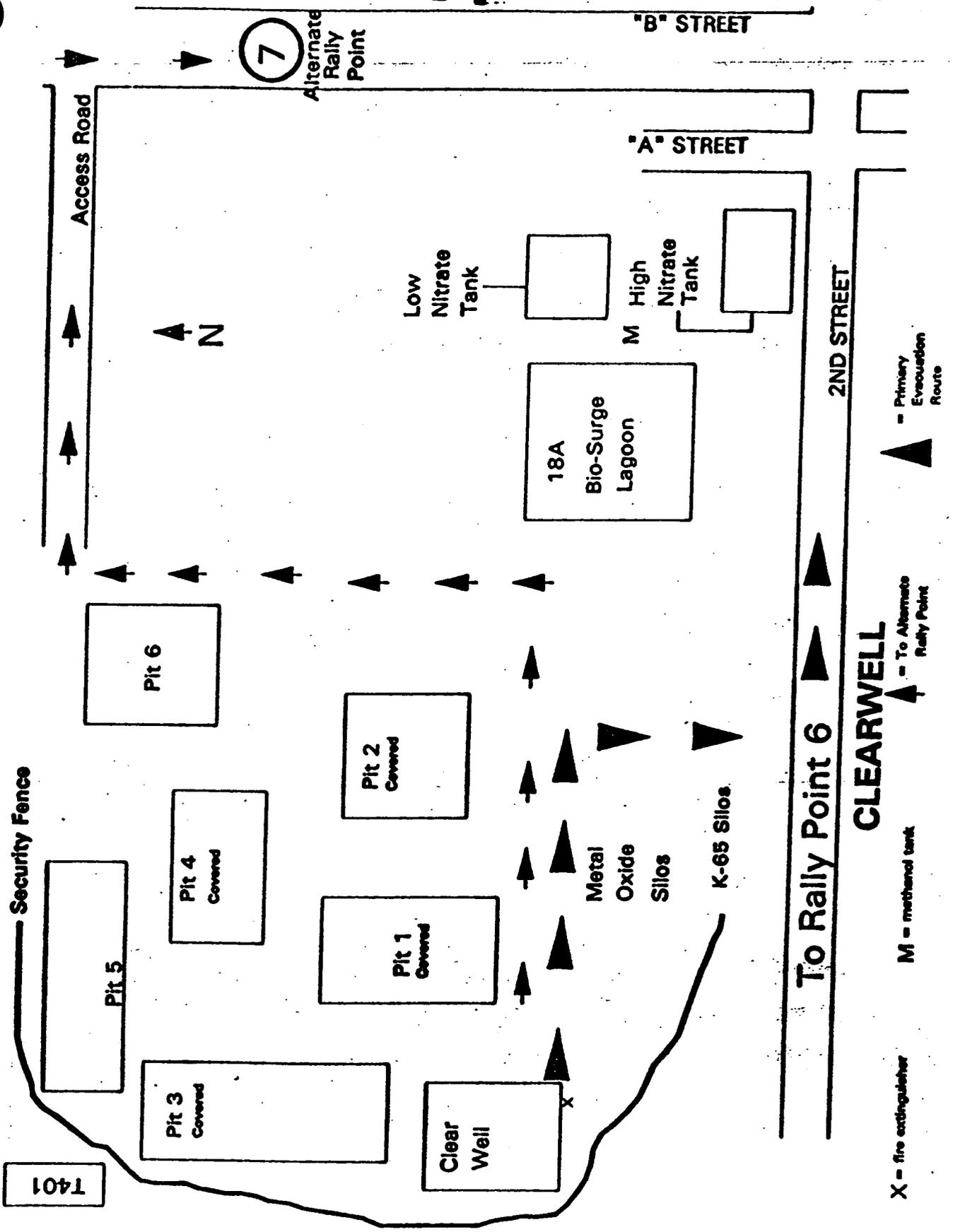
The Alternate Rally Point is No. 8. Rally Point No. 8 is located on "B" Street, west of the Boiler Plant, at the intersection of 1st Street and "B" Street. Movement is north past Pits 2, 4, & 6 on the access road, then east from to "B" Street, south on "B" Street to the Point. Rally Point No. 6 is south on "A" Street and east on 1st Street to the intersection of "B" Street.

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

- Fire Extinguisher
 - 1) 15# CO₂ on East side outside of the Clearwell Pump House (Building 18G)

Those personnel desiring access to this HWMU are required to have a two-way radio for emergency notification purposes.

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▲ Primary Evacuation Route

▲ To Alternate Rally Point

M = methanol tank

X = fire extinguisher

T401

HWMU No. 40 - BIO-SURGE LAGOON

This unit is a surface impoundment located west of the Production Area and was constructed in September 1986.

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.

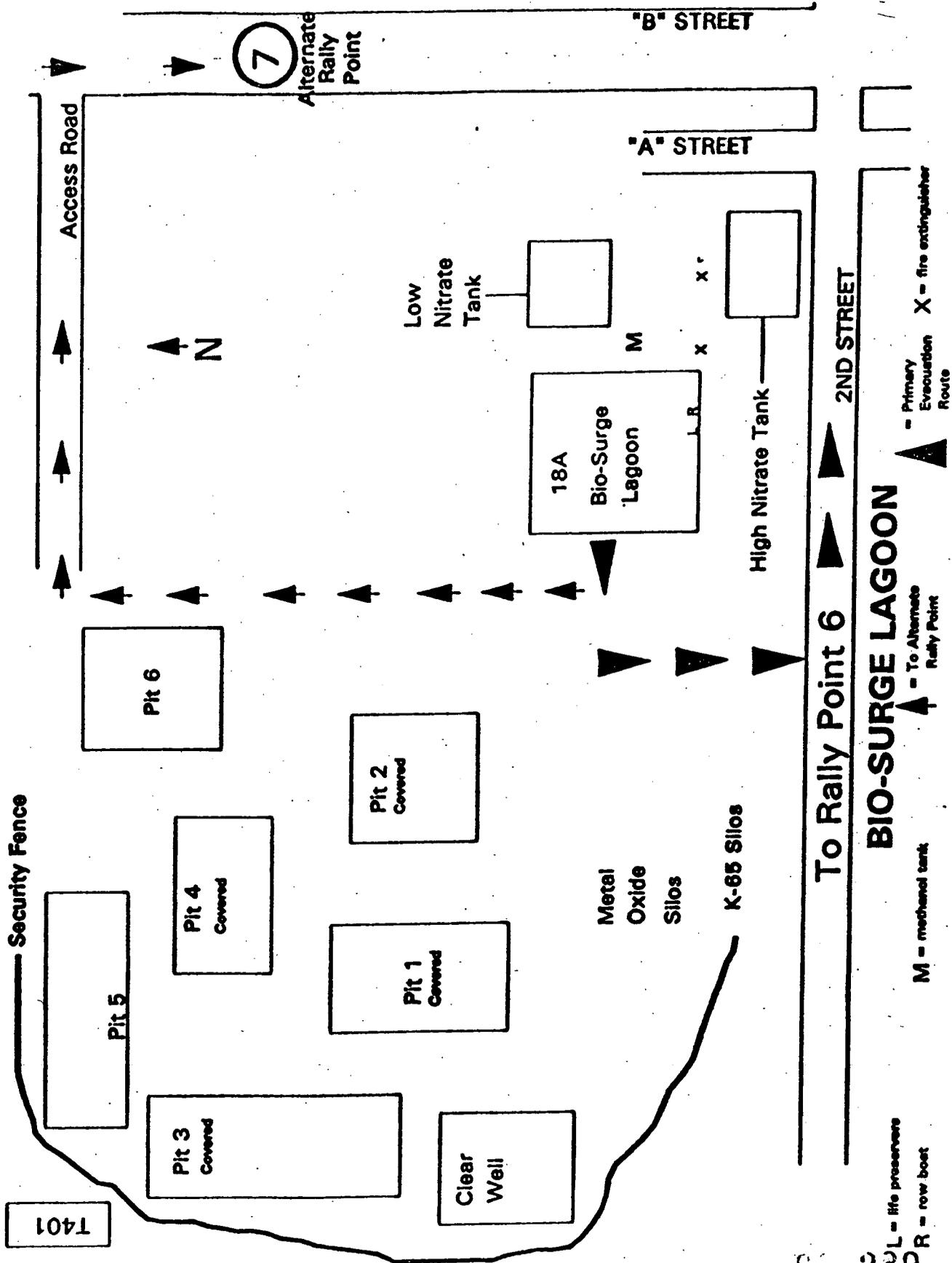
~~The Alternate Rally Point is No. 8. Rally Point No. 8 is located at the intersection of 1st Street and "B" Street. Movement from Rally Point No. 6 is south on "A" Street and East on 1st Street to the intersection of "B" Street.~~

~~The Alternate Rally Point is No. 7. Rally Point No. 7 is located on "B" Street, West of the Boiler Plant. Movement is north past Pits 2, 4, & 6 on the access road, then east to "B" Street, south on "B" Street to the Point.~~

Those personnel desiring access to this HWMU are required to have a two-way radio for emergency notification purposes.

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

- Fire Extinguishers
 - 1) 10# ABC by the Methanol Tank at Southeast corner of Lagoon
 - 2) 15# CO₂ by the Methanol Tank at Southeast corner of Lagoon
- Row Boat and Life Preserver
 - 1) At Southeast corner of Lagoon
 - 2) Life Preserver at Northwest corner of Lagoon (Life Preservers are required within 5 feet of Lagoon.)



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HWMU No. 41 - SLUDGE DRYING BEDS

The Sludge Drying Beds are surface impoundments that are part of the sanitary wastewater treatment system and are located east of the Production Area.

Personnel should evacuate to Rally Point No. 1. Rally Point No. 1 is located in the Northeast corner of the FEMP East Parking Lot. Movement is south and west on the Sewage Treatment Plant access road to the FEMP East Parking Lot, then north to Rally Point # 1.

The Alternate Rally Point is No. 2. Rally Point No. 2 is located at the West side of the FEMP West Parking Lot, just north of the Stormwater Retention Basin. Movement from Rally Point No. 1 is west through the parking lot to Rally Point No. 2.

There is no safety equipment assigned to this unit.

Those personnel desiring access to this unit are required to have a two-way radio for emergency notification purposes.

HWMU No. 42 - WASTE PIT NO. 5

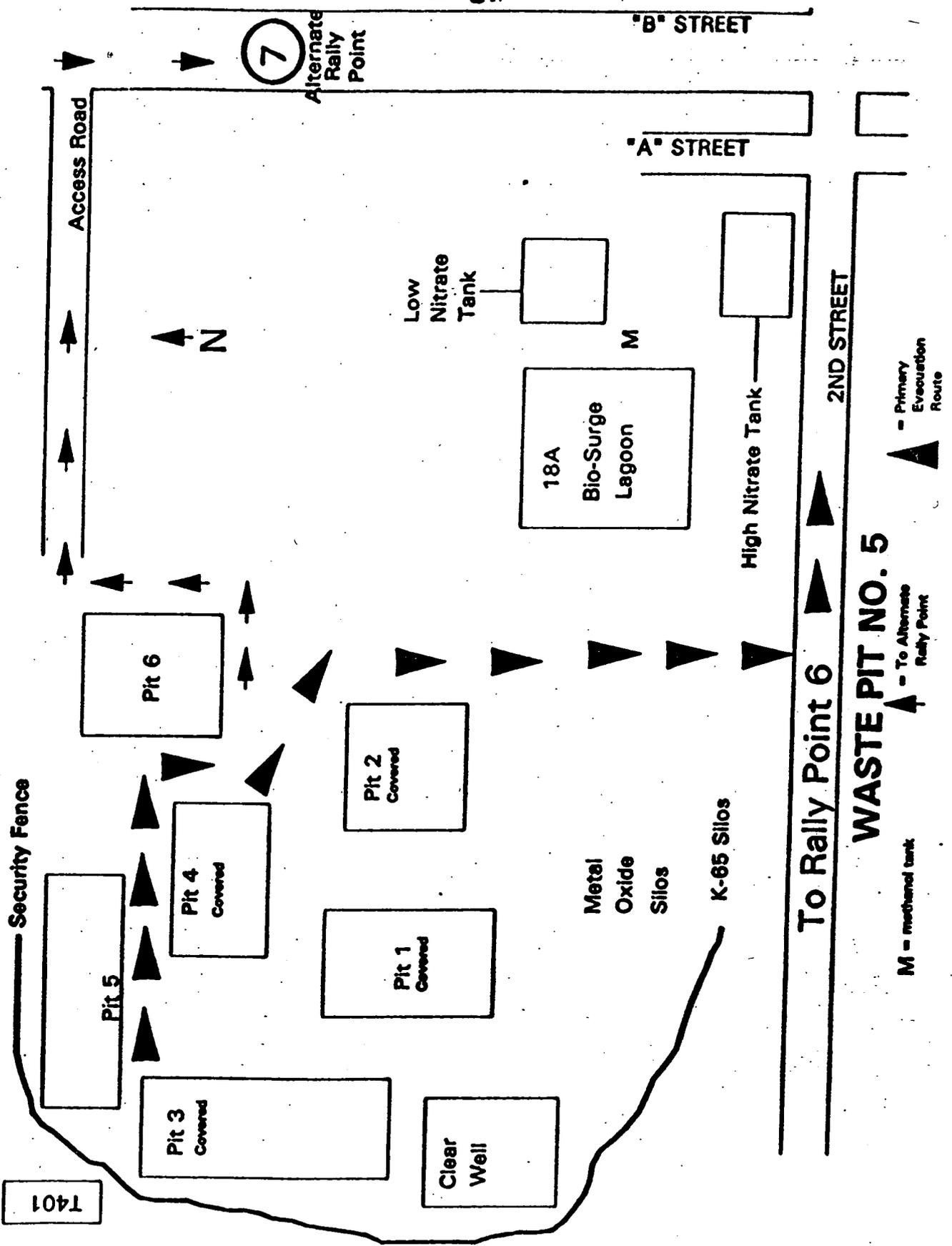
Waste Pit No. 5 is a land disposal unit in the Waste Pit Area northwest of the Production Area which covers 4.1 acres.

