RCRA PART B PERMIT APPLICATION SECTION G: CONTINGENCY PLAN VOLUME 6 OF 13 OCTOBER 31, 1991

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RCRA PART B PERMIT APPLICATION

October 31, 1991

SECTION G: CONTINGENCY PLAN

(Volume 6 of 13)

Fernald Environmental Management Project

U.S. EPA Identification No. 0H6890008976
Ohio EPA Permit No. 05-31-0681

SECTION G - CONTINGENCY PLAN

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

This Contingency Plan is required by Ohio Administrative Code (OAC) 3745-50-44(A)(7) and Title 40 of the Code of Federal Regulations (CFR) 270.14 (b)(7) in order to provide planned procedures to be followed in an emergency at any hazardous waste management unit. 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.

G-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. 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.

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. The location of the hazardous waste management units, active and inactive, are shown in Figure G-1. Attachment G-1 describes evacuation routes and fire and safety equipment available for each hazardous waste management unit.

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. The Emergency Coordinator (AEDO) is familiar with 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.

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 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 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-FO)

The DOE Fernald Office (DOE-FO) 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-FO 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:

- 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 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.

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 in an emergency.

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) on site at all times, who can be reached by pager. 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. 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 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 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 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 the event and determines if the event requires assistance beyond the capabilities of the Emergency Response Team (ERT).

The following implementation plan is used to respond to a hazardous waste event. Contingency Plan implementation and notification actions are summarized in Figure G-4. Implementation requirements and response actions are summarized in Figure G-5, the Emergency Action Level Guide. The Emergency Action Level Guide lists actions for events involving hazardous waste and radioactive material. 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 an emergency, begins evaluation of the event and advises the Emergency Duty Officer as necessary.

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 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;
- 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 Report [1] as directed by the Emergency Coordinator (AEDO).
5) The Communications Center Operator activates site-wide alarm system, the site-wide message system, and/or the off-site Emergency Warning System, as directed.
6) The Emergency Coordinator (AEDO), begins identification of the character, source, amount, and extent of any released materials by observation, for example hazardous waste labels on the container, review of facility records, interaction with facility personnel, and if necessary, by chemical analyses.
7) 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

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[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.

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),
   - Butler and Hamilton counties' 24-hour notification points,
   - FEMP Release Evaluator,
   - DOE-FO Duty Officer,
   - Appropriate local organizations,
   - Federal and State regulatory agencies.
9) The 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-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-FO Duty Officer will provide oral notification immediately to the Ohio EPA Emergency Response Center.

The verbal report will contain the following information[2]:

- 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 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);

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

- 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.

Resumption of Activities

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

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

G-4b Identification of Hazardous Materials

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

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

1) Visual inspection of the container labeling will be the initial identification method. The labeling includes all pertinent waste characterization information.

2) If labels are obscured or not easily read, site records such as the 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.
3) Samples will be taken for analysis and characterization if the released material cannot be identified by the above methods.

G-4c Assessment

The Emergency Coordinator (AEDO), will assess potential hazards to human health or the environment form 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.

General Emergency

A General Emergency at a non-reactor facility 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.

The Emergency Coordinator (AEDO), immediately directs the Communication Operator, if a General Emergency is declared, to activate the EOC, the FEMP Off-site Emergency Warning System and the Sitewide Alarm System and 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 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. Any release of hazardous waste is expected to exceed appropriate Protective Action Guide or Emergency Response Planning Guideline exposure levels onsite, but is not expected to exceed the appropriate Protective Action Guide or Emergency Response Planning Guidelines off-site.

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.

The Emergency Coordinator (AEDO) immediately directs the Communication Operator, if a Site Emergency is declared, 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 declared at a non-reactor facility 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 declared when a transportation event has occurred which involve an actual or potential substantial impact on the safety of the shipment or 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.

The Emergency Coordinator (AEDO) immediately directs the Communication Center Operator, if an Alert is declared, to activate the EOC, 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
- spills or material release.

The FEMP Emergency Response Team is prepared for immediate response to fires, explosions, and spills at all times.

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, remain in 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 (AEDO), should the EC or Emergency Coordinator (AEDO) determine that a fire is out of control and additional personnel are required, 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.

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

Actions to prevent the recurrence or spread of releases or fires include immediately determining the cause of the incident, cleaning up all debris from the incident and maintaining good housekeeping, containing and collecting released waste, recovering and isolating affected containers, ensuring fires are completely extinguished, and decontaminating affected areas and equipment. Procedures and policies will be reviewed and revised as necessary to prevent a recurrence, upon determining the cause of the incident.

G-4f Storage and Treatment of Released Waste

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

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

G-4g Incompatible Wastes

The Emergency Coordinator (AEDO) will ensure that material that is incompatible with the released material is not introduced into the affected area. Container are marked with Reactivity Group Code (RGC) indicating compatibility. As necessary, storage unit inventory records will be examined and facility owners consulted to identify released material.

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 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. An inspection of all safety equipment will be conducted by 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.

Very large spills involving hazardous waste are unlikely in the container storage areas. 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. The system will be inspected to determine the cause of release.

G-4j(2) Removing Waste

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

G-4j(3) Containment of Visible Releases

Suitable spill cleanup materials are designated for each applicable area. The material used for diking, the spill is selected to be compatible with the released hazardous waste. 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.

G-4j(4) Notifications, Reports

All events are properly documented as directed by the Emergency Coordinator (AEDO), and/or Release Evaluator. Further information is provided in Section G-4a. Any release to the environment greater than or equal to the reportable quantity 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 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.

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. 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.

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

Surface run-on and run-of and adequate free-board will be maintained at levels to preclude further deterioration or exposure to the environment.

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.

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

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

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.

G-4k(2) Certification

Dike structural integrity will be certified by an independent, registered professional engineer in the event that a hazardous work impoundment has been removed from service due to actual or imminent dike failure.

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

Immediate inspections, upon observance of a sudden drop of the level in a hazardous waste surface impoundment, will be performed to determine the presence of leak(s). Increased monitoring of surrounding aquifers will be implemented. Determination of the imminent impact to human health and the environment will 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.

G-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.

G-4k(3)(b) Other Portions of Hazardous Waste Surface Impoundments

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 includes 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 Operations Records.

Emergency Operations Center

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.

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 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.

Each alarm system is tested periodically by safety and fire personnel and the results recorded.

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.

Ambulance Alarm

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

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 onsite) and numerous tone-alert radio receivers. The sirens are located within or just outside the 2-mile immediate notification zone.

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. 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).

Medical

Medical Services, located in Building 53A, and 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, friskers, and other radiation survey instruments and monitors.

Industrial Hygiene Equipment

Industrial hygiene equipment includes devices for detecting hazardous materials, air sampling equipment, and protective clothing.

Emergency Power System

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
- Showers and eye wash stations
- Emergency power and lighting equipment
- Gasoline pumps and submersible electric pumps
- Submersible electric pumps
- Portable gasoline generators
- Portable gasoline pumps (@ 250 gpm)
- Mobile gasoline 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. A summary of pressurized fire extinguishers is provided in Table G-5. A summary of FEMP Emergency Alarm Signals is provided in Table G-6.

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. 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, if a leak or plug in a line occurs.

Low-pressure and high-pressure fire hydrants are located throughout the site and are listed in Attachment G-1.

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 81 Warehouse
- Building 79 Warehouse
- Building 64 Warehouse
- Building 80 Warehouse
- Building 56 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.

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 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, SCBA's, 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 SCBA's, and hose.

FIRE TRUCK - ENGINE NUMBER 311

This fire truck is fully equipped with a 1,000 gpm single-staged centrifugal water pump 500-gallon booster tank, two-way six channel radio, self-contained breathing apparatus, acid suits, 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, self-contained breathing apparatus, hose, ladders, and tools.

AMBULANCES

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

SPILL RESPONSE VEHICLE - UNIT 328 (1988)

This van is stocked with personal protective equipment, environmental monitoring equipment, spill control supplies, absorbents and clean-up materials.

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") 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. 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 - .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 the Security vehicles.

G-5e First Aid and Medical Supplies

G-5e(1) Emergency Treatment

Personnel are provided first aid treatment in the emergency treatment room in 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. A list of participants in mutual aid agreements and updated communications links is provided 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.

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.

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 telephone numbers listed in Table G-1.

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 accountability purposes, in the event evacuation is required from the 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.

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.

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.

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).

SECTION G - CONTINGENCY PLAN

Table G-1

Emergency Operation Personnel & Organizations

EMERGENCY COORDINATORS - ASSISTANT EMERGENCY DUTY OFFICERS (Utility Engineers)

NAME	HOME PAGER*	OFFICE	HOME ADDRESS	TELEPHONE
Braun, F.	[redacted]	[redacted]	6431	[redacted]
Cleeter, M.**			6431	
Duckworth, R.			6431	
Meeks, J.			6431	
Sparks, T.			6431	

* The most effective means for reaching the on-site Emergency Coordinator (AEDO) is via pager. 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, 513-535-2197, or
- o mobile vehicle cellular telephone, 513-535-1365

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 (AEDO)s (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.

SECTION G - CONTINGENCY PLAN

Table G-1

OTHER

All Emergencies	738-6511
FEMP Communications Center	738-6295
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	535-7134
Industrial Hygiene Vehicle	535-2198
Industrial Hygiene Portable	535-4734
Industrial Hygiene Portable	535-4735
Environment & Radiological Monitoring Techs Portable	535-2918
Medical Portable	535-8710
Release Evaluators (Office)	249-8426
Spradlin, T (Pager)	249-5016
Seifert, Caren	249-5019

SECTION G - CONTINGENCY PLAN

Table G-1

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.	Commercial	202-586-5000
DOE ORO Environmental Protection Branch		FTS 626-0846
	Commercial	615-576-0846
DOE ORO Public Information Officer		FTS 626-0885
	Commercial	615-576-0885

STATE OF OHIO

Ohio Emergency Management Agency	614-889-7150
Ohio EPA Emergency Response Center	800-282-9378
Ohio EPA (OEPA)	614-244-0946
Ohio Department of Health	614-466-3543
Ohio State Highway Patrol	513-863-4606
ORSANCO	513-421-1151

HAMILTON COUNTY

Communications Center	513-825-2280
Civil Defense	513-821-1092
Southwestern Ohio Air Pollution Control Agency	513-251-8780
Southwest Local School District	513-367-4139

BUTLER COUNTY

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

LOCAL FIRE DEPARTMENTS

Crosby Township	911 or 513-825-2260
Ross Township	911 or 513-844-1515

Colerain Township ..... 911 or 513-825-2260

Table G-1

Emergency Operation Personnel & Organizations

LOCAL AMBULANCE

Butler County	911 or 513-844-1515
Hamilton County	911 or 513-825-2280
Crosby Township Life Squad Mobile Telephone	911 or 713-977-6337

LOCAL HOSPITALS

Franciscan Medi-Center--Emergency Room.....	513-853-5222
Mercy Hospital--Emergency Room	513-867-6450
University--Emergency Room	513-872-4571
Fort Hamilton Hughes--Emergency Room	513-867-2266

EMERGENCY CARE CENTER

Franciscan Ambulatory Care Unit (Harrison)	513-367-2222

EMERGENCY HELICOPTER SERVICE

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

CHEMICAL Referral Center, CMA	800-262-8200
COAST Guard/DOT National Response Center	800-424-8802
EPA RCRA Hotline	800-424-9346
EPA Chemical Emergency Prep. Hotline	800-535-0202

SECTION G - CONTINGENCY PLAN

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

SECTION G - CONTINGENCY PLAN

Table G-2

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

SECTION G - CONTINGENCY PLAN

Table G-3

Location of Self-Contained Breathing Apparatus

LOCATION	TYPE
Plant 2/3 Digestion Outside South	30-minute low psi
Plant 2/3 Digestion Outside South	30-minute low psi
Plant 2/3 Extraction Outside South	30-minute low psi
Plant 2/3 Extraction Outside South	30-minute low psi
Plant 2/3 Denitration East Pad Outside	30-minute low psi
Plant 2/3 Denitration East Pad Outside	30-minute low psi
Plant 4 2nd Floor North in Cabinet	60-minute high psi
Plant 4 2nd Floor North in Cabinet	60-minute high psi
Plant 6 Southeast Pad Outside	30-minute low psi
Plant 6 Scrap Pickling East Outside	30-minute low psi
Plant 6 Inspection Area Southeast	30-minute low psi
Plant 8 1st Floor Control Room	30-minute low psi
Plant 8 2nd Floor Center by Stairs	30-minute low psi
Pilot Pt. Annex Hall South Wall	60-minute high psi
Pilot Pt. Annex Hall South Wall	60-minute high psi
Utilities Engineer's Van Rear	30-minute low psi
Utilities Engineer's Van Rear	30-minute low psi
S & F Unit #300 Rear	30-minute low psi
S & F Unit #300 Rear	30-minute low psi
S & F Unit #301 Rear	30-minute low psi
S & F Unit #301 Rear	30-minute low psi
S & F Unit #301 Rear	30-minute low psi
S & F Unit #301 Rear	30-minute low psi
S & F Engine #311 Jumpseat	30-minute low psi
S & F Engine #311 Jumpseat	30-minute low psi
S & F Engine #311 Top Compartment	30-minute low psi
S & F Engine #311 Top Compartment	30-minute low psi
S & F Engine #311 Top Compartment	60-minute high psi
S & F Engine #311 Top Compartment	60-minute high psi
S & F Engine #312 Rear Canopy Seat	30-minute low psi
S & F Engine #312 Rear Canopy Seat	30-minute low psi
S & F Engine #312 Engineer's Compartment	30-minute low psi
S & F Engine #312 Engineer's Compartment	30-minute low psi
S & F Tanker #322 Cab	30-minute low psi
S & F Tanker #322 Cab	30-minute low psi
Spill Response Unit #328 Rear	60-minute high psi
Spill Response Unit #328 Rear	60-minute high psi

Spill Response Unit #328 Rear 60-minute high psi
Spill Response Unit #328 Rear 60-minute high psi

Table G-4

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 UF_6.	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) concentration 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-face 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 min. Must be used in 2-man teams. Wearer must be judged physically fit enough to wear 40-pound SCBA and acid suit. Wearers must also be trained and drilled in use of SCBA and suit.

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-5

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 C) fires.	Not suitable for Class A or Class D (Class B) and electrical 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 Met-L-X (yellow tank)	Metal (Class D) fires	For metal fires only
Pressurized dry chemical (small red tank)	Class A, B, and C fires uranium but not on other metal fires.	May be used on burning

SECTION G - CONTINGENCY PLAN

Table G-6

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, 4-1 CO Alert

Discontinue use of airline respirators.

TO REPORT ANY EMERGENCY DIAL EXTENSION 6511

N

N 492,784.678
E 1,376,578.563

S.R. 126

NORTH ACCESS ROAD

CONSTRUCTION ACCESS ROAD

PADDY'S RUN

BUTLER CO.
HAMILTON CO.

PADDY'S RUN ROAD

KC-2 WAREHOUSE (BLDG.63)

CP STORAGE WAREHOUSE (BLDG.56 BUTLER BLDG.)

PIT #5

PIT #6

PIT #3

PIT #4

PIT #2

CLEAR WELL

PIT #1

SURGE LAGOON

PLANT 1 STORAGE AREA

PLANT 9 WAREHOUSE (BLDG.81)

PLANT 6 WHSE. (BLDG.79)

PLANT 8 WHSE. (BLDG.80)

PILOT PLANT WHSE. (BLDG.68) STORAGE AREA

STORM WATER RETENTION BASIN

STORM WATER RETENTION BASIN EXPANSION

S.W.R.B. OUTFALL E.P.A. NUMBER 002

TRIBUTARIES FEEDING PADDY'S RUN CREEK

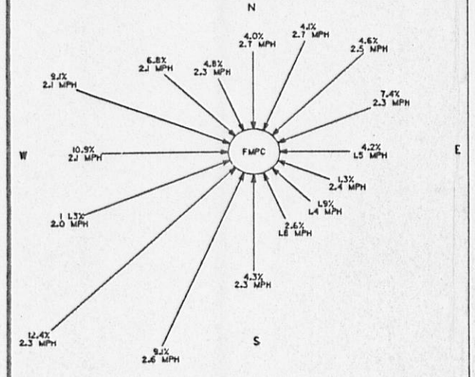
SOUTH ACCESS ROAD

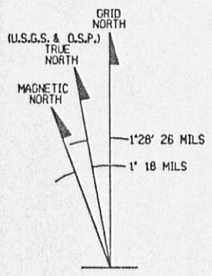
WILLEY ROAD

WIND DIRECTION AND SPEED OCCURRENCES

BASED ON 10 METER WIND OBSERVATIONS FOR 1987-1990 AT THE FEED MATERIALS PRODUCTION CENTER

DATE: 7/25/91 REVISION NO.#





300' 0' 300' 600' 900'

SCALE

2480

U.S. DEPARTMENT OF ENERGY

FIGURE G-1

FERNALD, OHIO

SITE PLAN

RCRA PART B

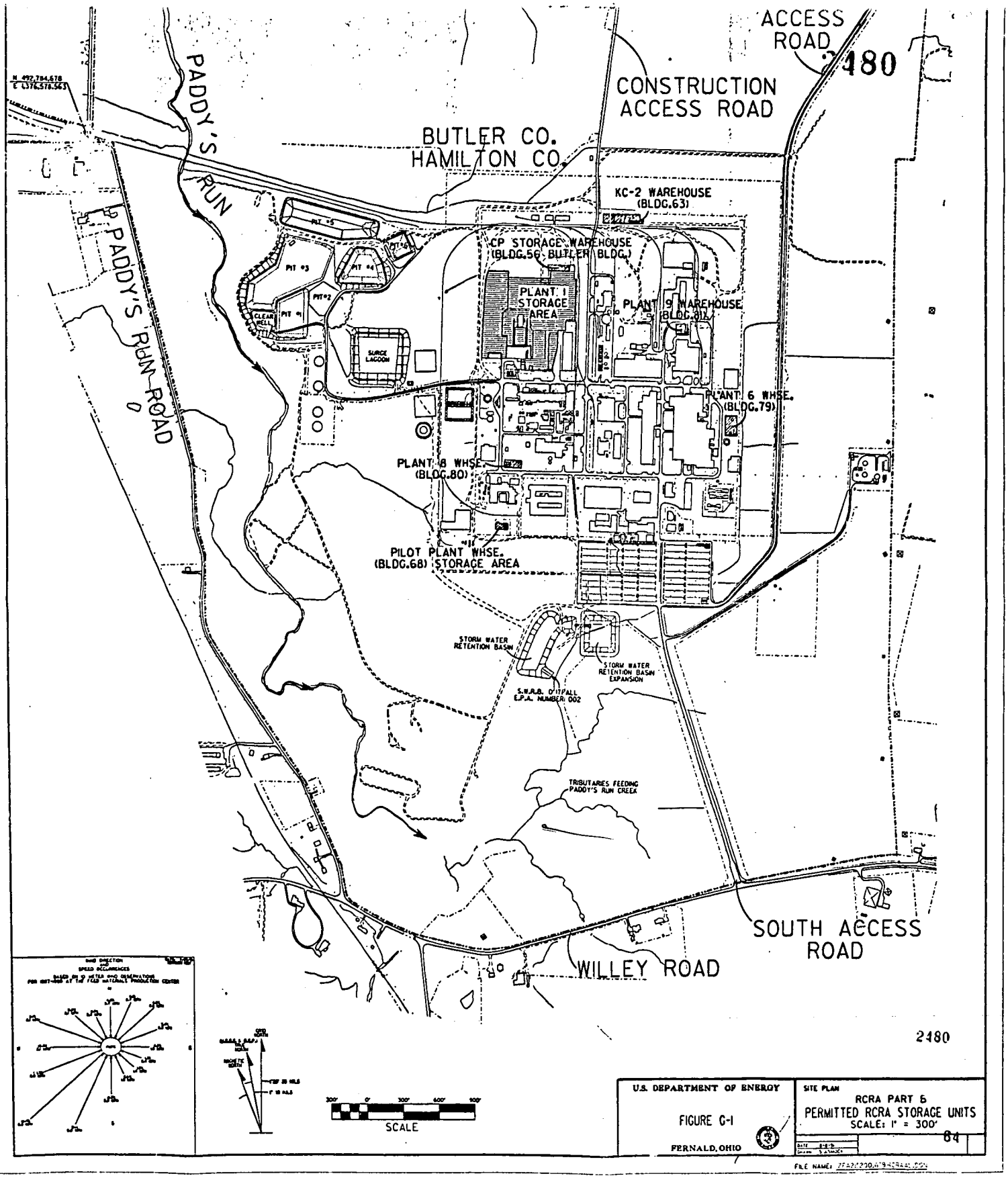
PERMITTED RCRA STORAGE UNITS

SCALE: 1" = 300'

64

DATE	8-8-91
DRAWN	S.J.SMOCK

FILE NAME: ZFA2:[200,6]91RCRAAL.DGN


ACCESS ROAD
2480
CONSTRUCTION ACCESS ROAD
PADDY'S RUN
BUTLER CO.
HAMILTON CO.
KC-2 WAREHOUSE (BLDG.63)
CP STORAGE WAREHOUSE (BLDG.56 BUTLER BLDG.)
PLANT 1 STORAGE AREA
PLANT 9 WAREHOUSE (BLDG.912)
PLANT 6 WHSE. (BLDG.79)
PLANT 8 WHSE. (BLDG.80)
PILOT PLANT WHSE. (BLDG.68) STORAGE AREA
PIT #1
PIT #2
PIT #3
PIT #4
PIT #5
PIT #6
CLEAR WELL
SURGE LAGOON
STORM WATER RETENTION BASIN
STORM WATER RETENTION BASIN EXPANSION
S.W.R.B. OUTFALL E.P.A. NUMBER 002
TRIBUTARIES FEEDING PADDY'S RUN CREEK
PADDY'S RUN ROAD
SOUTH ACCESS ROAD
WILLEY ROAD
SCALE
2480
U.S. DEPARTMENT OF ENERGY
FIGURE C-1
FERNALD, OHIO
SITE PLAN
RCRA PART B
PERMITTED RCRA STORAGE UNITS
SCALE: 1" = 300'
64

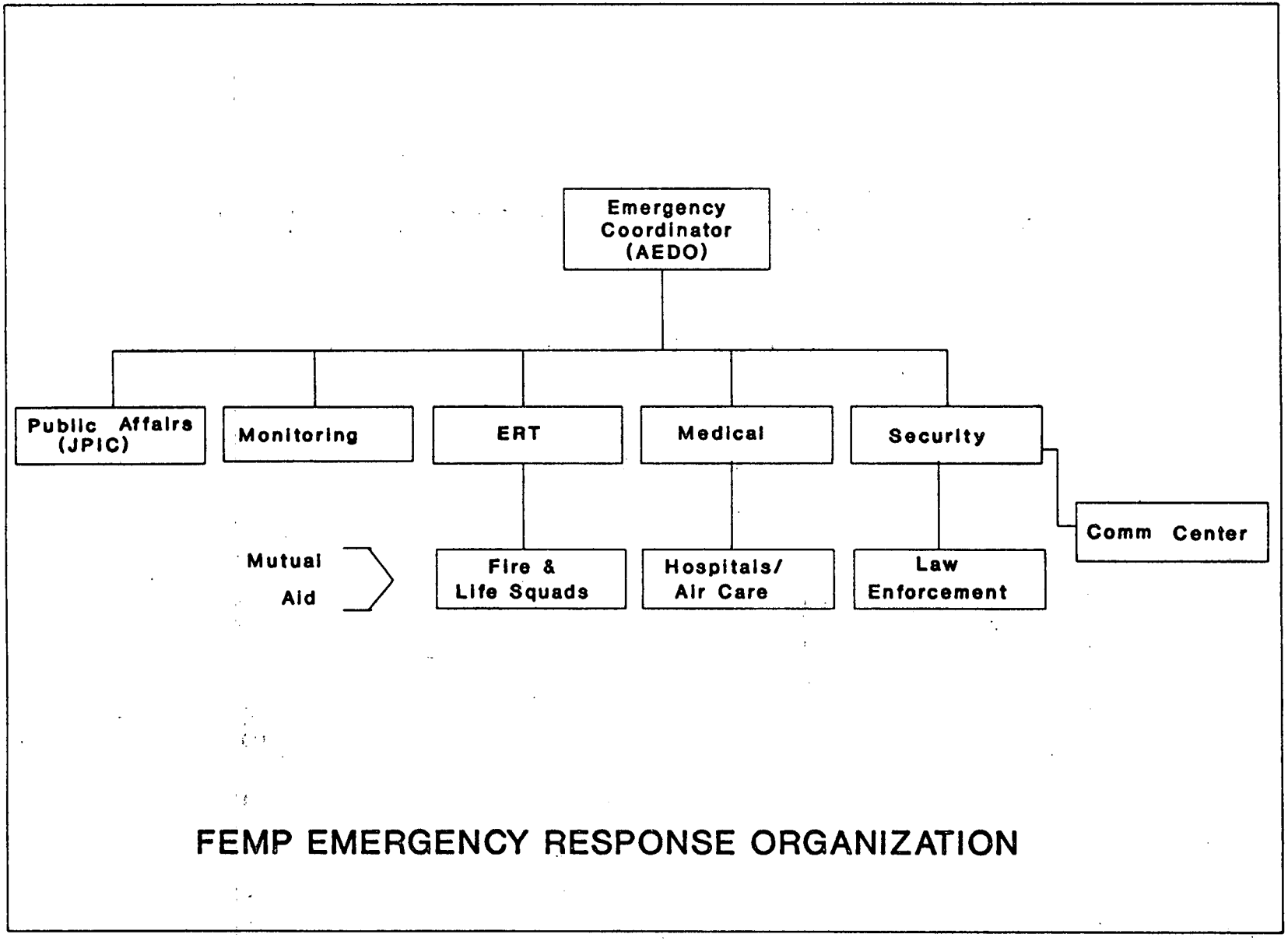

Emergency Coordinator (AEDO)
Public Affairs (JPIC)
Monitoring
ERT
Medical
Security
Comm Center
Mutual Aid
Fire & Life Squads
Hospitals/ Air Care
Law Enforcement
FEMP EMERGENCY RESPONSE ORGANIZATION

FIGURE G-2

EMERGENCY COORDINATION FLOW

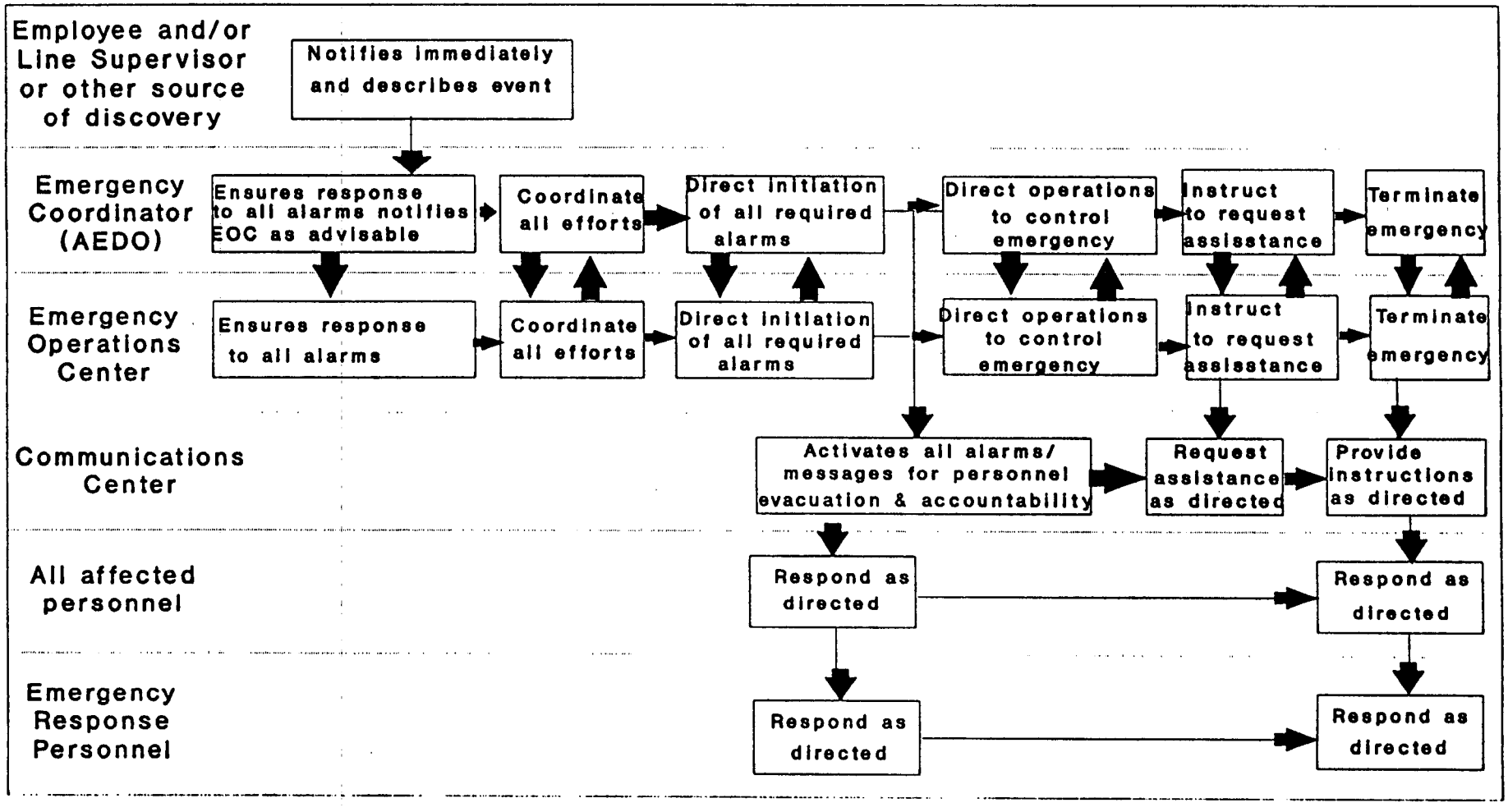


FIGURE G-3

IMPLEMENTATION AND NOTIFICATION

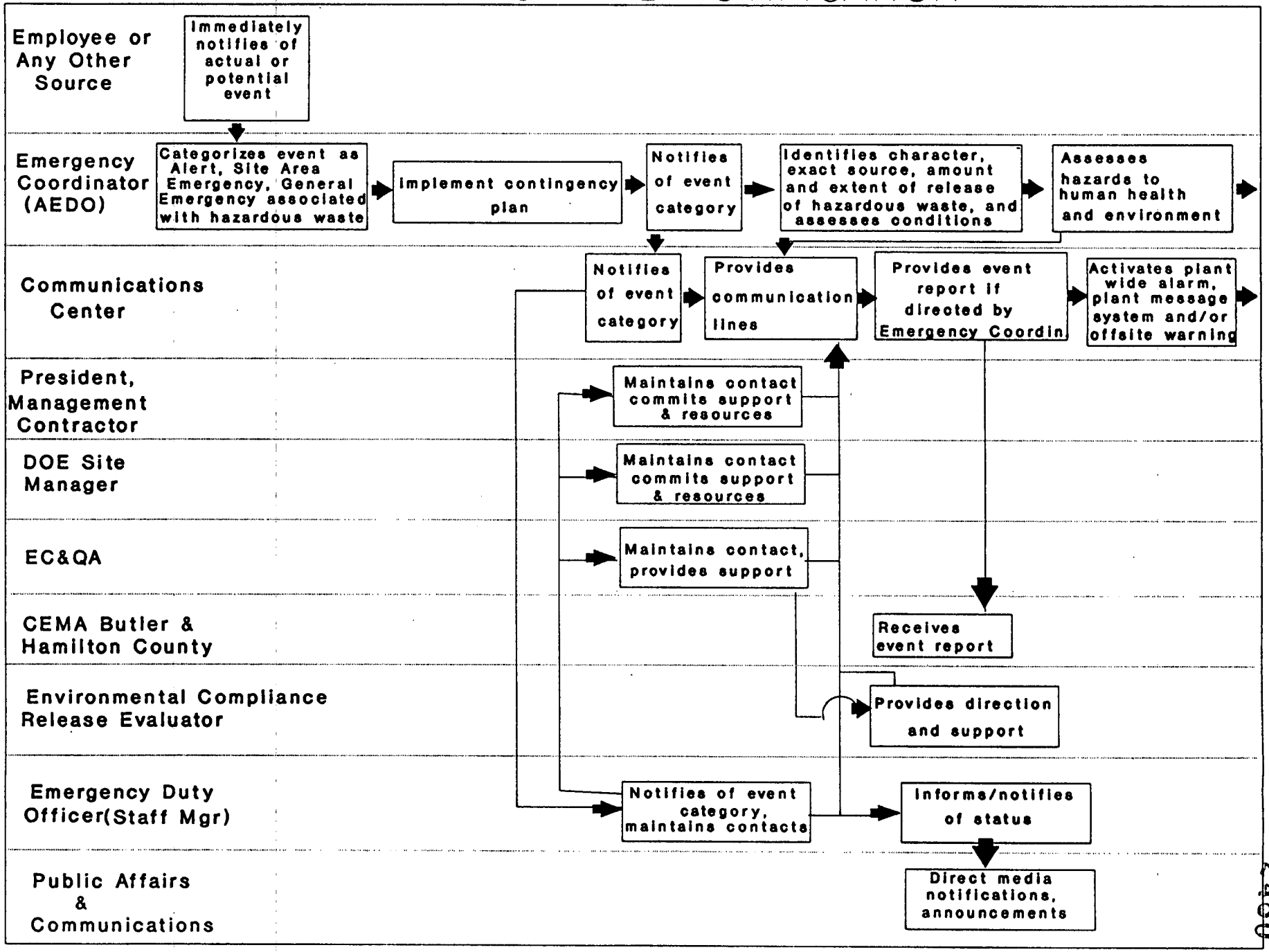


FIGURE G-4

0" 1/2" 1" 2" 3" 4" 5" 6"

N

S.R.126

BUTLER CO.
HAMILTON CO.

NORTH ACCESS RD.

PADDY'S RUN RD.

C.&O. RR

PADDY'S RUN

PIT #5 (42)
PIT #6
ETF (51)
PIT #3
PIT #4 (27)
PIT #2
PIT #1
CLEAR WELL (39)
SURGE LAGOON (40)

RALLY POINT #7
RALLY POINT #6
RALLY POINT #8
RALLY POINT #5
RALLY POINT #4
RALLY POINT #3
RALLY POINT #2
RALLY POINT #1

CONTAMINATION PAD
90 DAY STORAGE AREA
COAL PILE

PRODUCTION WELL #1
PRODUCTION WELL #2
PRODUCTION WELL #3

STORM WATER RETENTION BASIN
STORM WATER RETENTION BASIN EXPANSION
S.W.R.B. OUTFALL E.P.A. NUMBER 002
ASH PILE
TRIBUTARIES FEEDING PADDY'S RUN
SOUTH ACCESS RD.
WILLEY RD.

FMPC HAZARDOUS WASTE MANAGEMENT UNIT (HWMU) LOCATIONS
(1) FIRE TRAINING FACILITY
(2) PARTS CLEANER IN WELDING SHOP (MAINT. BLDG. 12)
(3) WASTE OIL STORAGE IN GARAGE
(4) DRUM STORAGE AREA NEAR LOADING DOCK (LAB BLDG.)
(5) DRUM STORAGE AREA SOUTH OF W-26 (LAB BLDG.)
(6) DRUMMED HF RESIDUE & ASSOCIATED STORAGE AREAS INSIDE PLT. 4
(7) DRUMMED HF RESIDUE & ASSOCIATED STORAGE AREAS NW OF PLT. 4
(8) DRUMMED HF RESIDUE & ASSOCIATED STORAGE AREAS SOUTH OF COOLING TOWERS
(9) NITRIC ACID RAIL CAR AND AREA
(10) NAR SYSTEM COMPONENTS
(11) TANK FARM SUMP
(12) WHEELABRATOR, BLDG. 66 (OLD DRUM RECONDITIONING)
(13) WHEELABRATOR DUST COLLECTOR, BLDG. 66
(14) BOX FURNACE
(15) OXIDATION FURNACE #1
(16) PRIMARY CALCINER
(17) PLANT 8 EAST DRUM STORAGE PAD
(18) PLANT 8 WEST DRUM STORAGE PAD
(19) CP STORAGE WAREHOUSE BLDG. 56 (BUTLER BLDG.)
(20) PLANT 1 PAD
(21) HILCO OIL RECOVERY
(22) ABANDONED SUMP WEST OF PILOT PLANT
(23) WELL DRILLING STORAGE AREA
(24) EQUIPMENT STORAGE AREA
(25) PLANT 1 STORAGE BLDG. (BLDG. 67)
(26) DETREX STILL
(27) WASTE PIT NO. 4
(28) TRANE THERMAL LIQUID INCINERATOR
(29) PLANT 8 WAREHOUSE (BLDG. 80)
(30) BARIUM CHLORIDE SALT TREATMENT FACILITY
(31) TANK FOR BULK STORAGE OF SOLVENTS, T-5
(32) TANK FOR BULK STORAGE OF SOLVENTS, T-6
(33) PILOT PLANT WAREHOUSE STORAGE AREA (BLDG. 68)
(34) KC-2 WAREHOUSE (BLDG. 63)
(35) PLANT 9 WAREHOUSE (BLDG. 81)
(36) STORAGE PAD NORTH OF PLANT 6
(37) PLANT 6 WAREHOUSE (BLDG. 79)
(38) HF TANK CAR
(39) CLEARWELL
(40) BIO-SURGE LAGOON
(41) SLUDGE DRYING BEDS
(42) WASTE PIT NO. 5
(43) LIME SLUDGE PONDS
(44) COAL PILE RUNOFF BASIN
(45) UST 5
(46) URANYL NITRATE TANKS (NFS STORAGE AREA)
(47) URANYL NITRATE TANKS (NORTH OF PLANT 2)
(48) URANYL NITRATE TANKS (SOUTHEAST OF PLANT 2)
(49) URANYL NITRATE TANKS (DIGESTION AREA)
(50) URANYL NITRATE TANKS (RAFFINATE BLDG.)
(51) EXPERIMENTAL TREATMENT FACILITY (ETF)

LEGEND
EVACUATION ROUTES
PRIMARY ROUTES
ALTERNATE ROUTES

2480

NO.	REVISIONS	DATE	DWN. BY	APPD.	REF. DWG. NO.

