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**ISSUANCE OF REVISION 2.1 OF THE FERNALD ENVIRONMENTAL  
MANAGEMENT PROJECT RESOURCE CONSERVATION AND RECOVERY  
ACT CONTINGENCY PLAN**

08/10/95

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

AUG 10 1995

DOE-1266-95

Mr. Gary Miller  
American Red Cross Disaster Services  
720 Sycamore Street  
Cincinnati, Ohio 45202

Dear Mr. Miller:

**ISSUANCE OF REVISION 2.1 OF THE FERNALD ENVIRONMENTAL MANAGEMENT PROJECT  
RESOURCE CONSERVATION AND RECOVERY ACT CONTINGENCY PLAN**

Enclosed is Revision 2.1 of the Fernald Environmental Management Project (FEMP) Resource Conservation and Recovery Act (RCRA) Contingency Plan. Revision 2.1 is the updated version of Revision 2.0, involving the alterations (changes marked by shading) to Section G pages 2, 3, 7, 8, 21 and 23; Attachment G-1 pages 2, 3, 9, 16, 18, 19, 21, 22, 24, 25, 27-29, 31-33, 35, 40, 42, 45(A,B), 50-52, 57, 59, 65, 66(A,B), 67(A,B), 68, 70(A,B), 74 and 75 of the Fernald Environmental Management Project (FEMP) RCRA Contingency Plan. Please return the confirmation form in the enclosed envelope to verify that you have received this revision.

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

Sincerely,

David R. Kozlowski  
Associate Director  
Office of Safety and Assessment

FN:Skintik

Enclosures: As Stated



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

AUG 10 1995

DOE-1266-95

Mr. Jim Miller  
Crosby Township Fire Department  
6985 River Road  
Harrison, Ohio 45030

Dear Mr. Miller:

**ISSUANCE OF REVISION 2.1 OF THE FERNALD ENVIRONMENTAL MANAGEMENT PROJECT  
RESOURCE CONSERVATION AND RECOVERY ACT CONTINGENCY PLAN**

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David R. Kozlowski  
Associate Director  
Office of Safety and Assessment

FN:Skintik

Enclosures: As Stated

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

AUG 10 1995  
DOE-1266-95

Sergeant Dittman  
Butler County Sheriff's Department  
123 Court Street  
Hamilton, Ohio 45011

Dear Sergeant Dittman:

**ISSUANCE OF REVISION 2.1 OF THE FERNALD ENVIRONMENTAL MANAGEMENT PROJECT  
RESOURCE CONSERVATION AND RECOVERY ACT CONTINGENCY PLAN**

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David R. Kozlowski  
Associate Director  
Office of Safety and Assessment

FN:Skintik

Enclosures: As Stated

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

AUG 10 1995

DOE-1266-95

Lt. Larry Banaszak  
Ohio Highway Patrol, Post 9  
4751 Hamilton-Middletown Road  
Hamilton, Ohio 45011

Dear Lt. Banaszak:

**ISSUANCE OF REVISION 2.1 OF THE FERNALD ENVIRONMENTAL MANAGEMENT PROJECT  
RESOURCE CONSERVATION AND RECOVERY ACT CONTINGENCY PLAN**

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David R. Kozlowski  
Associate Director  
Office of Safety and Assessment

FN:Skintik

Enclosures: As Stated

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

AUG 10 1995

DOE-1266-95

Mr. Lewis Meyers, Jr.  
 Ohio Emergency Management Agency  
 2925 W. Granville Road  
 Columbus, Ohio 43235-2712

Dear Mr. Meyers:

**ISSUANCE OF REVISION 2.1 OF THE FERNALD ENVIRONMENTAL MANAGEMENT PROJECT  
 RESOURCE CONSERVATION AND RECOVERY ACT CONTINGENCY PLAN**

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 Associate Director  
 Office of Safety and Assessment

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Enclosures: As Stated

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

AUG 10 1995

DOE-1266-95

Ms. Janet Little  
 Director of Quality Improvement  
 Mercy Hospital  
 P.O. Box 418  
 Hamilton, Ohio 45012

Dear Ms. Little:

**ISSUANCE OF REVISION 2.1 OF THE FERNALD ENVIRONMENTAL MANAGEMENT PROJECT  
 RESOURCE CONSERVATION AND RECOVERY ACT CONTINGENCY PLAN**

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David R. Kozlowski  
 Associate Director  
 Office of Safety and Assessment