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. 8. Rally Point No. 8 is located on "B" Street west of the Boiler Plant, at the intersection of 1st Street and "B" Street. Movement is around Pit 6 on the access road, then east to "B" Street from Rally Point No. 6 is south on "A" Street and east on 1st Street to the intersection of "B" Street to the Point.

There is no safety equipment assigned to this unit. Those personnel desiring access to this unit are required to have a two-way radio for emergency notification purposes.

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WASTE PIT NO. 5

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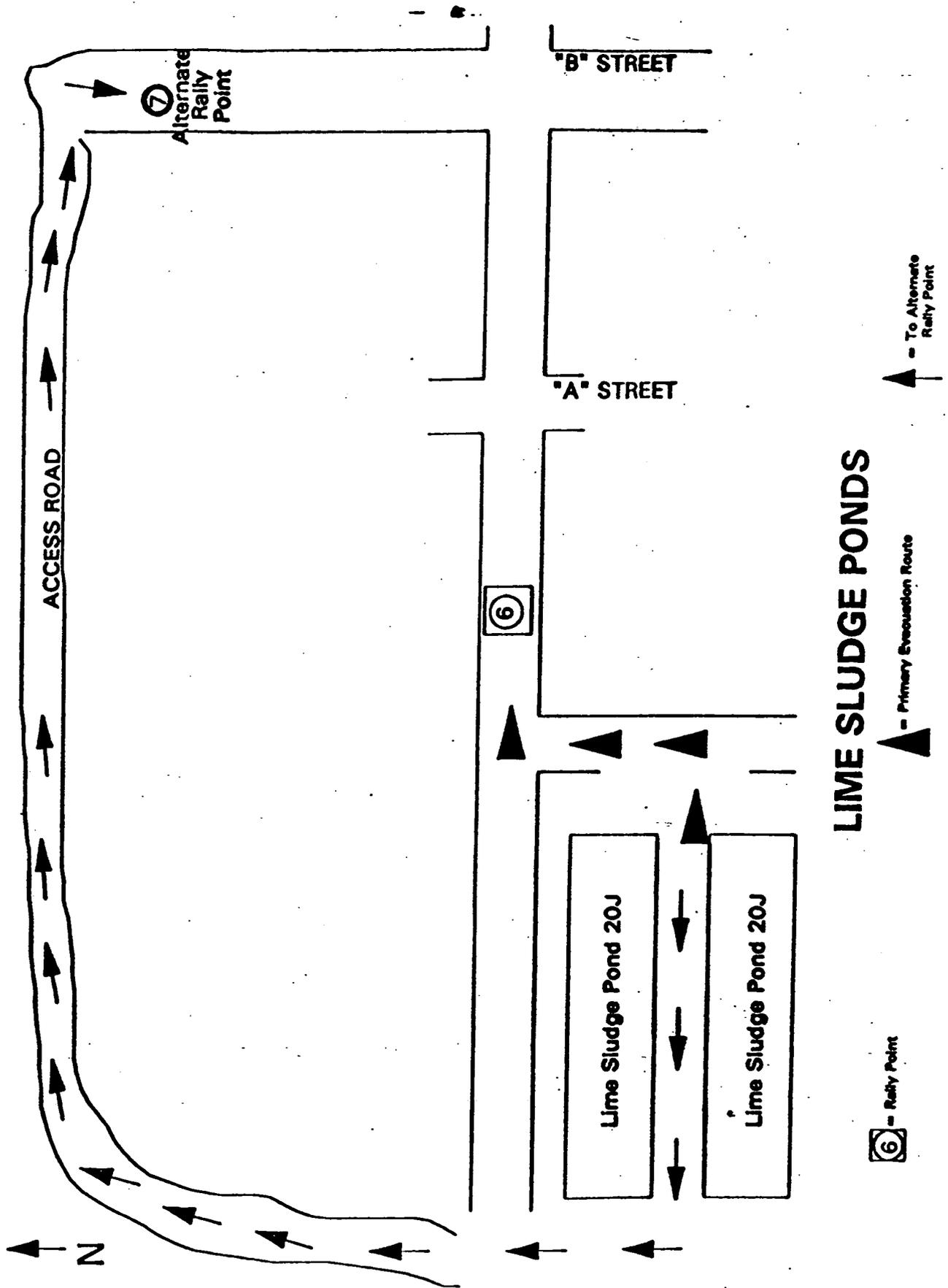
HMHU No. 43 - LIME SLUDGE PONDS

The Lime Sludge Ponds are immediately west of the Production 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 north to 2nd Street and then east to the Waste Pit Area access gate.

The Alternate Rally Point is No. 8. Rally Point No. 8 is located on "B" Street west of the Boiler Plant at the intersection of 1st Street and "B" Street. Movement is west, then northeast on the access road, then east to "B" from Rally Point No. 6 is South on "A" Street and East on 1st Street to the Street and south on "B" Street to the Point. intersection of "B" Street.

There is no safety equipment assigned to this unit. Those personnel desiring access to this unit are required to have a two-way radio for emergency notification purposes.



LIME SLUDGE PONDS

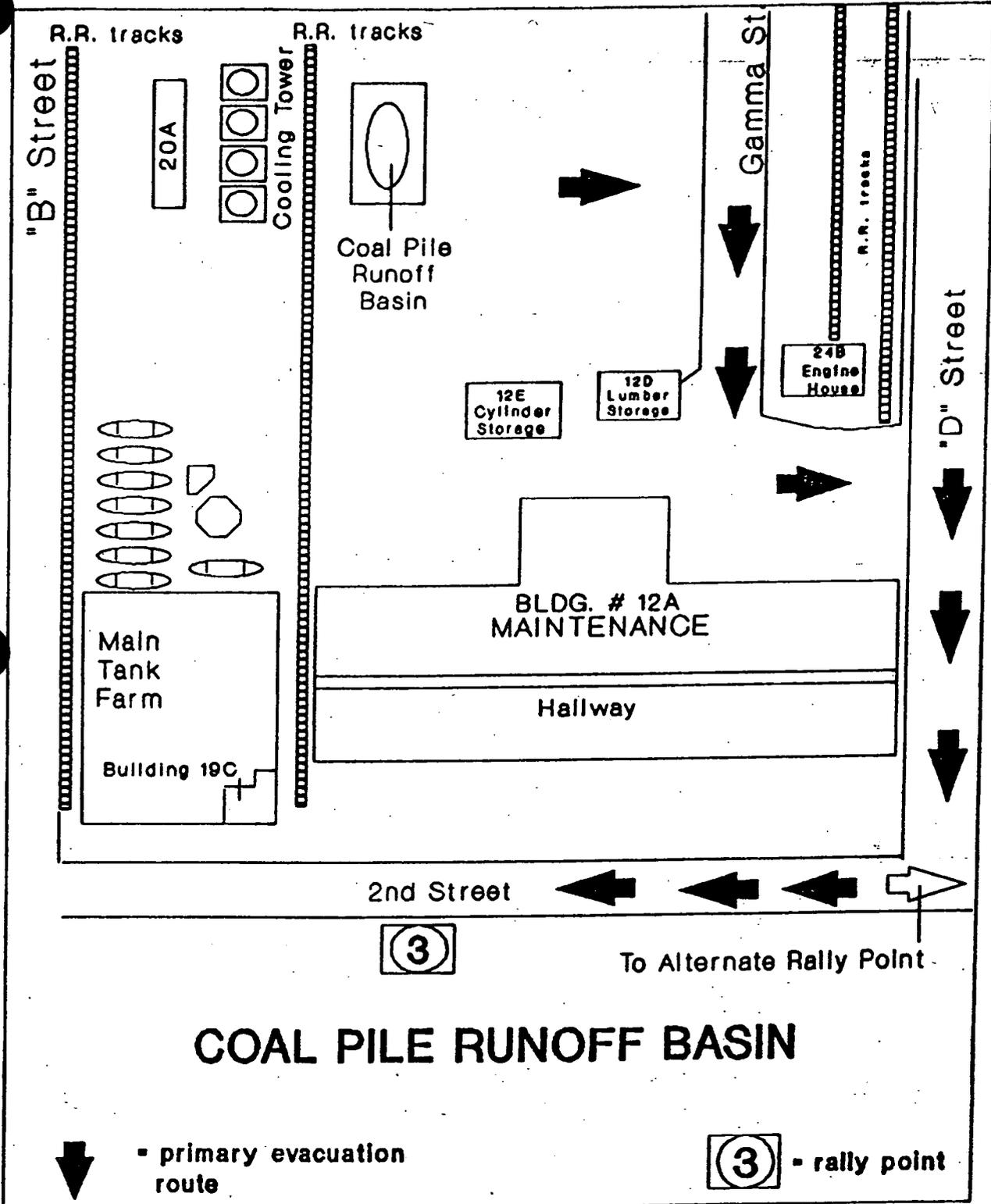
HWMU No. 44 - COAL PILE RUNOFF BASIN

The Coal Pile Runoff Basin is east of the Boiler Plant.

Personnel should evacuate to Rally Point No. 3. Rally Point No. 3 is located at the intersection of 2nd Street and "C" Street. Movement is south on Gamma Street and "D" Street, then west on 2nd Street to the intersection of "C" Street.

The Alternate Rally Point is No. 5. Rally Point No. 5 is located at the intersection of 1st and "D" Street. Movement from Rally Point No. 3 is east on 2nd Street and south on "D" Street to the intersection of 1st Street.

There is no safety equipment assigned to this unit. Those personnel desiring access to this HWMU are required to have a two-way radio for emergency notification purposes.