NOTE:
WEMCO C.A.D. DRAWING NOT TO BE REVISED MANUALLY

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
TOLERANCES ARE
FRACTIONS ± 1/32
ANGLES ± 0° - 30'
DECIMALS
.X ± 0.1
.XX ± 0.03
.XXX ± 0.005
.XXXX ± 0.0010
ORIG. RELEASE DATE

APPROVALS			
CHEMICAL		E.S. & H.	
CIVIL & STR.		MAINTENANCE	
ELECTRICAL		NU. SAFETY	
ENGINEER		O.A.	
INSTRUMENT		PRODUCTION	
MECHANICAL		PROD. TECH.	
		WASTE MANAGE	
CHECKED			
APPROVED			

WESTINGHOUSE ENVIRONMENTAL MANAGEMENT CO. OF OHIO
FERNALD, OHIO
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT
U.S. DEPARTMENT OF ENERGY

SITE PLAN

EVACUATION ROUTES
SCALE: 1" = 300'

DATE 5-24-91
DRAWN S.J. SMOCK

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IMPLEMENTATION AND NOTIFICATION

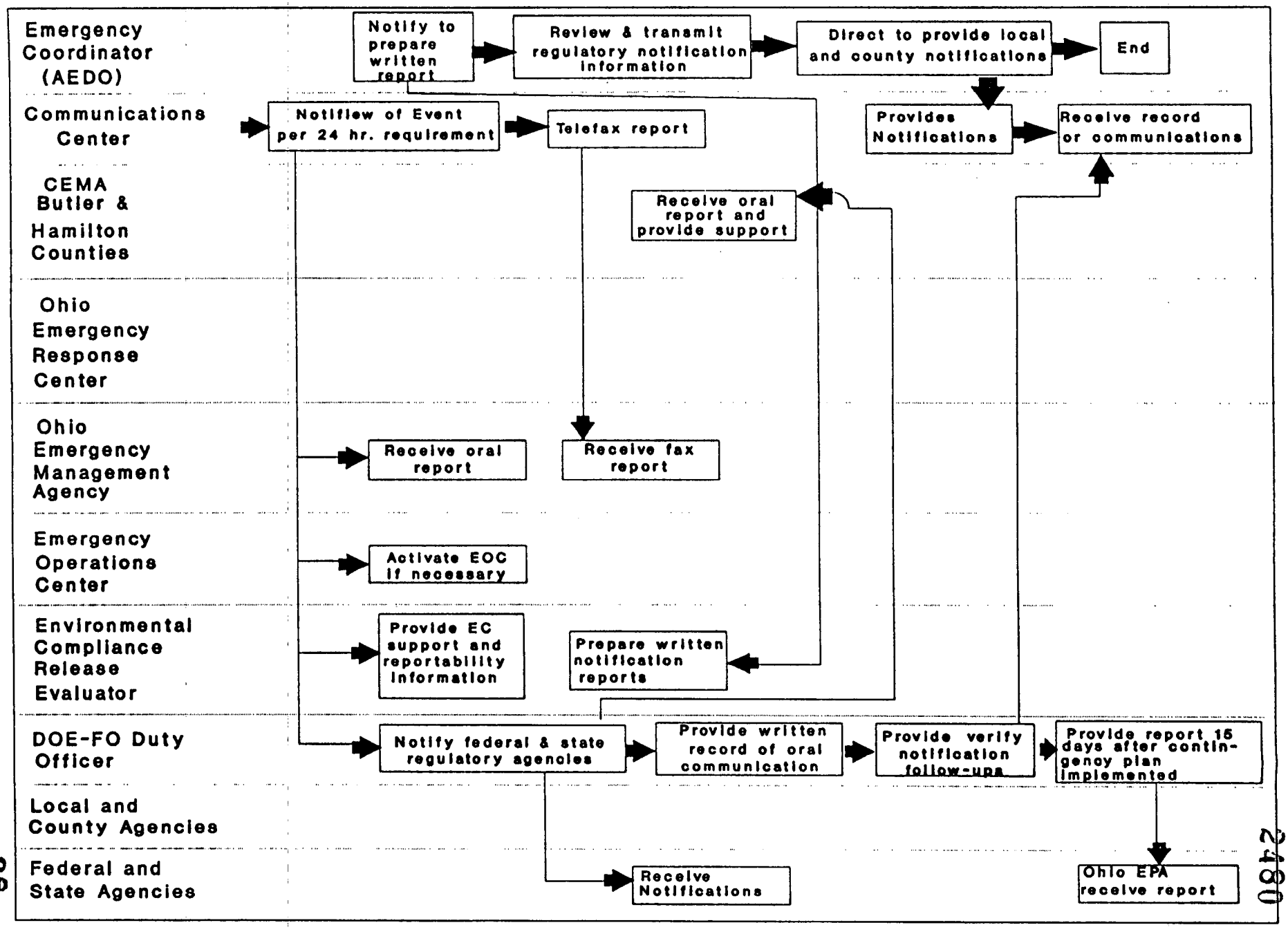

FIGURE G-4 PG.2

9-26-91

EVENT CATEGORIZATION/NOTIFICATION GUIDE

CATEGORIZATION LEVEL	EXAMPLE •	VERBAL NOTIFICATION	RESPONSE ACTIONS	WRITTEN REPORTING
LOGGABLE o Abnormal or unplanned event or condition not reported to DOE or other agencies, but logged by AEDO for internal tracking	o False fire alarm o Injury, no lost work time, no inpatient hospitalization o Spill <RQ o Tornado watch; severe weather watch/warning o Radiological release <RQ o Failure of Offsite Warning System < 10% o FTS telephone service out o Vehicle or property damage <$1000 o Minor fire, < 10 minutes to extinguish after ERT arrival o Severe thunderstorm warning, no damage o Data gathering panel for Honeywell Alarm System out	o EDO if WMCO President is notified o WEMCO President, immediate only if injury o WEMCO Environmental Compliance Release Evaluator immediate for spills only	o AEDO responds to event o Resolve event o Local response/clean-up	o AEDO Log
OFF-NORMAL o Actual or potential adverse affect on safety, environment, health, security or operations	o Injury, lost work day o Single or cumulative exposure above administrative limits o Facility evacuation as precautionary measure o Any suspect release reported to outside agencies o Unplanned electrical outage affecting >50% of site o Failure of emergency diesel generator following power outage o Any contamination spread to uncontrolled area o Tornado warning o Occupational illness or injury resulting in inpatient hospitalization o Any confirmed personnel or personnel clothing (not protective clothing) contamination o Fire takes > 10 minutes to extinguish after ERT arrival o Delay in start-up schedule >= 1 month o Contaminated spill in working area o Procedure violation resulting in actual equipment damage > $1000 o Failure of >10% Offsite Warning System sirens o Failure or significant performance degradation of Class B equipment	o EDO immediate o WEMCO President & Fernald Site Manager ASAP o Fernald Site Office Duty Officer within 2 hours o WEMCO Public Affairs as needed o WEMCO Environmental Compliance Release Evaluator immediate for spills only. o Regulatory agencies (suspect releases)	o AEDO responds to event o Resolve event o Local response/clean-up	o AEDO Log o 24-hour Occurrence Report o Fact Sheet o 10-day Occurrence Report o Final Occurrence Report
UNUSUAL OCCURRENCE o Actual or potential significant impact on safety, environment, health, security or operations	o Failure of fire/evacuation/safety alarm during actual event o Evacuation of >=1 building as a result of actual event o RDA Activation o Entire Honeywell alarm system out o Delay in start-up schedule >=12 weeks o Any inspection/surveillance reporting improper procedural compliance of Class A equipment or unsatisfactory operation, testing, maintenance or modification o Radiological assistance requested by or received from FEMP o Spill > RQ o Discovery of groundwater contamination o Personnel exposure to hazardous chemicals > occupational safety limits o Any event resulting in 5 or more individual contaminations o Any contamination spread offsite o Releases which cause permit violations (NPEDS) o Bomb threat o Release of radioactive or hazardous material offsite during DOE/site transportation activities	o EDO immediate o WEMCO President and Fernald Site Manager ASAP o DOE Facility Representative within 2 hours o Regulatory agencies (spills >RQ) o WEMCO Public Affairs immediate o WEMCO Environmental Compliance Release Evaluator immediate, spills only o Westinghouse Corp., ASAP (spills >RQ) o DOE-HQ EOC/Program Manager 2 hours	o AEDO responds to event o Resolve event o Local response/clean-up	o AEDO Log o 24-hour Occurrence Report o Fact Sheet o 10-day Occurrence Report o Final Occurrence Report

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2480

FIGURE G-5

9-26-91

EVENT CATEGORIZATION/NOTIFICATION GUIDE

CATEGORIZATION LEVEL	EXAMPLE *	VERBAL NOTIFICATION	RESPONSE ACTIONS	WRITTEN REPORTING
ALERT o Actual or potential substantial reduction in the level of safety may occur at the facility o 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	o Any event resulting in a request for mutual aid assistance o Actual or credible bomb incident with potential severe implications o Chemical/Radiological release with significant onsite impact o Severe fire with potential for multiple serious injuries/ damage and/or with hazardous materials involved o Tornado strike on FMPC property with severe damage o Spill/release of hazardous waste that threatens human health or the environment	o EDO immediate o WEMCO President and Fernald Site Manager ASAP o Regulatory agencies (spills >RQ) o WEMCO Public Affairs immediate o WEMCO Environ. Compliance Release Evaluator immediate for spills only o Westinghouse Corp. ASAP (spills >RQ) o Counties 15 minutes o DOE-HQ EOC/Program Mgr. 15 min. o DOE Facility Rep. 15 minutes	o AEDO establishes CP o ERT stand-by or activated o EOC activated o Implement onsite protective actions as appropriate o Request mutual aid assistance as needed o Consider JPIC activation o Implement RCRA contingency plan for hazardous waste	o AEDO Log o County Event Report o 24-hour Occurrence Report o Fact Sheet o 10-day Occurrence Report o Final Occurrence Report
SITE AREA EMERGENCY o Actual or likely major failures of facility functions necessary for protection of workers and the public o Any release is expected to exceed appropriate PAG or ERPG exposure levels onsite, NOT offsite	o Chemical/Radiological release w/significant onsite impact, little or no offsite impact o Nuclear criticality achieved in a system not intended to reach nuclear criticality o Warning of attack or possible attack on U. S. o Thorium fire and release o Release of contents from 1 chlorine cylinder o Spill/release of hazardous waste that threatens human health or the environment	o EDO immediate o WEMCO President and Fernald Site Manager ASAP o Regulatory agencies (spills >RQ) o WEMCO Public Affairs immediate o WEMCO Environmental Compliance Release Evaluator immediate, spills only o Westinghouse Corp. ASAP (spills >RQ) o Counties 15 minutes o DOE-HQ EOC/Program Mgr. 15 min. o DOE Facility Rep., 15 minutes	o AEDO establishes CP o ERT Stand-by or activated o EOC activated o Shelter all onsite personnel or alternate protective aciton, as appropriate o Implement appropriate response actions o Request mutual aid assistance as needed o Consider JPIC activation o Implement RCRA contingency plan for hazardous waste	o Same as above
GENERAL EMERGENCY o Actual or imminent catastrophic reduction of facility safety systems o Actual or likely release of radioactive or toxic material that exceeds appropriate PAG or ERPG exposure levels offsite	o Chemical/radiological release with significant offsite impact - K-65 loss of containment - Release of contents from >1 chlorine cylinder - Propane BLEVE o Direct hit tornado - major damage o Actual attack on U. S. o Spill or release of hazardous waste that threatens human health or the environment	o EDO immediate o WEMCO President and Fernald Site Manager ASAP o Regulatory agencies (spills >RQ) o WEMCO Public Affairs immediate o WEMCO Environ. Compliance Release Evaluator immediate for spills only o Westinghouse Corp. ASAP (spills >RQ) o Counties immediate o DOE-HQ EOC/Program Mgr. 15 min. o DOE Facility Representative, 15 min.	o AEDO establishes CP o ERT stand-by or activated o EOC activated o Activate Warning Sirens o Shelter all onsite personnel or alternate protective action, as appropriate o Implement appropriate response actions o Request mutual aid assistance as needed o Consider JPIC activation o Implement RCRA contingency plan for hazardous waste	o Same as above

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2480

FIGURE G-5 Page 2 of 2

COMMUNICATION LINKS

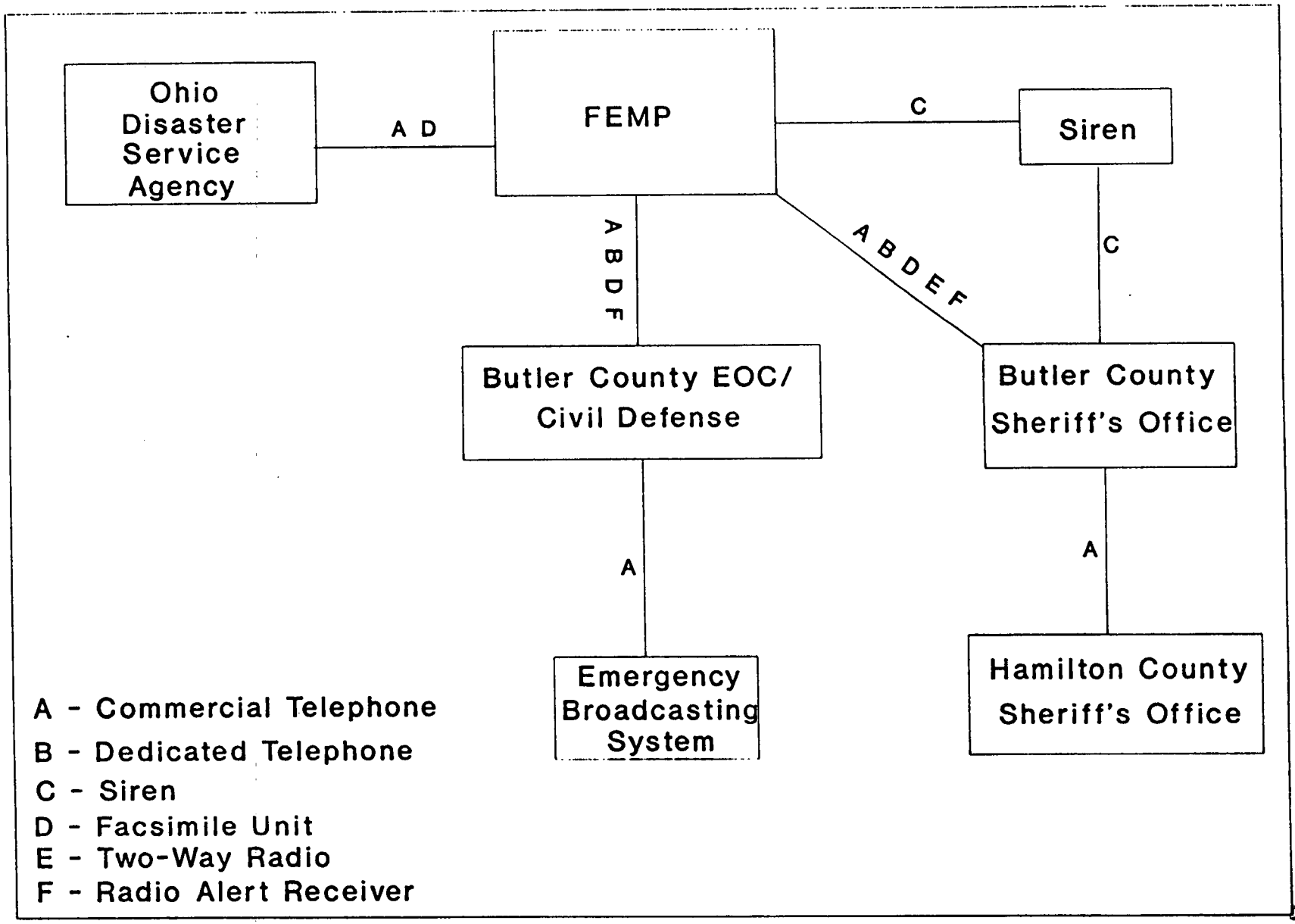

FIGURE G-6

INTERORGANIZATION LINKS

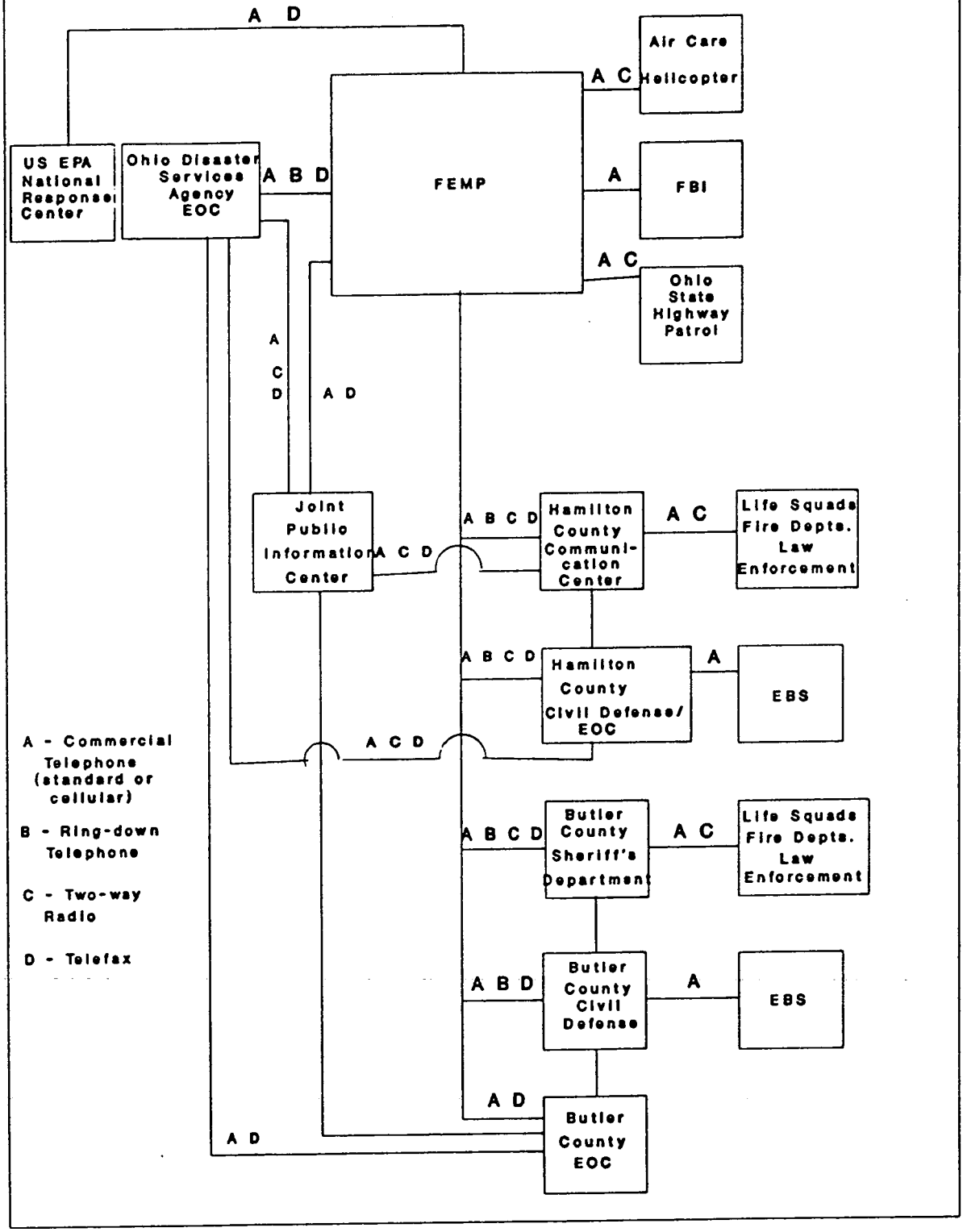

FIGURE G-7

ACCOUNTABILITY-IN PLACE

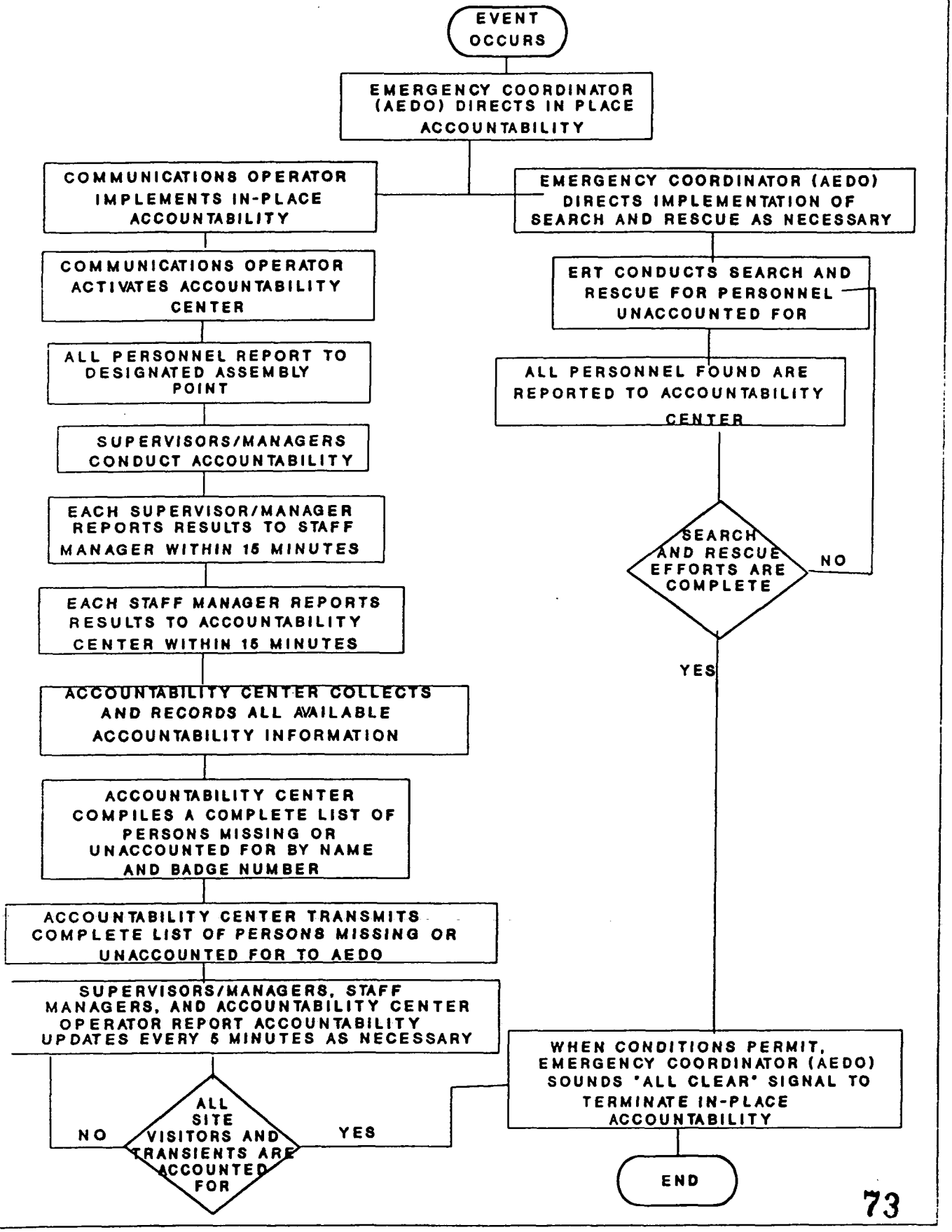

FIGURE G-8

ACCOUNTABILITY-RALLY POINT

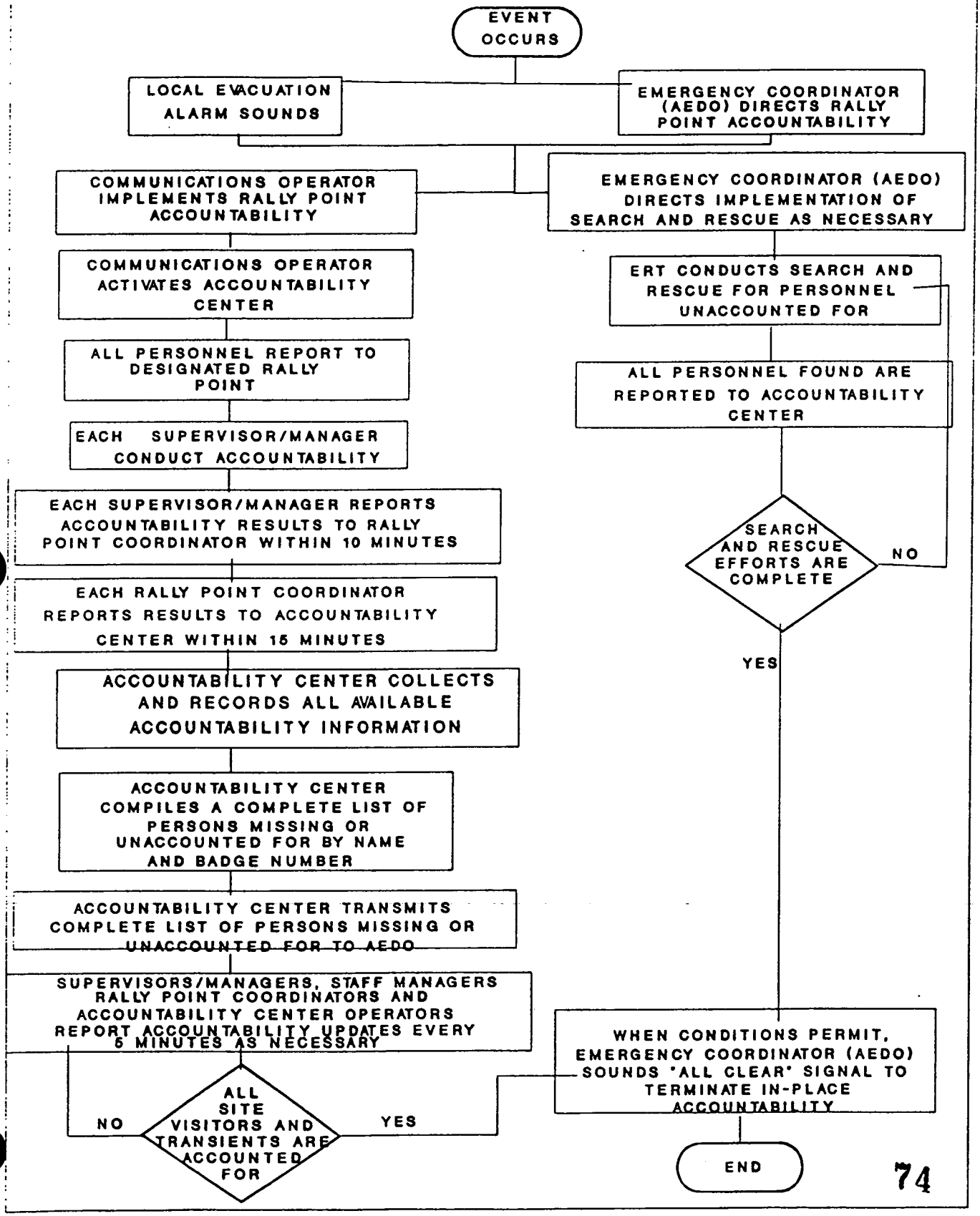

FIGURE G-8 PG.2

FORM A

Figure G-9

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 _____

DATE AND TIME OF CALL AND PERSON RECEIVING CALL

Ohio EPA

Date _____ Time _____ Person _____

FORM B

Figure G-10

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 _____

FORM B

Figure G-10

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

_____

_____

_____

Signature

Title

FORM C

Figure G-11

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

(Date)

(Ohio EPA, Hamilton & Butler County Planning Committees)

SUBJECT: NOTIFICATION OF RESUMPTION OF HAZARDOUS WASTE

OPERATIONS - OAC 3745-5456(F)

This notice is being made to comply with the requirements of OAC 3745-54-56(F). On _____, there was an OAC 3745-54-56 Emergency Incident at the 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

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 Storage 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)

The following HWMUs are units for which a permit is not being sought. 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)
- 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 (Plant 8)
- HWMU No. 15 - Oxidation Furnace Number 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 Bldg (Bldg 67)
- HWMU No. 26 - Detrex Still
- HWMU No. 27 - Waste Pit No. 4
- HWMU No. 28 - Trane Thermal Liquid Incinerator
- 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 Corner of Plant 2)
- HWMU No. 49 - Uranyl Nitrate Tanks (Digestion Areas)
- HWMU No. 50 - Uranyl Nitrate Tanks (Raffinate Building)
- HWMU No. 51 - Experimental Treatment Facility (ETF)

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 alert or contact the Emergency Coordinator (AEDO).

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Some situations may not constitute an emergency or the implementation of this Contingency Plan. The situations may nevertheless warrant a protective and remediation response. An incident that does not involve the Emergency Response Team may be handled by personnel properly trained under the RCRA training curriculum. Small spills or fires may be handled by immediate action of the individuals discovering the event. Even events that involve response by the 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 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.

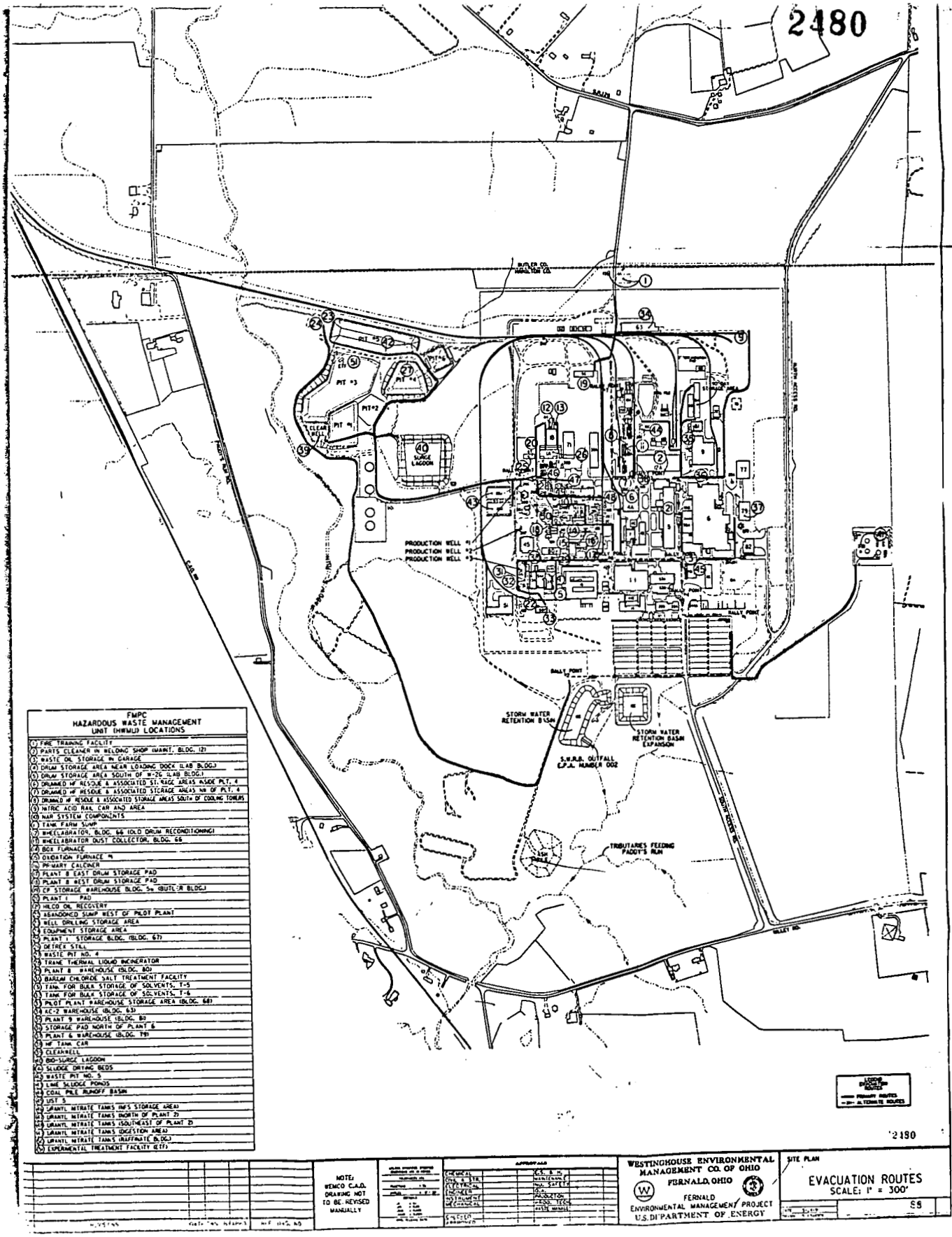
2.3.7 Continue evacuation to the next safe rally point before taking account of all personnel, if this rally point is in the path of spillage or downwind in the path of vapors.

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 these specified safety equipment: fire extinguishers, respirators and protective clothing, and spill clean-up equipment.

EVACUATION ROUTES



FMPC
HAZARDOUS WASTE MANAGEMENT UNIT (HWMU) LOCATIONS

1. FIRE TRAINING FACILITY
2. PARTS CLEANER IN WELDING SHOP (MAINT. BLDG. 12)
3. WASTE OIL STORAGE IN GARAGE
4. DRUM STORAGE AREA NEAR LOADING DOCK (LAB BLDG.)
5. DRUM STORAGE AREA SOUTH OF W-26 (LAB BLDG.)
6. DRUMMED HF RESIDUE & ASSOCIATED ST. RAGE AREAS INSIDE PLT. 4
7. DRUMMED HF RESIDUE & ASSOCIATED STORAGE AREAS NW OF PLT. 4
8. DRUMMED HF RESIDUE & ASSOCIATED STORAGE AREAS SOUTH OF COOLING TOWERS
9. NITRIC ACID RAIL CAR AND AREA
10. NAA SYSTEM COMPONENTS
11. TANK FARM SUMP
12. WHEELABRATOR, BLDG. 66 (OLD DRUM RECONDITIONING)
13. WHEELABRATOR DUST COLLECTOR, BLDG. 66
14. BOX FURNACE
15. OXIDATION FURNACE #1
16. PRIMARY CALCINER
17. PLANT 8 EAST DRUM STORAGE PAD
18. PLANT 8 WEST DRUM STORAGE PAD
19. CP STORAGE WAREHOUSE BLDG. 54 (BUTLER BLDG.)
20. PLANT 1 PAD
21. HILCO OIL RECOVERY
22. ABANDONED SUMP WEST OF PILOT PLANT
23. WELL DRILLING STORAGE AREA
24. EQUIPMENT STORAGE AREA
25. PLANT 1 STORAGE BLDG. (BLDG. 67)
26. DETREX STILL
27. WASTE PIT NO. 4
28. TRANE THERMAL LIQUID INCINERATOR
29. PLANT 8 WAREHOUSE (BLDG. 80)
30. BARIUM CHLORIDE SALT TREATMENT FACILITY
31. TANK FOR BULK STORAGE OF SOLVENTS, T-5
32. TANK FOR BULK STORAGE OF SOLVENTS, T-6
33. PILOT PLANT WAREHOUSE STORAGE AREA (BLDG. 68)
34. K-2 WAREHOUSE (BLDG. 63)
35. PLANT 9 WAREHOUSE (BLDG. 81)
36. STORAGE PAD NORTH OF PLANT 6
37. PLANT 6 WAREHOUSE (BLDG. 79)
38. HF TANK CAR
39. CLEARWELL
40. BIO-SURGE LAGOON
41. SLUDGE DRYING BEDS
42. WASTE PIT NO. 5
43. LIME SLUDGE PONDS
44. COAL PILE RUNOFF BASIN
45. UST 5
46. URANYL NITRATE TANKS (NFS STORAGE AREA)
47. URANYL NITRATE TANKS (NORTH OF PLANT 2)
48. URANYL NITRATE TANKS (SOUTHEAST OF PLANT 2)
49. URANYL NITRATE TANKS (DIGESTION AREA)
50. URANYL NITRATE TANKS (RAFFINATE BLDG.)
51. EXPERIMENTAL TREATMENT FACILITY (ETF)

NOTE: WEMCO C.A.D. DRAWING NOT TO BE REVISED MANUALLY

WESTINGHOUSE ENVIRONMENTAL MANAGEMENT CO. OF OHIO
FERNALD, OHIO
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT
U.S. DEPARTMENT OF ENERGY

SITE PLAN
EVACUATION ROUTES
SCALE: 1" = 300'

2480

90 DAY STORAGE AREA

The 90 Day Storage Area is a temporary container storage area in Building 64 (between columns 6 and 9).

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 located at this unit for use in case of an emergency:

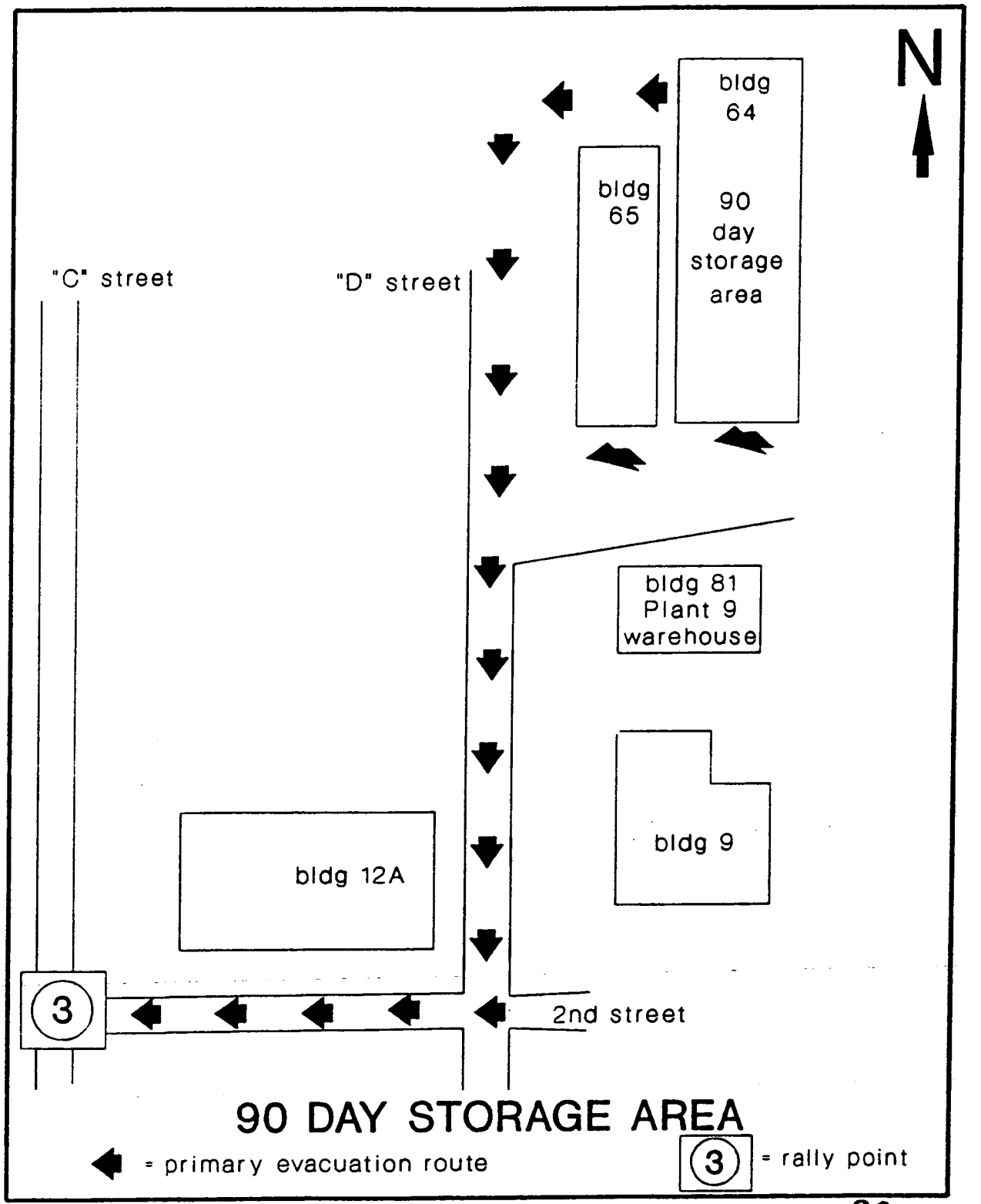
- Manual Fire Alarms
  1) On outside South wall of Building 64
  2) On inside wall northeast corner
  3) Outside East wall at 2nd door from north

- Fire Extinguishers
  1) North side of Thorium storage area
  2) On outside of East wall

- Eye Wash Stations
  1) Portable in Thorium Overpack area

- Spill Cleanup Material
  1) At West side of Building 64 area

- Respirator Cabinet
  1) At West side of Building 64 area


N
bldg 64
bldg 65
90 day storage area
"C" street
"D" street
bldg 81 Plant 9 warehouse
bldg 9
bldg 12A
3
2nd street
90 DAY STORAGE AREA
= primary evacuation route
3
= rally point

90

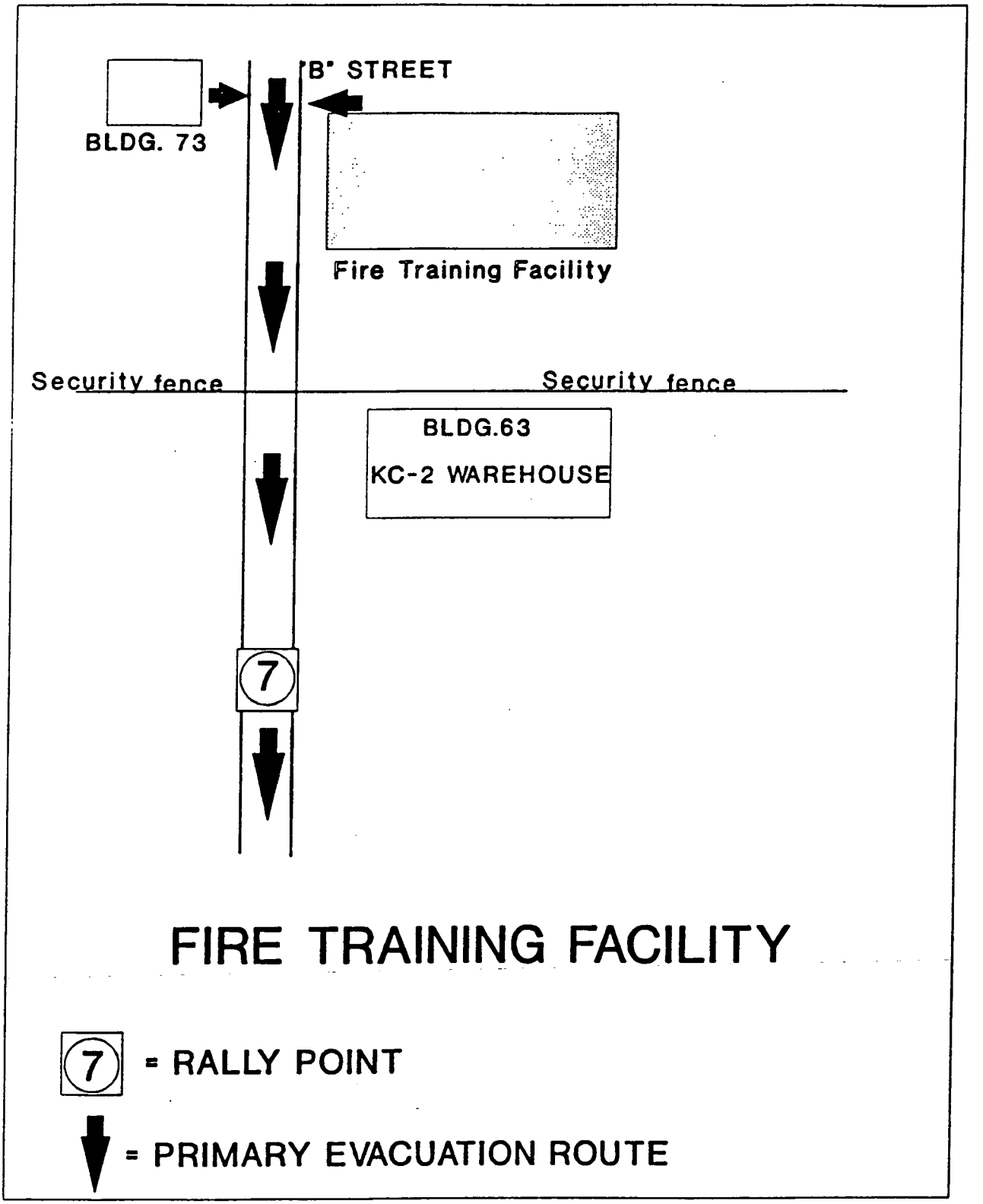
HWMU No. 1 - FIRE TRAINING FACILITY

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.