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Enclosures: As Stated

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

AUG 10 1995

DOE-1266-95

Lieutenant Don Coyle  
Hamilton County Sheriff's Department  
11021 Hamilton Avenue  
Cincinnati, Ohio 45231

Dear Lieutenant Coyle:

**ISSUANCE OF REVISION 2.1 OF THE FERNALD ENVIRONMENTAL MANAGEMENT PROJECT  
RESOURCE CONSERVATION AND RECOVERY ACT CONTINGENCY PLAN**

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Sincerely,

David R. Kozlowski  
Associate Director  
Office of Safety and Assessment

FN:Skintik

Enclosures: As Stated



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

AUG 10 1995

DOE-1266-95

Mr. Don Maccarone  
Hamilton County Emergency Response  
2377 Civic Center Drive  
Cincinnati, Ohio 45231

Dear Mr. Maccarone:

**ISSUANCE OF REVISION 2.1 OF THE FERNALD ENVIRONMENTAL MANAGEMENT PROJECT  
RESOURCE CONSERVATION AND RECOVERY ACT CONTINGENCY PLAN**

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David R. Kozlowski  
Associate Director  
Office of Safety and Assessment

FN:Skintik

Enclosures: As Stated

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

AUG 10 1995

DOE-1266-95

Ms. Charlotte Hoernschemeyer  
Director, Emergency Room  
Providence Hospital  
2446 Kipling Avenue  
Cincinnati, Ohio 45239

Dear Ms. Hoernschemeyer:

**ISSUANCE OF REVISION 2.1 OF THE FERNALD ENVIRONMENTAL MANAGEMENT PROJECT  
RESOURCE CONSERVATION AND RECOVERY ACT CONTINGENCY PLAN**

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David R. Kozlowski  
Associate Director  
Office of Safety and Assessment

FN:Skintik

Enclosures: As Stated

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FERNALD ENVIRONMENTAL  
MANAGEMENT PROJECT

RCRA PART B  
CONTINGENCY PLAN  
(REVISION 2.0 & 2.1)

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

RCRA PART B PERMIT APPLICATION  
FEMP REVISION 2.0 0994  
PAGE 1 OF 39

RCRA Part B Permit Application  
Fernald Environmental Management Project  
Fernald, Ohio  
USEPA ID# OH 6890008976

SECTION G - CONTINGENCY PLAN

This Contingency Plan is required by Ohio Administrative Code (OAC) 3745-50-44(A)(7) and Title 40 of the Code of Federal Regulations (CFR) 270.14 (b)(7) in order to provide planned procedures to be followed in an emergency at any hazardous waste facility. This information is submitted for the Fernald 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. During production, several types of hazardous wastes were produced from virgin materials, including (but not limited to): toxic halogenated solvents (from parts cleaning), ignitable oil and lubricants (from machining operations), ignitable and metal-bearing paint residues (from drum reconditioning), corrosive acids and alkalis (from metal and ore digestion and extraction), and pyrophoric non-nuclear metals (from foundry operations). In addition, some non-hazardous materials such as cleaning rags and wastewater sump cakes were contaminated with hazardous wastes, and thus became hazardous wastes themselves.

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

RCRA PART B PERMIT APPLICATION  
FEMP REVISION 2.1 0795  
PAGE 2 OF 39

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

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

Location: B Street - North of 2nd Street

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

Waste Types: Various hazard classes EXCEPT ignitables.

HWMU No.20 (Plant 1 Pad)

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

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

Waste Types: Various hazard classes;

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

Location: Corner of A Street and 1st Street

Maximum Capacity: 139,260 gallons / 2532 drums

Waste Types: Combustible solids

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

Location: Southwest corner of production area

Maximum Capacity: 13,200 gallons / 240 drums

Waste Types: Ignitable dry wastes, metals, metal salts and oxides

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

Location: B Street - North of 2nd Street

Maximum Capacity: 200,640 gallons / 3,648 drums

Waste Types: Combustible and flammable liquids

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

Location: D Street - North of 2nd Street

Maximum Capacity: 86,240 gallons / 1,568 drums

Waste Types: Combustible liquids and solids, corrosives, PCBs

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

Location: E Street between 1st and 2nd Street

Maximum Capacity: 230,780 gallons / 4,196 drums

Waste Types: Combustible and flammable liquids, solids, trash

The FEMP site and mailing addresses are:

Fernald Environmental Management Project - Site Address  
7400 Willey Road  
Fernald, Ohio 45030  
(513) 738-6200 648-3000

000015

Fernald Office - Mailing Address  
U. S. Department of Energy  
P.O. Box 538705  
Cincinnati, Ohio 45253-8705  
(513) 738-6200 648-3000

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

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

This plan describes the actions facility personnel must take in response to a hazardous waste event or emergency such as fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water. This plan applies to all areas of the facility where hazardous waste is being handled or stored. Therefore, in addition to the seven storage units the FEMP is seeking to permit, all hazardous waste management units are discussed in this plan. The location of the active hazardous waste management units (HWMUs) which the FEMP is seeking to permit as RCRA storage facilities are shown in Figure G-1. A copy of this contingency plan is located at each such unit. The location of all other HWMUs is shown within Attachment G-1 on the inserted map "Evacuation Routes", located between pages 9 and 10; specific route maps are posted at these units. Since a potential incident could occur at any HWMU, Attachment G-1 describes evacuation routes and fire and safety equipment available for all HWMUs.

#### G-1a Emergency Organization

The Emergency Coordinator may request support and allocate resources under the responsibilities of any or all of the Emergency Response Support Organizations discussed in this section. Table G-2 provides a roster of the FEMP Emergency Organization. Figure G-2 provides an organizational chart of the FEMP Emergency Response Organization.

#### Fernald Environmental Management Project

##### Emergency Management

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

The Emergency Coordinator (AEDO) manages and controls the response to any event at the FEMP. A minimum of one Emergency Coordinator (AEDO) is

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

The Emergency Coordinator (AEDO) can activate the FEMP emergency response organizations including, but not limited to, the Emergency Response Team, Monitoring Team, medical staff, security personnel, the Emergency Operations Center, the Joint Public Information Center, the Triage Center, and the Staging Area. Additional support and mutual aid may be summoned at any time by the Emergency Coordinator (AEDO). The Emergency Coordinator (AEDO) establishes a field command post to manage and control all response actions at the incident scene.

#### **Emergency Response Team**

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

#### **Security Response Organization**

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

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

The Emergency Operations Center (EOC) Staff is a functional organization which works with the Emergency Coordinator (AEDO) to oversee and direct emergency response actions. The Emergency Operations Center, located in the Administration Building, assesses the incident, coordinates protective actions, and coordinates personnel accountability. The Emergency Operations Center also supports and directs protective actions, allocating additional resources as needed and providing notifications and information to employees, appropriate authorities, and the general public. The EOC Staff is composed of three primary teams, the Policy Team, Operations Team, and the Information Management Team. Primary and alternate staff members have been selected for each position.

#### **Public Information Response**

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

#### **Medical Response Organization**

The Medical Response Organization provides treatment and stabilization for

injuries. At least two state certified Emergency Medical Technicians are on duty at all times as members of the Emergency Response Team.

#### **Communications Center Staff**

Site-based communications are operated by security personnel. The security staff also dispatches ambulance service in response to ambulance calls on-site. The Communications Center provides communication links between the Emergency Coordinator (AEDO) and support groups, implements systems instructions, and makes appropriate notifications when instructed.

#### **Monitoring Team**

The FEMP monitoring organization consists of Radiological Safety and Industrial Hygiene Technicians for on-site and off-site monitoring of chemicals and radiological materials. Monitoring data is provided to the Emergency Coordinator (AEDO). The State of Ohio provides monitoring and assessment support to the counties as requested.

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

##### **DOE Fernald Office (DOE-FN)**

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

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

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

#### **State of Ohio**

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

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

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

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

### G-1b Distribution

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

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

### G-2 EMERGENCY COORDINATION

The FEMP Emergency Preparedness staff, headed by the Emergency Coordinator (AEDO), is in charge of the preparation for and response to an emergency at the FEMP. Figure G-3 depicts the relationships between the key FEMP Emergency Preparedness Staff. Figure G-3.1 describes the qualifications for the staff.

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

#### FEMP Emergency Preparedness Staff

##### **Emergency Coordinator (AEDO)**

The Assistant Emergency Duty Officer (AEDO) has been designated as the primary onsite Emergency Coordinator. The Emergency Coordinator (AEDO) is the Utility Engineer on shift. The Emergency Coordinator (AEDO) has authority to initiate all necessary response actions. The Emergency Coordinator (AEDO), responds to the event site, assesses and categorizes the event as an emergency or lesser event.