COAL PILE RUNOFF BASIN

FERNALD ENVIRONMENTAL MANAGEMENT PROJECT
FERHALD, OHIO
EPA ID NO. OH6890000976
SECTION 8: CONTINGENCY PLAN - ATTACHMENT G-1

RCRA PART B PERMIT APPLICATION
FEMP REVISION 1.0 0393
PAGE 62 OF 71

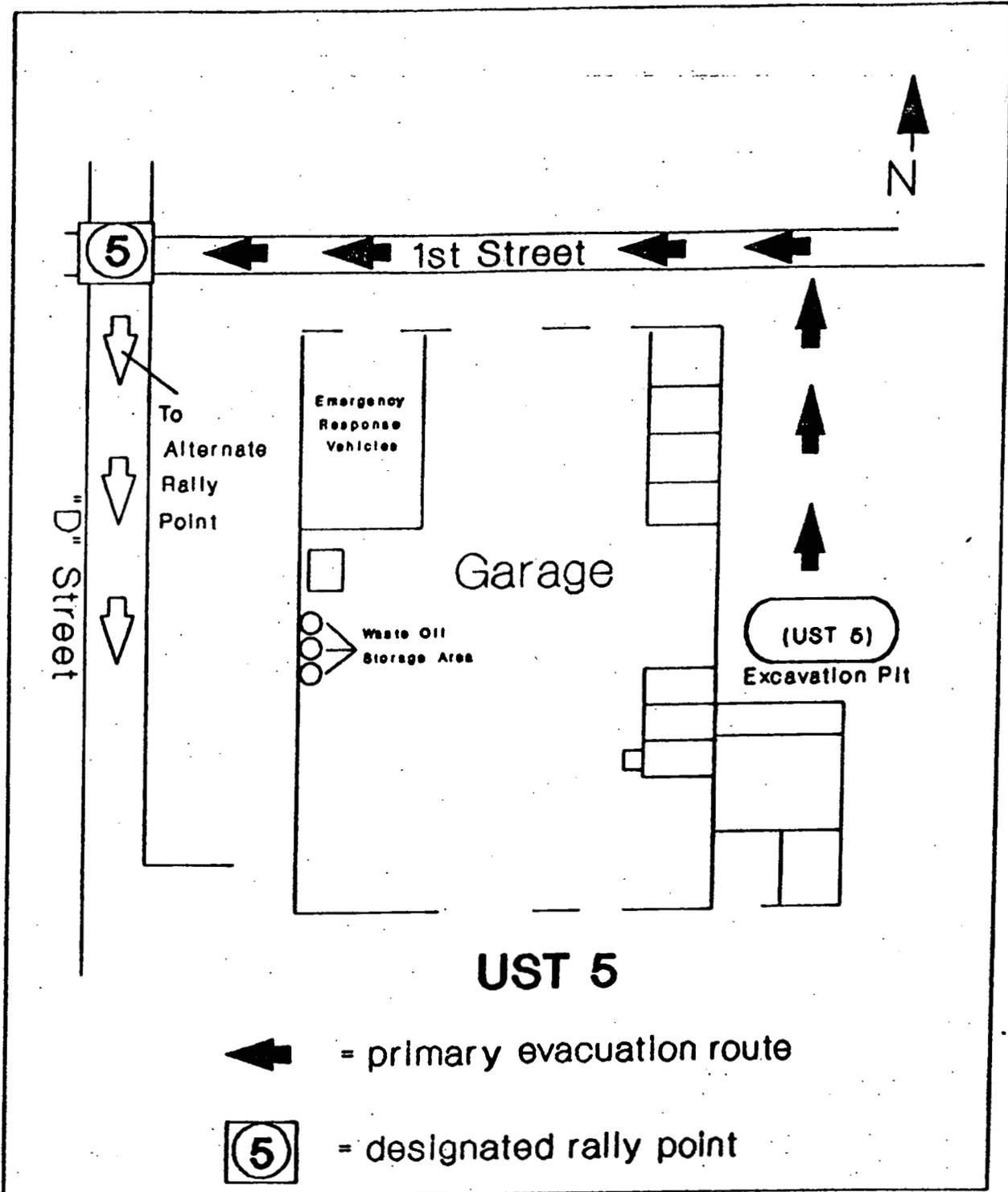
HMU No. 45 - UST NO. 5

UST No. 5 is East of Building 31. The surrounding soil has been excavated, but the tank has not yet been removed.

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 north on "D" Street to the intersection of "D" Street and 1st Street.

The Alternate Rally Point is No. 4. Rally Point No. 4 is located on "D" Street East of the Security Building (Building 28A). Movement from Rally Point No. 5 is directly south on "D" Street.

There is no safety equipment assigned to this unit. Those personnel desiring access to this unit are required to have a two-way radio for emergency notification purposes.



HMMU No. 46 - URANYL NITRATE TANKS (NFS STORAGE AREA)

This unit consists of five above ground UNH Tanks which contain corrosive material.

Personnel should evacuate to Rally Point 6. Rally Point 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 2nd Street and "B" "C" Street. Movement is east on 2nd Street to the Point. ~~from Rally Point No. 6 is south on "A" Street and east on 1st Street to the intersection of "B" Street.~~

Those personnel desiring access to this HMMU are required to have a two-way radio for emergency notification purposes.

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

Fire Extinguisher

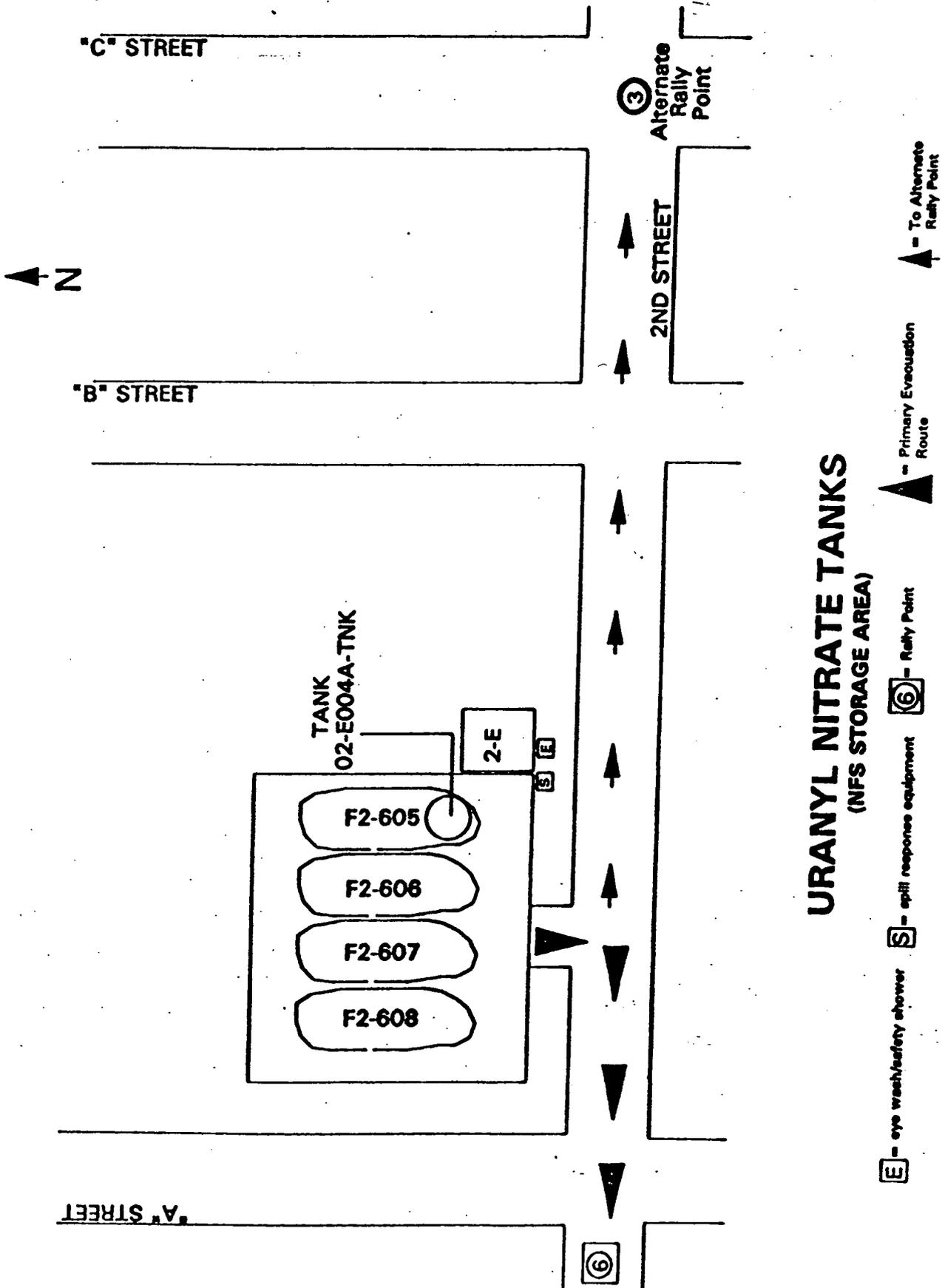
- 1) 107 ABC outside, on South side of Pump House 2E

Eye Wash/Safety Shower Stations

- 1) Outside, on South side of Pump House 2E

Spill Cleanup Equipment

- 1) Outside, by South side of Pump House 2E



URANYL NITRATE TANKS
(NFS STORAGE AREA)

- E = eye wash/safety shower
- S = spill response equipment
- 3 = Rally Point
- 6 = Rally Point
- ▲ = To Alternate Rally Point
- ▲ = Primary Evacuation Route

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

This unit consists of three above ground UNH Tanks which contain corrosive material.

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 ~~Just east of the~~ intersection of 1st 2nd Street and "B" Street. Movement from Rally ~~is east on 2nd Street to the Rally Point~~ Point No. 6 is south on "A" Street and east on 1st Street to the intersection of "B" Street.

Those personnel desiring access to this HWMU are required to have a two-way radio for emergency notification purposes.

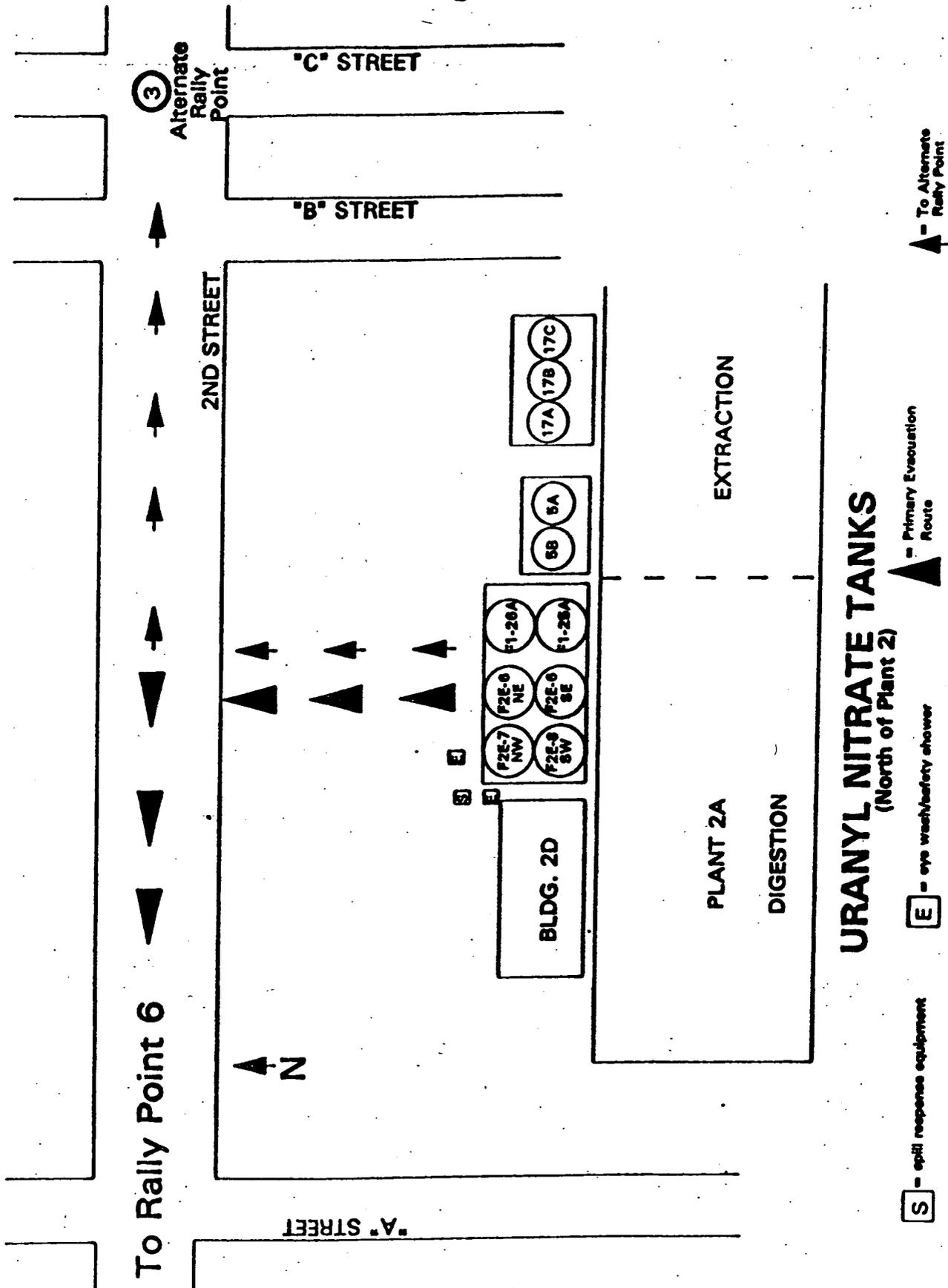
The following is a list of safety equipment assigned to this HWMU:

Fire Extinguishers

- 1) 10# ABC on post, just north of (outside) containment area

- Eye Wash/Safety Shower Station
 - 1) In containment area of HWMU
 - 2) At northeast corner of Building 2D
- Spill Cleanup Materials
 - 1) Outside, by North wall of Building 2D

-4458-



▲ - To Alternate Rally Point

▲ - Primary Evacuation Route

□ E - eye wash/safety shower

□ S - spill response equipment

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HMMU 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 containing corrosive material.