No Safety Equipment is available at this area. The area is serviced by the Emergency Response Team. Access to equipment at the nearest area requires passing through a security fence.



FIRE TRAINING FACILITY

7 = RALLY POINT

= PRIMARY EVACUATION ROUTE

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.

Personnel shall evacuate to Rally Point No. 3 located at the intersection of 2nd Street and "C" Street. Movement is south out of Building 12 to the intersection of 2nd Street and "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 until the intersection at "D" Street.

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

- Manual Fire Alarms
  1) Located in Building 12 center corridor, near center of building

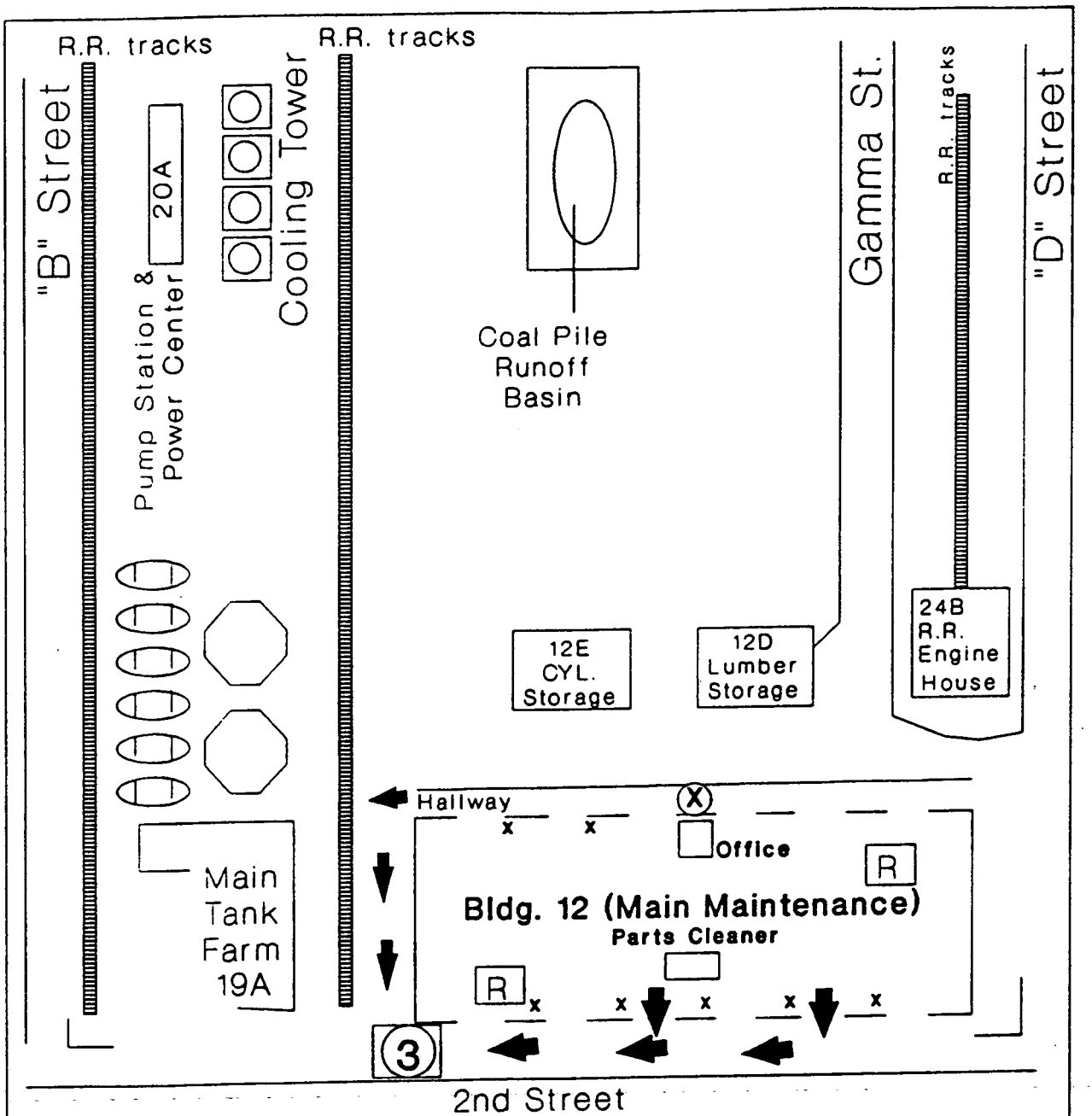
- Fire Extinguishers
  1) 15# CO2 First floor on south Wall on West side of Parts Cleaner.

- Eye Wash Stations
  1) None at this unit

- Spill Cleanup Material
  1) Located at the SAA in southwest area of building.

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

- Respirator Cabinets
  1) Carpenter Shop west wall
  2) Electric Shop east wall
  3) Instrument Shop Upstairs Center
  4) Millwright Shop north wall
  5) Paint Shop west wall
  6) Pipe Shop south wall
  7) North wall of Weld Shop



PARTS CLEANER IN WELDING SHOP (MAINTENANCE BUILDING 12)

R = respirator cabinet

= primary evacuation route

X = fire alarm

x = Multi purpose fire extinguisher

3 = rally point

HWMU No. 3 - WASTE OIL STORAGE IN GARAGE (BLDG 31)

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 located at this HWMU:

- Manual Fire Alarm
  1) Located on East wall between men's room and break room.

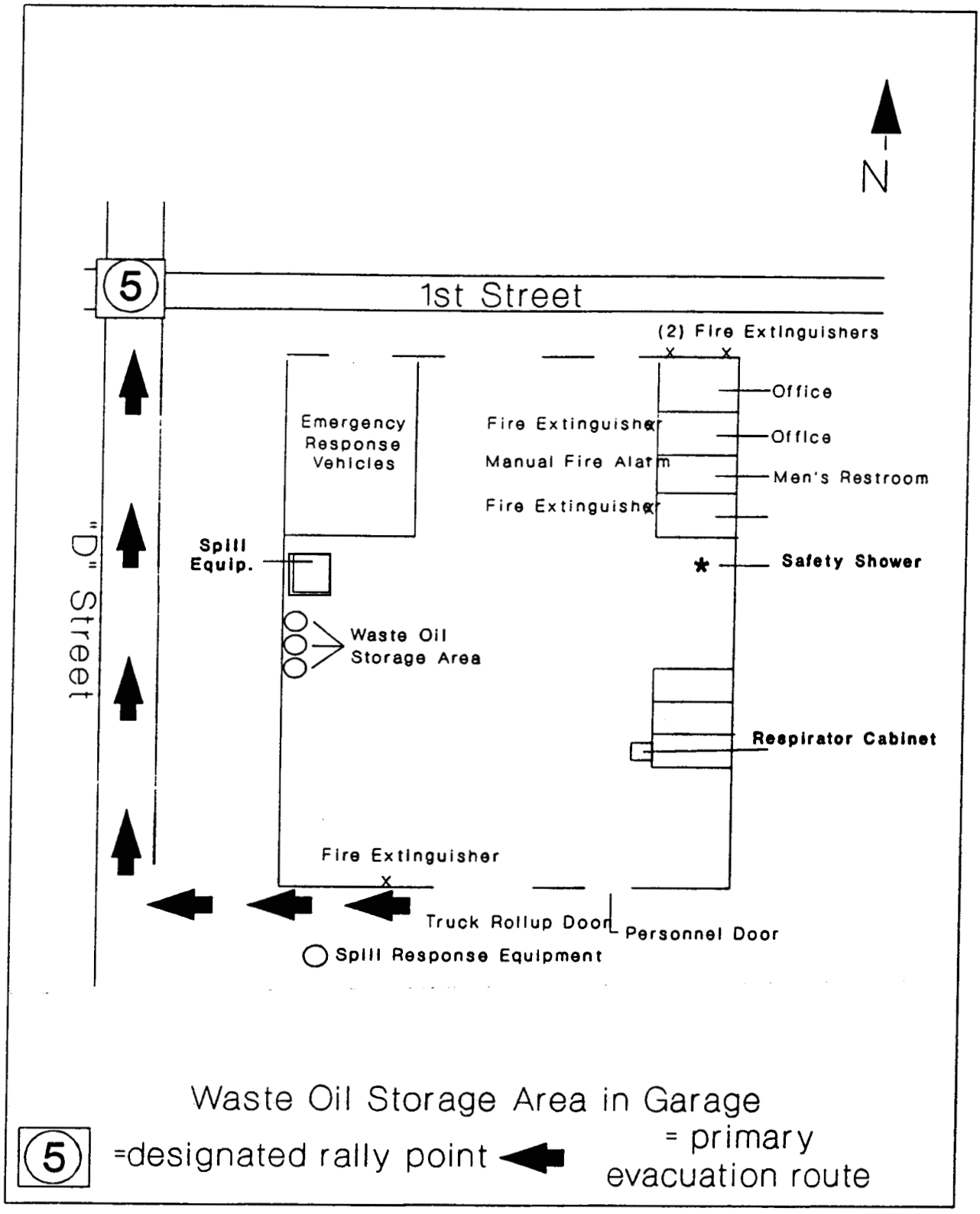
- Fire Extinguishers
  1) 15# CO2 First Floor south end near Transmission Office.
  2) 15# CO2 First Floor north end by office on east wall
  3) 10# ABC First Floor north end by Office on east wall
  4) 10# ABC First Floor south end by overhead door
  5) 15# CO2 First Floor north end outside by overhead door
  6) 10# ABC First Floor north end outside by overhead door
  7) 10# ABC First Floor Transmission Office by south door

- Eye Wash Stations
  1) Located on east wall of garage across from HWMU.

HWMU No. 3 - WASTE OIL STORAGE IN GARAGE (Building 31)

- Spill Cleanup Equipment
  1) Located at SAA west wall

- Respirator Cabinets
  1) Located outside supervisor's office on west wall of offices.


N
5
1st Street
(2) Fire Extinguishers
Office
Office
Men's Restroom
Emergency Response Vehicles
Fire Extinguisher
Manual Fire Alarm
Fire Extinguisher
Spill Equip.
Safety Shower
"D" Street
Waste Oil Storage Area
Respirator Cabinet
Fire Extinguisher
Truck Rollup Door
Personnel Door
Spill Response Equipment
Waste Oil Storage Area in Garage
5 =designated rally point
= primary evacuation route

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. 1. Rally Point No. 1 is located east of the FEMP employee parking lot. Movement is east to the Security Building (Building 28) through the turnstile area and proceed east to Rally Point No. 1.

The Alternate Rally Point is No. 2. Rally Point No. 2 is located in the west FEMP parking lot north of the Stormwater Retention Basin. Movement from Rally Point No. 1 is west across the FEMP employee parking lot.

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

- Manual Fire Alarm
  1) Located in west corridor near west double door exit

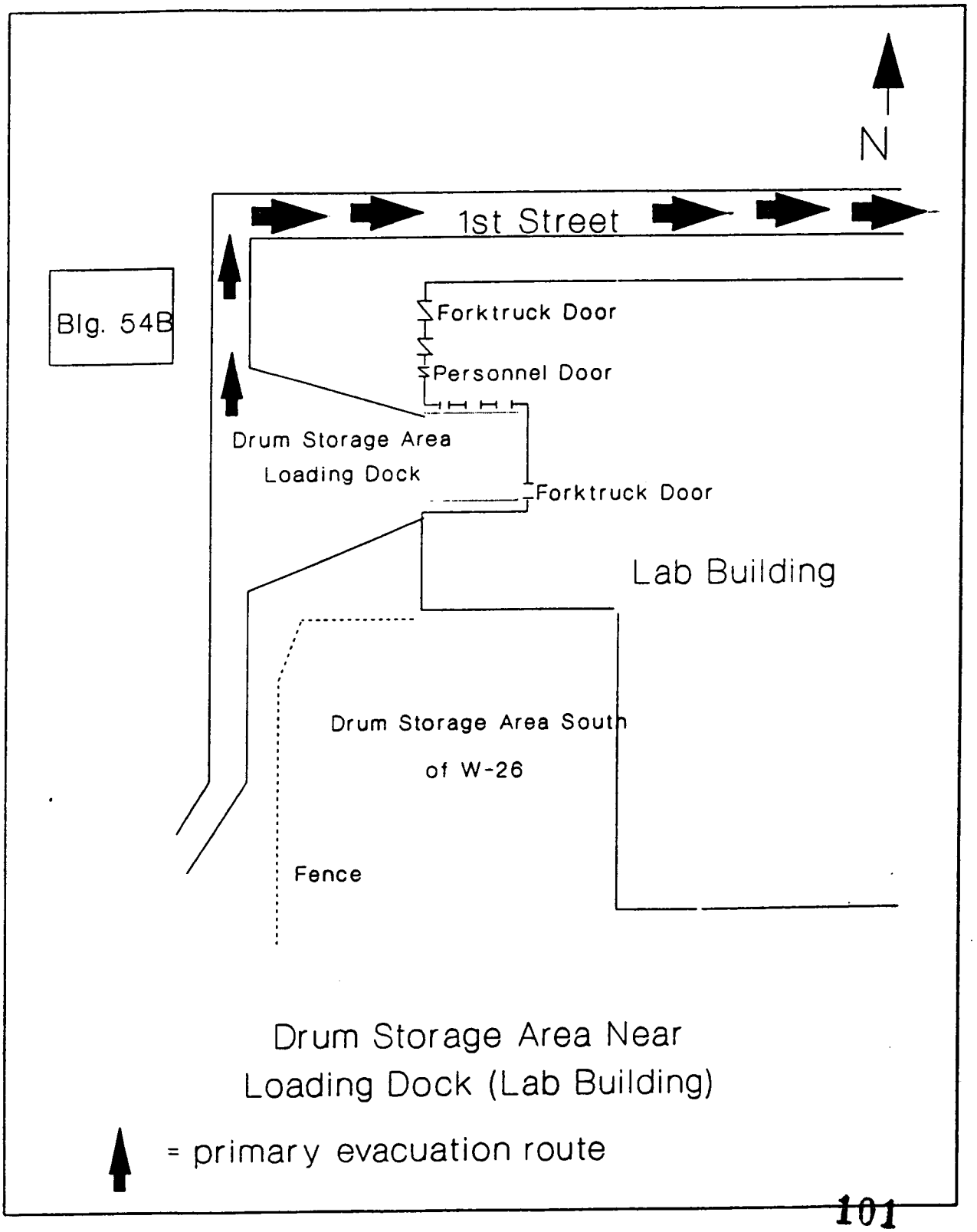
- Fire Extinguishers - West Corridor Lab Bldg.
  1) 15# CO2 First Floor north end at standpipe
  2) 30# M X First Floor north end at eye wash.
  3) 10# ABC First Floor north end of west hall
  4) 5# CO2 First Floor Room W-34
  5) 5# CO2 First Floor at center corridor
  6) 10# ABC First Floor at Room W-17
  7) 10# ABC First Floor south end
  8) H2O First Floor south end
  9) 30# M X First Floor south end
  10) 5# CO2 First Floor at Room W-4
  11) 5# CO2 First Floor at Room W-10
  12) 5# CO2 First Floor at east end of Room W-18
  13) 5# CO2 First Floor at west end of Room W-18
  14) 5# CO2 First Floor in front of Room W-22
  15) 5# CO2 First Floor in rear of Room W-22

16) 5# CO2 First Floor in Room W-26
17) 5# CO2 First Floor in Room W-26
18) 5# CO2 First Floor in Room W-28
19) 5# CO2 First Floor in Room W-28
20) 10# ABC First Floor center
21) 30# M X First Floor center
22) 5# CO2 First Floor in Room W-24

- Safety Showers
  1) Located in new expansion inside west double doors

- Spill Cleanup Equipment
  1) None at this unit

- Respirator Cabinet (Lab Bldg.)
  1) Room W-17 southeast corner



Drum Storage Area Near
Loading Dock (Lab Building)

= primary evacuation route

101

HWMU 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. 1. Rally Point No. 1 is located east of the FEMP employee parking lot. Movement is east to the Security Building (Building 28) through the turnstile area and proceed east to Rally Point No. 1.

The Alternate Rally Point is No. 2. Rally Point No. 2 is located in the west FEMP parking lot north of the Stormwater Retention Basin. Movement from Rally Point No. 1 is west across the FEMP employee parking lot.

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

- Manual Fire Alarm
  1) Located at south end of the west corridor

- Fire Extinguishers - West Corridor Lab Bldg.
  1) 15# CO2 First Floor north end at standpipe
  2) 30# M X First Floor north end at eye wash.
  3) 10# ABC First Floor north end of west hall
  4) 5# CO2 First Floor Room W-34
  5) 5# CO2 First Floor at center corridor
  6) 10# ABC First Floor at Room W-17
  7) 10# ABC First Floor south end
  8) H2O First Floor south end
  9) 30# M X First Floor south end
  10) 5# CO2 First Floor at Room W-4
  11) 5# CO2 First Floor at Room W-10
  12) 5# CO2 First Floor at east end of Room W-18
  13) 5# CO2 First Floor at west end of Room W-18
  14) 5# CO2 First Floor in front of Room W-22
  15) 5# CO2 First Floor in rear of Room W-22

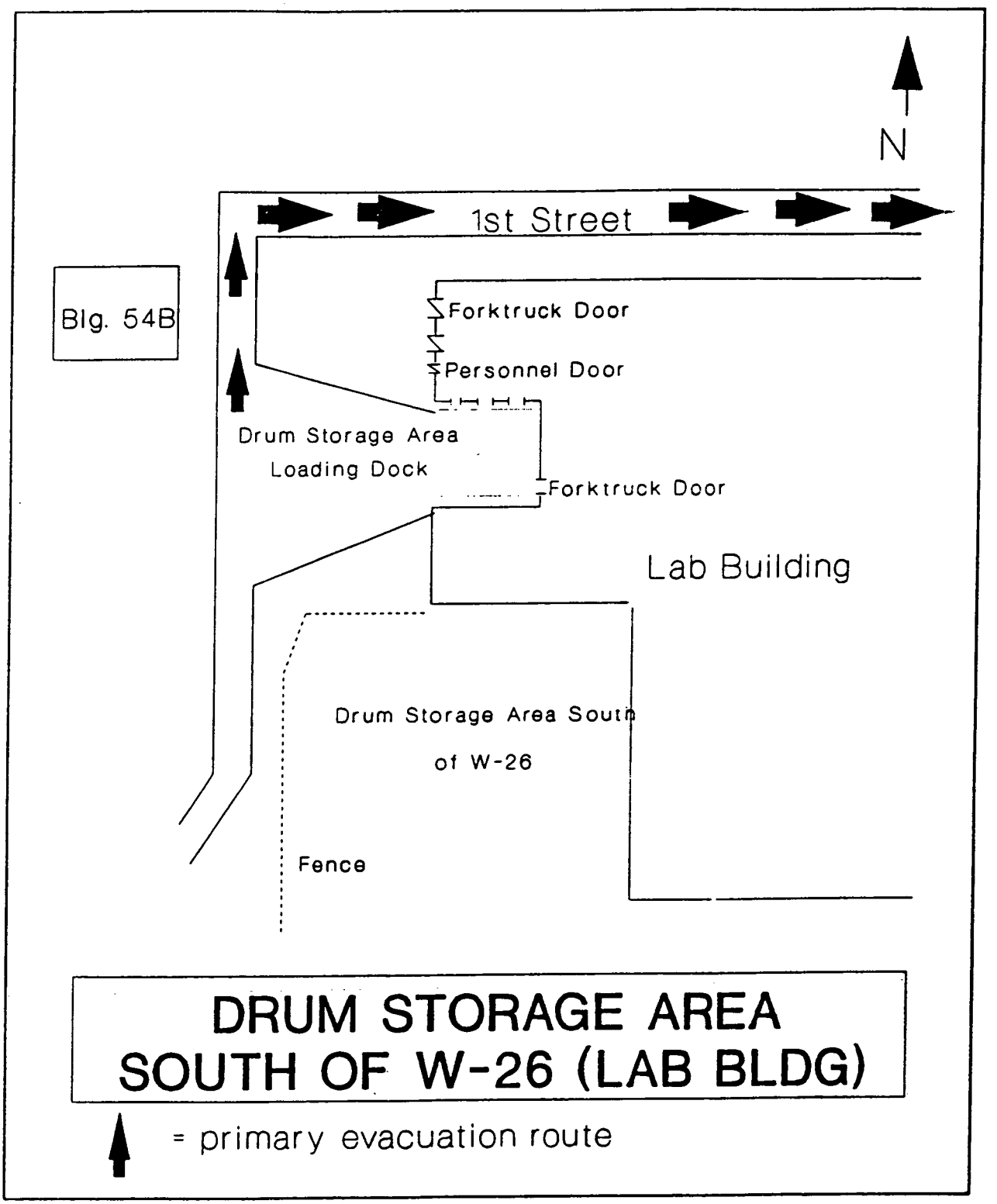
HWMU No. 5 - DRUM STORAGE AREA SOUTH OF ROOM W-26 (LAB BLDG)

16) 5# CO2 First Floor in Room W-26
17) 5# CO2 First Floor in Room W-26
18) 5# CO2 First Floor in Room W-28
19) 5# CO2 First Floor in Room W-28
20) 10# ABC First Floor center
21) 30# M X First Floor center
22) 5# CO2 First Floor in Room W-24

- Safety shower
  1) Located in doorways to Rooms W 26 & W 17

- Spill Cleanup Equipment
  1) None located at this unit

- Respirator Cabinet (Lab Bldg.)
  1) Room W-17 southeast Corner



DRUM STORAGE AREA SOUTH OF W-26 (LAB BLDG)

= primary evacuation route

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 located on the first floor of Plant 4 of this HWMU:

- Manual Fire Alarm
  1) At column E-2

- Fire Extinguishers
  1) 10# ABC First Floor next to north door
  2) 15# CO2 First Floor next to first panel
  3) 10# ABC First Floor inside elevator
  4) 15# CO2 First Floor north wall next to elevator
  5) 15# CO2 First Floor next to northeast door
  6) 15# CO2 First Floor next to southeast door
  7) 15# CO2 First Floor south wall by scale

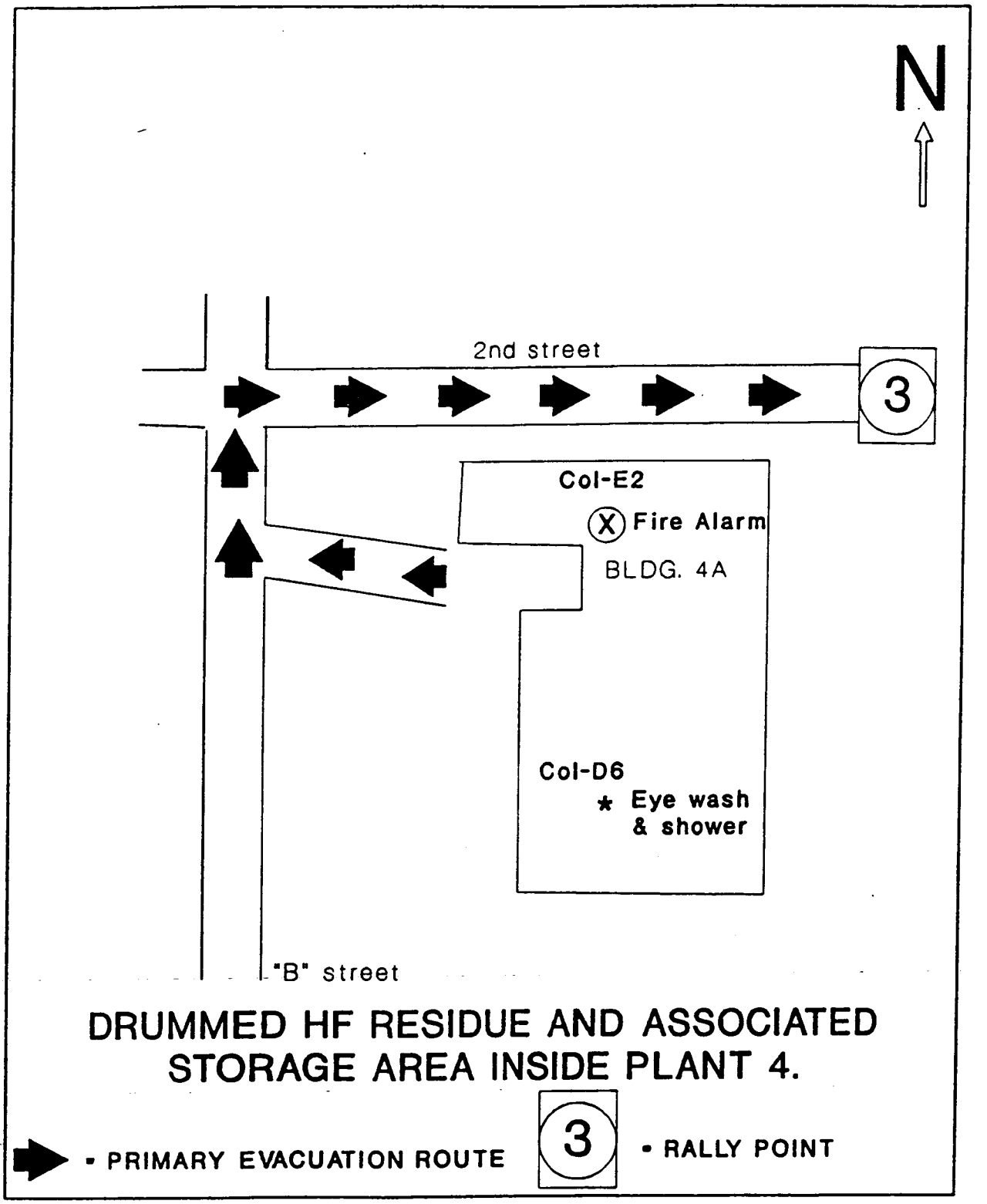
- Eye Wash Station
  1) At column D-6

- Safety shower
  1) Located at column D-6

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

- Spill Cleanup Equipment
  1) None located at this unit

- Respirator Cabinet
  1) Maintenance Shop north wall (Plant 4)



DRUMMED HF RESIDUE AND ASSOCIATED STORAGE AREA INSIDE PLANT 4.

• PRIMARY EVACUATION ROUTE

3 • RALLY POINT

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

This container storage area was located on a graveled lot north west 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.

The following is a list of safety equipment located on the first floor of Plant 4 for this HWMU:

- Manual Fire Alarm
  1) Inside Plant 4 at column D-6

- Fire Extinguishers - Plant 4 First Floor
  1) 10# ABC Mounted next to north door
  2) 15# CO2 Mounted next to first panel
  3) 10# ABC Mounted inside elevator
  4) 15# CO2 Mounted on north wall next to elevator
  5) 15# CO2 Mounted next to northeast door
  6) 15# CO2 Mounted next to southeast door
  7) 15# CO2 Mounted on south wall by scale

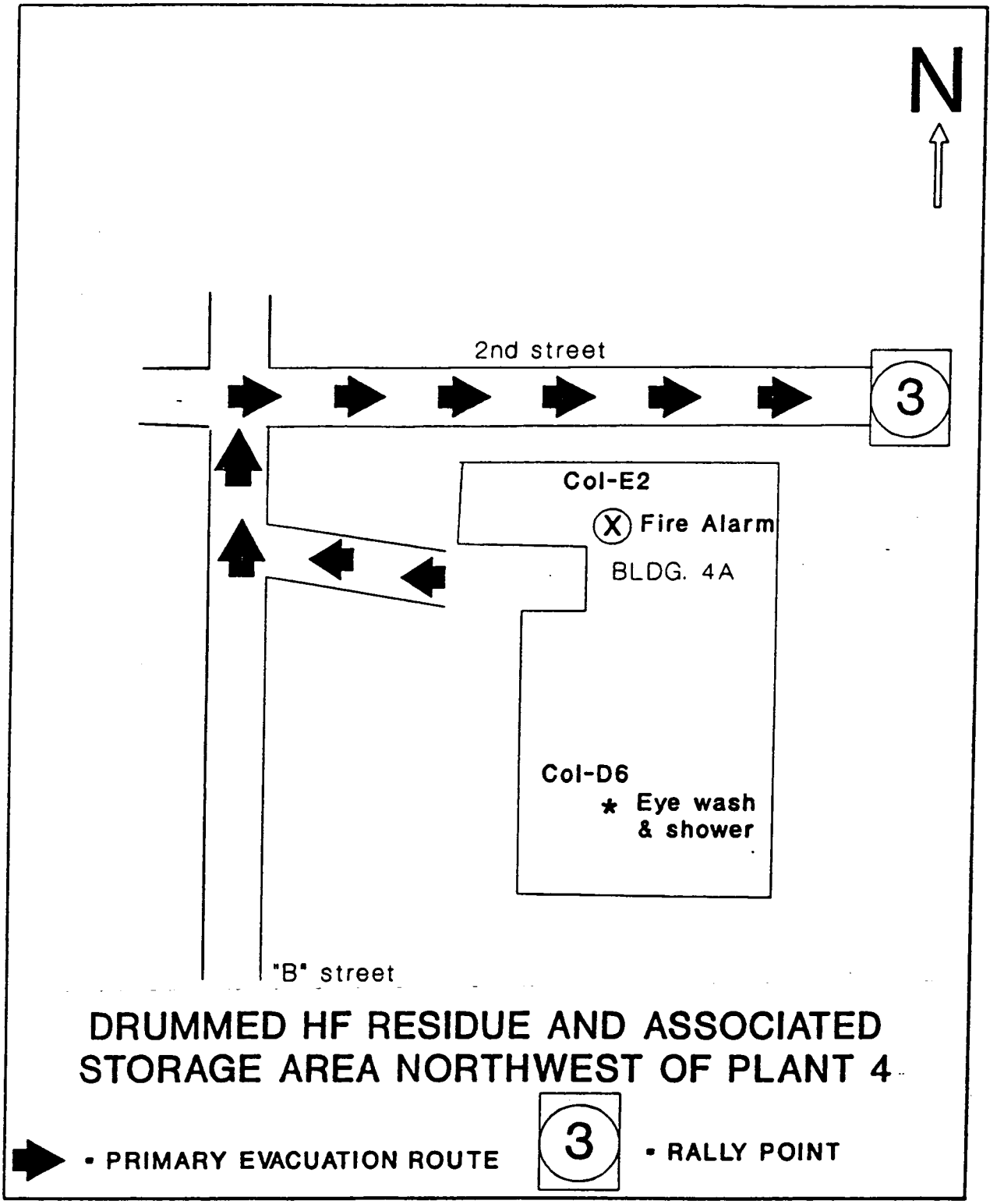
- Eye Wash Station
  1) Inside Plant 4 at column D-6

- Safety Shower
  1) Inside Plant 4 at column D-6

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

- Spill Cleanup Equipment
  1) None located at this unit

- Respirator Cabinet
  1) Maintenance Shop north wall (Plant 4)



DRUMMED HF RESIDUE AND ASSOCIATED STORAGE AREA NORTHWEST OF PLANT 4

• PRIMARY EVACUATION ROUTE

3 • RALLY POINT

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

This unit is located in a graveled area northeast of Plant 4 and 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 on 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.

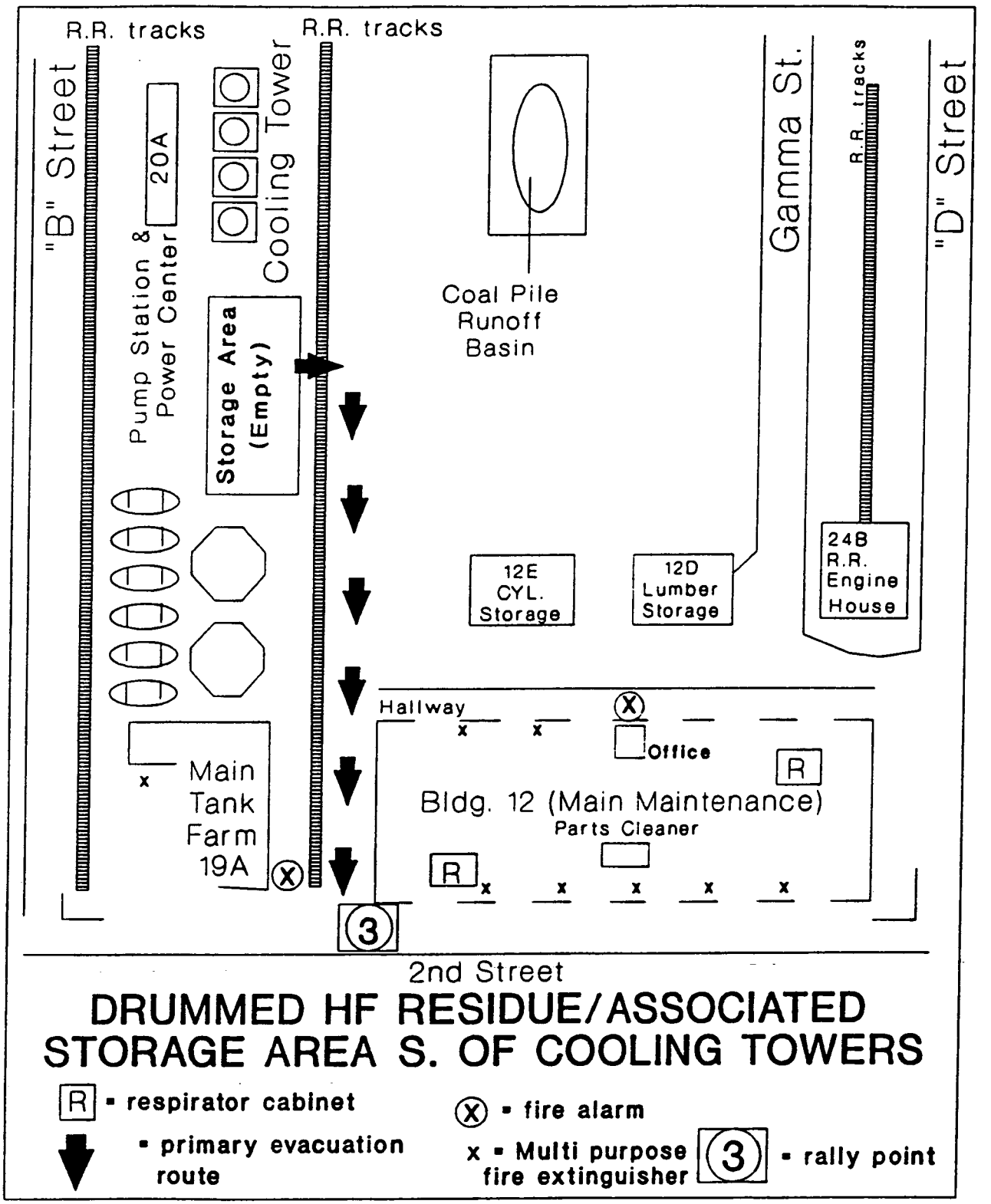
The following is a list of safety equipment available for this HWMU:

- Manual Fire Alarm
  1) Located inside Building 12 - West end of corridor
  2) Located at south end of railroad track near 2nd Street

- Fire Extinguishers
  1) Several are located near catwalk in nearby tank farm area

- Eye Wash Stations and Spill Cleanup Equipment
  1) None at this unit

- Respirator Cabinet
  a. Cabinet in Building 12


R.R. tracks
R.R. tracks
"B" Street
20A
Pump Station & Power Center
Cooling Tower
Storage Area (Empty)
Coal Pile Runoff Basin
Gamma St.
R.R. tracks
"D" Street
12E CYL. Storage
12D Lumber Storage
24B R.R. Engine House
Hallway
Office
R
Bldg. 12 (Main Maintenance)
Parts Cleaner
Main Tank Farm 19A
3
2nd Street
DRUMMED HF RESIDUE/ASSOCIATED STORAGE AREA S. OF COOLING TOWERS
R = respirator cabinet
= primary evacuation route
= fire alarm
x = Multi purpose fire extinguisher
3 = rally point

HWMU No. 9 - NITRIC ACID RAIL CAR AND AREA

The Nitric Acid Tank 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. 3. Rally Point No. 3 is located at the intersection of 2nd Street and "C" Street. Movement is south on "E" Street and 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 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 located at this HWMU:

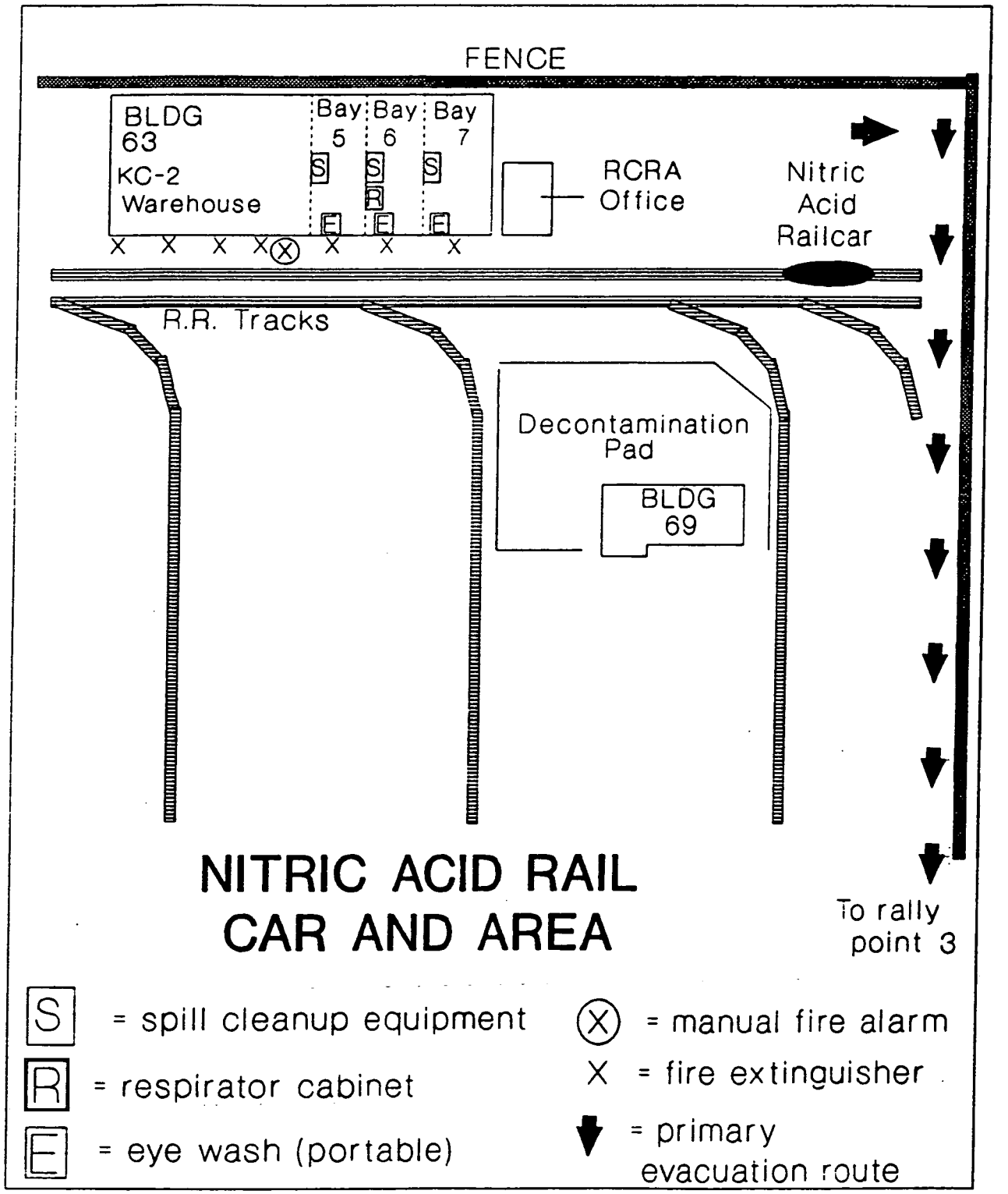
- Manual Fire Alarm
  1) Use alarm on outside south wall of Building 63 (KC-2 Warehouse)

- Fire Extinguishers
  1) Use extinguishers at each bay in Building 63 (KC-2 Warehouse)

- Eye Wash Stations
  1) Use portable eye washes at Bays 5, 6, and 7 of Building 63 (KC-2 Warehouse)

- Spill Cleanup Equipment
  1) Use equipment in Bays 5, 6 and 7 of Building 63 (KC-2 Warehouse)

- Respirator Cabinet
  1) Cabinets in Bay 6 of Building 63 on West wall


FENCE
BLDG 63
KC-2 Warehouse
Bay 5
Bay 6
Bay 7
S
R
E
RCRA Office
Nitric Acid Railcar
R.R. Tracks
Decontamination Pad
BLDG 69
To rally point 3
NITRIC ACID RAIL CAR AND AREA
S = spill cleanup equipment
R = respirator cabinet
E = eye wash (portable)
X = manual fire alarm
X = fire extinguisher
= primary evacuation route

HWMU No. 10 - NAR SYSTEM COMPONENTS

This unit is located in Plant 2/3 and served as a part of the Denitrification System which converted uranyl nitrate to uranium oxide.