There are currently five personnel assigned to the position of Utility Engineer. This group works a five-person rotating shift schedule. A status board which lists the Emergency Coordinator (AEDO) and Emergency Chief is established for each shift at the Communications Center. At least one Emergency Coordinator

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(Utility Engineer) is on site at all times, who can be reached by pager. If the shift AEDO should be unavailable for duty, an Alternate AEDO will be summoned. The Emergency Chief will act as AEDO until the Alternate AEDO arrives. Table G-1 lists the pertinent contact information for the designated Emergency Coordinators (AEDOs).

As stated in section G-1, the Emergency Coordinator (AEDO) is fully knowledgeable of this Contingency Plan, operations and activities at the FEMP, the locations and characteristics of hazardous waste at the facility, the location of records within the FEMP, and the facility layout. In addition to the training listed in table G-3.1 and in Section H, the Utility Engineering job description requires a BS degree in a related field plus five years of related experience.

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

#### **Emergency Duty Officer**

The Emergency Duty Officer is the designated, on-call representative of the Emergency Operations Center and senior facility management. The Emergency Duty Officer reviews the emergency assessment with the Emergency Coordinator (AEDO), and coordinates the Emergency Operations Center staff in support of the AEDO. The Emergency Duty Officer is responsible for proper notification of off-site response organizations.

The Emergency Duty Officer is in control of response operations until the Deputy Emergency Director approves and assumes control of the response organization. The Emergency Duty Officer remains part of the Emergency Operations Center staff providing management oversight to the Emergency Coordinator (AEDO). Designated senior staff managers rotate as the Emergency Duty Officer.

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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
- conventional telephone service.

In addition to the training listed in Table G-3.1 and Section H, the job description for the Emergency Duty Officer requires a BS degree in a related field plus eight years of related experience that includes three years of management responsibilities.

#### Emergency Chief (EC)

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

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

- via radio through the 24-hour-staffed  
 FEMP Communications Center 513-738-6295 648-4444
- office 513-738-6235 648-4298
- mobile vehicle cellular telephone 513-535-1367
- by personal digital display pager

In addition to the training listed in table G-3.1 and in Section H, the job description for the Safety and Fire Inspector requires two years of post high school studies in a related field plus three years of related experience in fire inspection/code enforcement.

#### Release Evaluator

A Release Evaluator evaluates regulatory requirements for reporting hazardous waste releases. The Release Evaluator is on call on a 24-hour basis through a personal digital pager and assists the Emergency Coordinator (AEDO) and Emergency Duty Officer in determining the need for regulatory reporting and notifications.

### G-3 IMPLEMENTATION

The first step taken during any incident involves its observance by employees and supervisors on the scene. Actions to be taken in reporting an explosion, fire, or release are described in Attachment G-1. The Emergency Coordinator (AEDO) categorizes the event according to increasing levels of severity as defined in Figure G-5.1:

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

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

The following implementation plan is used to respond to a hazardous waste event. Contingency Plan implementation and notification actions are diagrammed in Figure G-4 and are summarized in Figure G-5.1, the Emergency Categorization Level Guide.

This Guide lists actions for events involving hazardous waste and radioactive material and includes numerical values to assist in evaluating and classifying the event. Implementation of the Contingency Plan is initiated for potential or actual events involving hazardous wastes or hazardous waste constituents.

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

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

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

The 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<sup>1</sup> as directed by the Emergency Coordinator (AEDO).

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

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- 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 consider both direct and indirect effects of the event.
- 8) The Communications Center Operator in coordination with the Emergency Operations Center completes all required notifications to:
  - DOE-HQ EOC,
  - State of Ohio Emergency Management Agency (OEMA), who then notifies the appropriate offsite agency(ies) listed in Table G-1, according to the type of incident,
  - Butler and Hamilton counties' 24-hour notification points,
  - Director, Ohio Environmental Protection Agency
  - FEMP Release Evaluator,
  - DOE-FN Duty Officer,
  - Appropriate local organizations, if not notified by OEMA,
  - Federal and State regulatory agencies, if not notified by OEMA.