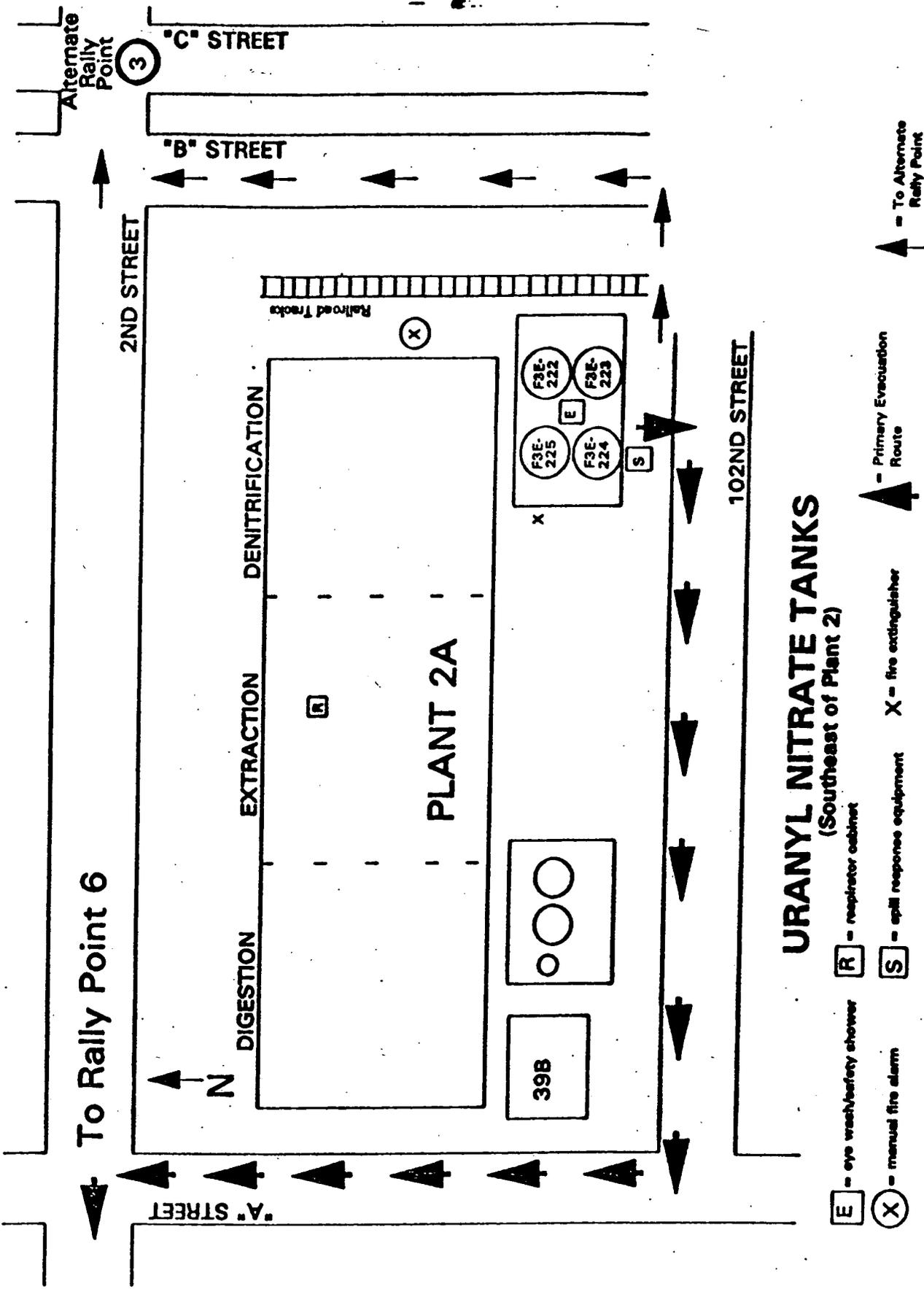
Personnel should evacuate to Rally Point No. 6. Rally Point No. 6 is located north of the West Water Tower, at the Waste Pit Area access gate. Movement is west on 102nd Street to "A" Street, North on "A" Street to 2nd Street, then west on 2nd Street to the Waste Pit Area access gate.

The Alternate Rally Point is No. 8. Rally Point No. 8 is located at the ~~Just east of the intersection of 1st 2nd Street and "B" Street. Movement is east to "B" Street, north on "B" Street to 2nd Street, and east on 2nd Street to the from Rally Point No. 6 is south on "A" Street and east on 1st Street to the intersection of "B" Street.~~

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

- Manual Fire Alarm
 - 1) At East end of Building 2A between pedestrian door and roll up door
- Fire Extinguisher
 - 1) Outside Building 2A on South wall near HMMU
- Eye Wash/Safety Shower Station
 - 1) Center of Tank Containment Area
- Spill Cleanup Material
 - 1) Located South of the Storage Tank Area
 - 2) ~~First Floor Decontamination Area, Column A-11~~
- Respirator Cabinet
 - 1) At Control Point Entrance near Column C9 inside Building 2A

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URANYL NITRATE TANKS
 (Southeast of Plant 2)

- [E] - eye wash/safety shower
- [R] - respirator cabinet
- [S] - manual fire alarm
- [X] - manual fire alarm
- [X] - spill response equipment
- [X] - fire extinguisher
- [▲] - Primary Evacuation Route
- [▲] - To Alternate Rally Point

HMMU 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.

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 east ~~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. 3. It is located just east of the intersection of 2nd Street and "B" Street. Movement is north to 2nd Street, and east on 2nd Street to the Rally Point.~~

This area is restricted from entry unless personnel are wearing protective clothing due to asbestos contamination. Use safety equipment in adjacent Extraction Area east of this HMMU. Fire Extinguishers and Safety Showers are maintained in the Digestion Area.

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

- Manual Fire Alarms
 - 1) On East wall between Digestion and Extraction Areas
 - 2) At West end of Extraction Area

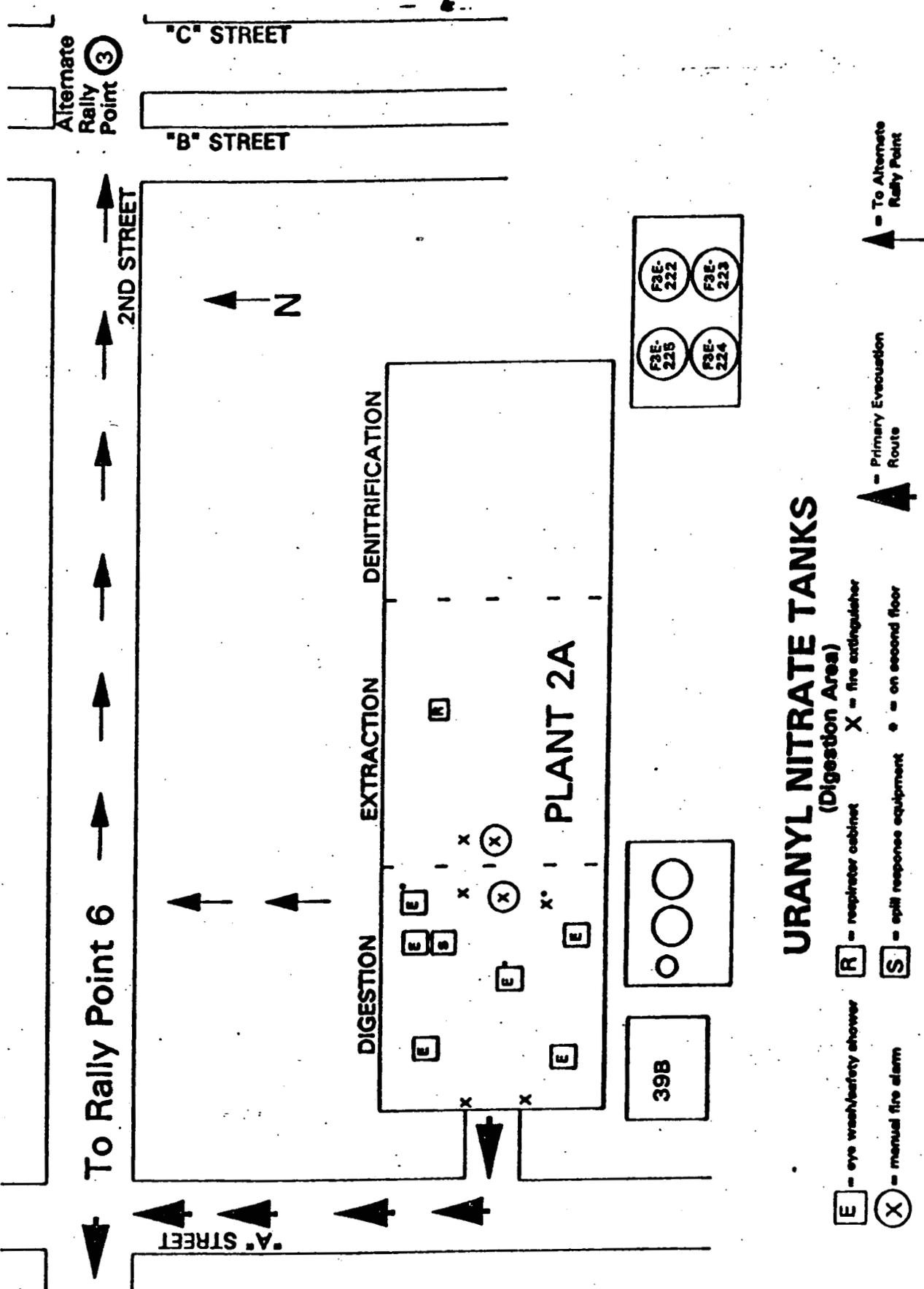
- Fire Extinguishers
 - 1) ~~15#~~ CO₂ ~~10#~~ ~~ABC~~ First Floor by Column B1
 - 2) 10# ABC First Floor by Column C1
 - 3) 10# ABC First Floor in Digestion Area east of Column C7
 - 4) 10# ABC First Floor in Extraction Area near Column C8
 - 5) 10# ABC Second Floor by Column B8

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

- Eye Wash/Safety Shower Stations
 - 1) First Floor on South wall of Digestion Area ~~outside office areas~~
near Column A-8
 - 2) First Floor on South wall of Digestion Area near Column A2
 - 3) First Floor North Digestion Area near Tank D1-8
 - 4) First Floor North Digestion Area north Tank F1-26
 - 5) Second Floor by center stairs
 - 6) Second Floor North Digestion Area Southeast Corner

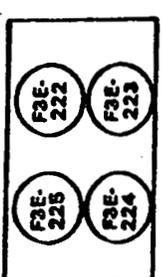
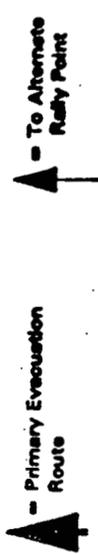
- Spill Cleanup Equipment
 - 1) At East end of Digestion Area east of Column C7

- Respirator Cabinet
 - 1) At Control Point entrance near Column C9



URANYL NITRATE TANKS
 (Digestion Area)

- E** - eye wash/safety shower
- R** - respirator cabinet
- S** - manual fire alarm
- X** - fire extinguisher
- X** - spill response equipment
- e** - on second floor



HMMU No. 50 - URANYL NITRATE TANKS (RAFFINATE BUILDING)