Personnel should evacuate to Rally Point No. 8. Rally Point No. 8 is located at the intersection of "B" Street and 1st 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 corner of 1st Street and "D" Street. Movement from Rally Point No. 8 is east on 2nd Street and south on "D" Street to the corner of 1st Street.

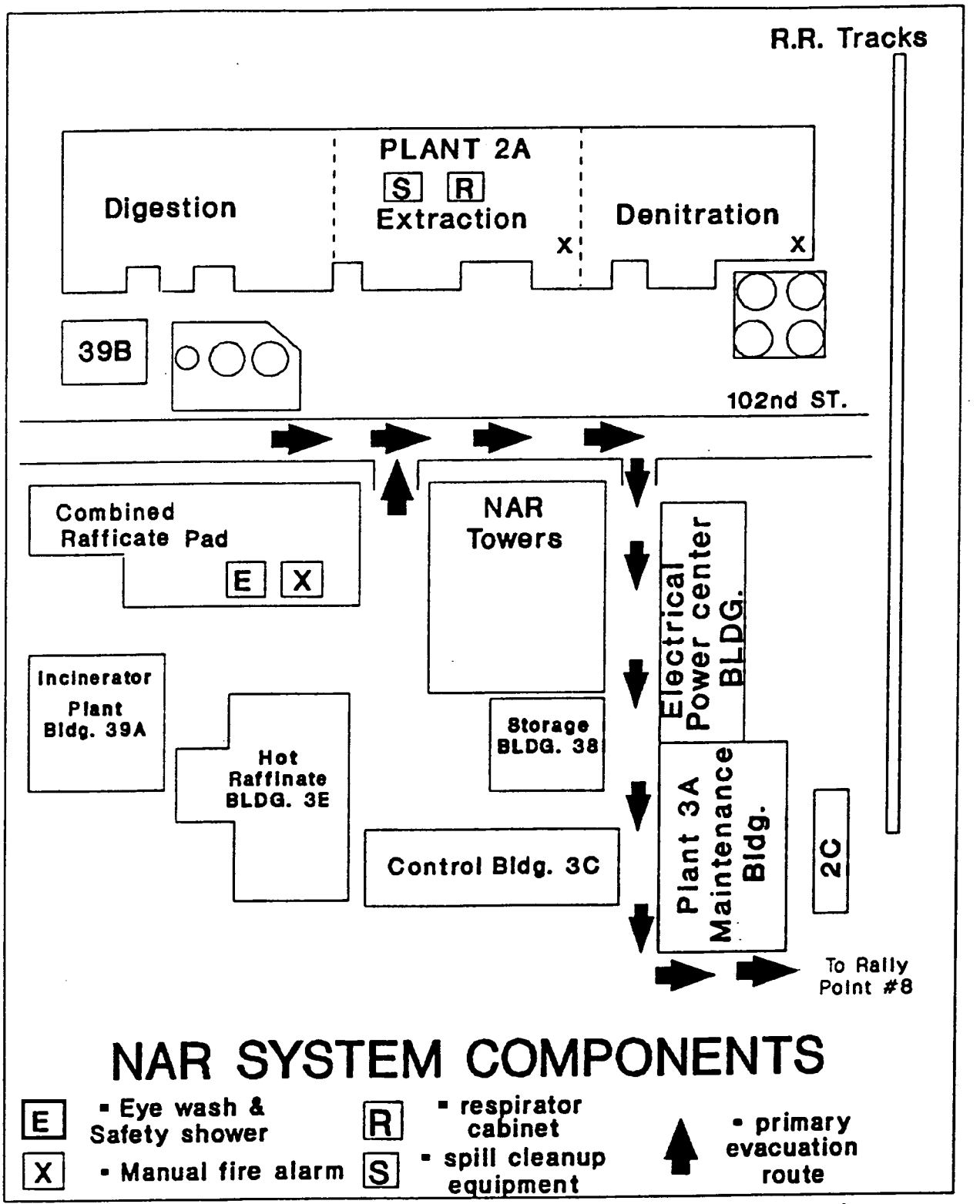
The following is a list of safety equipment located at this HWMU:

- Manual Fire Alarm
  1) West of NAR unit at the Combined Raffinate Pad

- Fire Extinguishers
  1) 15# CO2 Mounted on the fourth floor south east corner
  2) 10# ABC Mounted on the first floor center east wall

- Eye Wash and Safety Shower
  1) At west end of NAR unit at the Combined Raffinate Pad

- Spill Cleanup Equipment and Respirator Cabinets
  1) As listed for Plant 2/3 and Plant 8


R.R. Tracks
PLANT 2A
S R
Extraction
Digestion
Denitration
X
X
39B
102nd ST.
Combined Rafficate Pad
E X
NAR Towers
Electrical Power center BLDG.
Incinerator Plant Bldg. 39A
Hot Raffinate BLDG. 3E
Storage BLDG. 38
Plant 3A Maintenance Bldg.
2C
Control Bldg. 3C
To Rally Point #8
NAR SYSTEM COMPONENTS
E - Eye wash & Safety shower
X - Manual fire alarm
R - respirator cabinet
S - spill cleanup equipment
- primary evacuation route

116

HWMU No. 11 - TANK FARM SUMP

The Tank Farm Sump is a surface impoundment located north of Plant 4.

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.

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

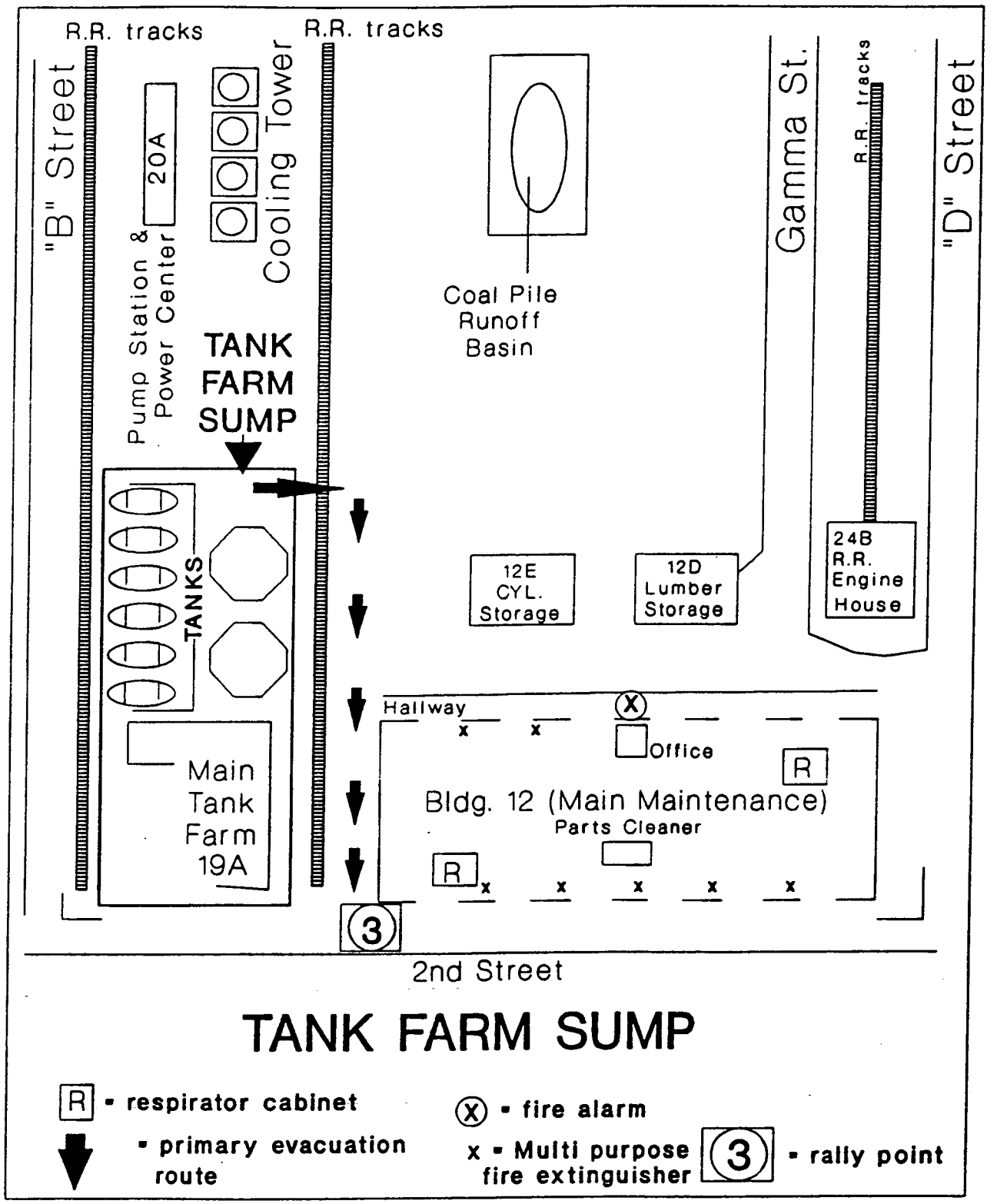
- Manual Fire Alarm
  1) Located at southeast corner of Tank Farm east of new white building on panel Fire Alarm 2.

- Fire Extinguishers
  1) 10# ABC Mounted at the southeast lower catwalk
  2) 5# CO2 Mounted at the southeast lower catwalk
  3) 10# ABC Mounted at the north end lower catwalk

- Eye Wash Stations
  1) Yellow painted walk-in units at various locations throughout the Tank Farm

- Spill cleanup equipment
  1) None located at this unit

- Respirator Cabinet
  1) Cabinet in Building 12


R.R. tracks
R.R. tracks
"B" Street
20A
Pump Station & Power Center
Cooling Tower
TANK FARM SUMP
Coal Pile Runoff Basin
Gamma St.
R.R. tracks
"D" Street
TANKS
12E CYL. Storage
12D Lumber Storage
24B R.R. Engine House
Hallway
Office
Main Tank Farm 19A
Bldg. 12 (Main Maintenance)
Parts Cleaner
2nd Street
TANK FARM SUMP
R - respirator cabinet
primary evacuation route
X - fire alarm
x - Multi purpose fire extinguisher
3 - rally point

HWMU 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. 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.

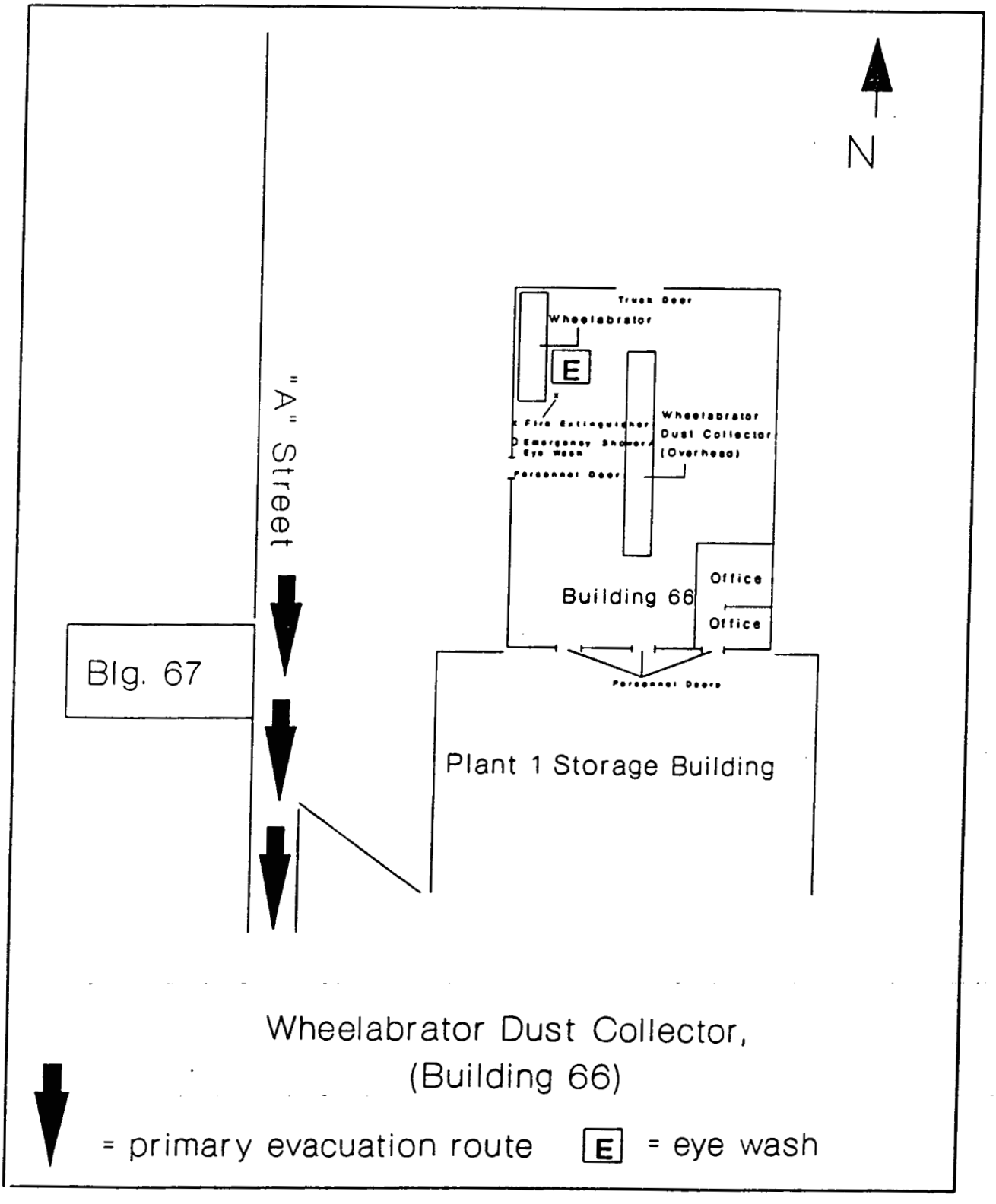
The following is a list of safety equipment located in this HWMU:

- Manual Fire Alarm
  1) Use manual alarm at northeast corner of Plant 1

- Fire Extinguishers - Plant 1 Truck Dock
  1) 15# CO2 Mounted First Floor southeast end of Truck Dock
  2) 10# ABC Mounted First Floor southeast Truck Dock
  3) 10# ABC Mounted First Floor Transportation Office on Truck Dock
  4) 10# ABC center west side of building

- Eye Wash Stations
  1) On west side near center of Building 66

- Spill Cleanup Equipment and Respirator Cabinets
  1. None are located in this unit. Use equipment from Plant 1 Pad area



Wheelabrator Dust Collector,
(Building 66)

= primary evacuation route E = eye wash

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 following is a list of safety equipment located at this HWMU:

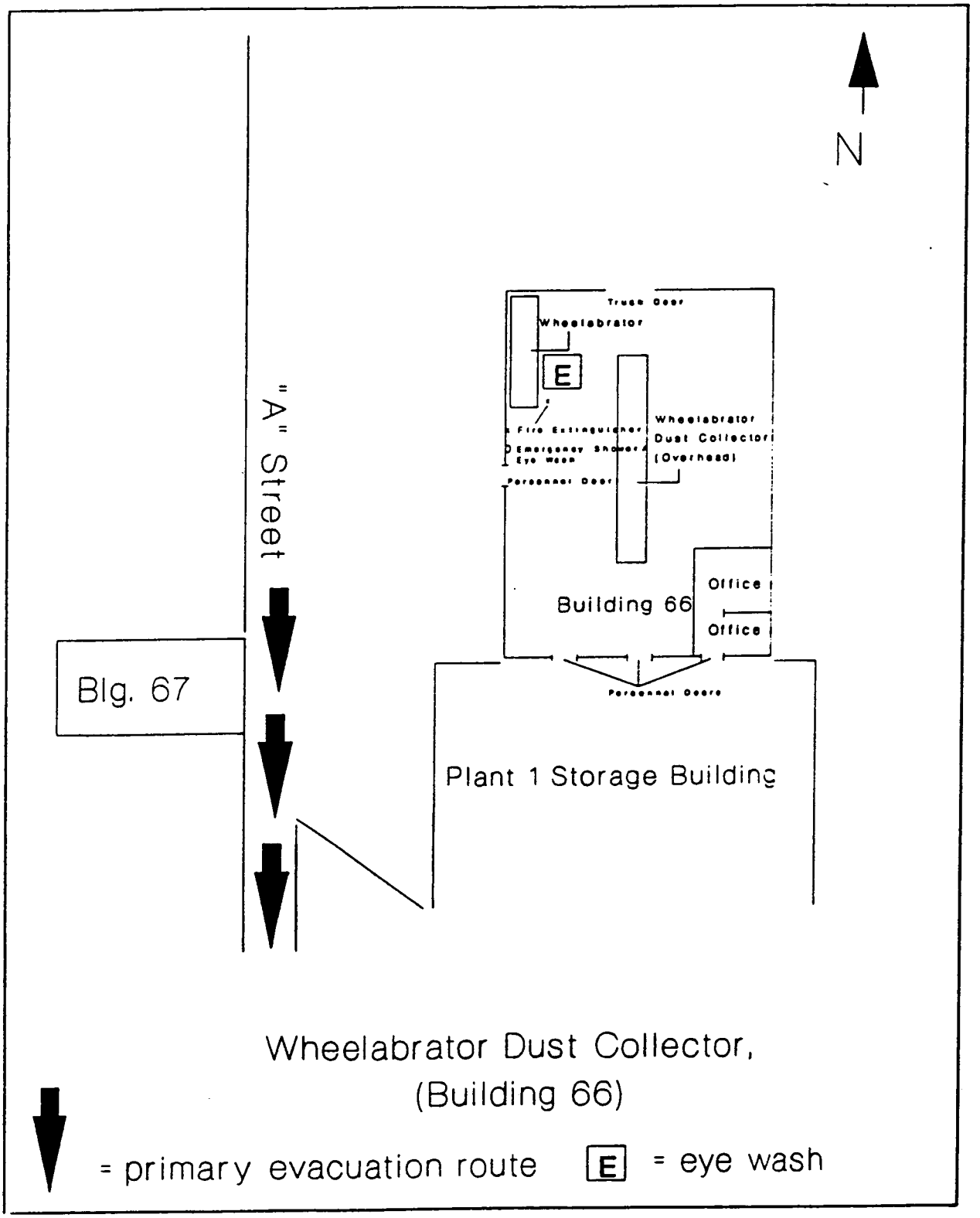
- Manual Fire Alarm
  1) Use manual alarm at northeast corner of Plant 1

- Fire Extinguishers - Plant 1 Truck Dock
  1) 15# CO2 Mounted First Floor southeast end of Truck Dock
  2) 10# ABC Mounted First Floor southeast Truck Dock
  3) 10# ABC Mounted First Floor Transportation Office on Truck Dock
  4) 10# ABC center west side of building

- Eye Wash Stations
  1) On west side near center of Building 66

- Spill Cleanup Equipment
  1) 10 portable units are available in Plant 1 Pad area

- Respirator Cabinet
  1) Use cabinet in Plant 1


N
"A" Street
Truck Door
Wheelabrator
E
Wheelabrator
Dust Collector
(Overhead)
Fire Extinguisher
Emergency Shower
Eye Wash
Personnel Door
Office
Office
Building 66
Personnel Doors
Bldg. 67
Plant 1 Storage Building
Wheelabrator Dust Collector,
(Building 66)
= primary evacuation route
E = eye wash

HWMU No. 14 - BOX FURNACE (PLANT 8)

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 located at this HWMU:

- Manual Fire Alarm
  1) Inside Plant 8 at column C-7

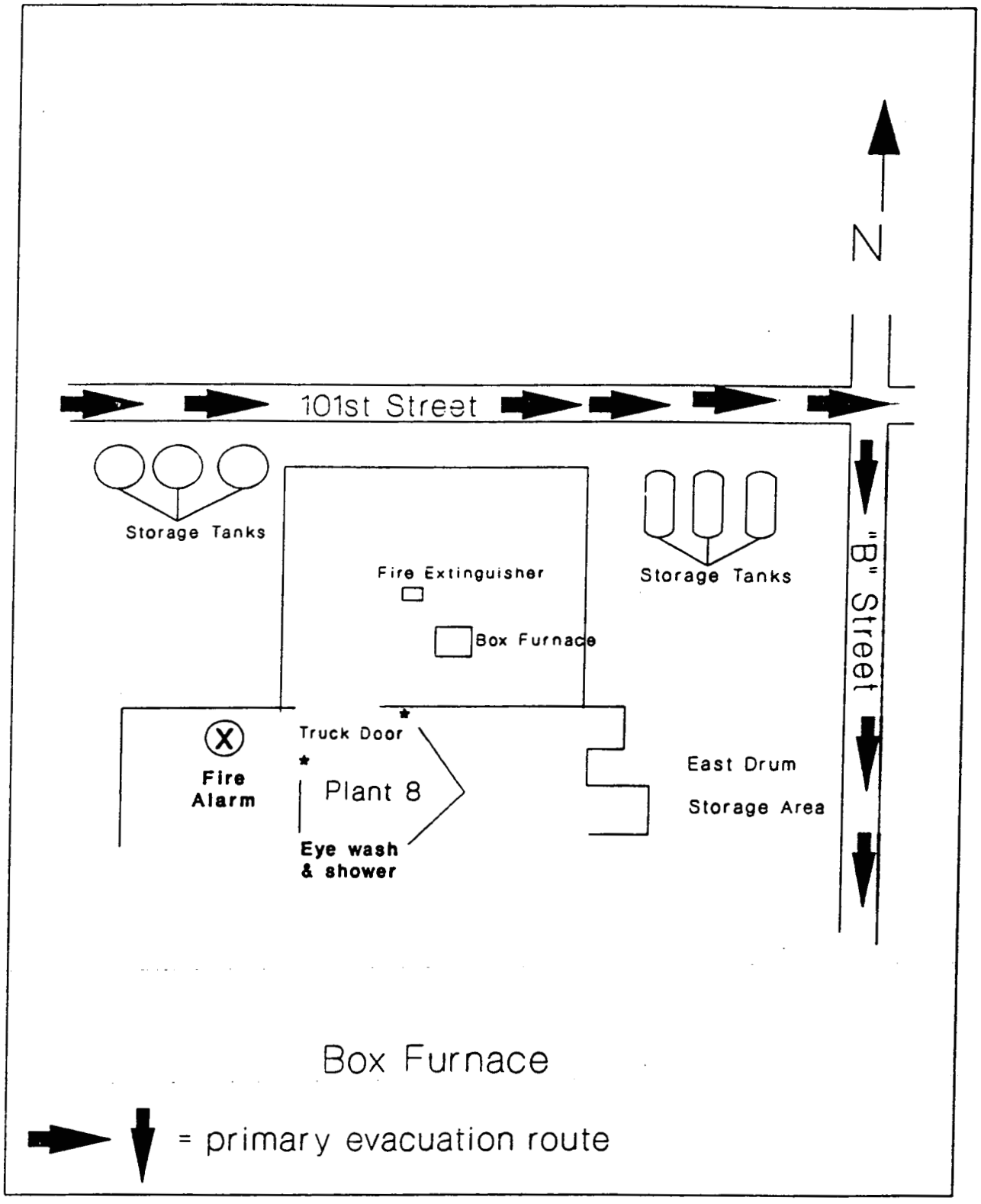
- Fire Extinguishers - First Floor Plant 8
  1) 15# CO2 First Floor west side by overhead door
  2) 10# ABC First Floor Control Room outside wall
  3) 15# CO2 First Floor Control Room inside east wall
  4) 15# CO2 First Floor south wall near Column A-04
  5) 15# CO2 First Floor west end of kiln by stairs
  6) 15# CO2 First Floor east end of kiln
  7) 10# ABC First Floor Column C-10 by overhead door
  8) 30# M X First Floor Box Furnace Pad outside north door
  9) 10# ABC First Floor at east elevator
  10) 10# M X First Floor in elevator

HWMU No. 14 - BOX FURNACE (PLANT 8)

- Eye Wash Stations and Safety Showers
  1) Inside Plant 8 at column B-7 .
  2) Inside nearest roll-up door

- Spill Cleanup Equipment
  1) None are located at this unit

- Respirator Cabinet
  1) 1st Floor northeast Control Room
  2) 2nd Floor Center by stairs


N
101st Street
"B" Street
Storage Tanks
Fire Extinguisher
Box Furnace
Storage Tanks
Truck Door
Fire Alarm
Plant 8
Eye wash & shower
East Drum Storage Area
Box Furnace
= primary evacuation route

HWMU No. 15 - OXIDATION FURNACE NUMBER 1 (PLANT 8)

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 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 located at this HWMU:

- Manual Fire Alarm
  1) On inside east wall by roll up door

Fire Extinguishers - First Floor Plant 8

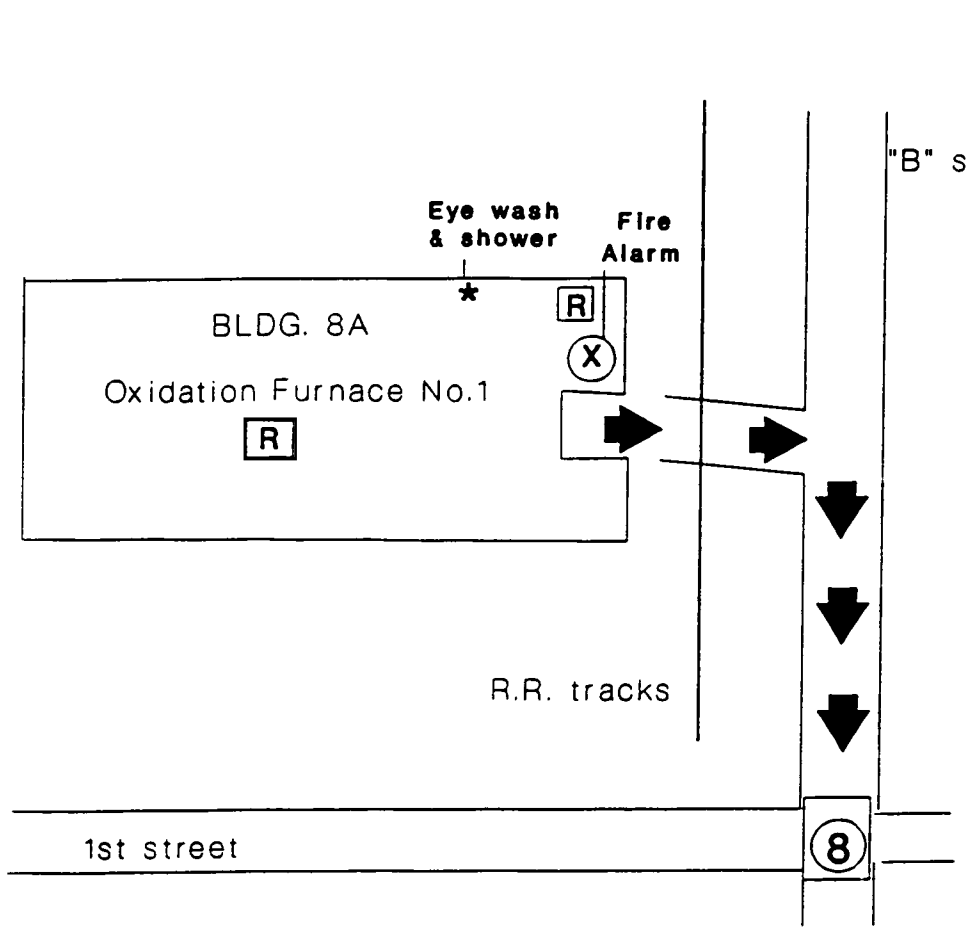
1) 15# CO2 First Floor west side by overhead door
2) 10# ABC First Floor Control Room outside wall
3) 15# CO2 First Floor Control Room inside east Wall
4) 15# CO2 First Floor south wall near Column A-04
5) 15# CO2 First Floor west end of kiln by stairs
6) 15# CO2 First Floor east end of kiln
7) 10# ABC First Floor Column C-10 by overhead door
8) 30# M X First Floor Box Furnace Pad outside north door
9) 10# ABC First Floor at east elevator
10) 10# M X First Floor in elevator

HWMU No. 15 - OXIDATION FURNACE NUMBER 1 (PLANT 8)

- Eye Wash and Safety Shower
  1) Inside Plant 8 at column B-7
  2) At east side of nearest roll-up door

- Spill Cleanup Equipment
  1) None is located at this unit

- Respirator Cabinet
  1) 1st Floor northeast of Control Room
  2) 2nd Floor Center by stairs



OXIDATION FURNACE NO.1

R - respirator cabinet

- PRIMARY EVACUATION ROUTE

8 - RALLY POINT

HWMU No. 16 - PRIMARY CALCINER (PLANT 8)

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 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 located at this HWMU:

- Manual Fire Alarm
  1) On inside east wall by roll-up door

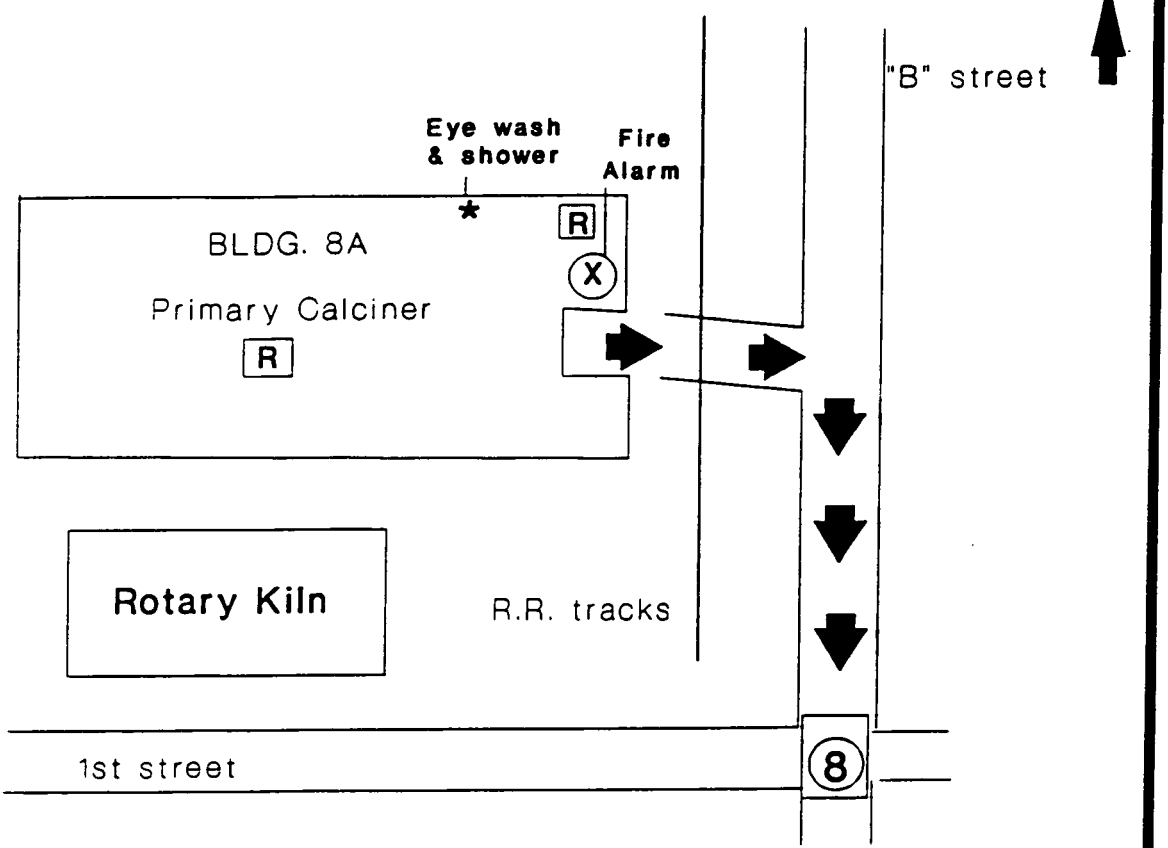
- Fire Extinguishers - First Floor Plant 8
  1) 15# CO2 First Floor west side by overhead door
  2) 10# ABC First Floor Control Room outside wall
  3) 15# CO2 First Floor Control Room inside east wall
  4) 15# CO2 First Floor south wall near Column A-04
  5) 15# CO2 First Floor west end of kiln by stairs
  6) 15# CO2 First Floor east end of kiln
  7) 10# ABC First Floor Column C-10 by overhead door
  8) 30# M X First Floor Box Furnace Pad outside north door
  9) 10# ABC First Floor at east elevator
  10) 10# M X First Floor in elevator

  Eye Wash and Safety Shower
  a. Inside Plant 8 at column B 7
  b. On east side of roll-up door

HWMU No. 16 - PRIMARY CALCINER (PLANT 8)

- Spill Cleanup Equipment
  1) None is located at this unit

- Respirator Cabinet
  1) 1st Floor northeast Control Room
  2) 2nd Floor center by the stairs



PRIMARY CALCINER (PLANT 8)

R = respirator cabinet

= PRIMARY EVACUATION ROUTE

8 = RALLY POINT

HWMU No. 17 - PLANT 8 EAST DRUM STORAGE PAD

2480

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.