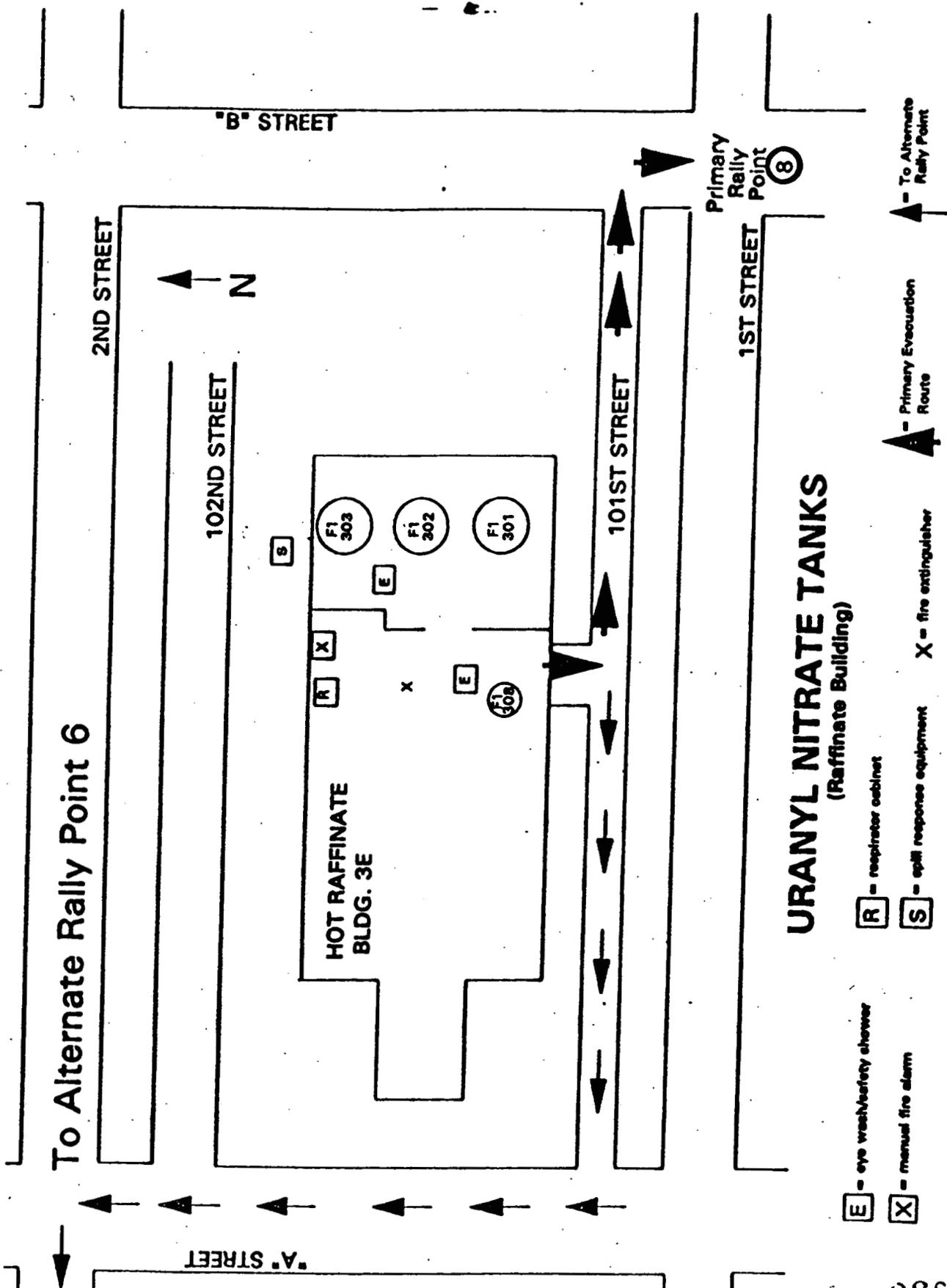
This unit consists of four storage tanks located on the Eastern bay and South central area of Building 3E.

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 on 101st Street to "B" Street then south on "B" Street to the intersection of 1st Street.

~~The Alternate Rally Point is No. 5. Rally Point No. 5 is located at the intersection of 1st Street and "B" Street. Movement from Rally Point No. 8 is east on 1st Street to the intersection of "D" Street.~~ The Alternate Rally Point is No. 6. Rally Point No. 6 is located North of the West Water Tower. Movement is west to "A" Street, north on "A" Street to 2nd Street, then west to the point.

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

- Manual Fire Alarm
 - 1) North wall by entrance
- Fire Extinguishers
 - 1) 15# CO₂ on entrance wall to East bay near tanks F1-301, 302, and 303
- Eyewash/Safety Shower Stations
 - 1) Near tank F1-303
 - 2) Near tank F1-308
- Spill Cleanup Equipment
 - 1) Outside by entrance door
- Respirator Cabinet
 - 1) At entrance by Control Point



To Alternate Rally Point 6

URANYL NITRATE TANKS
 (Raffinate Building)

- E = eye wash/safety shower
- X = manual fire alarm
- R = respirator cabinet
- S = spill response equipment
- X = fire extinguisher

- ▲ = Primary Evacuation Route
- ▲ = To Alternate Rally Point

HWMU No. 51 EXPERIMENTAL TREATMENT FACILITY (ETF)

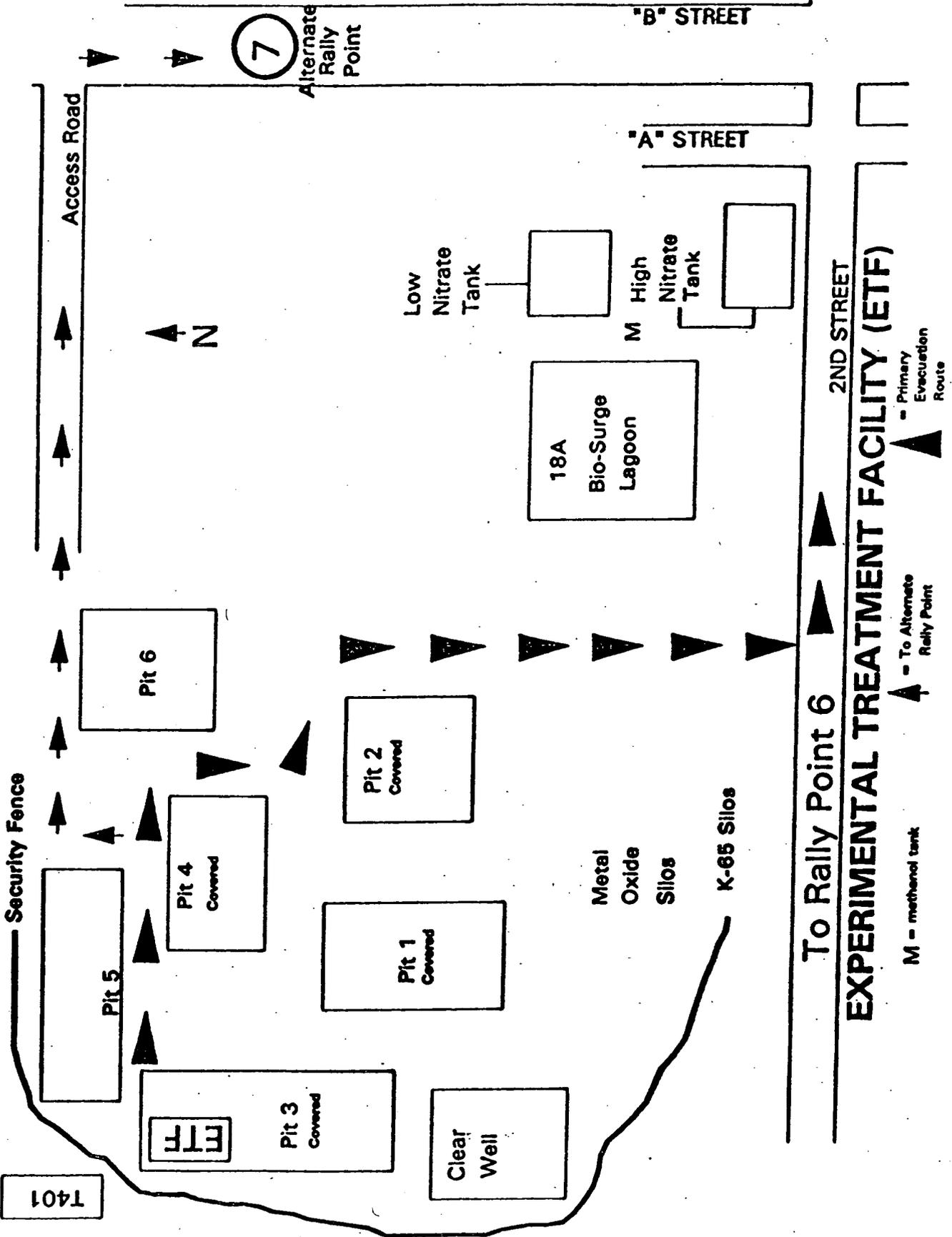
This unit was located south of the Waste Pit No. 5 Access Road, near the Southwestern corner of Waste Pit No. 5. It has been removed.

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. 8. Rally Point No. 8 is located on "B" Street west of the Boiler Plant, at the intersection of 1st Street and "B" Street. Movement is past Pit 5 and around Pit 5 on the access road, then east to "B" Street and south on "B" Street to the Point. ~~from Rally Point No. 6 is south on "A" Street and east on 1st Street to the intersection of "B" Street.~~

There is no safety equipment assigned to this unit. Those personnel desiring access to this HWMU are required to have a two-way radio for emergency notification purposes.

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T401

HWMU No. 52 - NORTH AND SOUTH SOLVENT TANKS (PILOT PLANT)

This unit consists of two above ground storage tanks (Tanks T1~~5~~ & T2~~5~~) located southwest 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.

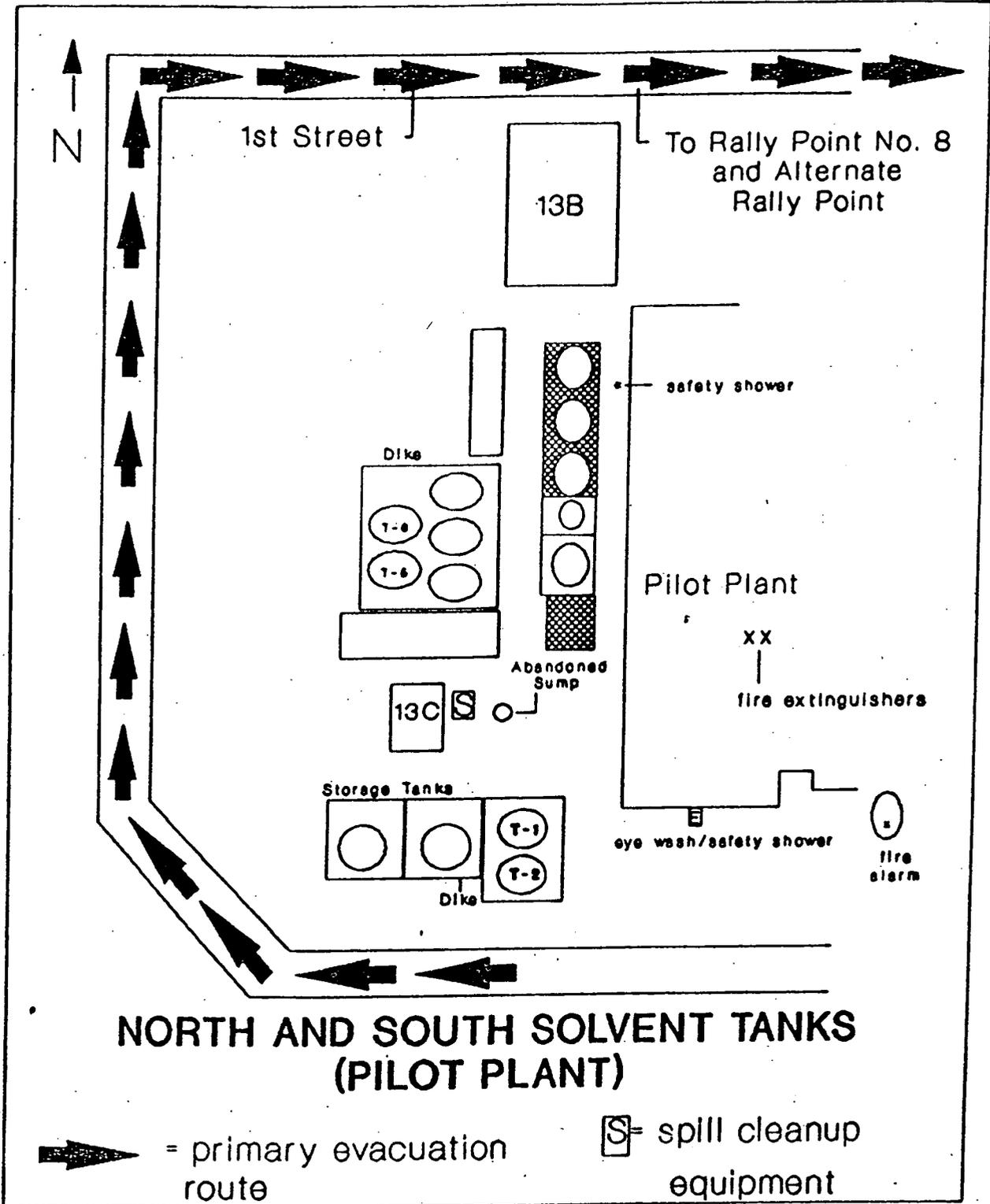
The Alternate Rally Point is No. 5. Rally Point No. 5 is located at the intersection of 1st and "D" Street. Movement from Rally Point No. 8 is east on 1st Street to the intersection of "D" Street.

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

- Manual Fire Alarm
 - 1) On outside South wall of Pilot Plant near center of building
- Fire Extinguishers
 - 1) ~~10# ABC First Floor Wet Side at Column D-6~~
~~Outside Southwest Solvent Tanks Ber~~
 - 2) ~~10# ABC First Floor Wet Side at Column D-6~~
- Eye Wash/Safety Shower Station
 - 1) Outside on South wall of Pilot Plant near West end
- Safety Shower Station
 - 1) Outside on West wall of Pilot Plant
- Spill Cleanup Equipment
 - 1) East of Sump House (Building 13C)

Those personnel desiring access to this HWMU are required to have a two-way radio to facilitate emergency notification.

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HWMU No. 53 - SAFE GEOMETRY DIGESTION SUMP

The Safe Geometry Digestion Sump is located on the second floor of Plant 1 in Building 1A.

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 south ~~past the west side of Plant 1~~ to 2nd Street and west to the Waste Pit Area access gate.

The Alternate Rally Point is No. 8 ~~3~~. Rally Point No. 8 ~~3~~ is located at the intersection of 1st 2nd Street and "B" "C" Street. Movement ~~is south past the east side of Plant 1 to 2nd Street, and east on 2nd Street to the Point.~~ ~~from Rally Point No. 6 is south on "A" Street and east on 1st Street to the intersection of "B" Street.~~

The following is a list of equipment assigned to this unit.

- Manual Fire Alarm
 - 1) First Floor, west of column 7C

- Fire Extinguishers
 - 1) 10# ABC Second Floor, south of Safe Geometry Digester Sump
 - 2) 10# ABC First Floor at column 7C

- Eye Wash Station
 - 1) On East wall, south of column 5B near the Sump

- Spill Cleanup Equipment
 - 1) First Floor at column 8C

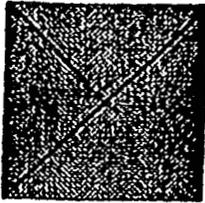
- Respirator Cabinet
 - 1) Outside against North wall by ~~Supervisor's Office~~ ~~near exit from~~
Satellite Clothing Area

Low-pressure (60 psi) Hydrant Locations

<u>Hydrant #</u>	<u>General Location</u>
200	SW of Bldg. 11
201	S of Bldg. 28
202	SE of Bldg. 11
203	SE of Bldg. 53 on 'D' St.
204	N of Bldg. 53
205	NW of Bldg. 16 on 1st St.
206	E of Bldg. 70 on 'E' St.
207	E of the intersection of 'E' St. and 2nd St.
208	S of Bldg. 32 near 'E' St.
209	S of Bldg. 69
210	NW of Bldg. 10
211	S of Bldg. 60
212	NE of Bldg. 60
213	W of Bldg. 5 on 'C' St.
214	N of the intersection of 'C' St. and 1st St.
215	N of the intersection of 'B' St. and 2nd
216	SW of Bldg. 30 on 2nd St.
217	SW of Bldg. 30 on 2nd St.
218	N of the intersection of 'A' St. and 2nd St.
219	W of Bldg. 1, @ 400 ft. N of Hydrant #218
220	W of the intersection of 'A' St. and 101st St.
221	W of the intersection of 'A' St. and 1st St.
222	NW corner of Bldg. 15
223	N of Bldg. 15 on 1st St.
224	N of the intersection of 'B' St. and 1st St.
225	W of Bldg. 4 on 'B' St.
226	N of Bldg. 3 on 102nd St.
227	N of Bldg. 3 on 102nd St., @ 400 ft. E of the intersection of 'A' St. and 102nd
228	@ 200 ft. E of the intersection of 'A' St. and 101st St.
229	N of Bldg. 8 on 101st St.
230	E of Bldg. 4, near NW corner of Bldg. 5 on 'C' St.

High-pressure (120 psi) Hydrant Locations

<u>Hydrant #</u>	<u>General Location</u>
101	S of Bldg. 54
102	N of Bldg. 54
103	N of Bldg. 11
104	@ 400 ft. E of Hydrant #103
105	S of the intersection of 'A' St. and 1st St.
106	S of Bldg. 8 on 1st St.
107	N of the intersection of 'D' St. and 1st St.
108	E of Bldg. 6 on 'E' St., S of the water tower
109	S of Bldg. 2 on 102nd St., N of Bldg. 39
110	S of Bldg. 2 on 102nd St., @ 400 ft. E of Hydrant # 109
111	W of Bldg. 4 on 'B' St.
112	W of Bldg. 5, E of Bldg. 4 on 'C' St.
113	W of Bldg. 6, NE of Bldg. 55 on 'D' St.
114	S of the intersection of 'D' St. and 2nd St.
115	@ 400 ft. E of the intersection of 'A' St. and 2nd St.
116	S of Bldg. 30 on 2nd St.
117	NW of the corner of Bldg. 12
118	N of Bldg. 12
119	S of Bldg. 38
120	N of propane storage
121	N of propane storage
122	N of Bldg. 12, SW of Bldg. 24 on Gamma St.
123	SW of Bldg. 65, NW of Bldg. 9 on 'D' St., @ 400 ft. N of Hydrant #124
124	W of Bldg. 9 on 'D' St., E of Bldg. 12
125	S of Bldg. 9 on 2nd St.
126	N of Bldg. 9
127	W of Bldg. 66, just inside the fence on 3rd St.
128	E of Bldg. 71
129	@ 400 ft. W of Bldg. 56 on 3rd St.
130	S of Bldg. 63
131	SE of Bldg. 69
132	N of Bldg. 56 on 3rd St.



APPENDIX 4

54408

MUTUAL AID AGREEMENTS

Westinghouse
Environmental Management
Company of Ohio

PO Box 396704
Cincinnati, Ohio 45279 6704
513.738.6200

WEMCO:CO(P):92-481
November 3, 1992

Chief Jim Miller
Crosby Township Fire Department
6985 River Road
New Baltimore, Ohio 45233

AMBULANCE SERVICE AND MUTUAL FIRE PROTECTION AGREEMENT

Dear Chief Miller;

Per Clause E. ASSIGNMENT, of the subject agreement, dated March 22, 1991, WEMCO as of December 1, 1992, will assign its rights and obligations under the agreement to its replacement contractor Fluor Daniel Environmental Restoration Management Corporation, hereinafter called FERMC.

All terms and conditions of the document referenced above, except as noted herein and previously agreed to, remains unchanged and in full force and effect.

APPROVED:

WESTINGHOUSE ENVIRONMENTAL
MANAGEMENT COMPANY OF OHIO

FLUOR DANIEL ENVIRONMENTAL
RESTORATION MANAGEMENT COMPANY

BY: *M. S. Strickland Jr*
V. J. Whiting

BY: *Neil W. Fisher*

TITLE: Mgr., Proc. & Mats. Mgmt.

TITLE: V.P., Acquisition & Finance

MFM:nfm

c: Donald J. Meyer, Attorney at Law
M. Hoffman, DOE-FW
S. J. Wentzel
File

M. S. Strickland
Central File

Ambulance Service
And
Mutual Aid Fire Protection
Agreement

THIS AGREEMENT is made this 22 day of March 1991, by and between Westinghouse Materials Company of Ohio, a corporation duly organized and existing under the laws of the State of Delaware, and having an office in the County of Hamilton, State of Ohio, hereinafter called the "Contractor" or "WACO", and the Crosby Township Fire Department, which maintains fire protection and ambulance facilities in Crosby Township, hereinafter called the "Fire Service".

WHEREAS, WACO has entered into Contract No. DE-AC05-86OR21600, hereinafter called the "Principal Contract," with the United States of America, represented by the United States Department of Energy, hereinafter called the "DOE", for the management and operation of the Feed Materials Production Center (FMPC) at Fernald, Ohio, a facility belonging to and owned by DOE; and

WHEREAS, Public Law 46, 84th Congress (Title 42 U. S. Code, Section 1856), authorizes agencies of the United States of America to enter into reciprocal agreements with public or private corporations or associations for mutual aid in furnishing fire protection; and

WHEREAS, the WACO is authorized to render fire protection assistance to the Fire Service on behalf of the Government, and

WHEREAS, the Fire Service is authorized to render fire protection assistance to the FMPC; and

WHEREAS, the Government may require emergency ambulance assistance at the FMPC; and

WHEREAS, the Fire Service is authorized to render emergency ambulance assistance to the FMPC and is willing to exert its best efforts to provide such emergency ambulance assistance;

NOW, THEREFORE, the parties do mutually agree as follows:

A. FIRE PROTECTION

1. The fire protection areas covered by this Agreement are the community of Crosby Township, and the FMPC, but assistance contemplated by the Agreement shall be rendered only to such portions of such areas as are normally afforded fire protection by each party.
2. The fire protection assistance to be rendered by the WACO under this Agreement will be furnished through the use of Government-owned fire equipment at the FMPC.

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3. Requests for assistance on behalf of the WACO will not be honored unless made for the Government by one of the following WACO officials:

- a. Fire & Safety Inspector
- b. Emergency Duty Officer
- c. Assistant Emergency Duty Officer
- d. Supervisor, Fire & Safety
- e. President

Requests are to be made to the Fire Chief, Assistant Fire Chief or other line fire officer in charge via the fire protection dispatching authority for the Fire Service.

4. Requests for assistance on behalf of the Fire Service will not be honored unless made by the Fire Chief, Assistant Fire Chief or other line officer in charge. Requests shall be made to the Contractor, via its Communications Center, telephone 738-6295.
5. Both the Contractor and the Fire Service reserve the right to determine the extent of the assistance that either will render to the other in response to requests for assistance, including the right to refuse any assistance to the other, when, in the opinion of the senior fire fighting official on duty, fire protection needs of the Government installation or the Fire Service from which aid is requested are such that equipment or personnel may not be safely released for service elsewhere.
6. Both the Contractor and the Fire Service reserve the right to recall at any time equipment and/or personnel dispatched to the other when, in the opinion of the senior fire fighting official on duty, protection needs of the Government installation or the Fire Service from which such equipment and/or personnel were dispatched so require.
7. It is agreed that equipment and personnel dispatched in response to a request made hereunder will operate under the immediate supervision and control of the senior fire fighting official in charge of the dispatched equipment and personnel, but under the general direction of the senior fire fighting official on duty at the Government installation or the Fire Service making such a request.
8. Except as expressly provided in paragraph 10 below, no compensation shall be paid either by the WACO or the Government or by the Fire Service for fire protection assistance rendered to it under this Agreement.

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9. WMCO and the Government covenant and agrees that no claim for compensation will be made by it against the Fire Service for any loss, damage, personal injury, or death occurring in consequence of fire protection assistance rendered under this Agreement, and all such rights or claims are hereby expressly waived.
10. The Fire Service pursuant to Public Law 498, 93rd Congress (Title 15 U. S. Code, Section 2210), and Regulations promulgated thereunder (Federal Register, Vol. 42, No. 138, p. 36954, July 18, 1977), may file a claim with the Administrator of the U. S. Fire Administration for the amount of direct expenses and the direct losses incurred by the Fire Service as a result of fighting a fire subject to this Agreement. The Fire Service covenants and agrees that no other claim for compensation, except as expressly provided herein, will be made by it against the Government or against the Contractor for any loss, damage, personal injury or death occurring in consequence of fire protection assistance rendered under this Agreement, and all such other claims are hereby expressly waived.
11. Fire Service personnel and equipment dispatched to FMPC will be monitored by the Contractor prior to leaving the Government installation to determine the level of radioactivity present, if any, on the equipment or the skin or clothing of the personnel. Efforts will be made by the Contractor to reduce contamination, if present, to a level which is as low as practicable. If Fire Service personnel or equipment become contaminated with radioactive or toxic materials as a direct result of assistance rendered, the Contractor will provide for the decontamination of the equipment (or replacement thereof) or the personnel at no charge to the Fire Service.

B. EMERGENCY AMBULANCE ASSISTANCE

1. In the event of a medical emergency at the FMPC and at the request of the WMCO or the Government, the Fire Service will exert its best efforts to provide emergency ambulance assistance for the purpose of conveying an injured or ill person or persons from the FMPC to hospitals or other medical treatment facilities in the Hamilton-Cincinnati areas.
2. Requests for assistance on behalf of the Government will not be honored unless made by one of the Contractor officials referenced in paragraph A.3 above. Requests are to be made to the Fire Chief, Assistant Fire Chief or other line fire officer in charge via the fire protection dispatching authority for the Fire Service.
3. The driver and attendants manning the ambulance shall be members of the Fire Service's Life Squad and shall be trained in the operation of the vehicle and performance of life squad emergencies practices in accordance with the laws of the State of Ohio.