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

- Manual Fire Alarm
  1) On inside east wall at roll-up door of Plant 8

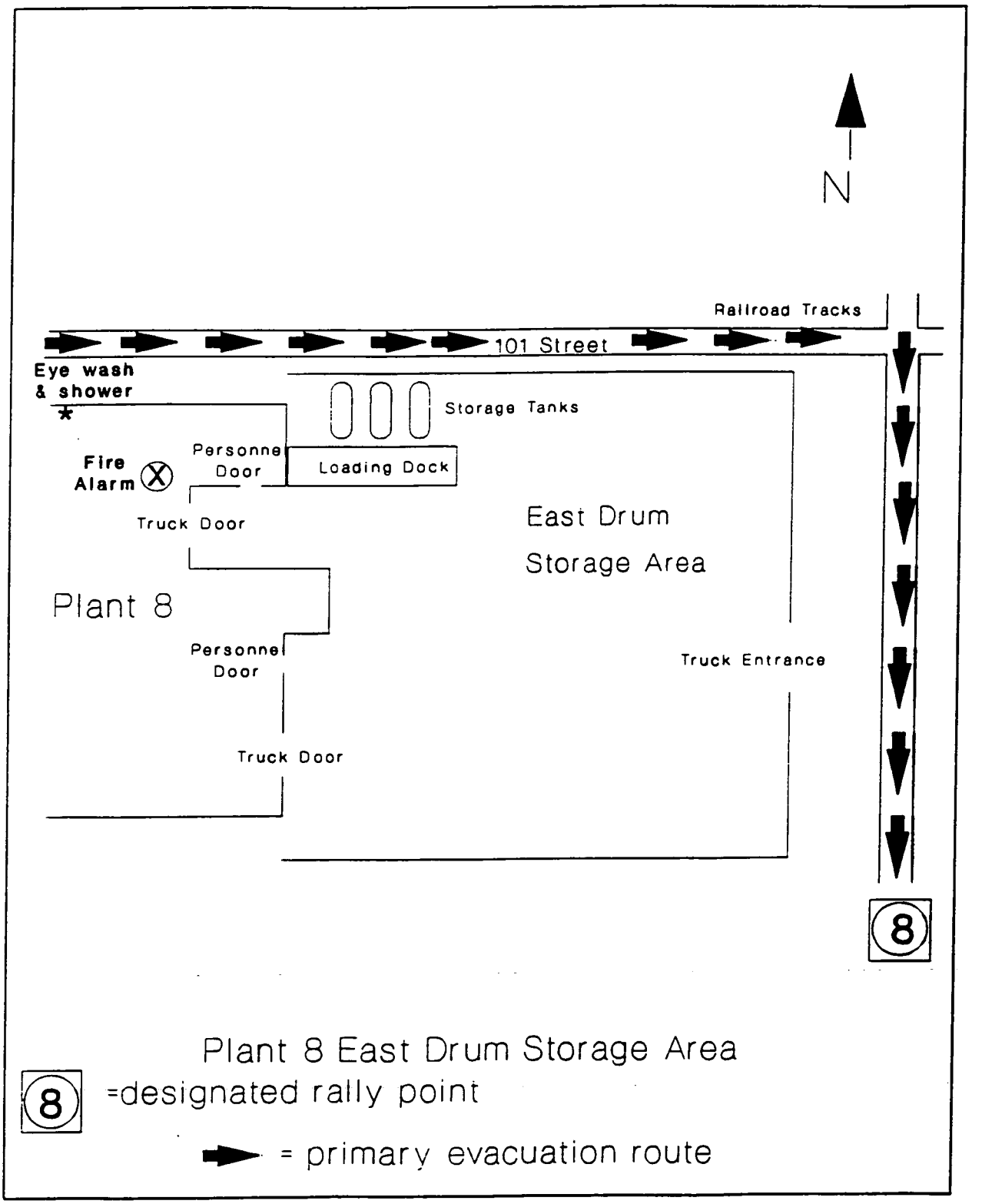
- Fire Extinguishers - First Floor Plant 8
  1) 15# CO2 First Floor west side by overhead door
  2) 10# ABC First Floor Control Room outside wall
  3) 15# CO2 First Floor Control Room inside east Wall
  4) 15# CO2 First Floor south wall near Column A-04
  5) 15# CO2 First Floor west end of kiln by stairs
  6) 15# CO2 First Floor east end of kiln
  7) 10# ABC First Floor Column C-10 by overhead door
  8) 30# M X First Floor Box Furnace Pad outside north door
  9) 10# ABC First Floor at east elevator
  10) 10# M X First Floor in elevator

HWMU No. 17 - PLANT 8 EAST DRUM STORAGE PAD

- Eye Wash
  1) Inside on east side of roll-up door

- Spill Cleanup Equipment
  1) None available at this unit

- Respirator Cabinet (Plant 8)
  1) 1st Floor northeast Control Room
  2) 2nd Floor center by stairs


N
Railroad Tracks
101 Street
Eye wash
& shower
Storage Tanks
Personnel
Door
Loading Dock
Fire
Alarm
Truck Door
East Drum
Storage Area
Plant 8
Personnel
Door
Truck Entrance
Truck Door
8
Plant 8 East Drum Storage Area
8
=designated rally point
= primary evacuation route

HWMU No. 18 - PLANT 8 WEST DRUM STORAGE PAD

The Plant 8 West 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 located at this HWMU:

- Manual Fire Alarm
  1) Inside Plant 8 near west wall near supervisor's office

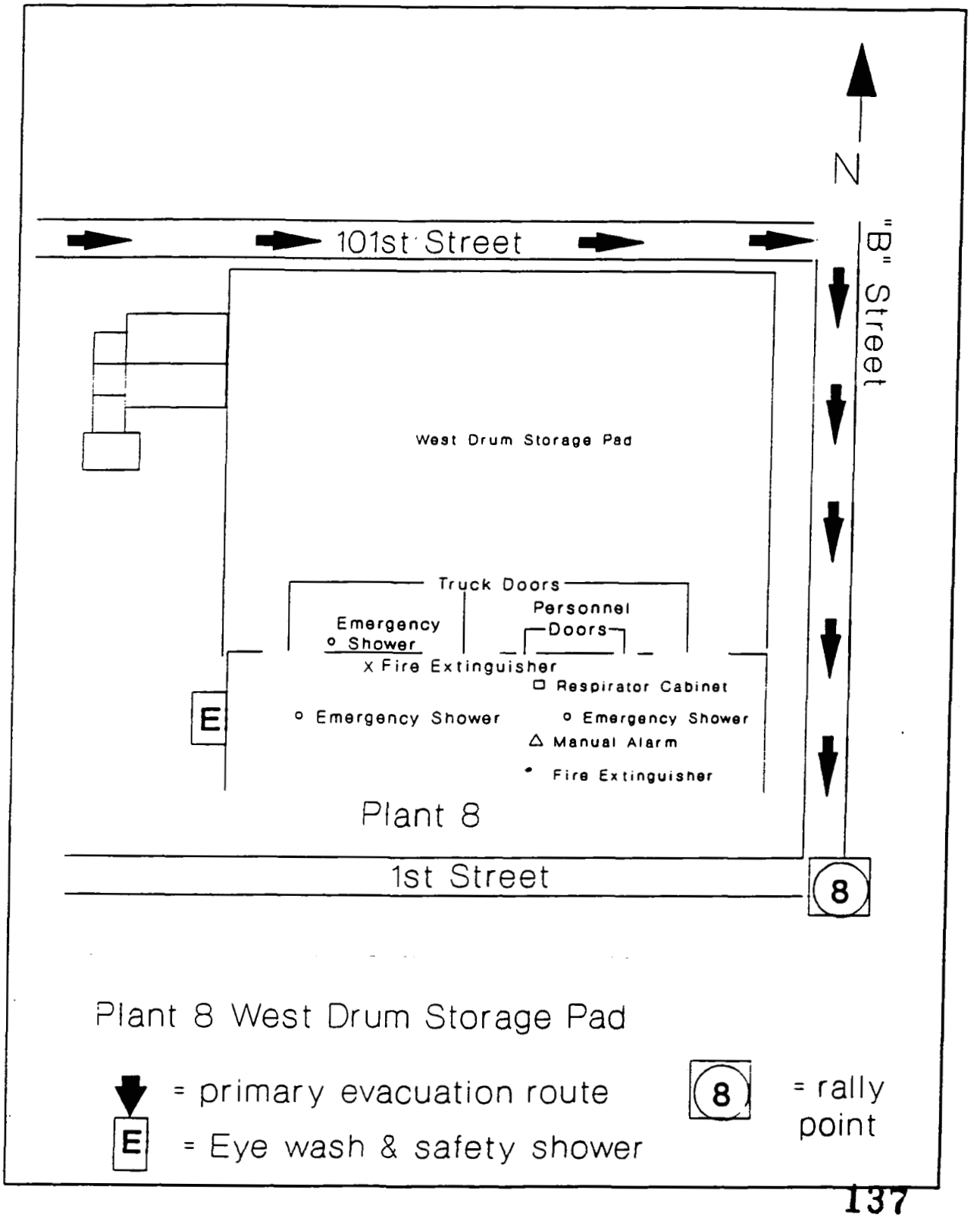
- Fire Extinguishers - First Floor Plant 8
  1) 15# CO2 First Floor west side by overhead door
  2) 10# ABC First Floor Control Room outside wall
  3) 15# CO2 First Floor Control Room inside east wall
  4) 15# CO2 First Floor south wall near Column A-04
  5) 15# CO2 First Floor west end of kiln by stairs
  6) 15# CO2 First Floor east end of kiln
  7) 10# ABC First Floor Column C-10 by overhead door
  8) 30# M X First Floor Box Furnace Pad outside north door
  9) 10# ABC First Floor at east elevator
  10) 10# M X First Floor in elevator

HWMU No. 18 - PLANT 8 WEST DRUM STORAGE PAD

- Eye Wash Station and Safety Shower
  1) On outside west wall of Plant 8

- Spill Cleanup Equipment
  1) None available at this unit.

- Respirator Cabinet (Plant 8)
  1) 1st Floor northeast Control Room
  2) 2nd Floor center by stairs


N
101st Street
"B" Street
West Drum Storage Pad
Truck Doors
Personnel Doors
Emergency Shower
Fire Extinguisher
Respirator Cabinet
E
Emergency Shower
Emergency Shower
Manual Alarm
Fire Extinguisher
Plant 8
1st Street
8
Plant 8 West Drum Storage Pad
= primary evacuation route
E
= Eye wash & safety shower
8
= rally point

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 and east on 2nd Street to the intersection of "C" Street.

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

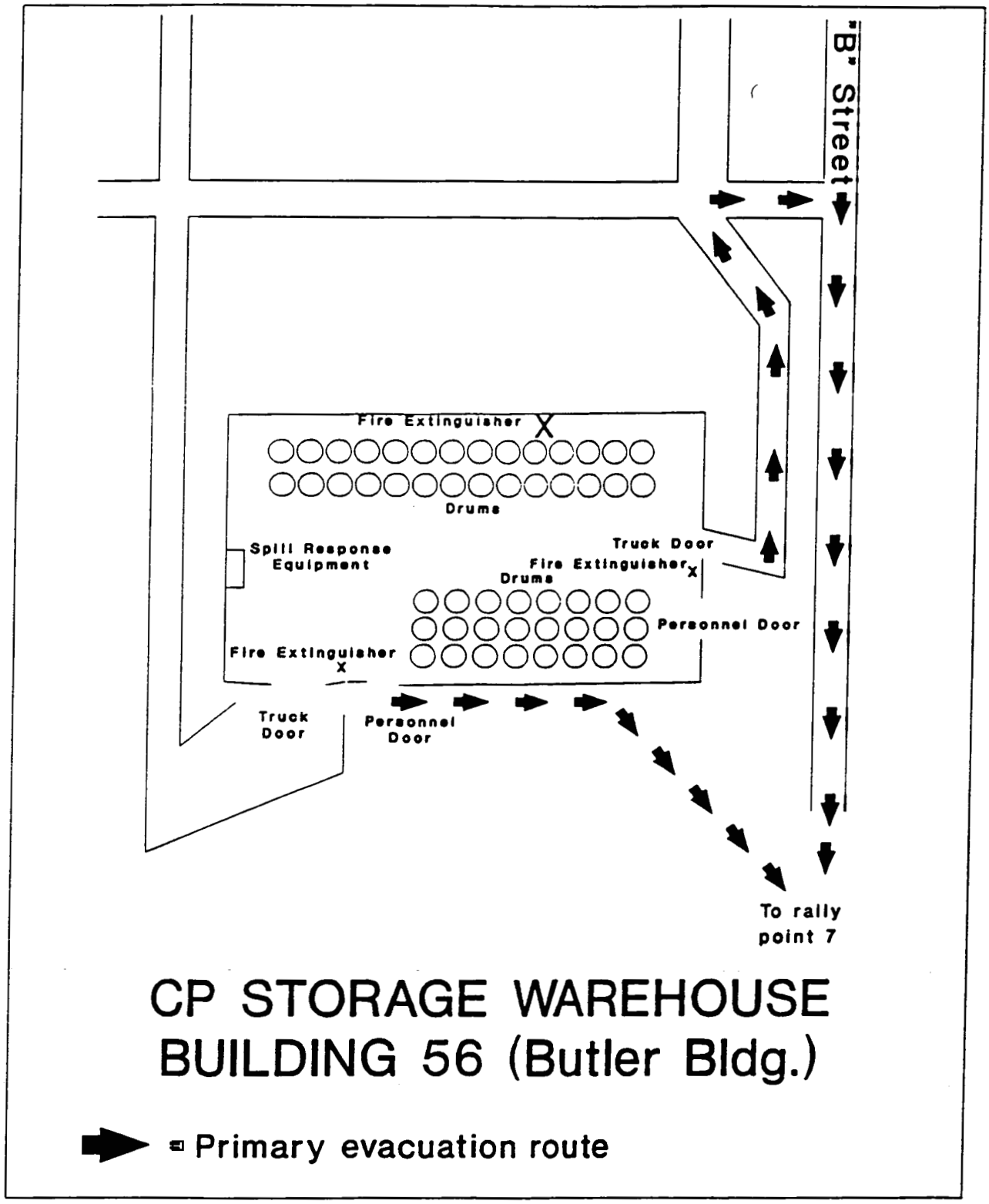
- Manual Fire Alarms
  1) On outside northeast building corner
  2) On outside southeast building corner

- Fire extinguishers
  1) 20# ABC between south pedestrian door and southwest truck door
  2) 10# ABC on north wall center of building
  3) 5# ABC on wall by east truck door

- Eye Wash Station
  1) None available at this location

- Spill Cleanup Equipment
  1) Located near the west side center of building

- Respirator Cabinet
  1) None available at this unit.



CP STORAGE WAREHOUSE BUILDING 56 (Butler Bldg.)

= Primary evacuation route

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 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 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 located at this HWMU:

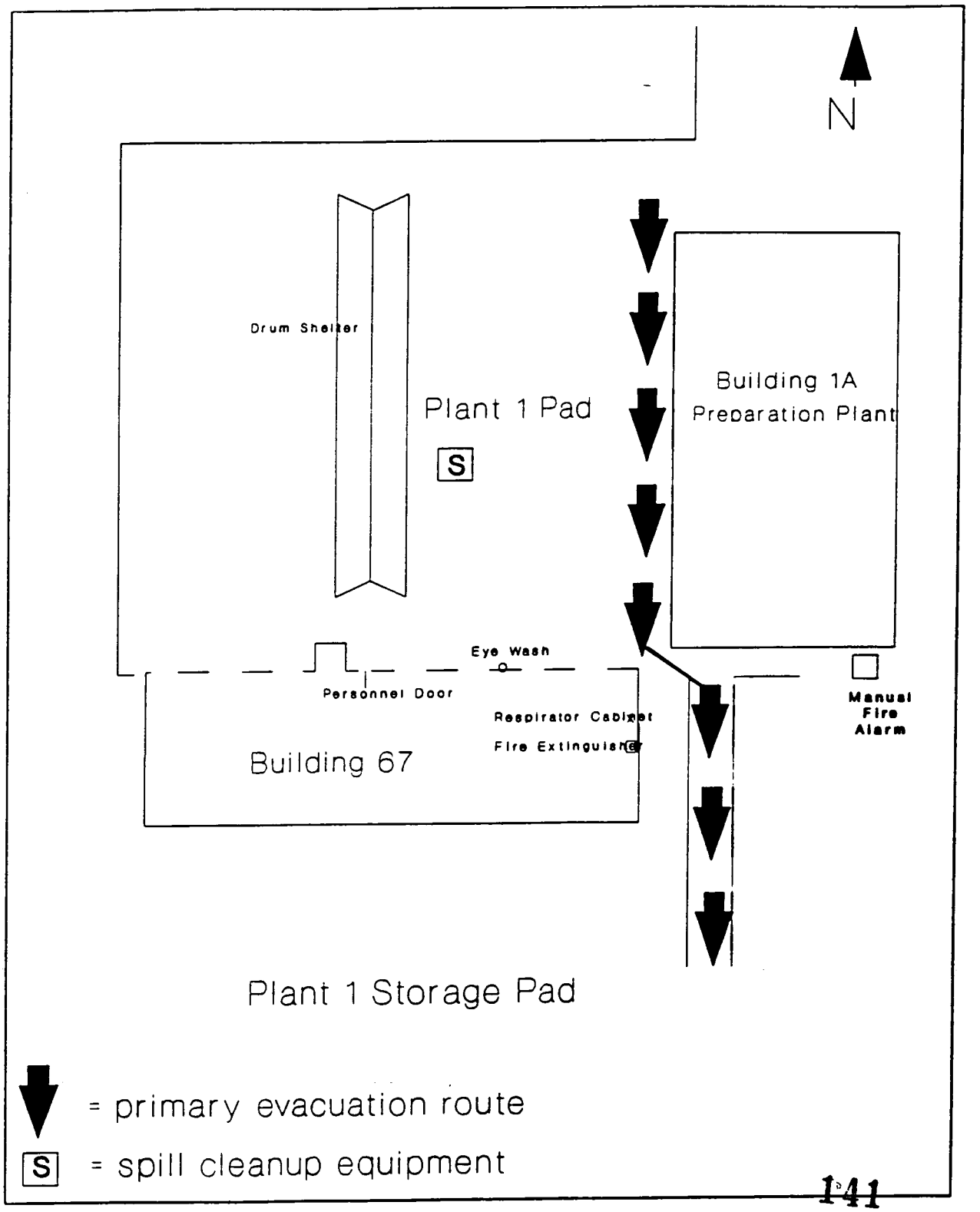
- Manual Fire Alarm
  1) On outside south wall of Building 1A near center
  2) Outside northwest corner of Plant 1

- Fire Extinguishers - Truck Dock
  1) 15# CO2 First Floor southeast end of Truck Dock
  2) 10# ABC First Floor southeast of Truck Dock
  3) 10# ABC First Floor Transport Office on dock

- Eye Wash Station
  1) Outside of building near north center

- Spill Cleanup Equipment
  1) Portable equipment box

- Respirator Cabinet - (Plant 1)
  1) Over-packing area - north center wall
  2) At Transportation Truck Dock on north wall


N
Drum Shelter
Plant 1 Pad
S
Building 1A
Preparation Plant
Eye Wash
Personnel Door
Respirator Cabinet
Fire Extinguisher
Manual
Fire
Alarm
Building 67
Plant 1 Storage Pad
= primary evacuation route
S = spill cleanup equipment

141

HWMU No. 21 - HILCO OIL RECOVERY (BLDG. 5)

This unit is located in Plant 5 and consists of a 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).

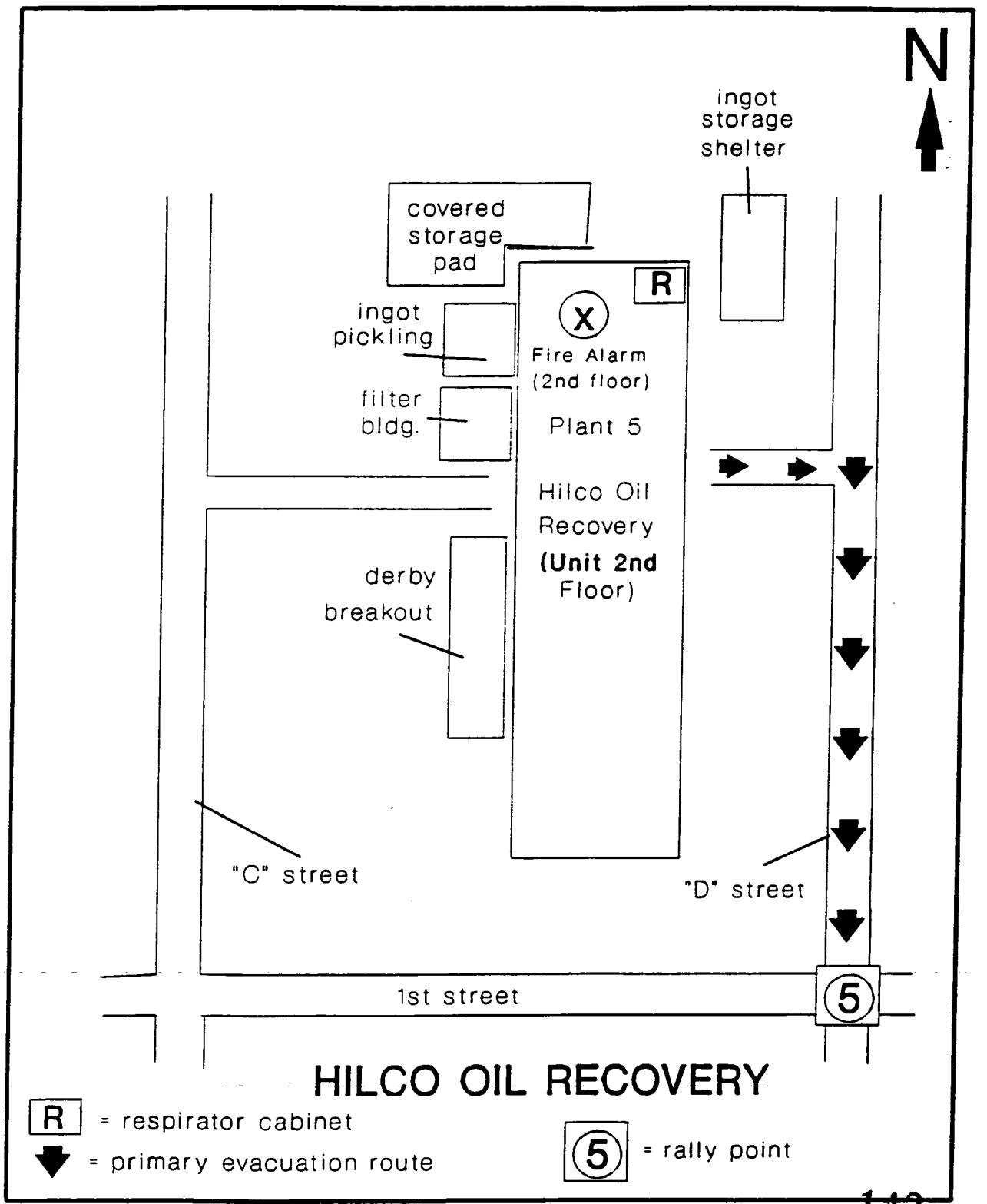
The following is a list of safety equipment located at this HWMU:

- Manual Fire Alarm
  1) Located on 2nd floor at location 30 - west of Hilco unit

- Fire Extinguishers
  1) 50# BC Second Floor north wall
  2) 15# CO2 Second Floor Graphite Shop east wall

- Eye Wash Station and Spill Cleanup Equipment
  1) None available at this unit.

- Respirator Cabinet
  1) Maintenance Shop north wall in Plant 5


N
ingot storage shelter
covered storage pad
R
X
ingot pickling
Fire Alarm (2nd floor)
filter bldg.
Plant 5
Hilco Oil Recovery
(Unit 2nd Floor)
derby breakout
"C" street
"D" street
1st street
5
HILCO OIL RECOVERY
R = respirator cabinet
= primary evacuation route
5 = rally point

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 located at this HWMU:

- Manual Fire Alarm
  1) On outside south wall of Pilot Plant near center of building

- Fire Extinguishers - Pilot Plant
  1) 15# CO2 First Floor Annex north entrance
  2) 15# CO2 First Floor Annex northeast entrance
  3) 30# M X First Floor Annex south end
  4) 15# CO2 First Floor Annex south end
  5) 10# ABC First Floor Extraction south wall
  6) 10# ABC First Floor Extraction West wall
  7) 10# ABC First Floor Extraction deck level 1
  8) 10# ABC First Floor Wet Area southeast wall
  9) 10# ABC First Floor Wet Area north Wall
  10) 10# ABC First Floor Maintenance Shop southeast
  11) 15# CO2 First Floor Maintenance Shop northwest
  12) 10# ABC First Floor north wall Furnace Room
  13) 20# ABC First Floor north wall Reactor Room
  14) 15# CO2 First Floor stairs to Reactor Tower

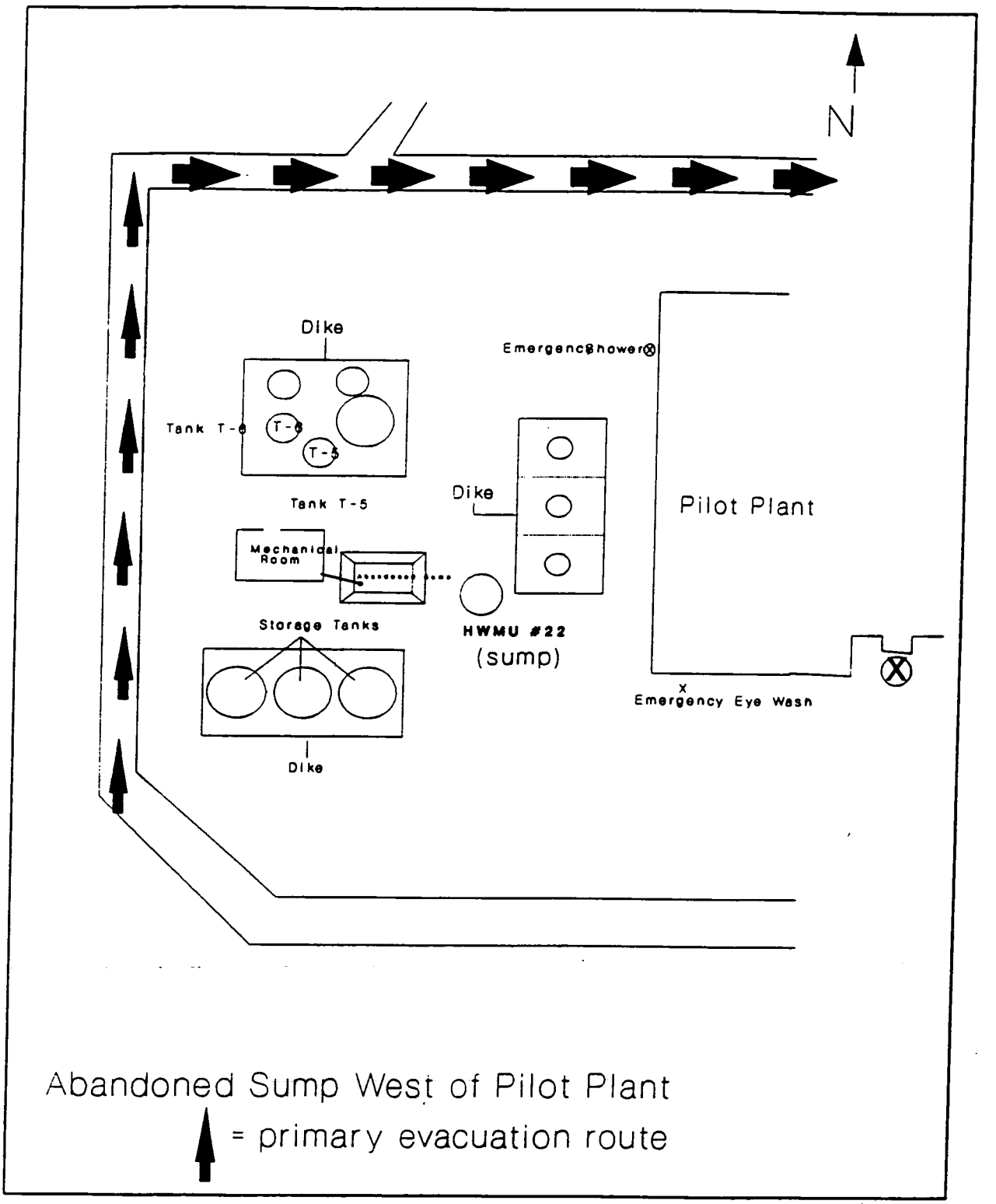
HWMU No. 22 - ABANDONED SUMP WEST OF PILOT PLANT

15) 10# ABC First Floor S.W. wall Reactor Area
16) 13# H A First Floor DCS Room
17) 5# CO2 First Floor outside Battery Room
18) 20# ABC First Floor Autoclave N.W. entrance
19) 10# ABC First Floor Autoclave south overhead door
20) 13# H A First Floor Foreman's Office
21) 15# CO2 First Floor Autoclave south overhead door
23) 50# CO2 First Floor south Wall Autoclave area
24) 20# ABC Outside south Ammonia Tank Farm at safety shower
25) 10# ABC Outside south Ammonia Tank Farm west fence
26) 10# ABC First Floor P.P. New Warehouse (54B) east wall

- Eye Wash Station
  1) On outside south wall of Pilot Plant near center of building
  2) At corner on outside west wall of Pilot Plant

- Spill Cleanup Equipment
  1) None available at this unit.

- Respirator Cabinet (Building 37)
  1) North east area



Abandoned Sump West of Pilot Plant

= primary evacuation route

HWMU No. 23 - WELL DRILLING STORAGE AREA

This area is located east-northeast of the Waste Pit Area.

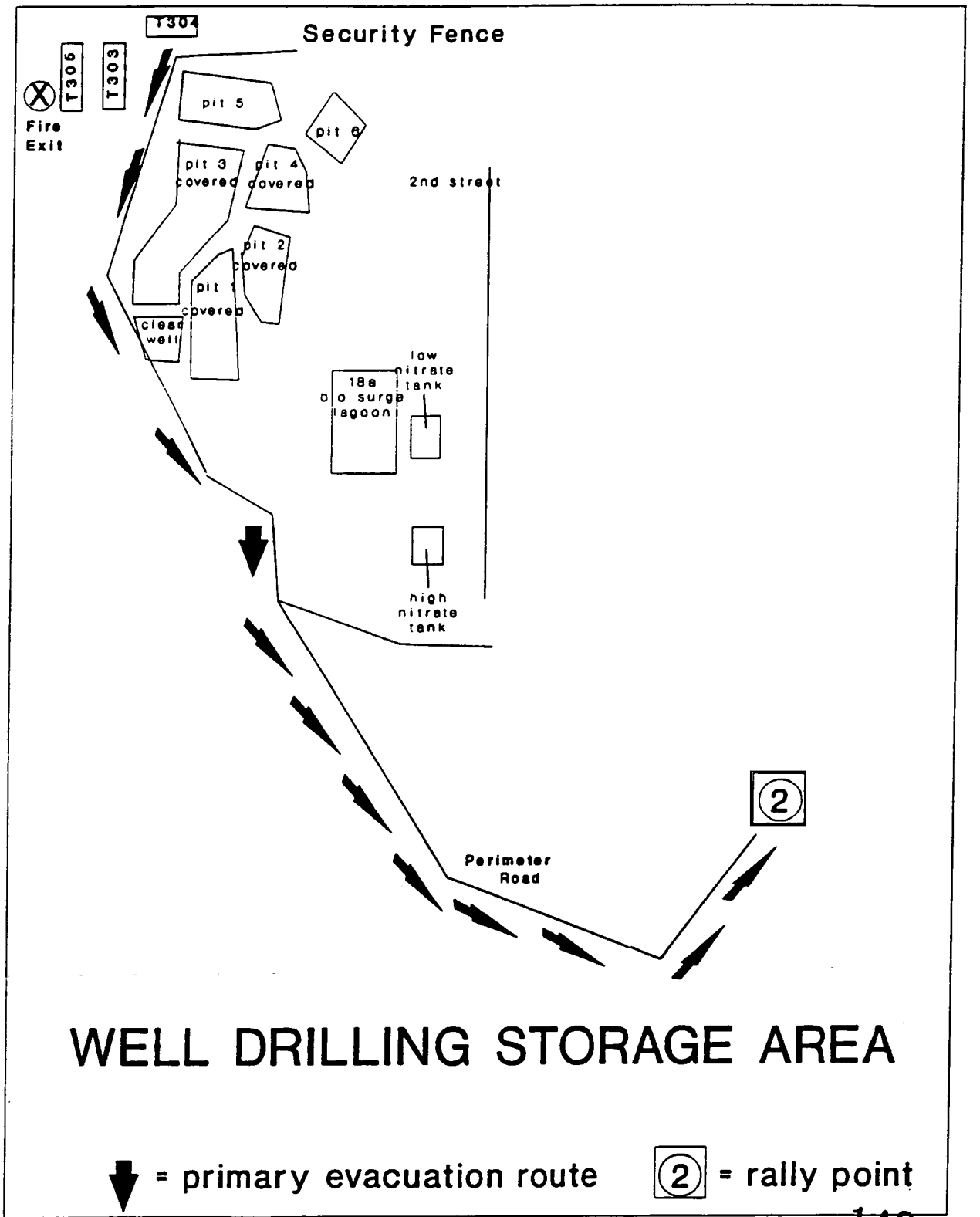
Personnel should evacuate using the access road in the southern direction to the Ash Pit access road, then northeast to Rally Point 2. Rally Point No. 2 is located in the west FEMP parking lot north of the Stormwater Retention Basin.

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.

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

- Manual Fire Alarm
  1) None available at this unit. Telephones are available in the Office Trailers.

This area is serviced by the Emergency Response Team (ERT). All equipment is furnished by the ERT.



WELL DRILLING STORAGE AREA

= primary evacuation route (2) = rally point

HWMU No. 24 - EQUIPMENT STORAGE AREA

This area is a waste accumulation area located east-northeast of the Waste Pit Area.

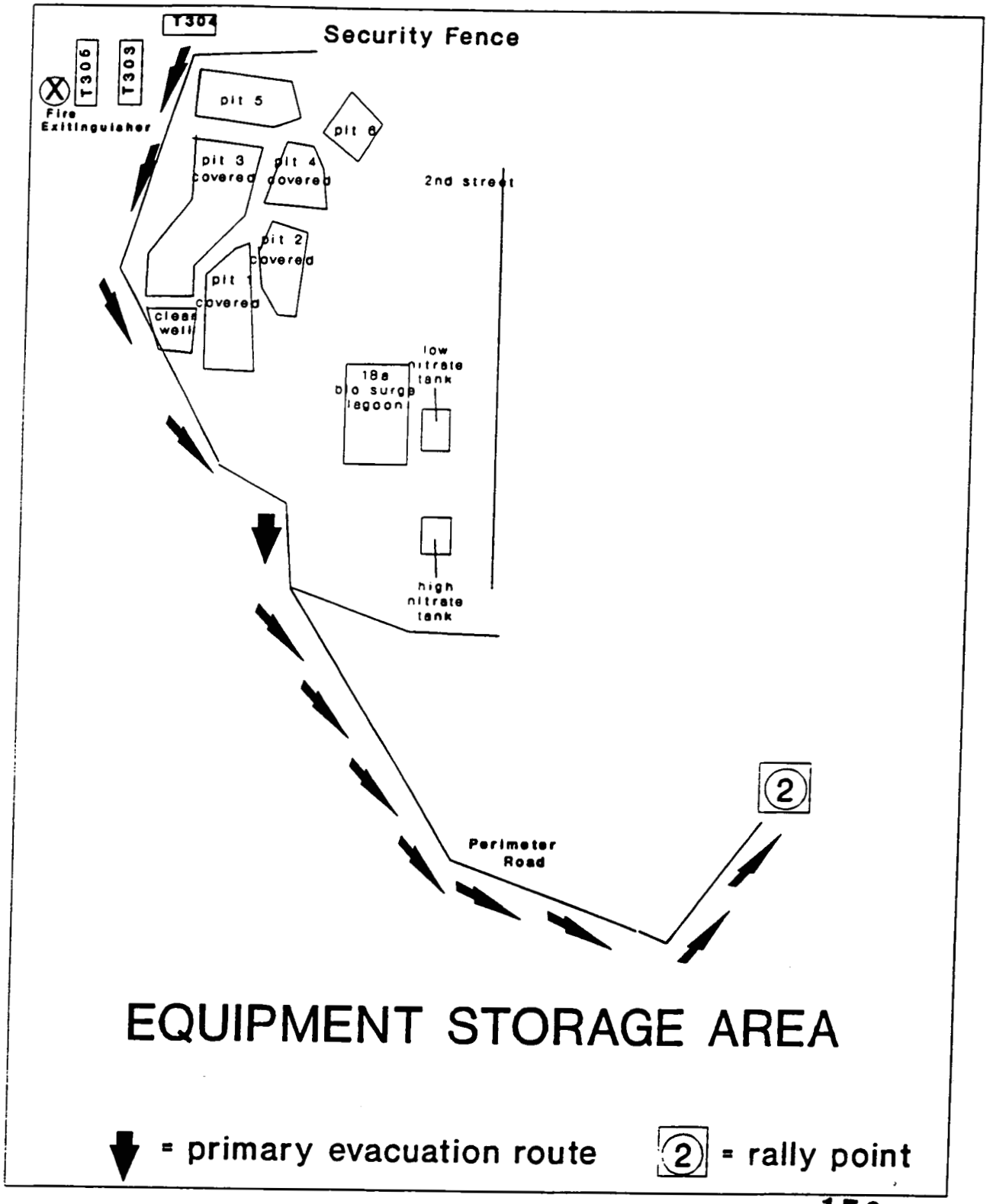
Personnel should evacuate using the access road in the southern direction to the Ash Pit access road, then northeast to Rally Point 2. Rally Point No. 2 is located in the west FEMP parking lot north of the Stormwater Retention Basin.

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.

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

- Manual Fire Alarm
  1) None are available at this unit. Telephones are available in the Office Trailers.

This area is serviced by the Emergency Response Team (ERT). All equipment is furnished by the ERT.


T304
Security Fence
T306
T303
Fire Extinguisher
pit 5
pit 6
pit 3 covered
pit 4 covered
2nd street
pit 2 covered
pit 1 covered
clear well
low nitrate tank
18a bio surge lagoon
high nitrate tank
2
Perimeter Road
EQUIPMENT STORAGE AREA
= primary evacuation route
2 = rally point

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

The Plant 1 Storage Building (Building 67) is a storage area located east 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 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 located at this HWMU:

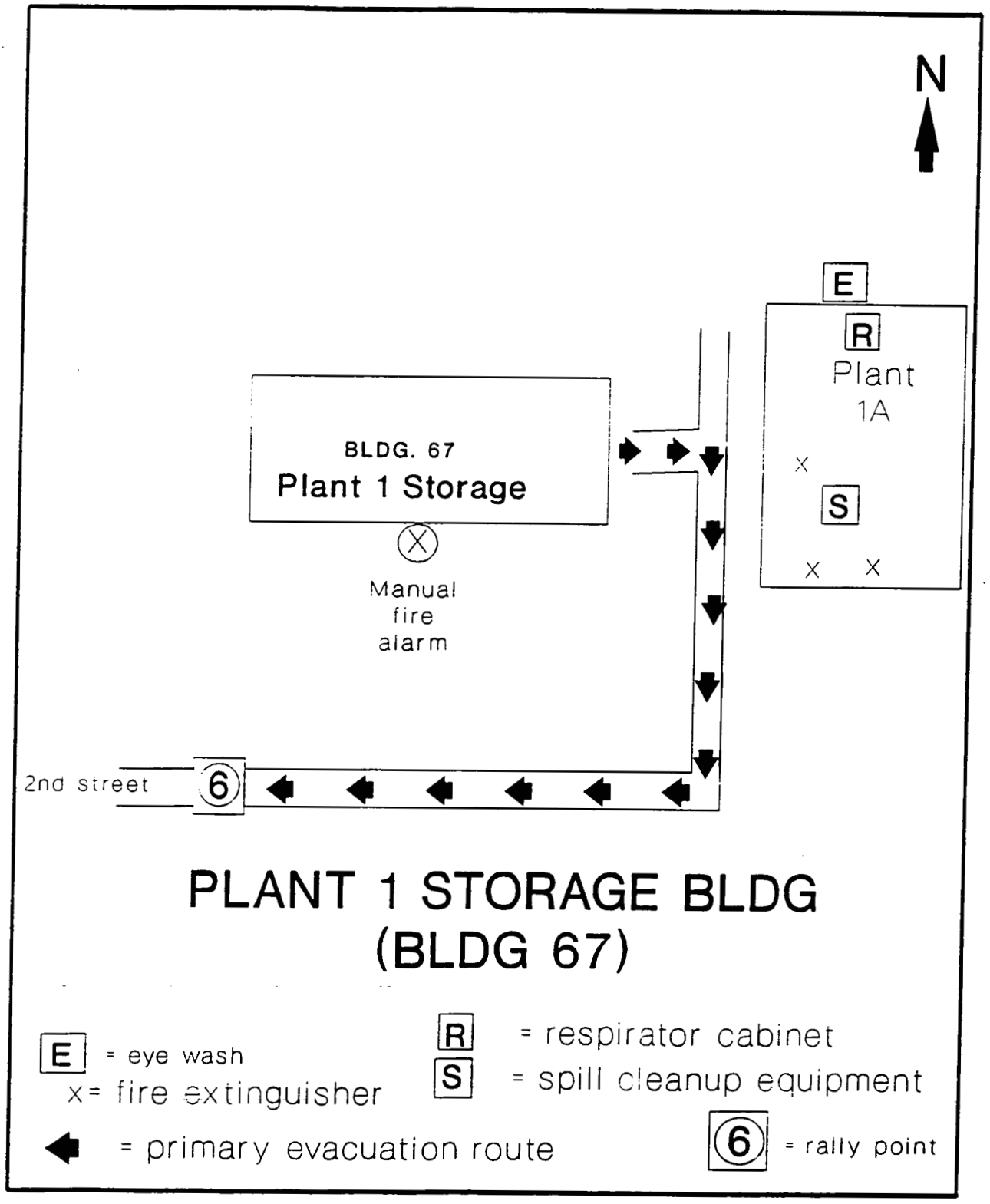
- Manual Fire Alarm
  1) Outside south-side wall near center of Plant 1A

- Fire Extinguishers
  1) None are available at this unit. Use extinguishers at Plant 1A

- Eye Wash Station
  1) None are available at this unit. Use portable from Plant 1 Pad

- Spill Cleanup Equipment
  1) Use cabinet at Plant 1

- Respirator Cabinet
  1) None are available at this unit.



PLANT 1 STORAGE BLDG (BLDG 67)

E = eye wash
X = fire extinguisher
R = respirator cabinet
S = spill cleanup equipment
= primary evacuation route
6 = rally point

HWMU No. 26 - DETREX STILL (BLDG 1A)

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 to 2nd Street and 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 located at this HWMU:

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

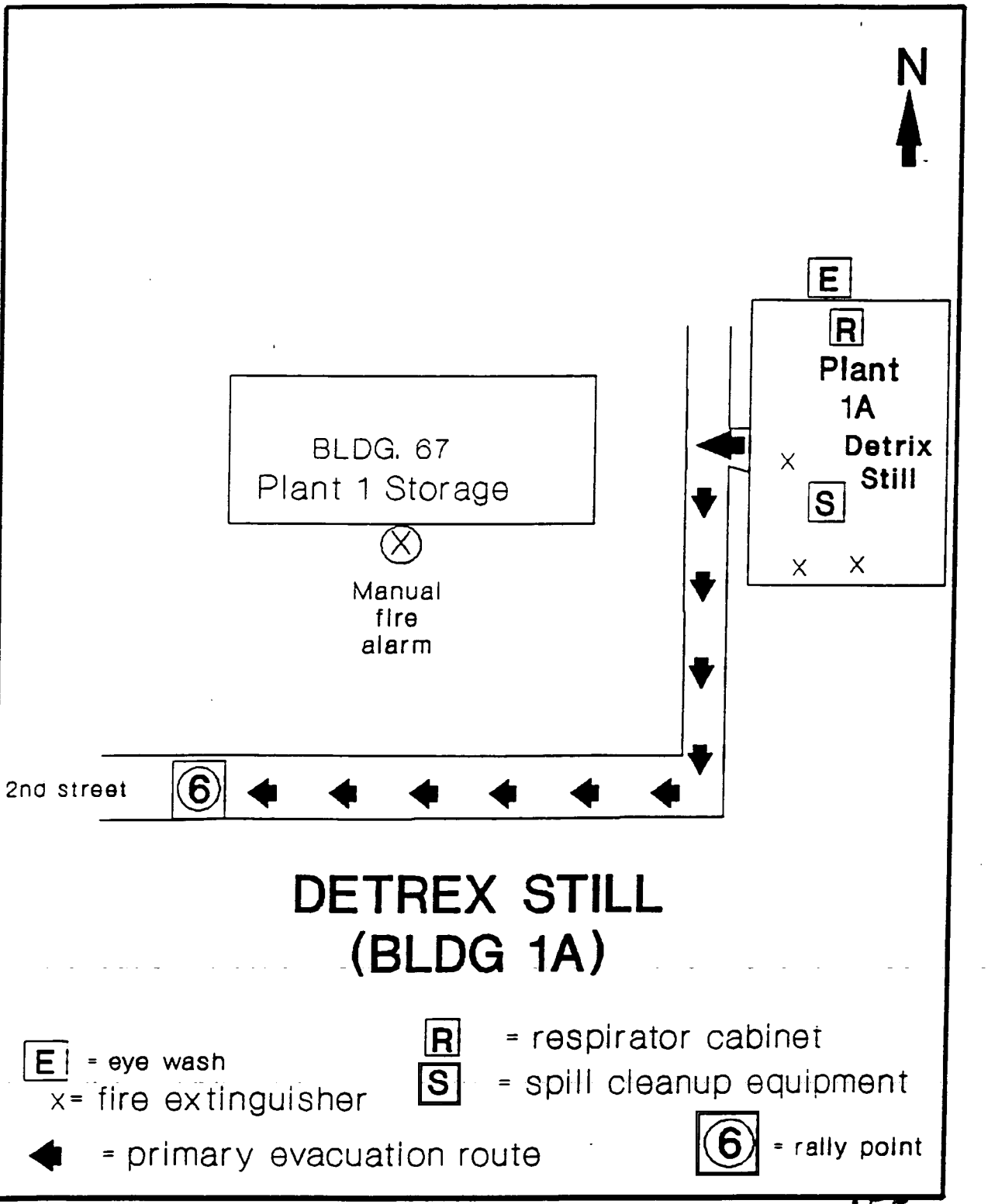
- Fire Extinguishers
  1) 10# ABC First Floor south end by overhead door
  2) 15# CO2 First Floor southeast end by overhead door
  3) 30# M X First Floor south end east side of Mill
  4) 15# CO2 First Floor southwest Electric Bay
  5) 15# CO2 First Floor southwest side
  6) 15# CO2 First Floor west side of Pin Splitting Area
  7) 10# ABC First Floor west side of Pin Splitting Area
  8) 15# CO2 First Floor west side near personnel door
  9) 15# CO2 First Floor Safe Geometry Digest
  10) H2O First Floor outside office area
  11) 30# M X First Floor west side walkway opposite office

- Eye Wash Station
  1) North of column 7-D

HWMU No. 26 - DETREX STILL (BLDG 1A)

- Spill Cleanup Equipment
  1) At column 7-D

- Respirator Cabinet (Plant 1)
  1) In over-packing area north center
  2) At Transportation Truck Dock on north wall


N
E
R
Plant
1A
Detrix
Still
S
BLDG. 67
Plant 1 Storage
Manual
fire
alarm
2nd street
6
DETREX STILL
(BLDG 1A)
E = eye wash
x = fire extinguisher
R = respirator cabinet
S = spill cleanup equipment
= primary evacuation route
6 = rally point

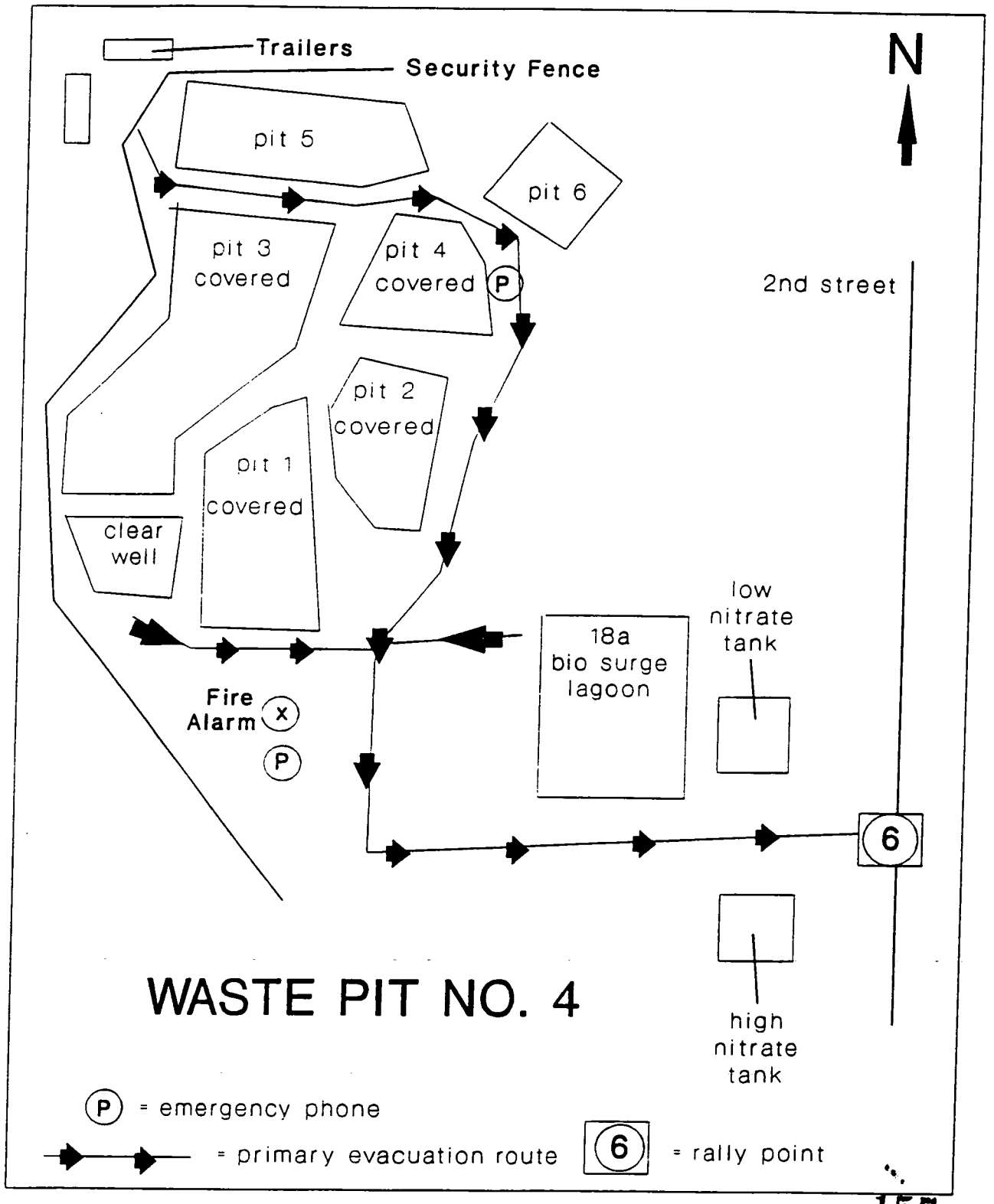
HWMU No. 27 - WASTE PIT No. 4

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 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 located at this HWMU:

There is no safety equipment at this area. The pit is covered. Need for equipment is unlikely. Area is serviced by Emergency Response Team.


Trailers
Security Fence
N
pit 5
pit 6
pit 3
covered
pit 4
covered
P
2nd street
pit 2
covered
pit 1
covered
clear
well
low
nitrate
tank
18a
bio surge
lagoon
Fire
Alarm
X
P
6
high
nitrate
tank
WASTE PIT NO. 4
P = emergency phone
= primary evacuation route
6
= rally point

HWMU No. 28 - TRANE THERMAL LIQUID INCINERATOR (PLANT 2/3 TANK FARM)

The Trane Liquid Thermal Incinerator was used to incinerate liquid waste contaminated with radionuclides and liquid hazardous wastes.

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 located at this HWMU:

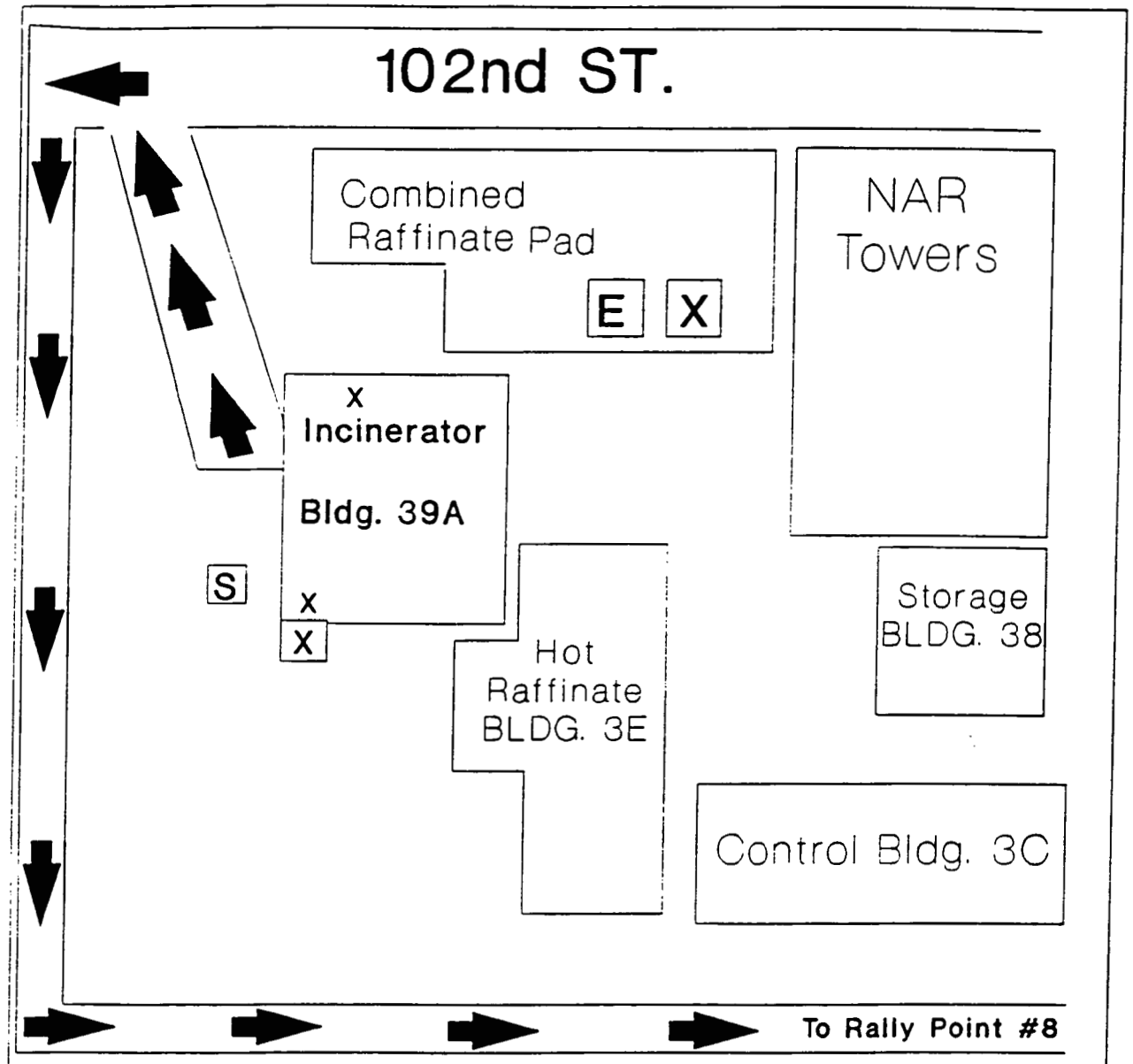
- Manual Fire Alarm
  1) Outside at southwest corner

- Fire Extinguishers
  1) 10# ABC First Floor Incinerator Bldg. (39A) north wall
  2) 10# ABC Outside Plant 2/3 Oil Dumping Station
  3) 15# CO2 First Floor Incinerator Bldg. (39A) southwest corner

- Eye Wash Station
  1) None available at this unit.

- Spill Cleanup Equipment
  1) Immediately west of Incinerator

- Respirator Cabinet (Plant 2/3)
  1) Extraction Area west end
  2) Maintenance Shop northwest corner



TRANE THERMAL LIQUID INCINERATOR

E ▪ Eye wash & Safety shower

X ▪ Manual fire alarm

R ▪ respirator cabinet

S ▪ spill cleanup equipment

X ▪ fire extinguisher

▪ primary evacuation route

HWMU 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 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 located at this HWMU:

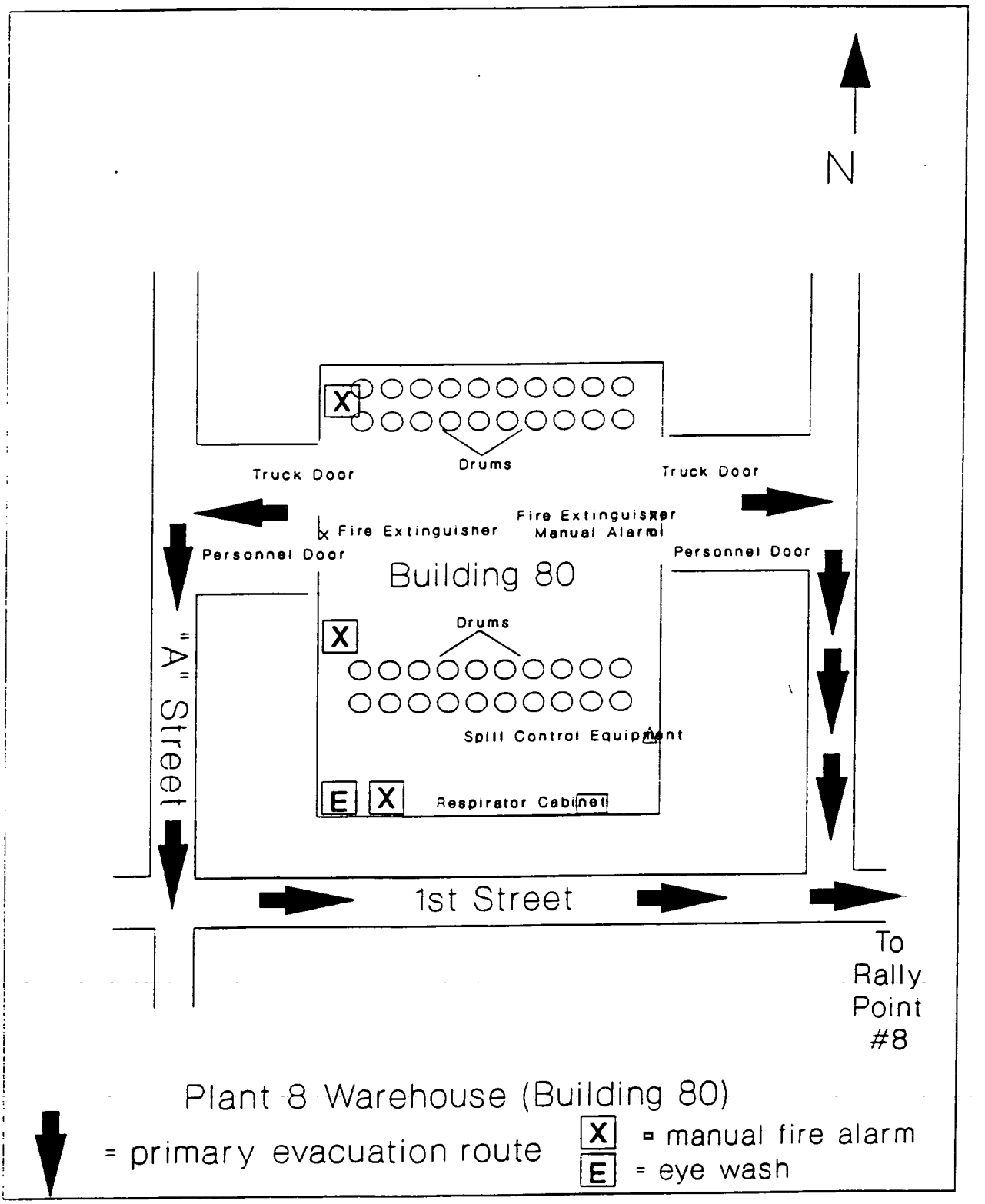
- Manual Fire Alarm
  1) Inside wall at each end of building

- Fire Extinguishers
  1) 10# ABC First Floor Riser Room
  2) 10# ABC First Floor east door
  3) 10# ABC First Floor west door

- Eye Wash Station
  1) At southwest corner of building

- Spill Cleanup Equipment
  1) At southwest corner of building

- Respirator Cabinet
  1) At southwest corner of building


N
X
Drums
Truck Door
Truck Door
Fire Extinguisher
Fire Extinguisher
Manual Alarm
Personnel Door
Personnel Door
Building 80
X
Drums
"A" Street
Spill Control Equipment
E
X
Respirator Cabinet
1st Street
To
Rally
Point
#8
Plant 8 Warehouse (Building 80)
= primary evacuation route
X = manual fire alarm
E = eye wash

HWMU No. 30 - BARIUM CHLORIDE SALT TREATMENT FACILITY (BLDG 13A)

This unit was used to convert barium chloride into barium sulfate.

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

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 along 1st Street to the intersection of "D" Street.

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

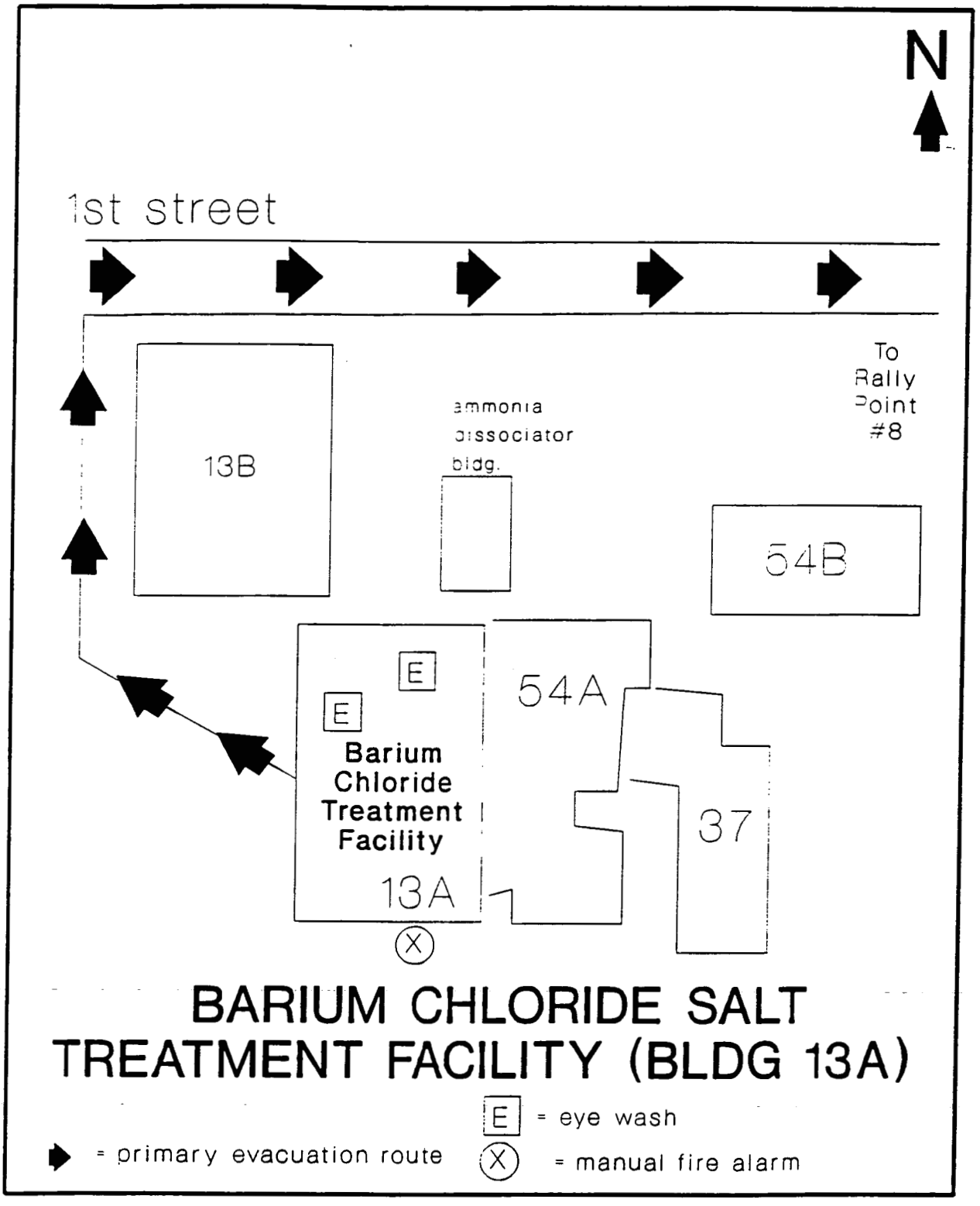
- Manual Fire Alarm
  1) Outside Building on south wall at building center

- Fire Extinguishers - First Floor Building 13A & 13B
  1) 15# CO2 First Floor Annex north entrance
  2) 15# CO2 First Floor Annex northeast entrance
  3) 30# M X First Floor Annex south end
  4) 15# CO2 First Floor Annex south end
  5) 10# ABC First Floor Extraction south wall
  6) 10# ABC First Floor Extraction west wall
  7) 10# ABC First Floor Extraction Deck Level 1
  8) 10# ABC First Floor Wet Area southeast wall
  9) 10# ABC First Floor Wet Area north wall
  10) 10# ABC First Floor Maintenance Shop southeast
  11) 15# CO2 First Floor Maintenance Shop northwest
  12) 10# ABC First Floor north wall Furnace Room
  13) 20# ABC First Floor north wall Reactor Room
  14) 15# CO2 First Floor stairs to Reactor Tower

15) 10# ABC First Floor southwest wall (Reactor Area)
16) 13# H A First Floor DCS Room
17) 5# CO2 First Floor outside Battery Room
18) 20# ABC First Floor Autoclave northwest entrance
19) 10# ABC First Floor Autoclave south overhead door
20) 13# H A First Floor Foreman's Office
21) 15# CO2 First Floor Autoclave south overhead door
22) 50# CO2 First Floor south wall Autoclave area
23) 20# ABC Outside south Ammonia Tank Farm at safety shower
24) 10# ABC Outside south Ammonia Tank Farm west fence
25) 10# ABC First Floor P.P. New Warehouse (54B) east wall

- Eye Wash Station
  1) Inside building north of office and control room on 1st floor
  2) On platform by north double door, column E
  3) Outside center of west wall

- Spill Cleanup Equipment and Respirator Cabinet
  1) None



BARIUM CHLORIDE SALT TREATMENT FACILITY (BLDG 13A)

E = eye wash

= primary evacuation route

X = manual fire alarm

HWMU No. 31 - TANK FOR BULK STORAGE 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 on 1st Street to the intersection of "D" Street.

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

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

- Manual Fire Alarm
  1) On outside south wall of Pilot Plant near center of building

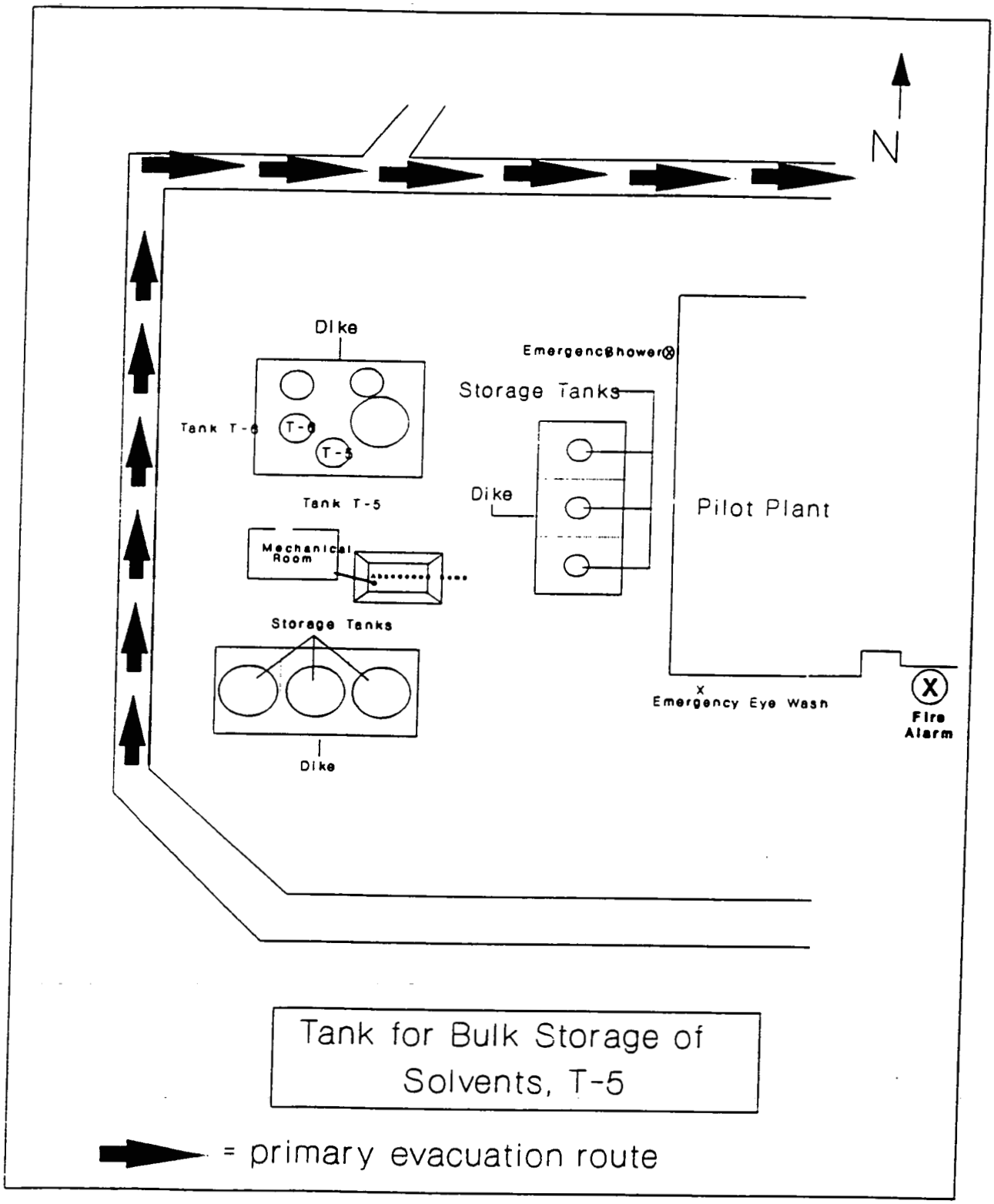
- Fire Extinguishers - First Floor Building 13A & 13B
  1) 15# CO2 First Floor Annex north entrance
  2) 15# CO2 First Floor Annex northeast entrance
  3) 30# M X First Floor Annex south end
  4) 15# CO2 First Floor Annex south end
  5) 10# ABC First Floor Extraction south wall
  6) 10# ABC First Floor Extraction west wall
  7) 10# ABC First Floor Extraction deck level 1
  8) 10# ABC First Floor Wet Area southeast wall
  9) 10# ABC First Floor Wet Area north wall
  10) 10# ABC First Floor Maintenance Shop southeast
  11) 15# CO2 First Floor Maintenance Shop northwest
  12) 10# ABC First Floor north wall Furnace Room
  13) 20# ABC First Floor north wall Reactor Room
  14) 15# CO2 First Floor stairs to Reactor Tower

15) 10# ABC First Floor southwest wall Reactor Area
16) 13# H A First Floor DCS Room
17) 5# CO2 First Floor outside Battery Room
18) 20# ABC First Floor Autoclave northwest entrance
19) 10# ABC First Floor Autoclave south overhead door
20) 13# H A First Floor Foreman's Office
21) 15# CO2 First Floor Autoclave south overhead door
22) 50# CO2 First Floor south wall Autoclave area
23) 20# ABC Outside south Ammonia Tank Farm at safety shower
24) 10# ABC Outside south Ammonia Tank Farm west fence
25) 10# ABC First Floor P.P. New Warehouse (54B) east wall

- Eye Wash Station and Safety Shower
  1) At outside west wall of Pilot Plant
  2) At outside south wall at west corner of Pilot Plant

- Spill Cleanup Equipment
  1) None available at this unit.

- Respirator Cabinet (Lab Bldg.)
  1) Room W-17 southeast corner


N
Dike
Tank T-6
T-6
T-5
Tank T-5
Mechanical Room
Storage Tanks
Dike
Emergency Shower
Storage Tanks
Dike
Pilot Plant
Emergency Eye Wash
Fire Alarm
Tank for Bulk Storage of Solvents, T-5
= primary evacuation route

HWMU No. 32 - TANK FOR BULK STORAGE 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 proceed east along 1st Street to the intersection of "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 along 1st Street to the intersection of "D" Street.

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

- Manual Fire Alarm
  1) On outside south wall of Pilot Plant at center of building

- Fire Extinguishers - First Floor Building 13A & 13B
  1) 15# CO2 First Floor Annex north entrance
  2) 15# CO2 First Floor Annex northeast entrance
  3) 30# M X First Floor Annex south end
  4) 15# CO2 First Floor Annex south end
  5) 10# ABC First Floor Extraction south wall
  6) 10# ABC First Floor Extraction west wall
  7) 10# ABC First Floor Extraction deck level 1
  8) 10# ABC First Floor Wet Area southeast wall
  9) 10# ABC First Floor Wet Area north wall
  10) 10# ABC First Floor Maintenance Shop southeast
  11) 15# CO2 First Floor Maintenance Shop northwest
  12) 10# ABC First Floor north wall Furnace Room
  13) 20# ABC First Floor north wall Reactor Room
  14) 15# CO2 First Floor stairs to Reactor Tower

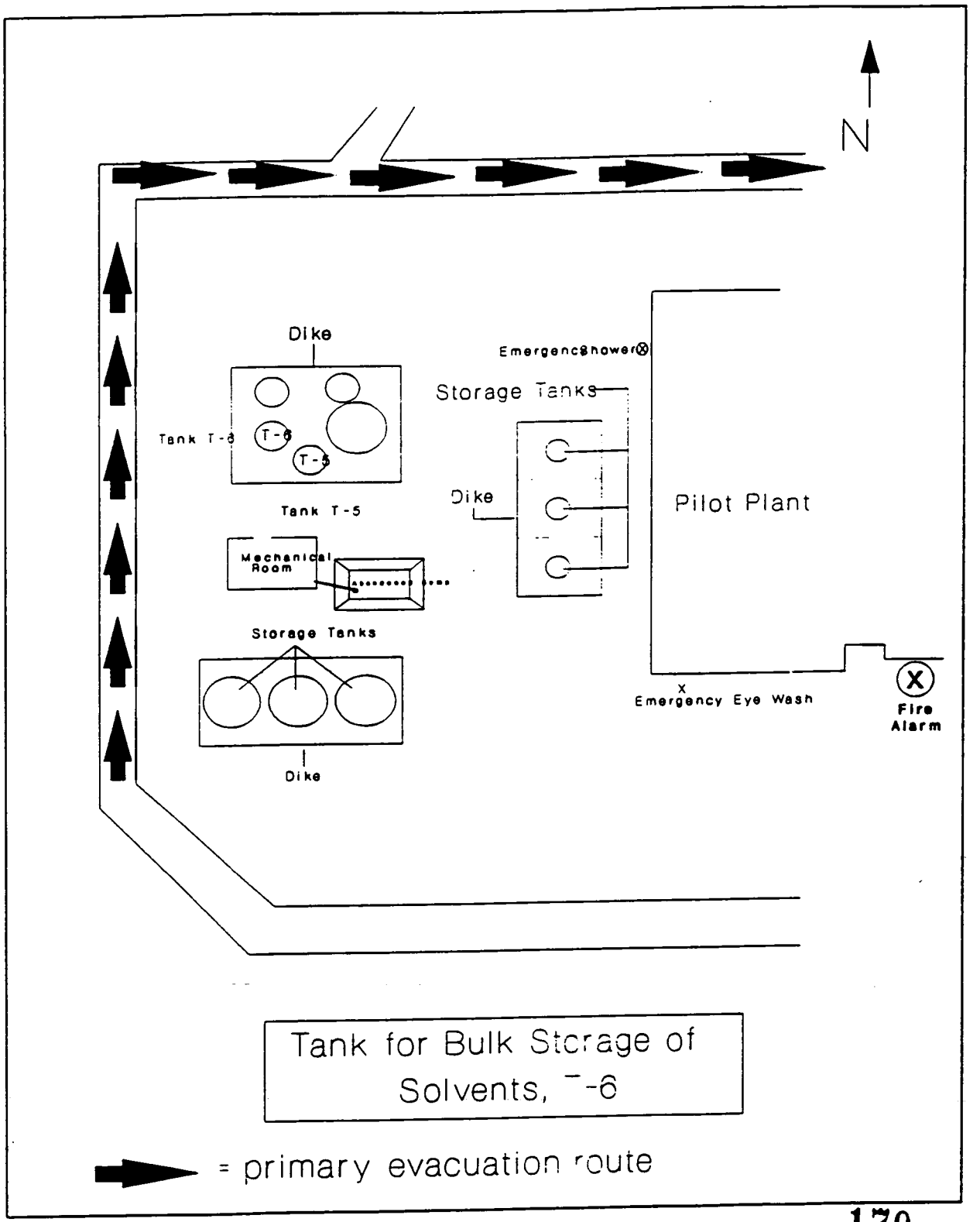
HWMU No. 32 - TANK FOR BULK STORAGE SOLVENTS, T-6

15) 10# ABC First Floor southwest wall Reactor Area
16) 13# H A First Floor DCS Room
17) 5# CO2 First Floor outside Battery Room
18) 20# ABC First Floor Autoclave northwest entrance
19) 10# ABC First Floor Autoclave south overhead door
20) 13# H A First Floor Foreman's Office
21) 15# CO2 First Floor Autoclave south overhead door
22) 50# CO2 First Floor south wall Autoclave area
23) 20# ABC Outside south Ammonia Tank Farm at safety shower
24) 10# ABC Outside south Ammonia Tank Farm west fence
25) 10# ABC First Floor P.P. New Warehouse (54B) east wall

- Eye Wash Station and Safety Shower
  1) At outside west wall of Pilot Plant
  2) At outside south wall at west corner of Pilot Plant

- Spill Cleanup Equipment
  1) None available at this unit.

- Respirator Cabinet (Lab Bldg.)
  1) Room W-17 southeast corner


N
Dike
Tank T-6
T-6
T-5
Tank T-5
Mechanical Room
Storage Tanks
Dike
Emergency Shower
Storage Tanks
Dike
Pilot Plant
Emergency Eye Wash
Fire Alarm
Tank for Bulk Storage of Solvents, T-6
= primary evacuation route

170

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

The Pilot Plant Warehouse is a pre-engineered metal fabricated building which is totally enclosed 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 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 intersection of 1st and "D" Street. Movement from Rally Point No. 8 is east along 1st to the intersection of "D" Street.

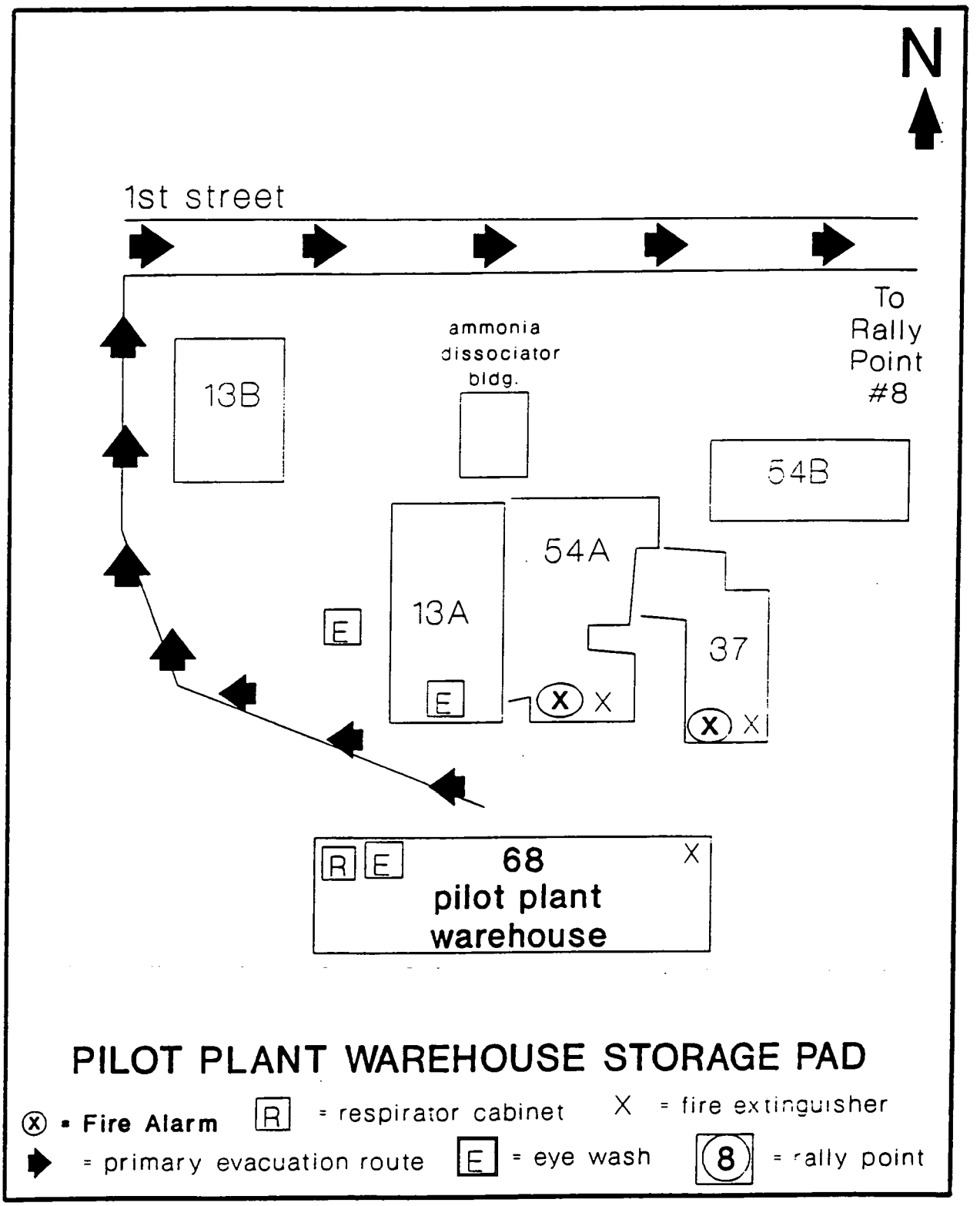
The following is a list of safety equipment located at this HWMU:

- Manual Fire Alarm
  1) Inside the south end of Pilot Plant Building
  2) Inside the south end of Pilot Plant Building

- Fire Extinguishers
  1) 10# ABC First Floor - south end of Building 37
  2) 10# ABC First Floor - south end of Building 54
  3) 10# ABC First Floor - northeast corner of Building 68
  4) 20# north wall on outside of building

- Eye Wash Station and Safety Showers
  1) First Floor - south end of Building 13
  2) near the Tanks west of Building 13
  3) First Floor - south end of Building 68

- Spill Cleanup Equipment and Respirator Cabinet
  1) On north wall east side of roll up door


N
1st street
To Rally Point #8
ammonia dissociator bldg.
13B
54B
54A
13A
37
68 pilot plant warehouse
R
E
X
PILOT PLANT WAREHOUSE STORAGE PAD
Fire Alarm
= respirator cabinet
= fire extinguisher
= primary evacuation route
= eye wash
= rally point
8

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 on "B" Street to 2nd Street, then east on 2nd Street until the intersection at "C" Street.