- 4 4 5 8

4. Persons who are to be transported from the FMPC to hospitals or other medical treatment facilities will be monitored to determine the level of radioactivity present, if any, on their skin or clothing. Efforts will be made by the Contractor to reduce contamination, if present, to a level which is as low as practicable. If serious injuries are present and the need for immediate transport precludes decontamination, appropriate precautionary instruction will be given to drivers, attendants, and medical personnel. Also appropriate precautions will be taken to prevent contamination of the transport vehicle.
5. There shall be no monetary compensation paid for the emergency ambulance assistance rendered by the Fire Service hereunder; provided, however, if the Fire Service's equipment or supplies become contaminated with radioactive or toxic materials as a direct result of assistance rendered, the Contractor will provide for the decontamination or replacement thereof at no charge to the Fire Service.
6. The WMCO and the Government covenants and agrees that no claim for compensation will be made by it against the Fire Service, and the Fire Service covenants and agrees that no claim for compensation will be made by it against the Government or against the Contractor for any loss, damage, personal injury, or death occurring in consequence of emergency ambulance assistance rendered by the Fire Service under its Agreement. All such rights or claims are hereby expressly waived by both parties to this Agreement.

C. TERM OF AGREEMENT

1. This Agreement may be terminated by either party upon 30 days' written notice to the other party, specifying the date of such termination.

D. OFFICIALS NOT TO BENEFIT

1. No member of or delegate to Congress or resident commissioner shall be admitted to any share or part of the Agreement or to any benefit that may arise therefrom, but this provision shall not be construed to extend to this Agreement if made with a corporation for its general benefit.

E. ASSIGNMENT

1. This Agreement shall inure to the benefit of the parties hereto and their respective successors and assigns. Upon completion of the Principal Contract, WMCO shall assign its rights and obligations under this Agreement to its replacement contractor or to DOE (Oak Ridge Operations Office), and upon any such hereunder assignment, WMCO shall be relieved of any further obligations and the DOE (Oak Ridge Operations Office), by signing the approval at the end of this Agreement, agrees to accept the assignment of the rights and obligations of WMCO, when made.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the day and year first above written.

Crosby Township Fire Department

BY: [Signature]
TITLE: CHIEF

UNITED STATES OF AMERICA

BY: U. S. Department of Energy
[Signature]
TITLE: EMPC Site Manager

APPROVED:

BOARD OF TOWNSHIP TRUSTEES
(Insert Township/Trustee)
BY: [Signature]
TITLE: PRESIDENT

WESTINGHOUSE MATERIALS COMPANY OF OHIO

BY: [Signature]
TITLE: Manager
Procurement & Materials Management
DATE: 2/1/91

LETTER OF AGREEMENT

-4458

THIS LETTER OF AGREEMENT, is effective on the 1st day of December, 1992, by and between Flour Daniel Environmental Restoration Management Company, hereinafter called "FERMCO" and Mercy Hospital, 100 River Front Plaza, Hamilton, Ohio, hereinafter called "Mercy".

1. This letter of agreement delineates the areas of responsibility of FERMCO and Mercy concerning emergency medical services to be provided by Mercy 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. Mercy agrees to provide emergency medical treatment to FERMCO employees in the Emergency Room of Mercy Hospital in case of sickness or accident.
3. FERMCO agrees not to send radioactive contaminated employees to Mercy even in cases of serious injuries or sickness unless said employee's contamination has been reduced to a safe level.
4. If Mercy 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 Mercy.
5. This Agreement may be terminated by either party upon 30 days written notice to the other party. Mercy and FERMCO can modify this Letter of Agreement by mutual written consent.
6. Mercy 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 Mercy delivers such services. The sole interest of FERMCO is to assure that Mercy services shall be performed in a competent, efficient, and satisfactory manner.

Mercy Hospital

Flour Daniel Environmental
Restoration Management Company

By: James Little, R/CNHQ
Director Manager
Title: Quality Improvement
Date: 9/28/92

By: Tom W. Finnan
Title: V.P. Acquisition & Finance
Date: 11/19/92

LETTER OF AGREEMENT

THIS LETTER OF AGREEMENT, is effective on the 1st day of December, 1992, by and between Flour 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

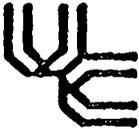
Date: 11-7-92

Flour Daniel Environmental Restoration
Management Company

By: [Signature]

Title: V.P. Acquisition & Finance

Date: 11/7/92



December 29, 1992

Mr. Milan Marshall
Contract Administrator
FERMCO (Fernald Environmental Restoration
Management Corporation)
498 Circle Freeway Dr.
Suite: 222
Cincinnati, Ohio 45246

Dear Mr. Marshall:

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 Restoration Project (FEMP), located in Fernald, Ohio.

In case of sickness or accident, University of Cincinnati Hospital (UCH) will provide treatment in our Center for Emergency Care. If deemed necessary, care and/or transport would be made by our University Air Care.

As in the case of an accident creating a release of radioactive materials, FERMCO will monitor all employees, prior to transfer to UCH, to determine levels of radioactivity present, if any, on employees' skin or clothing. We appreciate that efforts will be made by FERMCO to reduce contamination levels. If serious injuries or sickness are present requiring immediate emergency treatment precluding decontamination, FERMCO will communicate this information to our medical personnel in order to allow for appropriate precautionary measures to be taken. FERMCO will inform UCH whenever there is an elevated level of radioactivity present.

It is our understanding that should hospital equipment or supplies become contaminated as a direct result of radioactive or toxic materials carried by the FERMCO employees, decontamination or replacement will be provided to UCH at no charge.

Mr. Milan Marshall

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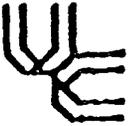
-4458

We are pleased to have the opportunity to provide our services to you and your staff should the need arise.

Sincerely,



Terry R. White
CEO/Director
University of Cincinnati Hospital



November 18, 1992

Mr. Milan Marshall
Contract Administrator
Westinghouse Management Company of Ohio
P.O. Box 398704 MS-5
Cincinnati, Ohio 45239-8704

Dear Mr. Marshall:

Per our discussion of Monday, November 16, attached is a draft of a letter confirming our continued commitment to provide emergency medical care to your employees in the event of an emergency at the Fernald Environmental Restoration Project. Attached also are copies of past confirmation letters sent to your company. As I indicated to you, our new legal counsel member is questioning our need to sign a contract to provide services we would normally provide to anyone. She noted that if we were to send the Letter of Agreement forward for signature at the University, we would have to revise it to include a payment clause and send it through the formal contract approval process, which can be a lengthy process.

Hopefully, this letter is useful for the purposes you require. If so, let me know and I will send you a formally signed copy. If not, let me know how you'd like us to respond. I can be reached by calling (513) 558-8861.

Sincerely,


Geri L. Hinkle
Associate To Administration

Attachment

cc: T. Jane Swain
Linda Harpster
Dudley Smith

4458

MUTUAL AID
AMBULANCE SERVICE
AGREEMENT

THIS AGREEMENT, effective on the 1st day of December, 1992 by and between the United States of America, hereinafter called the "Government", represented by the Department of Energy hereinafter called the "DOE", and ROSS TOWNSHIP LIFE SQUAD, which maintains ambulance facilities at ROSS, OHIO, hereinafter called "Life Squad".

WITNESSETH THAT:

WHEREAS, public law 46, 84th Congress (Title 42 U.S. Code, Section 1856), authorizes agencies of the United States of America to enter into reciprocal agreements with public or private corporations or associations for mutual aid in the furnishing fire protection; and

WHEREAS, the DOE's ENVIRONMENTAL RESTORATION MANAGEMENT CONTRACTOR hereinafter, called the "Contractor" for the FERNALD ENVIRONMENTAL MANAGEMENT PROJECT located near Fernald, Ohio hereinafter called the "FEMP" is authorized to render ambulance service assistance to the Fire Service on behalf of the Government; and

WHEREAS, the Life Squad is authorized to render emergency ambulance assistance to the FEMP and is willing to exert its best efforts to provide such emergency ambulance assistance;

NOW, THEREFORE, the parties do mutually agree as follows:

1. In the event of a medical emergency at the FEMP and at the request of the Government, the Life Squad will exert its best efforts to provide emergency ambulance assistance for the purpose of conveying an injured or ill person or persons from the FEMP to hospitals or other medical treatment facilities in the Hamilton-Cincinnati areas.
2. Requests for assistance from the Life Squad will not be honored unless made for the Government by one of the following contractor officials:
 - a. Fire & Safety Inspector on duty
 - b. Emergency Duty Officer
 - c. Assistant Emergency Duty Officer
 - d. Manager, Fire & Safety

Requests are to be made to the Life Squad Chief.

3. The driver and attendants manning the ambulance shall be members of the Life Squad and shall be trained in the operation of the vehicle and performance of life squad emergency practices in accordance with the laws of the State of Ohio.

(1)

-4458-

- 3A. The emergency ambulance assistance to be rendered by the Government under this Agreement will be furnished through use of Government-owned ambulance equipment at the FEMP operated by the Contractor.
4. Persons who are to be transported from the FEMP to hospitals or other medical treatment facilities will be monitored by the contractor to determine the level of radioactivity present, if any, on their skin or clothing. Efforts will be made by the Contractor to reduce contamination, if present, to a level which is as low as practicable. If serious injuries are present and the need for immediate transport precludes decontamination, appropriate precautionary instruction will be given to drivers, attendants, and medical personnel. Also, appropriate precautions will be taken to prevent contamination of the transport vehicle.
5. There shall be no monetary compensation paid for the emergency ambulance assistance rendered by the Life Squad hereunder; provided, however, if the Life Squad's equipment or supplies become contaminated with radioactive or toxic materials as a direct result of assistance rendered, the Contractor will provide for the decontamination or replacement thereof at no charge to the Life Squad.
6. The Government covenants and agrees that no claim for compensation will be made by it against the Life Squad, and the Life Squad covenants and agrees that no claim for compensation will be made by it against the Government or against the Contractor for any loss, damage, personal injury, or death occurring in consequence of emergency ambulance assistance rendered by the Life Squad under its agreement. All such rights or claims are hereby expressly waived by both parties to this agreement.
7. This agreement may be terminated by either party upon 30 days' written notice to the other party, specifying the date of such termination.

(2)

8. No member of or delegate to Congress or resident commissioner shall be admitted to any share or part of this agreement or to any benefit that may arise therefrom but this provision shall not be construed to extend to this agreement if made with a corporation for its general benefit.

IN WITNESS WHEREOF, the parties hereto have executed this agreement as of the day and year first above written.

Ross Township Life Squad
(Insert Name of Life Squad)

UNITED STATES OF AMERICA

BY: Tom Young

by: U.S. DEPT. OF ENERGY

TITLE: Chief Ross Insp. Life Sqd

by: Barbara Jackson
TITLE: Contracting Officer

APPROVED:

Ross Township
(Insert Township/Trustee)

BY: David M. Young

TITLE: V. President

(3)

MUTUAL AID
AMBULANCE SERVICE
AND
MUTUAL AID FIRE PROTECTION
AGREEMENT

ATTACHMENT G-3
page 15 - 4458

THIS AGREEMENT, effective on the 1st day of December, 1992 by and between the United States of America, hereinafter called the "Government," represented by the Department of Energy, hereinafter called the "DOE," and the Colerain Township Fire Department, which maintains fire protection and ambulance facilities in Colerain Township, hereinafter called the "Fire Service."

WITNESSETH THAT:

WHEREAS, Public Law 46, 84th Congress (Title 42 U. S. Code, Section 1856), authorizes agencies of the United States of America to enter into reciprocal agreements with public or private corporations or associations for mutual aid in furnishing fire protection; and

WHEREAS, the DOE's Environmental Restoration Management Contractor hereinafter called the "Contractor," for the Fernald Environmental Management Project located near Fernald, Ohio, hereinafter called the "FEMP" is authorized to render fire protection assistance to the Fire Service on behalf of the Government; and

WHEREAS, the Fire Service is authorized to render fire protection assistance to the FEMP; and

WHEREAS, the Government may require emergency ambulance assistance at the FEMP; and

WHEREAS, the Contractor is authorized to render emergency ambulance assistance to the Fire Service on behalf of the Government; and

WHEREAS, the Fire Service is authorized to render emergency ambulance assistance to the FEMP and is willing to exert its best efforts to provide such emergency ambulance assistance;

NOW, THEREFORE, the parties do mutually agree as follows:

A. FIRE PROTECTION

1. The fire protection areas covered by this Agreement are the community of Colerain Township, and the FEMP, but assistance contemplated by the Agreement shall be rendered only to such portions of such areas as are normally afforded fire protection by each party.
2. The fire protection assistance to be rendered by the Government under this Agreement will be furnished through the use of Government-owned fire equipment at the FEMP operated by the Contractor.
3. Requests for assistance on behalf of the Government will not be honored unless made for the Government by one of the following Contractor officials:

- 1 -

FL-3020

FEMP EMERGENCY PLAN

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Issue Date: 3-22-93

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- a. Fire & Safety Inspector
- b. Emergency Duty Officer
- c. Assistant Emergency Duty Officer
- d. Supervisor, Fire & Safety
- e. President

Requests are to be made to the Fire Chief, Assistant Fire Chief or other line fire officer in charge via the fire protection dispatching authority for the Fire Service.