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

- Manual Fire Alarm
  1) Outside south wall center of building

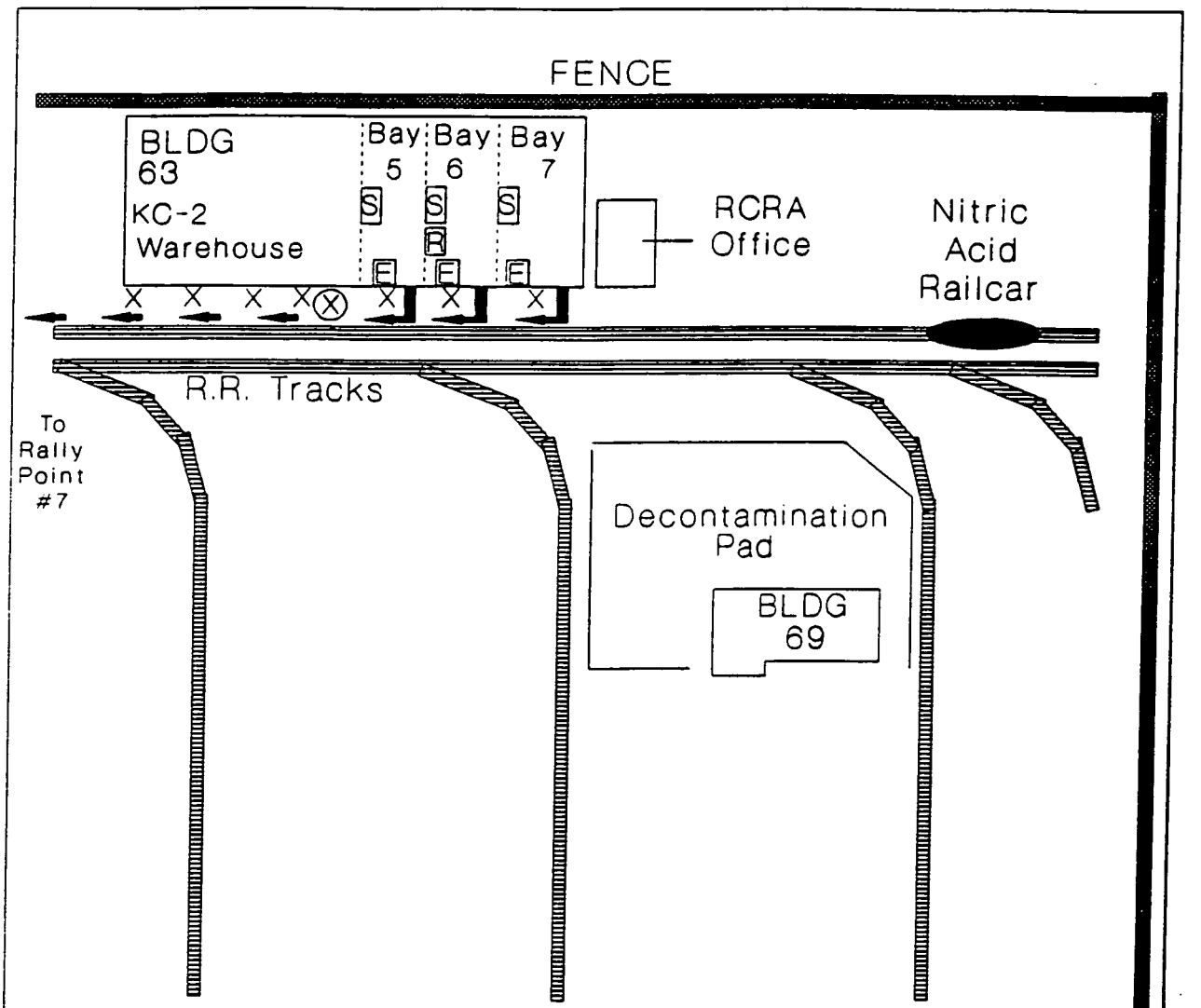
- Fire Extinguishers
  1) 10# ABC between Bays 1 and 2
  2) 15# CO_2 at the riser
  3) 10# ABC between Bays 5 and 6
  4) 10# ABC between Bays 7 and 8

- Eye Wash Station
  1) Bay 5, inside
  2) Bay 6, inside
  3) Bay 7, inside

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

- Spill Cleanup Equipment in Bays 5, 6, & 7
  1) Absorbent socks (pigs)
  2) Absorbent pads
  3) Granular clay absorbent
  4) Shovels and brooms

- Respirator Cabinet
  1) Bay 6 west wall



KC-2 WAREHOUSE (BUILDING 63)

S = spill cleanup equipment

R = respirator cabinet

E = eye wash (portable)

X = manual fire alarm

X = fire extinguisher

= primary evacuation route

175

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 east 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.

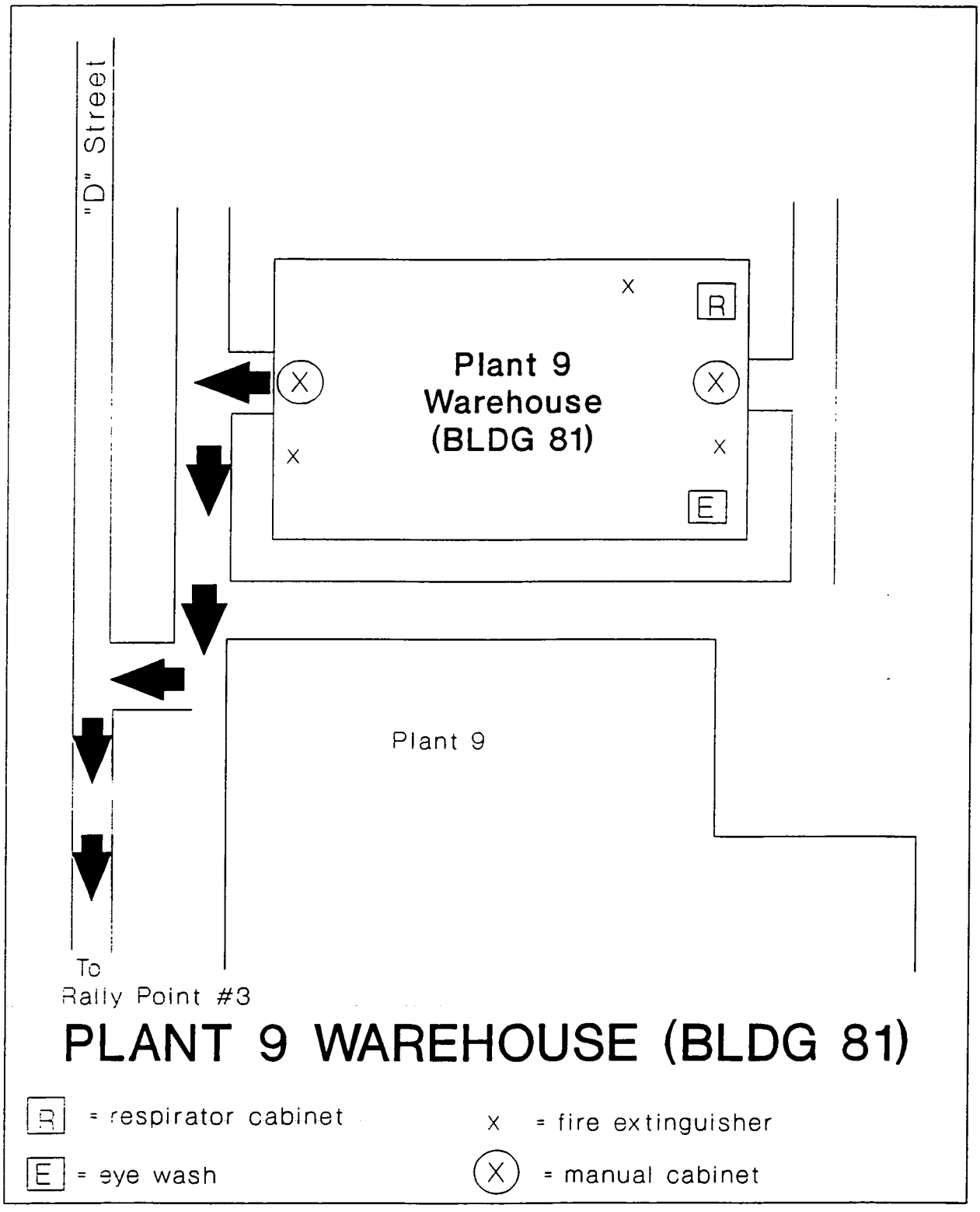
The following is a list of safety equipment located at this HWMU:

- Manual Fire Alarm
  1) At entrance doors each end of building

- Fire Extinguishers
  1) 10# ABC north Sprinkler Room
  2) 10# ABC east personnel door
  3) 10# ABC west personnel door

- Eye Wash Station
  1) At southeast corner of building near office

- Spill Cleanup Equipment and Respirator Cabinet
  1) At east end north of roll up door



PLANT 9 WAREHOUSE (BLDG 81)

R = respirator cabinet

X = fire extinguisher

E = eye wash

(X) = manual cabinet

HWMU 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.

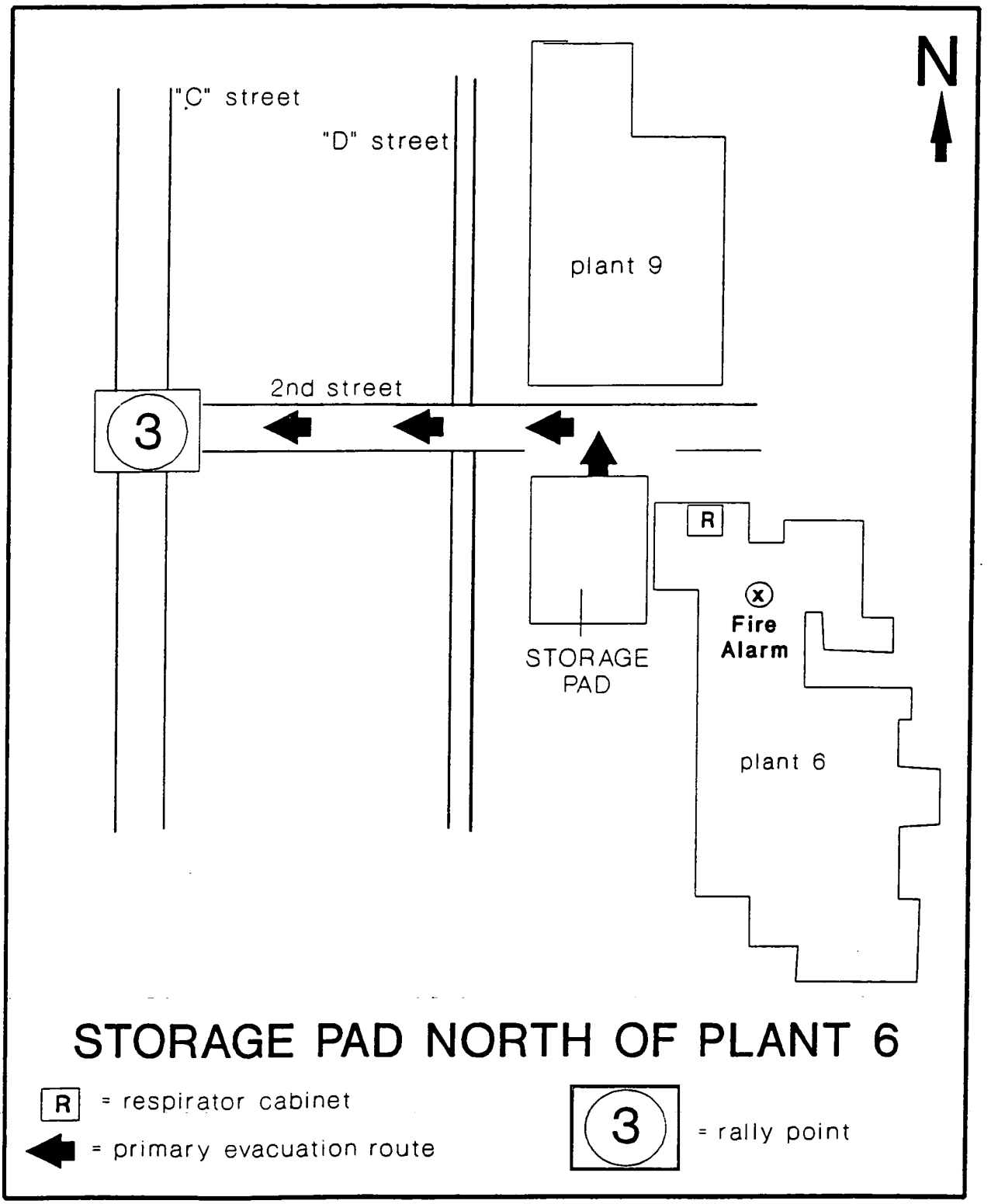
The following is a list of safety equipment located at this HWMU:

- Manual Fire Alarm
  1) Inside Plant 6 northwest corner near rest room

- Fire Extinguishers - First Floor north Plant 6
  1) 10# ABC First Floor north wall Truck Dock
  2) 15# CO2 First Floor Degreasing Room north outside wall
  3) 15# CO2 First Floor Machine Shop north wall
  4) 30# B C First Floor Machine Shop center wall Col. D-14
  5) 15# CO2 First Floor Machine Shop center wall Col. D-14
  6) 15# CO2 First Floor Machine Shop north of Wild Mouse
  7) 15# CO2 First Floor Pickling Room northwest side
  8) 15# CO2 First Floor Rolling Mill north wall Col. 1B

- Eye Wash Station and Spill Cleanup Equipment
  1) None available at this unit

- Respirator Cabinet
  1) Cage Area (east side) north wall


N
"C" street
"D" street
plant 9
2nd street
3
R
Fire Alarm
STORAGE PAD
plant 6
STORAGE PAD NORTH OF PLANT 6
R = respirator cabinet
= 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. 4. Rally Point No. 4 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 HWMU:

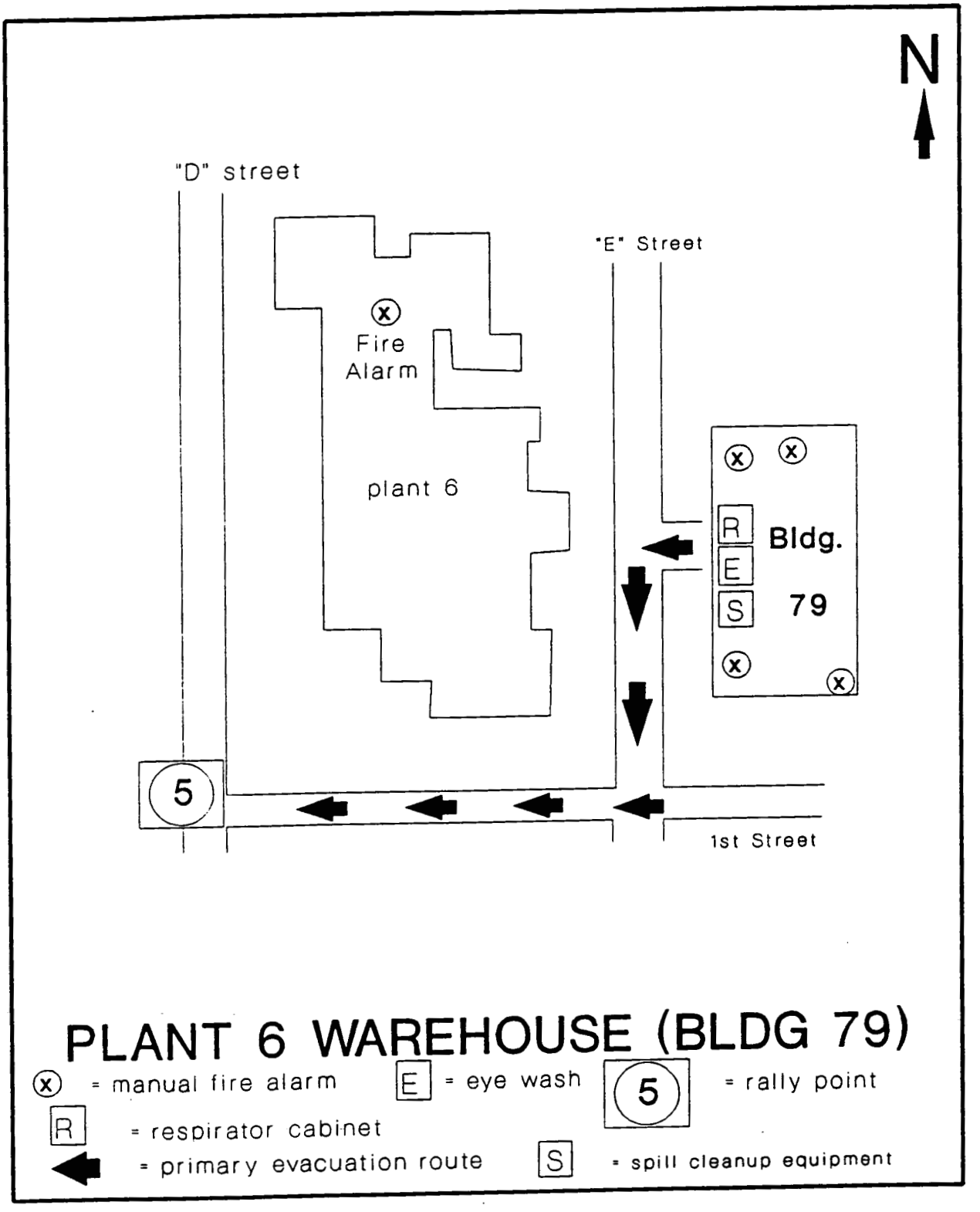
- Manual Fire Alarms
  1) First Floor Riser Room southeast corner enter from outside
  2) First Floor southwest entrance door
  3) First Floor northwest entrance door
  4) First Floor north entrance door at loading dock

- Fire extinguishers
  1) 10# ABC First Floor at the north door
  2) 10# ABC First Floor at the north door
  3) 10# ABC First Floor at the northwest door
  3) 10# ABC First Floor at the northwest door
  4) 10# ABC First Floor at the southwest door
  5) 10# ABC First Floor at the southwest door
  6) 10# ABC First Floor in the Pump/Riser room

- Eye Wash Station and Respirator Cabinet
  1) First Floor center west

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

- Spill Cleanup Equipment (First Floor center west)
  1) (Pigs) and absorbent pads
  2) All purpose absorbent material
  3) 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) = manual fire alarm E = eye wash 5 = rally point

R = respirator cabinet

= primary evacuation route S = spill cleanup equipment

HWMU No. 38 - HF TANK CAR

The HF Tank Car (# OROX177501) is a railroad car located at the end of the railroad spur immediately west of Building 12. 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 located near this HWMU:

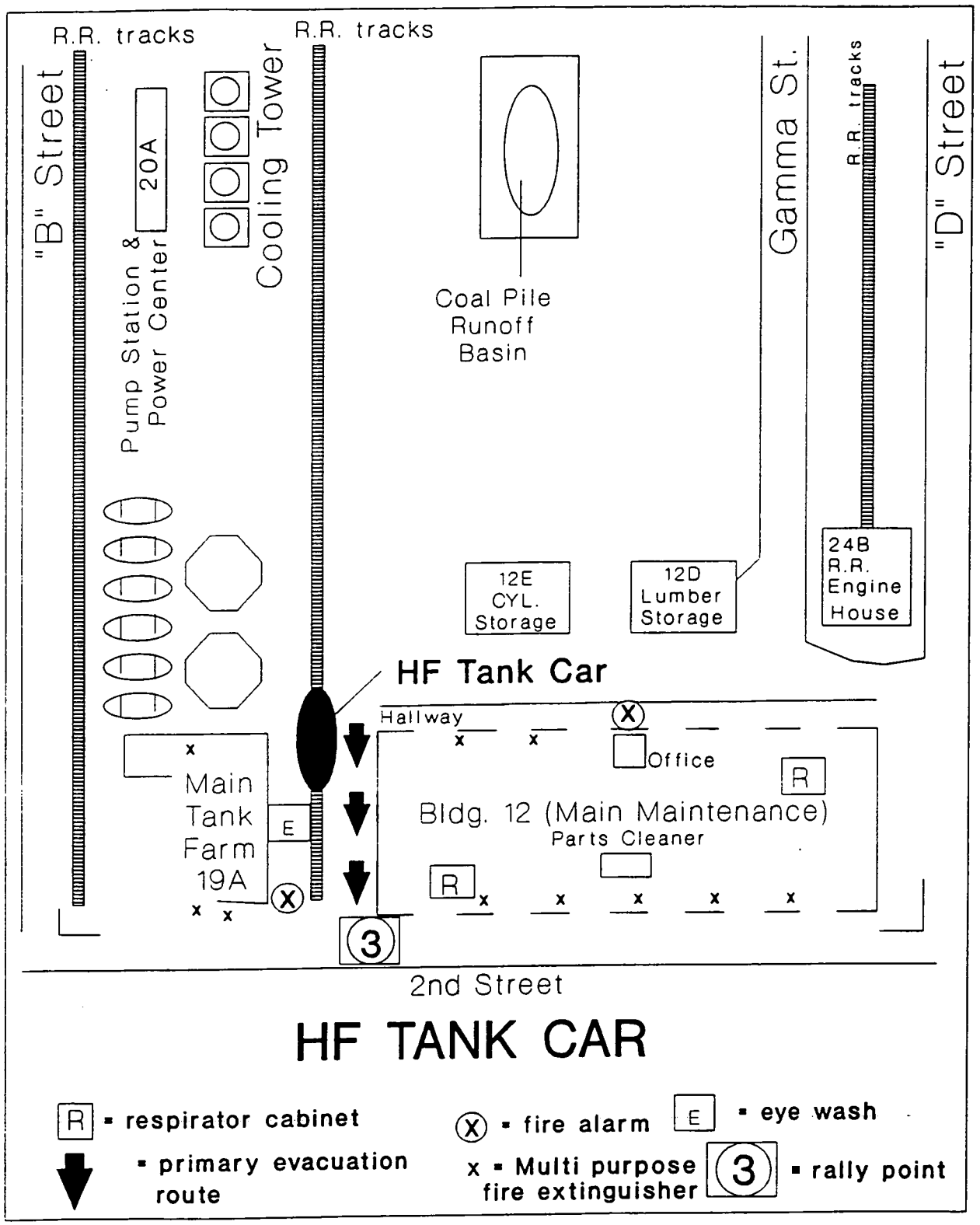
- Manual Fire Alarm
  1) South end of track near 2nd Street
  2) Inside Building 12, west end of corridor

- Fire Extinguishers - Tank Farm Sump
  1) 10# ABC Mounted at the southeast lower catwalk
  2) 5# CO2 Mounted at the southeast lower catwalk
  3) 10# ABC Mounted at the north end lower catwalk

- Eye Wash Station
  1) Yellow walk-in unit between track and Tank Farm
  2) Tank Farm area (various locations)

- Spill Cleanup Equipment
  1) None available at this unit.

- Respirator Cabinet
  1) Use Building 12 cabinets


R.R. tracks
R.R. tracks
"B" Street
20A
Pump Station & Power Center
Cooling Tower
Coal Pile Runoff Basin
Gamma St.
R.R. tracks
"D" Street
24B R.R. Engine House
12E CYL. Storage
12D Lumber Storage
HF Tank Car
Hallway
Office
R
Bldg. 12 (Main Maintenance)
Parts Cleaner
Main Tank Farm 19A
E
X
3
2nd Street
HF TANK CAR
R = respirator cabinet
X = fire alarm
E = eye wash
= primary evacuation route
x = Multi purpose fire extinguisher
3 = rally point

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.

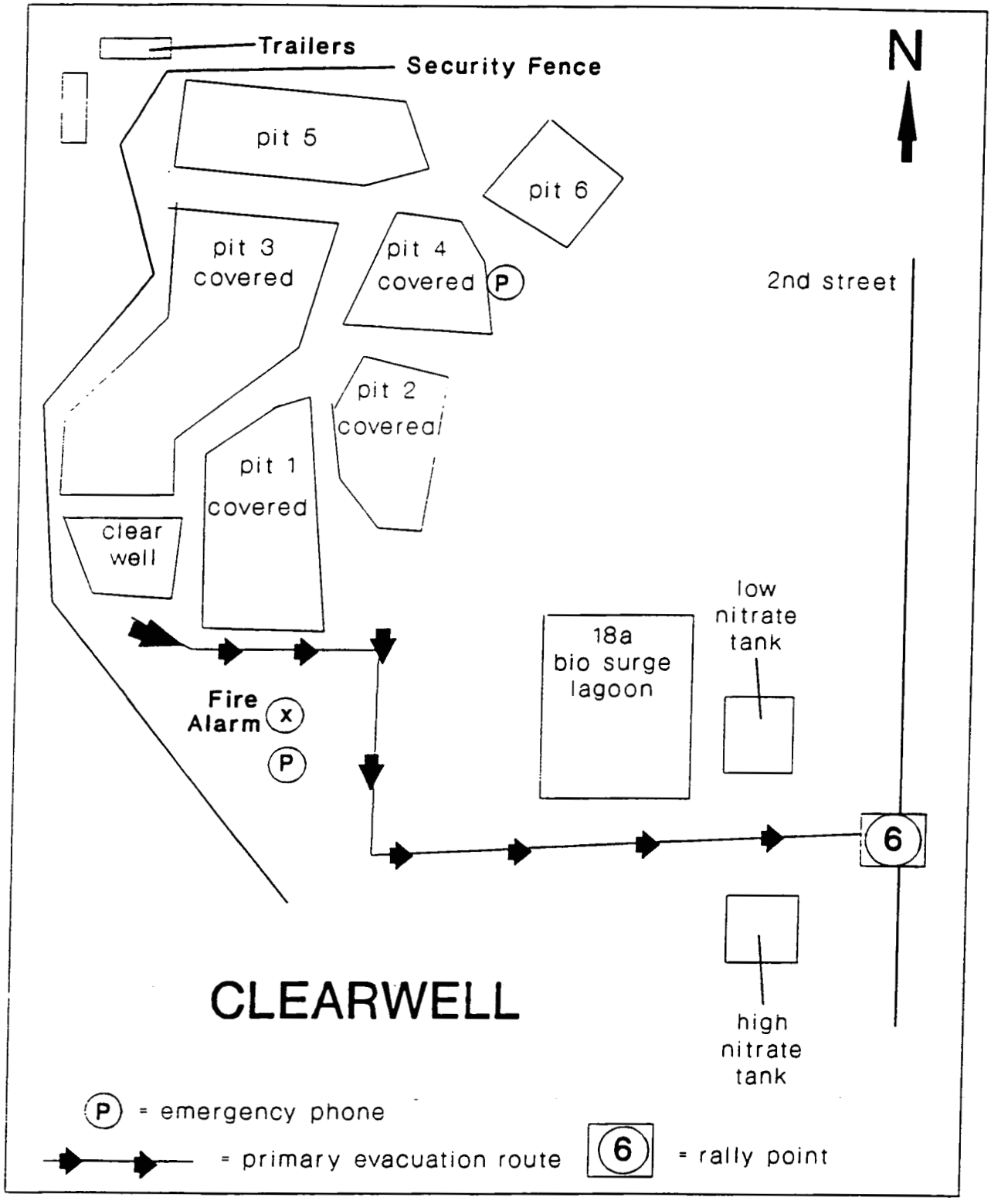
The Alternate Rally Point is No. 8. Rally Point No. 8 is located at the intersection of 1st Street and "B" Street. Movement from Rally Point No. 6 is south on "A" Street and east on 1st Street to the intersection of "B" Street.

The following is a list of safety equipment located at Building 12 near this HWMU:

- Manual Fire Alarm
  1) Use the Fire Alarm south of the Metal Oxide Silo.

- Fire Extinguishers
  1) Outside of the small building

All other equipment is provided by the Emergency Response Team who service the area.


Trailers
Security Fence
N
pit 5
pit 6
pit 3
covered
pit 4
covered
P
2nd street
pit 2
covered
pit 1
covered
clear
well
low
nitrate
tank
18a
bio surge
lagoon
Fire
Alarm
X
P
6
CLEARWELL
high
nitrate
tank
P = emergency phone
= primary evacuation route
6
= rally point

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.

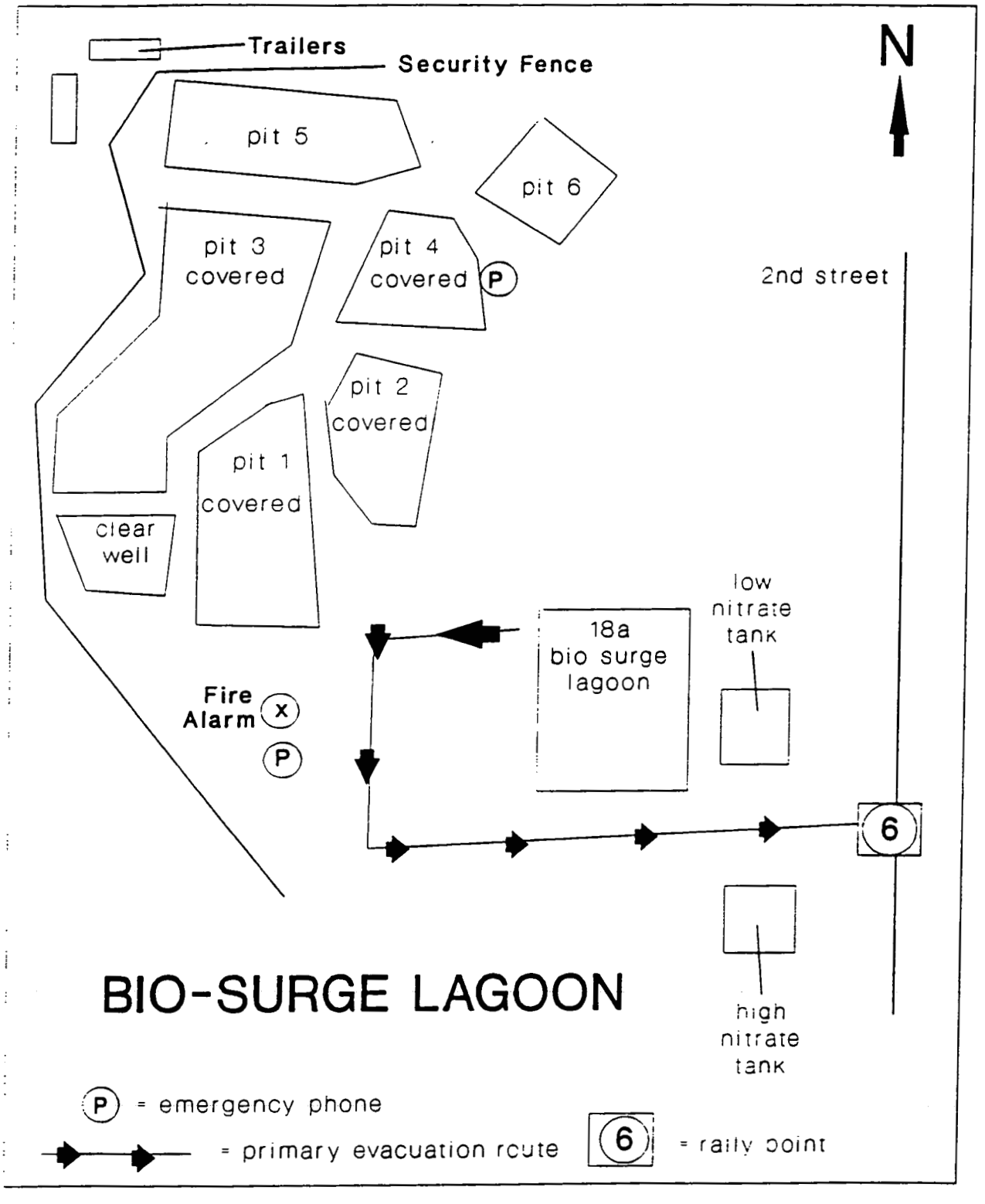
The following is a list of safety equipment located near this HWMU:

- Manual Fire Alarms
  1) South of Metal Oxide Silo

- Fire Extinguishers
  1) Two at 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.)

- Emergency Telephone
  1) On telephone pole south of Metal Oxide Silo
  2) Between Pits #4 and #5


Trailers
Security Fence
N
pit 5
pit 6
pit 3
covered
pit 4
covered
P
2nd street
pit 2
covered
pit 1
covered
clear
well
low
nitrate
tank
18a
bio surge
lagoon
Fire
Alarm
X
P
6
high
nitrate
tank
BIO-SURGE LAGOON
P = emergency phone
= primary evacuation route
6
= rally point

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 west 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.

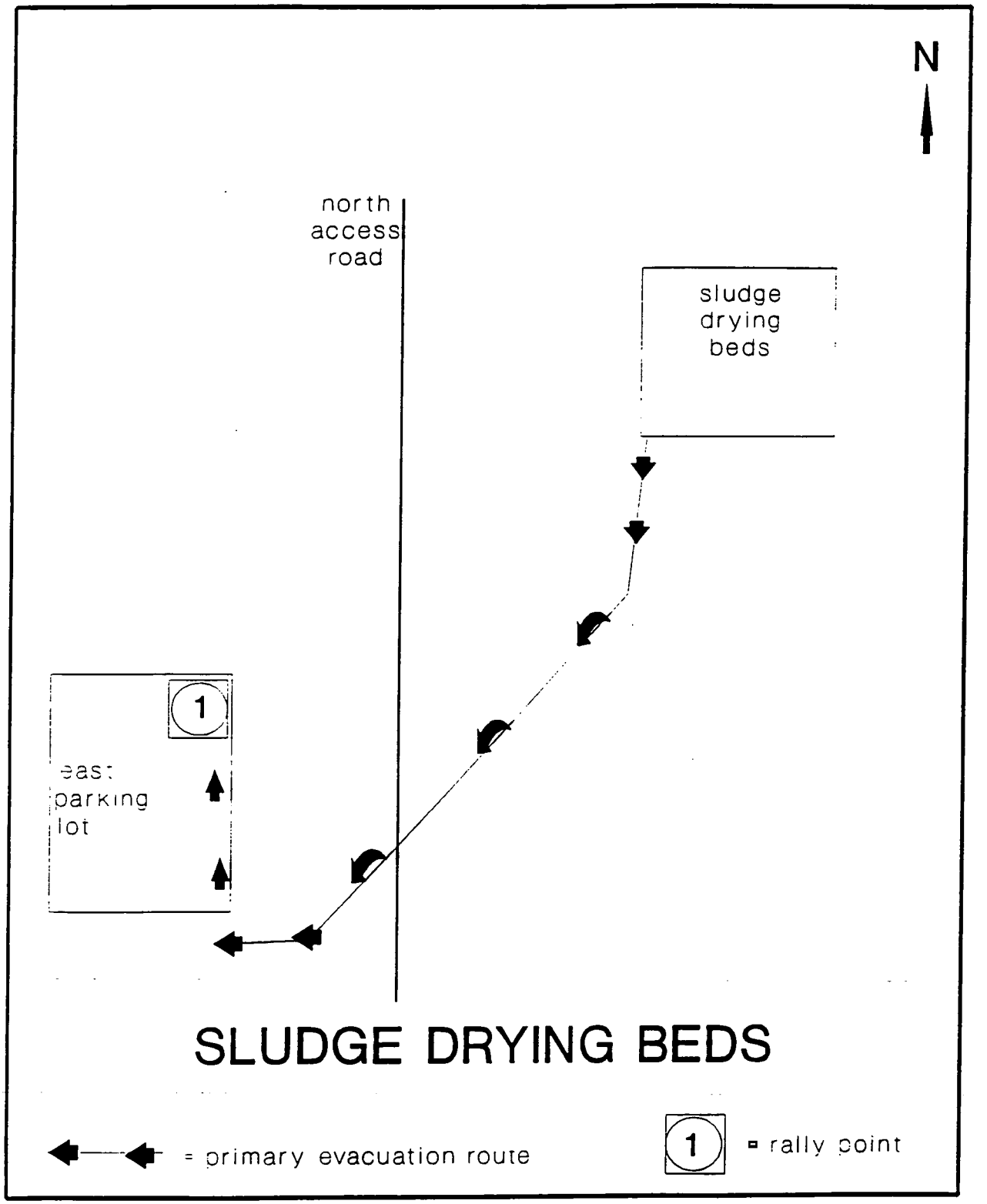
The Alternate Rally Point is No. 2. Rally Point No. 2 is located at the western side of the FEMP west parking lot, just north of the Stormwater Retention Basin. Movement from Rally Point No. 1 is west through the parking lot to Rally Point No. 2.

The following is a list of safety equipment located near this HWMU:

- Manual Fire Alarm
  1) On pole near the UV Disinfection Building 25D

- Fire Extinguishers
  1) One extinguisher in each building in the area

A telephone is located in UV Disinfection Building 25D


N
north
access
road
sludge
drying
beds
1
east
parking
lot
SLUDGE DRYING BEDS
= primary evacuation route
1
= rally point

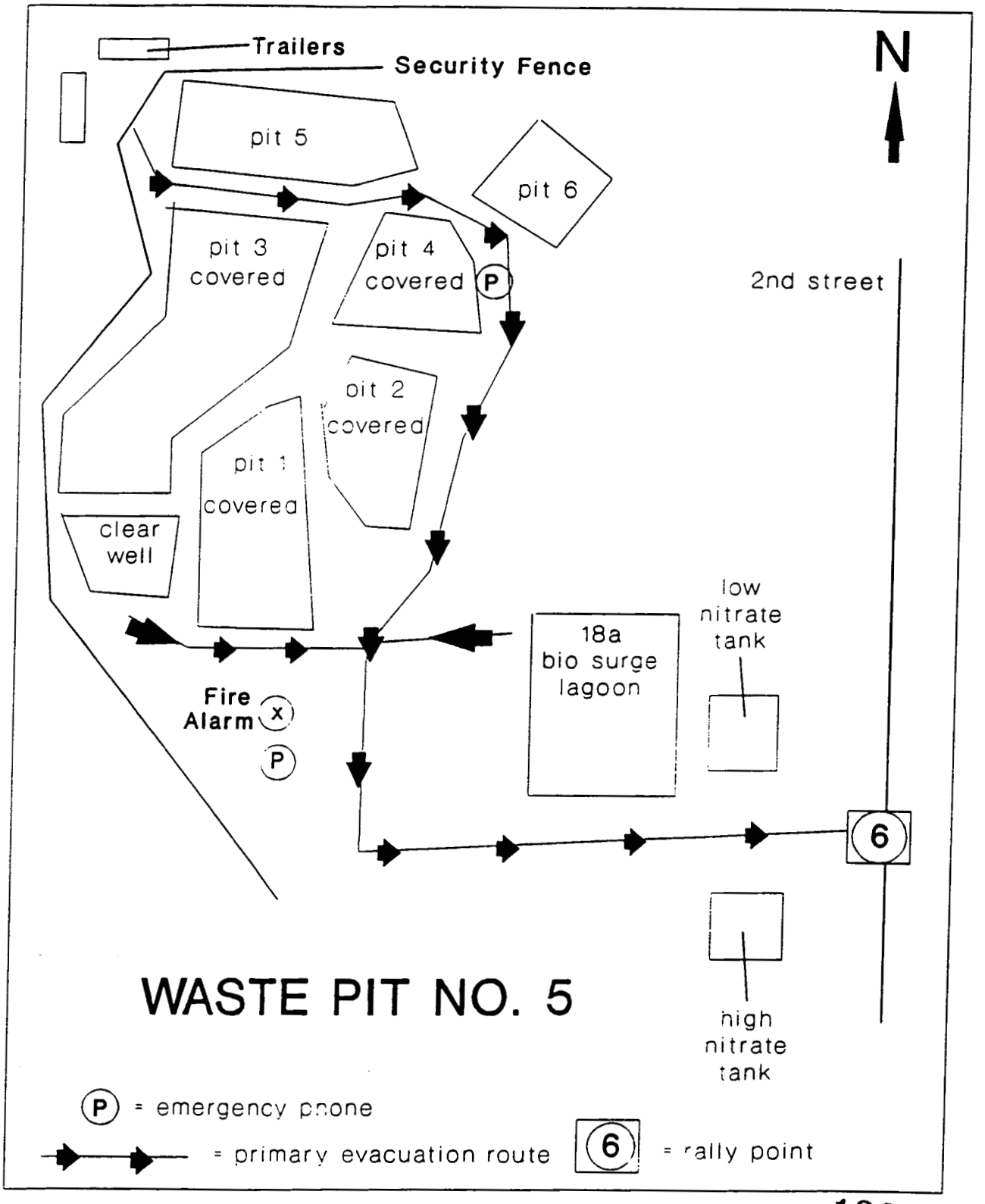
HWMU No. 42 - WASTE PIT No. 5

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 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.

This area is serviced by the Emergency Response Team. The Pit is hosed down as needed by the Utilities Engineers (AEDO). Need for emergency equipment is unlikely in this area.


Trailers
Security Fence
N
pit 5
pit 6
pit 3
covered
pit 4
covered
P
2nd street
pit 2
covered
pit 1
covered
clear
well
low
nitrate
tank
18a
bio surge
lagoon
Fire
Alarm
X
P
6
high
nitrate
tank
WASTE PIT NO. 5
P = emergency phone
= primary evacuation route
6
= rally point

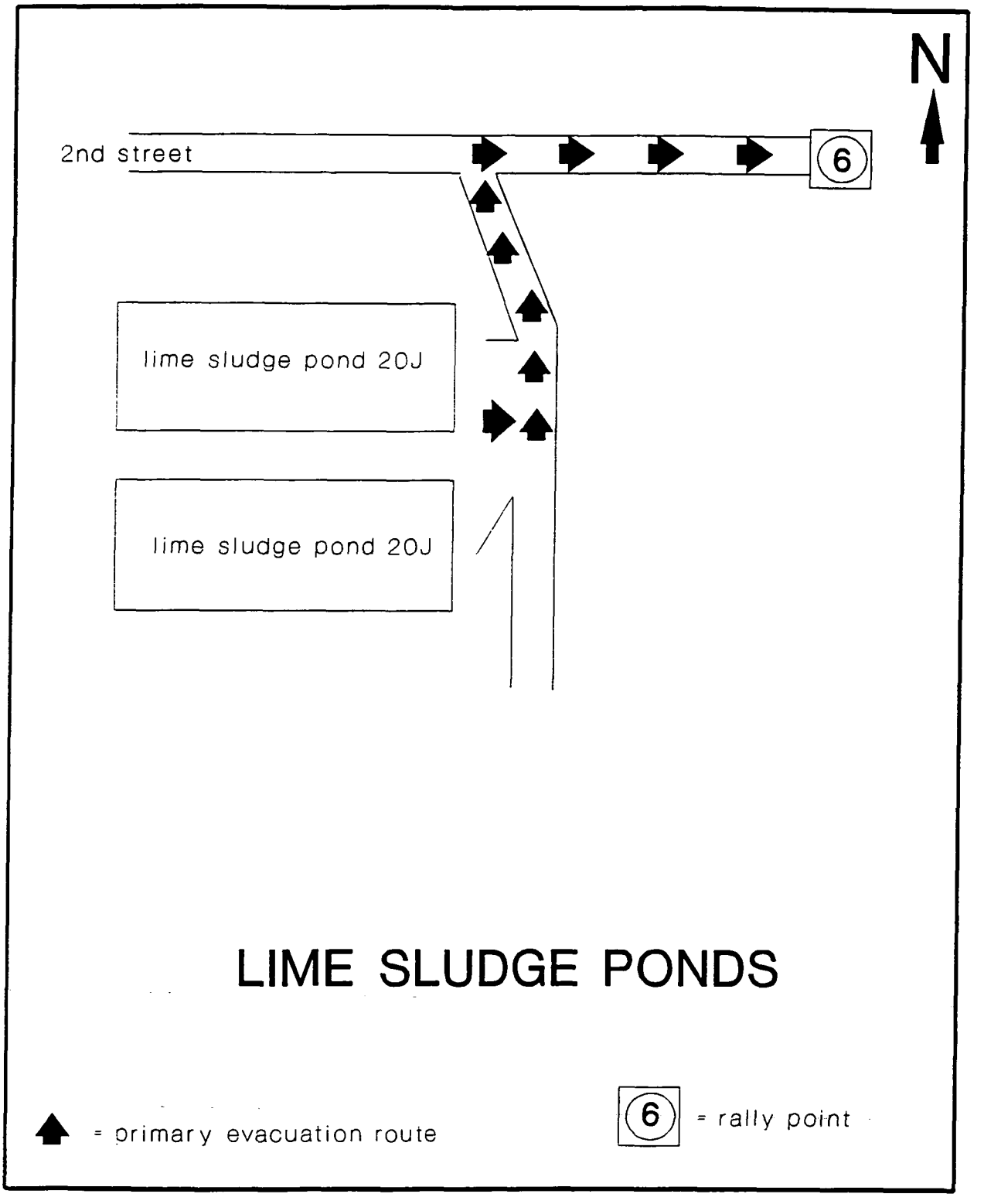
HWMU No. 43 - LIME SLUDGE PONDS

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 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.

This area is serviced by the Emergency Response Team. Need for emergency equipment is unlikely in this area.



LIME SLUDGE PONDS

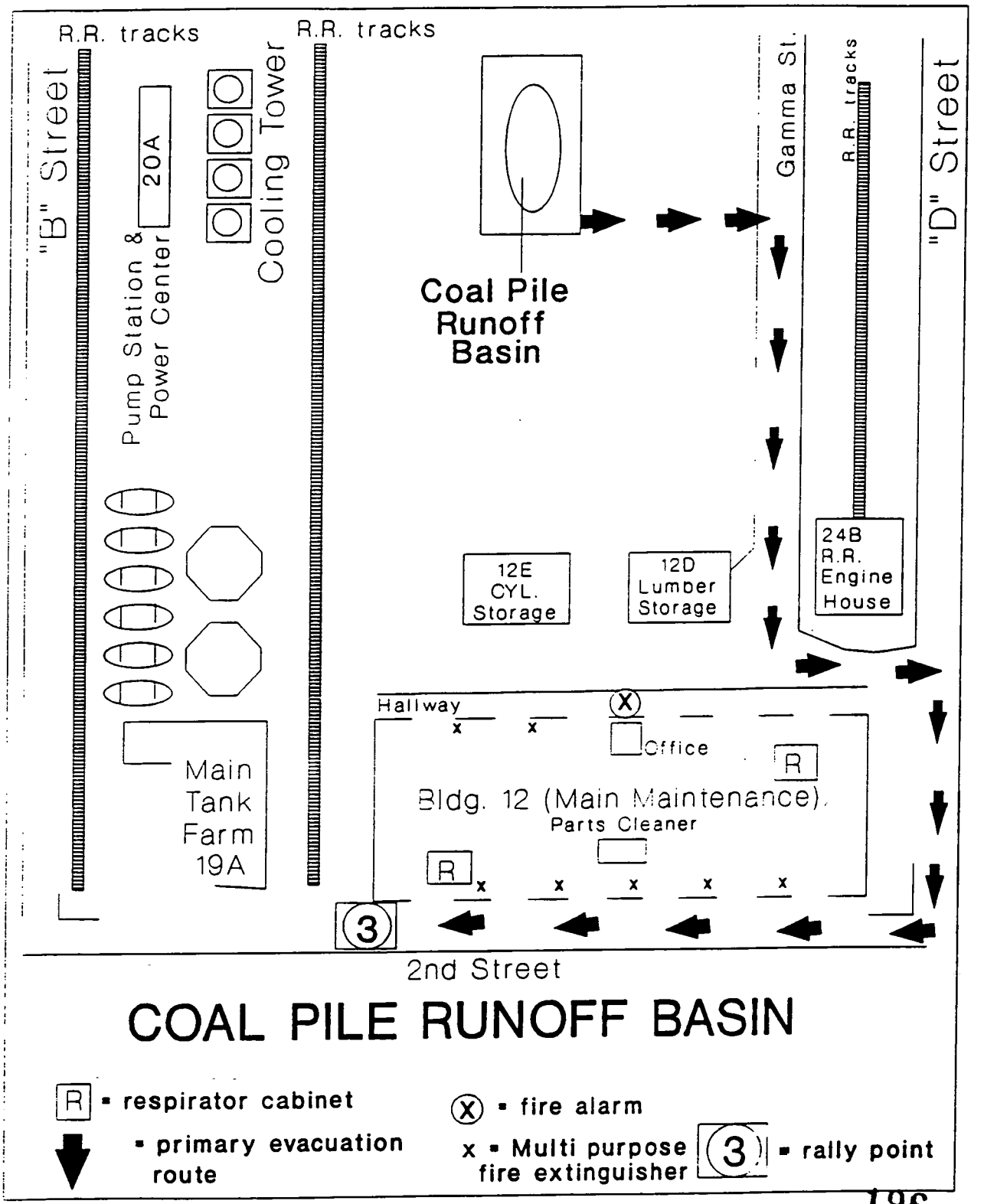
HWMU No. 44 - COAL PILE RUNOFF BASIN

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 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 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 in the immediate vicinity. In emergency, use equipment from either Building 12 or the Boiler Plant. The nearest Manual Fire Alarm is in Building 12 at west end of corridor in the center of the building.


R.R. tracks
R.R. tracks
"B" Street
Pump Station & Power Center
20A
Cooling Tower
Coal Pile Runoff Basin
Gamma St.
R.R. tracks
"D" Street
12E CYL. Storage
12D Lumber Storage
24B R.R. Engine House
Hallway
Office
R
Bldg. 12 (Main Maintenance)
Parts Cleaner
Main Tank Farm 19A
3
2nd Street
COAL PILE RUNOFF BASIN
R = respirator cabinet
= primary evacuation route
X = fire alarm
x = Multi purpose fire extinguisher
3 = rally point

196

HWMU No. 45 - UST No. 5

UST No. 5 was east of Building 31. The tank has been removed and soil is being excavated.

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.

The following is a list of safety equipment located near this HWMU:

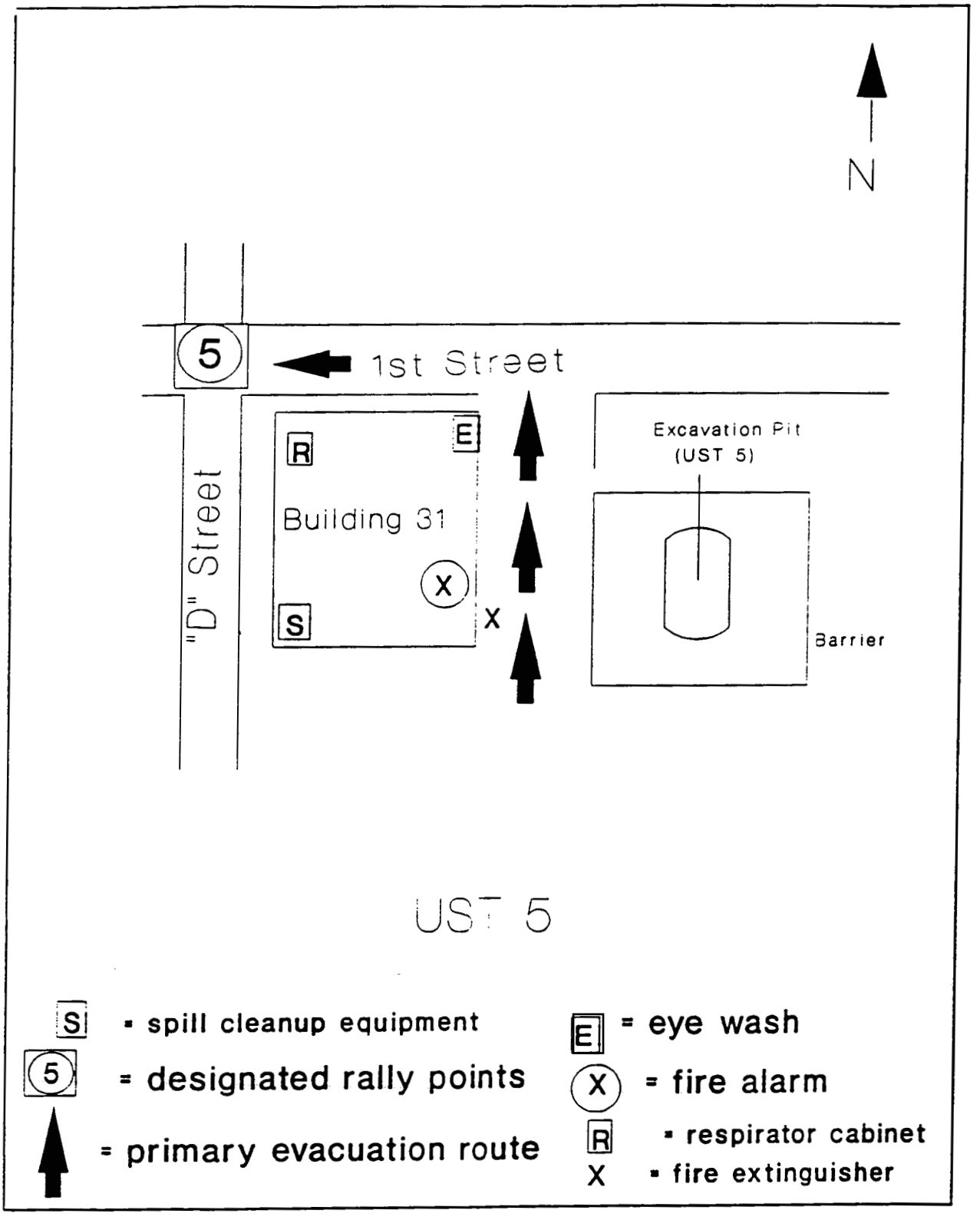
- Manual Fire Alarm
  1) On East wall of Garage between break room and Men's room

- Fire Extinguishers
  1) Outside, near HWMU 47, east side of roll up door

- Eye Wash Station
  1) On east wall of Garage

- Spill Cleanup Equipment
  1) At SAA on west wall in Garage

- Respirator Cabinet
  1) Outside supervisor's office on west wall


N
5
1st Street
"D" Street
R
E
Building 31
X
S
X
Excavation Pit
(UST 5)
Barrier
UST 5
S = spill cleanup equipment
5 = designated rally points
= primary evacuation route
E = eye wash
X = fire alarm
R = respirator cabinet
X = fire extinguisher

HWMU 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 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.

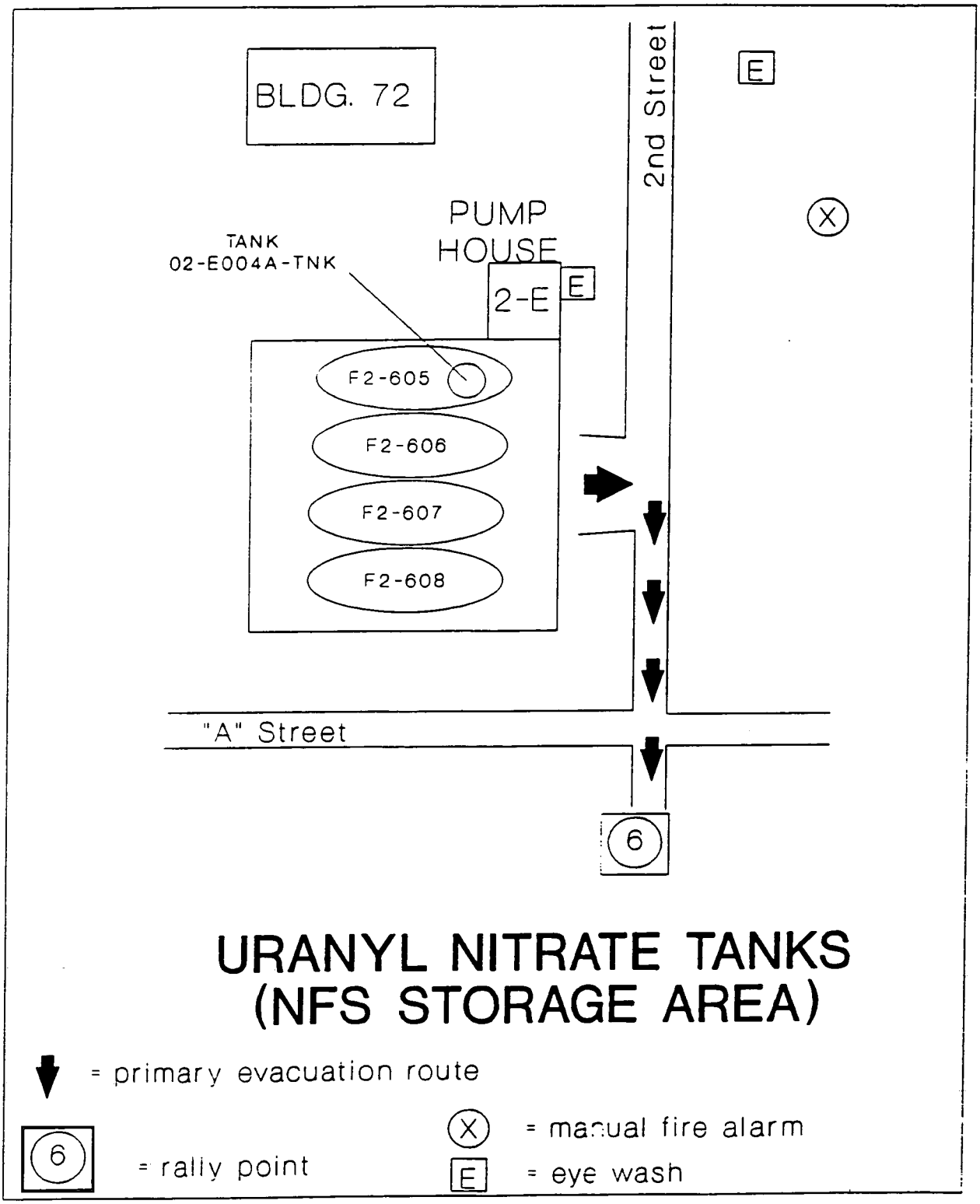
The following is a list of safety equipment located near this HWMU:

- Manual Fire Alarms
  1) At West corner of Building 2D across 2nd Street

- Fire Extinguishers
  1) Several locations inside Building 2/3 in the Extraction Area

- Eye Wash Stations and Safety Showers
  1) Outside, on south side of Pump House 2E east of HWMU 48.
  2) Outside, on north side of Building 2D, across 2nd Street

- Spill Cleanup Equipment and Respirator Cabinets
  1) Use materials located in Extraction Area of Building 2/3


BLDG. 72
2nd Street
E
PUMP
HOUSE
2-E
E
TANK
02-E004A-TNK
X
F2-605
F2-606
F2-607
F2-608
"A" Street
6
URANYL NITRATE TANKS
(NFS STORAGE AREA)
= primary evacuation route
6
= rally point
X
= manual fire alarm
E
= eye wash

HWMU No. 47 - Uranyl Nitrate Tanks (North of Plant 2)

This unit consists of five 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 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 located near this HWMU:

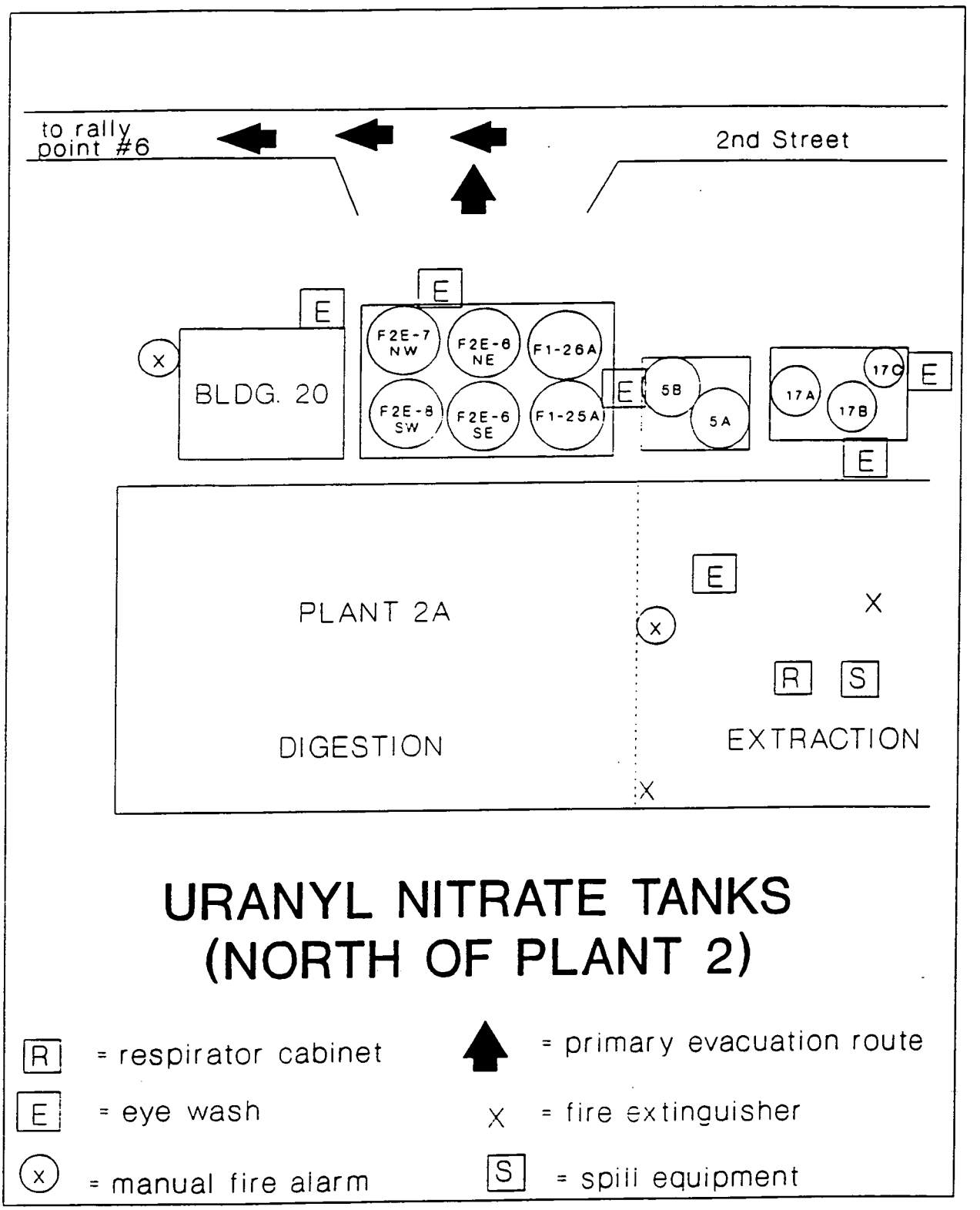
- Manual Fire Alarms
  1) Outside Building 2D at northwest corner
  2) Inside Building 2/3 at west end of Extraction Area

- Fire Extinguishers
  1) Several locations inside Building 2/3 in the Extraction Area

- Eye Wash Station and Safety Showers
  1) At northeast corner of Building 2D
  2) In containment area of HWMU 47
  3) On north side of Building 2/3 at center

- Spill Cleanup Materials
  1) At column B 11 inside Building 2/3 in Extraction Area

- Respirator Cabinet
  At column B 11 inside Building 2/3 in Extraction Area



URANYL NITRATE TANKS (NORTH OF PLANT 2)

R = respirator cabinet

E = eye wash

X = manual fire alarm

= primary evacuation route

X = fire extinguisher

S = spill equipment

HWMU No. 48 - Uranyl Nitrate Tanks (Southeast Corner 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, 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.

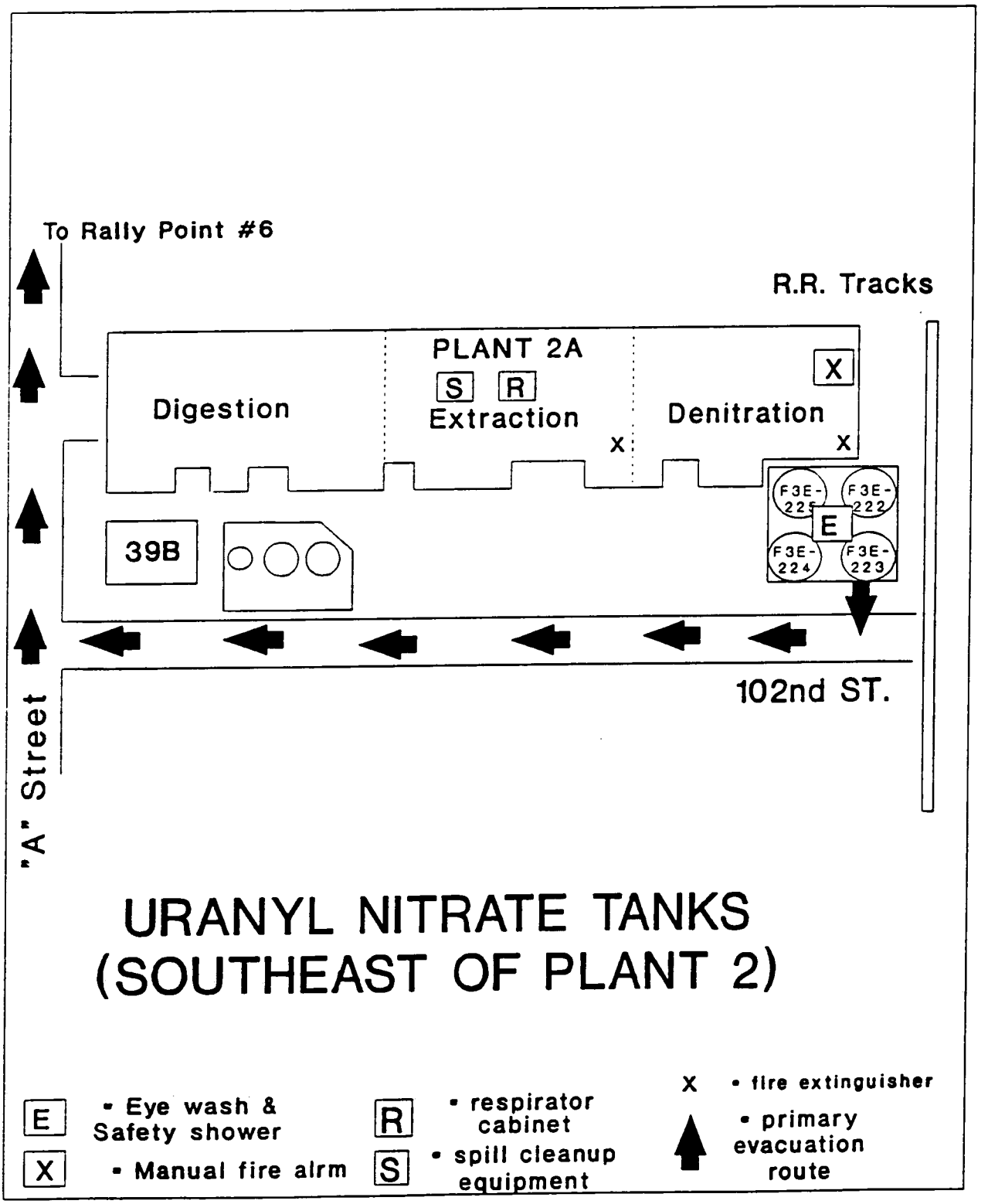
The following is a list of safety equipment located near this HWMU:

- Manual Fire Alarm
  1) At east end of Building 2/3 between pedestrian door and roll up door

- Fire Extinguishers
  1) Inside Building 2/3 at east end and north of roll up door
  2) Outside Building 2/3 at west end near pedestrian door

- Eye Wash Station and Safety Showers
  1) Center of Tank Containment Area
  2) Outside Building 2/3 through pedestrian door, west.

- Spill Cleanup Materials
  1) In the cabinet located in the center of column B-11


To Rally Point #6
R.R. Tracks
PLANT 2A
S
R
Digestion
Extraction
Denitration
X
X
X
F3E-225
F3E-222
E
F3E-224
F3E-223
39B
102nd ST.
"A" Street
URANYL NITRATE TANKS
(SOUTHEAST OF PLANT 2)
E • Eye wash & Safety shower
X • Manual fire alrm
R • respirator cabinet
S • spill cleanup equipment
X • fire extinguisher
• primary evacuation route

HWMU No. 49 - Uranyl Nitrate Tanks (Digestion Area)

This unit consists of five 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 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 following is a list of safety equipment located at Plant 2's Extraction Area near this HWMU:

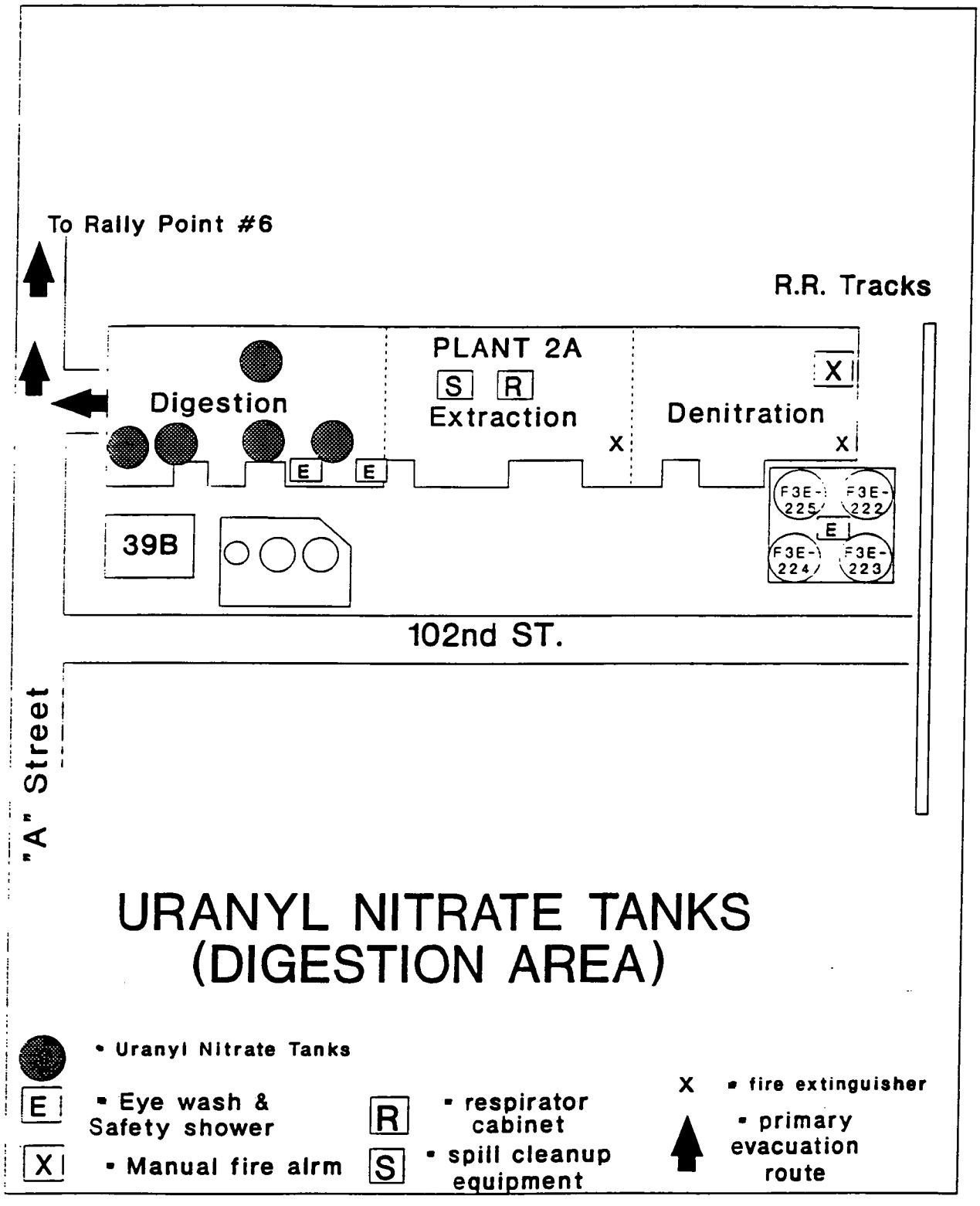
This area is restricted from entry unless personnel are wearing protective clothing due to asbestos contamination. Use safety equipment in adjacent Extraction Area east of this HWMU. Fire Extinguishers and Safety Showers are maintained in the Digestion Area.

- Manual Fire Alarms
  1) On east wall between Digestion and Extraction Area

- Fire Extinguishers
  1) On east wall between Digestion and Extraction Area
  2) On inside north wall of Extraction Area
  3) On outside north wall of Extraction Area
  4) On northeast corner of Extraction Area

- Eye Wash Station and Safety Showers
  1) On south wall of Digestion Area outside office areas
  2) On north side of Building 2/3 in UNH Containment Area

- Spill Cleanup Material
  1) In Extraction Area of Plant 2/3 near column B-11


To Rally Point #6
R.R. Tracks
PLANT 2A
S
R
Extraction
Digestion
Denitration
X
X
X
E
E
E
F3E-225
F3E-222
F3E-224
F3E-223
39B
102nd ST.
"A" Street
URANYL NITRATE TANKS
(DIGESTION AREA)
• Uranyl Nitrate Tanks
E • Eye wash & Safety shower
X • Manual fire alrm
R • respirator cabinet
S • spill cleanup equipment
X • fire extinguisher
• primary evacuation route

HWMU No. 50 - Uranyl Nitrate Tanks (Raffinate Building)

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

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 located at this HWMU:

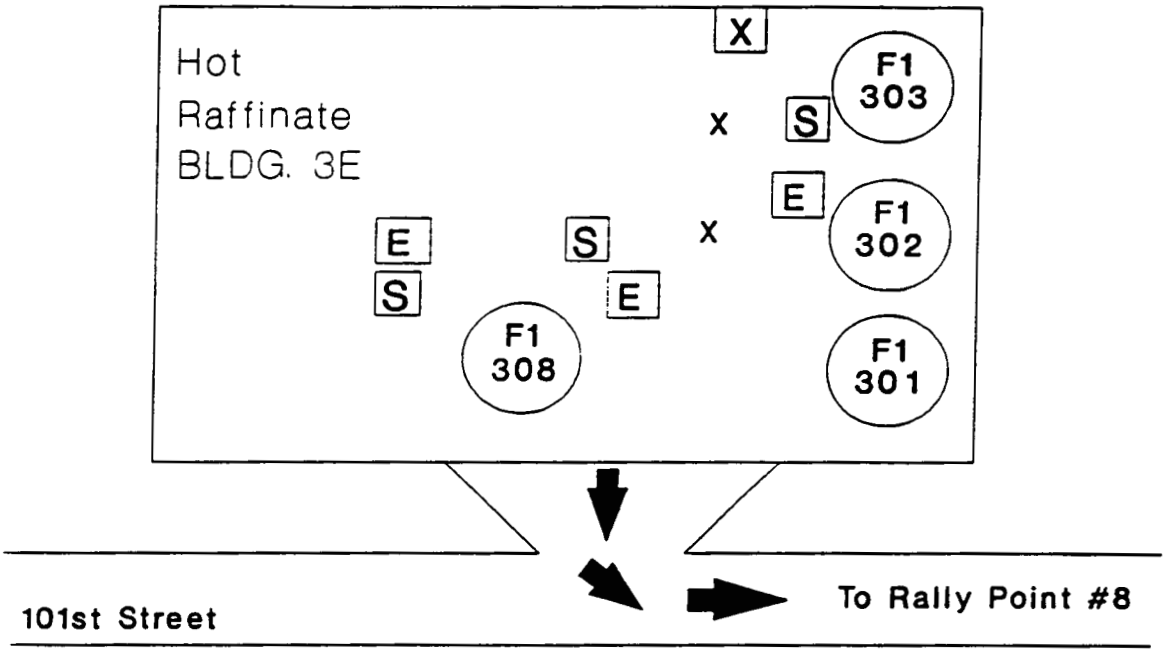
- Manual Fire Alarms
  1) Northeast side wall

- Fire Extinguishers
  1) 10# ABC On entrance wall to east bay near tanks F1-301, 302, and 303
  2) 10# ABC At the head of the stairwell on the 2nd floor.

- Safety Showers
  1) Near tank F1-303
  2) Near tank F1-308
  3) On west side of center wall

- Eye Wash Station
  1) Near tank F1-302
  2) Near tank F1-308

- Spill Response Equipment
  1) None available at this unit



URANYL NITRATE TANKS
(RAFFINATE BUILDING)

E - Eye Wash X - fire extinguisher

X - Fire Pull Box S - shower

▲ - primary evacuation route

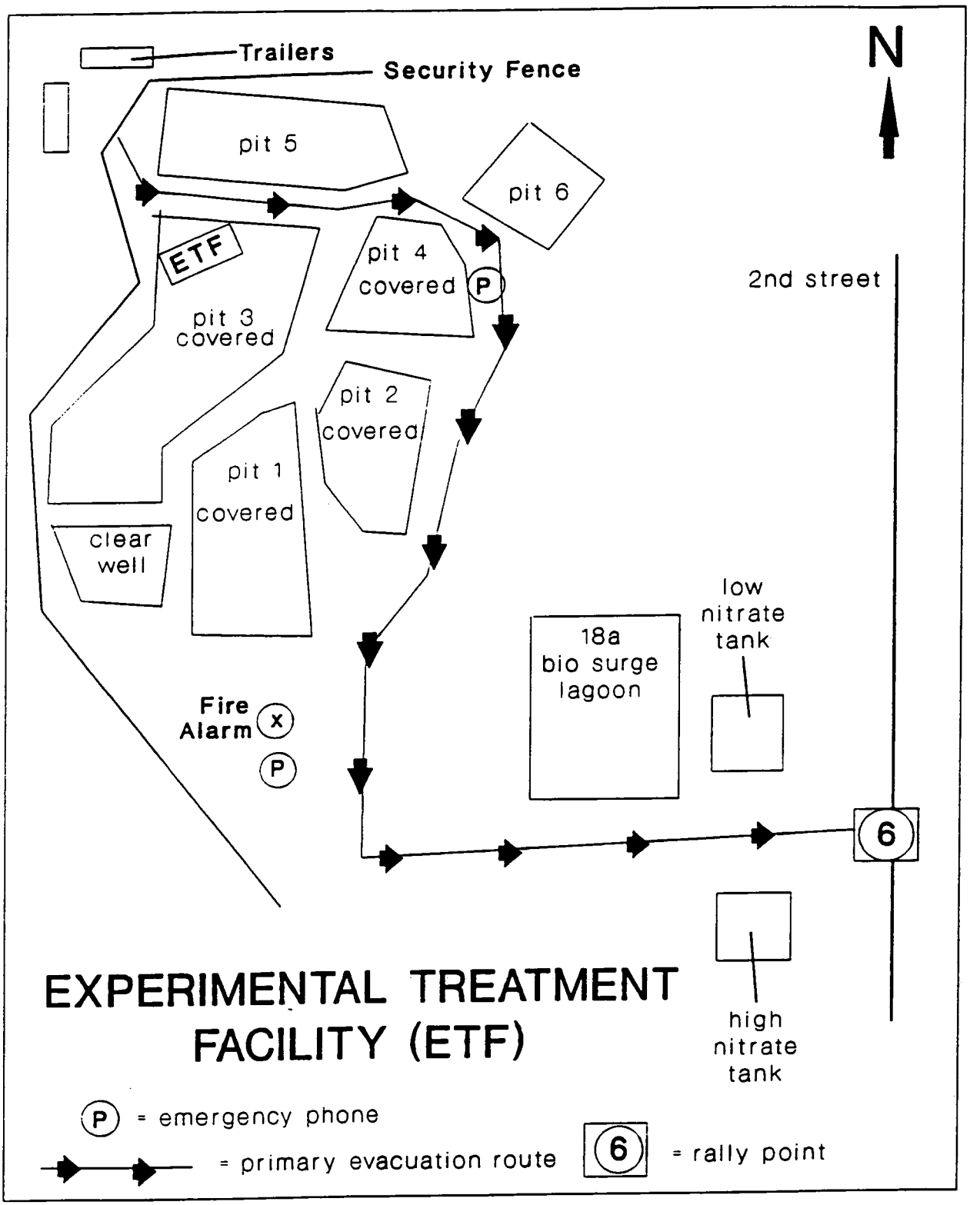
HWMU No. 51 Experimental Treatment Facility (ETF)

This unit is located south of the Waste Pit No. 5 Access Road, near the southwestern corner of Waste Pit No. 5.

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.

This area is serviced by the Emergency Response Team. The need for Emergency Safety Equipment in this area is unlikely.


Trailers
Security Fence
N
pit 5
pit 6
ETF
pit 4
covered
P
2nd street
pit 3
covered
pit 2
covered
pit 1
covered
clear
well
low
nitrate
tank
18a
bio surge
lagoon
Fire
Alarm
X
P
6
high
nitrate
tank
EXPERIMENTAL TREATMENT
FACILITY (ETF)
P = emergency phone
= primary evacuation route
6 = rally point

SECTION G - CONTINGENCY PLAN
ATTACHMENT G-2
LOCATION OF FEMP FIRE HYDRANTS

Low-pressure Hydrant Locations

Hydrant #	General Location
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 St.
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 St.
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 Hydrant Locations

Hydrant #	General Location
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.

SECTION G - CONTINGENCY PLAN
ATTACHMENT G-2
LOCATION OF FEMP FIRE HYDRANTS

Low-pressure Hydrant Locations

Hydrant #	General Location
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 St.
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 St.
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 Hydrant Locations

Hydrant #	General Location
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.