4. Requests for assistance on behalf of the Fire Service will not be honored unless made by the Fire Chief, Assistant Fire Chief or other line officer in charge. Requests shall be made to the Contractor, via its Communications Center, telephone 738-6295.
5. Both the Contractor and the Fire Service reserve the right to determine the extent of the assistance that either will render to the other in response to requests for assistance, including the right to refuse any assistance to the other, when, in the opinion of the senior fire fighting official on duty, fire protection needs of the Government installation or the Fire Service from which aid is requested are such that equipment or personnel may not be safely released for service elsewhere.
6. Both the Contractor and the Fire Service reserve the right to recall at any time equipment and/or personnel dispatched to the other when, in the opinion of the senior fire fighting official on duty, protection needs of the Government installation or the Fire Service from which such equipment and/or personnel were dispatched so require.
7. It is agreed that equipment and personnel dispatched in response to a request made hereunder will operate under the immediate supervision and control of the senior fire fighting official in charge of the dispatched equipment and personnel, but under the general direction of the senior fire fighting official on duty at the Government installation or the Fire Service making such a request.
8. Except as expressly provided in paragraph 10 below, no compensation shall be paid either by the Government or by the Fire Service for fire protection assistance rendered to it under this Agreement.
9. The Government covenants and agrees that no claim for compensation will be made by it against the Fire Service for any loss, damage, personal injury, or death occurring in consequence of fire protection assistance rendered under this Agreement, and all such rights or claims are hereby expressly waived.

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10. The Fire Service pursuant to Public Law 498, 93rd Congress (Title 15 U. S. Code, Section 2210), and Regulations promulgated thereunder (Federal Register, Vol. 42, No. 138, p. 36954, July 18, 1977), may file a claim with the Administrator of the U. S. Fire Administration for the amount of direct expenses and direct losses incurred by the Fire Service as a result of fighting a fire subject to this Agreement, to the extent that the amount of such direct expenses and direct losses exceeds the value of any services or payments provided by the Government to the Fire Service. The Fire Service covenants and agrees that no other claim for compensation, except as expressly provided herein, will be made by it against the Government or against the Contractor for any loss, damage, personal injury or death occurring in consequence of fire protection assistance rendered under this Agreement, and all such other claims are hereby expressly waived.

11. Fire Service personnel and equipment dispatched to FNPC will be monitored by the Contractor prior to leaving the Government installation to determine the level of radioactivity present, if any, on the equipment or the skin or clothing of the personnel. Efforts will be made by the Contractor to reduce contamination, if present, to a level which is as low as practicable. If Fire Service personnel or equipment become contaminated with radioactive or toxic materials as a direct result of assistance rendered, the Contractor will provide for the decontamination of the equipment (or replacement thereof) or the personnel at no charge to the Fire Service.

B. EMERGENCY AMBULANCE ASSISTANCE

12. In the event of a medical emergency at the FEMP and at the request of the Government, the Fire Service will exert its best efforts to provide emergency ambulance assistance for the purpose of conveying an injured or ill person or persons from the FNPC to hospitals or other medical treatment facilities in the Hamilton-Cincinnati areas.
13. Requests for assistance on behalf of the Government will not be honored unless made by one of the Contractor officials referenced in paragraph 3 above. Requests are to be made to the Fire Chief, Assistant Fire Chief or other line fire officer in charge via the fire protection dispatching authority for the Fire Service.
14. The driver and attendants manning the ambulance shall be members of the Fire Service's Life Squad and shall be trained in the operation of the vehicle and performance of life squad emergencies practices in accordance with the laws of the State of Ohio.

14A. The emergency ambulance assistance to be rendered by the Government under this Agreement will be furnished through use of Government-owned ambulance equipment at the FEMP operated by the Contractor (Condition No. 4 applies).

15. Persons who are to be transported from the FEMP to hospitals or other medical treatment facilities will be monitored to determine the level of radioactivity present, if any, on their skin or clothing. Efforts will be made by the Contractor to reduce contamination, if present, to a level which is as low as practicable. If serious injuries are present and the need for immediate transport precludes decontamination, appropriate precautionary instruction will be given to drivers, attendants, and medical personnel. Also, appropriate precautions will be taken to prevent contamination of the transport vehicle.

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word
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16. There shall be no monetary compensation paid for the emergency ambulance assistance rendered by the Fire Service hereunder; provided, however, if the Fire Service's equipment or supplies become contaminated with radioactive or toxic materials as a direct result of assistance rendered, the Contractor will provide for the decontamination or replacement thereof at no charge to the Fire Service.

17. The Government covenants and agrees that no claim for compensation will be made by it against the Fire Service, and the Fire Service covenants and agrees that no claim for compensation will be made by it against the Government or against the Contractor for any loss, damage, personal injury, or death occurring in consequence of emergency ambulance assistance rendered by the Fire Service under its Agreement. All such rights or claims are hereby expressly waived by both parties to this Agreement.

C. TERM OF AGREEMENT

18. This Agreement may be terminated by either party upon 30 days' written notice to the other party, specifying the date of such termination.

D. OFFICIALS NOT TO BENEFIT

19. No member of or delegate to Congress or resident commissioner shall be admitted to any share or part of this Agreement or to any benefit that may arise therefrom, but this provision shall not be construed to extend to this Agreement if made with a corporation for its general benefit.

- 4 -

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the day and year first above written.

Clermont Twp. Eng. Dept.
BY: [Signature]
TITLE: Chief

UNITED STATES OF AMERICA
BY: U. S. DEPARTMENT OF ENERGY
BY: [Signature]
TITLE: Contracting Officer

APPROVED:

Clermont Township Board of Trustees
(Insert Township/Trustee)

BY: [Signature]
TITLE: President

THIS AGREEMENT, effective on the 1st day of DECEMBER, 1992, by and between the United States of America, hereinafter called the "Government," represented by the Department of Energy, hereinafter called the "DOE," and the Ross Township Volunteer Fire Department, which maintains fire protection at Ross, Ohio, hereinafter called the "Fire Service."

WITNESSETH THAT:

WHEREAS, Public Law 46, 84th Congress (Title 42 U. S. Code, Section 1856), authorizes agencies of the United States of America to enter into reciprocal agreements with public or private corporations or associations for mutual aid in furnishing fire protection; and

WHEREAS, the DOE's ENVIRONMENTAL RESTORATION MANAGEMENT CONTRACTOR hereinafter called the "Contractor," for the FERNALD ENVIRONMENTAL MANAGEMENT PROJECT located near Fernald, Ohio, hereinafter called the "FEMP," is authorized to render fire protection assistance to the Fire Service on behalf of the Government; and

WHEREAS, the Fire Service is authorized to render fire protection assistance to the FEMP; and

NOW, THEREFORE, the parties do mutually agree as follows:

A. FIRE PROTECTION

1. The fire protection areas covered by this Agreement are the community of Ross, Ohio, and the FEMP, but assistance contemplated by the Agreement shall be rendered only to such portions of such areas as are normally afforded fire protection by each party.
2. The fire protection assistance to be rendered by the Government under this Agreement will be furnished through the use of Government-owned fire equipment at the FEMP operated by the Contractor.
3. Requests for assistance on behalf of the Government will not be honored unless made for the Government by one of the following Contractor officials:
 - a. Fire & Safety Inspector
 - b. Emergency Duty Officer
 - c. Assistant Emergency Duty Officer
 - d. Supervisor, Fire & Safety
 - e. President

Requests are to be made to the Fire Chief, Assistant Fire Chief or other line fire officer in charge via the fire protection dispatching authority for the Fire Service.

(1)

-4458-

4. Requests for assistance on behalf of the Fire Service will not be honored unless made by the Fire Chief, Assistant Fire Chief or other line officer in charge. Requests shall be made to the Contractor, via its Communications Center, telephone 738-6295.
5. Both the Contractor and the Fire Service reserve the right to determine the extent of the assistance that either will render to the other in response to requests for assistance, including the right to refuse any assistance to the other, when, in the opinion of the senior fire fighting official on duty, fire protection needs of the Government installation or the Fire Service from which aid is requested are such that equipment or personnel may not be safely released for service elsewhere.
6. Both the Contractor and the Fire Service reserve the right to recall at any time equipment and/or personnel dispatched to the other when, in the opinion of the senior fire fighting official on duty, protection needs of the Government installation or the Fire Service from which such equipment and/or personnel were dispatched so require.
7. It is agreed that equipment and personnel dispatched in response to a request made hereunder will operate under the immediate supervision and control of the senior fire fighting official in charge of the dispatched equipment and personnel, but under the general direction of the senior fire fighting official on duty at the Government installation or the Fire Service making such a request.
8. Except as expressly provided in paragraph 10 below, no compensation shall be paid either by the Government or by the Fire Service for fire protection assistance rendered to it under this Agreement.
9. The Government covenants and agrees that no claim for compensation will be made by it against the Fire Service for any loss, damage, personal injury, or death occurring in consequence of fire protection assistance rendered under this Agreement, and all such rights or claims are hereby expressly waived.

(2)

-4458

10. The Fire Service pursuant to Public Law 498, 93rd Congress (Title 15 U. S. Code, Section 2210), and Regulations promulgated thereunder (Federal Register, Vol. 42, No. 138, p. 36954, July 18, 1977), may file a claim with the Administrator of the U. S. Fire Administration for the amount of direct expenses and direct losses incurred by the Fire Service as a result of fighting a fire subject to this Agreement, to the extent that the amount of such direct expenses and direct losses exceeds the value of any services or payments provided by the Government to the Fire Service. The Fire Service covenants and agrees that no other claim for compensation, except as expressly provided herein, will be made by it against the Government or against the Contractor for any loss, damage, personal injury or death occurring in consequence of fire protection assistance rendered under this Agreement, and all such other claims are hereby expressly waived.
11. Fire Service personnel and equipment dispatched to FEMP will be monitored by the Contractor prior to leaving the Government installation to determine the level of radioactivity present, if any, on the equipment or the skin or clothing of the personnel. Efforts will be made by the Contractor to reduce contamination, if present, to a level which is as low as practicable. If Fire Service personnel or equipment become contaminated with radioactive or toxic materials as a direct result of assistance rendered, the Contractor will provide for the decontamination of the equipment (or replacement thereof) or the personnel at no charge to the Fire Service.
12. This Agreement may be terminated by either party upon 30 days' written notice to the other party, specifying the date of such termination.
13. No member of or delegate to Congress or resident commissioner shall be admitted to any share or part of this Agreement or to any benefit that may arise therefrom, but this provision shall not be construed to extend to this Agreement if made with a corporation for its general benefit.

(3)

-4458

IN WITNESS WHEREOF, the parties hereto have executed this Agreement
as of the day and year first above written.

Ross Township
Volunteer Fire Department
(Insert Name of Fire Service)

UNITED STATES OF AMERICA

BY: George F. Weylladen

BY: U. S. DEPARTMENT OF ENERGY

TITLE: Ross Twp Fire Dept

BY: Barbara Jackson

TITLE: Contracting Officer

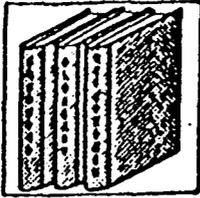
APPROVED:

Ronald No. 3100
(Insert Township/Trustee)

BY: _____

TITLE: Trustee

(4)



APPENDIX 5

4458 5

HAZARDOUS CHEMICALS*

Aluminum Sulfate

Barium Carbonate

Blasting Grit

Calcium Hydroxide

Calcium Oxide

Chlorine

Diatomaceous Earth

Diesel Fuel #2

Heat Treat Salt

Hydrated Alumina

Hydrochloric Acid

Hydrogen Fluoride

Kerosene

Lithium Carbonate

Magnesium Oxide

Methanol

Nitric Acid

Oil

Potassium Carbonate

Propane

Sodium Carbonate

Sodium Hydroxide

Sulfuric Acid

Thorium

Tri-Butyl Phosphate

Unleaded Gasolene

Uranium Dioxide

Uranium Metal

Uranium Octaoxide

Uranium Tetrafluoride

Uranium Trioxide

Uranyl Nitrate

Urea

*As reported February 1991 under Section 312 of the Emergency Planning and Community Right-to-Know Act of 1986 and Section 3750.08 of the Ohio Revised Code.