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

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

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

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

- name, address, and telephone number of the reporter;
- 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);
- type of material(s) involved;
- quantity of material(s) involved;
- the extent of injuries, if any;

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<sup>2</sup>

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

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

#### Cessation/Resumption of Activities

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

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

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

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

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

- 1) Visual inspection of the container labeling will be the initial identification method. The labeling includes all pertinent waste characterization information.
- 2) If labels are obscured or not easily read, site records such as the 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 Materials Control and Accountability (MC&A) inventory records.
- 3) Samples will be taken for analysis and characterization if the released material cannot be identified by the above methods.

#### G-4c Assessment

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

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

The existing DOE event categorization system used by the 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

As previously noted in Section G-3, the four major event categories, in order of increasing severity, are: Loggable Event, Off-Normal Event, Unusual Occurrence, and Emergency. Events are categorized using the criteria defined in Figure G-5.1, Event Categorization Level Guide. The categorization of a hazardous waste incident as an Emergency activates the Emergency Operations Center (EOC) and implements the contingency plan. Emergency levels are further classified, using the criteria in Figure G-5.2, Emergency Action Level Guide, as General Emergency (most severe), Site Area Emergency, or Alert (least severe) as defined below.

#### **General Emergency**

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

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

If a General Emergency is declared, the Emergency Coordinator (AEDO) immediately directs the Communication Operator to activate the EOC, the FEMP Off-site Emergency Warning System, the Sitewide Alarm System, and the Joint Public Information Center (JPIC), to make the required announcements for site protective actions. Emergency Response Team assistance will be required and notification shall be made as described in Section G-4a. Off-site response assistance and/or response may be required.

#### **Site Area Emergency**

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

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

#### **Alert**

An Alert is declared at a non-reactor facility such as the FEMP when events are in progress or have occurred which involve an actual or potential substantial impact on the safety of the facility.

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

If an Alert is declared, the Emergency Coordinator (AEDO) immediately directs the Communication Center Operator to activate the EOC, the Sitewide Alarm System and to make the required announcements for local protective actions. 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. Personal protective clothing, pumps, generators, and respiratory equipment are noted in Section G-5; containment supplies and procedures in Section G-5(b); and major self-propelled and other "heavy" equipment in Section G-5(a)(4).

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

- Emergency Chief with Fire & Rescue service vehicle
- Emergency Coordinator (AEDO) with vehicle
- 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).

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- 3) Report the following information to the Emergency Coordinator (AEDO):
  - Location;
  - Type of emergency; fire, explosion, chemical release, and personnel, equipment, and chemicals or hazardous wastes involved and amounts if known;
  - The magnitude of the emergency, such as an estimate of the extent, size, quantity, volume, intensity, area, etc.; and
  - Emergency actions taken.
- 4) If possible, the facility personnel encountering the emergency should remain in the vicinity to direct emergency service groups to the scene.
- 5) Determine need for emergency service groups and summon them by calling 6511, pulling manual fire alarms, or relaying the information to the Communications Center via the FM radio network.
- 6) Shut off all operation equipment, air, water, steam, gas, and electricity.
- 7) Remove and segregate all non-burning combustible or otherwise hazardous wastes from the vicinity of the incident, depending on the location of the incident.
- 8) Unlock all doors.
- 9) Evacuate all personnel in the vicinity of the incident not actively involved in responding to the emergency.
- 10) Account for all personnel at location or at the Rally Point.
- 11) Assist the Emergency Coordinator (AEDO) if called upon.
- 12) Assess possible human health and environmental hazards of the event and define or assess the hazard impact including:
  - Identify the involved substance and its source;
  - Determine the extent and the amount of materials involved;
- 13) Assess the emergency and establish the initial event categorization;
- 14) Authorize the request for mutual aid;
- 15) Notify the EDO of significant actions prior to EOC being declared operational;

- 16) Set up a field command post to ensure coordination of all EOC instructions. The field command post shall formulate and forward requests for additional resources.
- 17) Initiate the "All Clear" signal when the emergency is under control and/or resolved;
- 18) Initiate necessary precautions to ensure that further fires, explosions and releases do not occur, recur or spread to other hazardous waste or materials;
- 19) Initiate appropriate monitoring for leaks, pressure build up, gas generation or rupture in valves, pipes, or other equipment;
- 20) Initiate reentry activities including recovery, treatment, storage, and/or disposal of any recovered waste, contaminated soil, surface water, or other materials resulting from the emergency;
- 21) Ensure that all emergency equipment is returned to normal status when the event has been terminated.

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

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

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

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

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

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

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

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

#### G-4g Incompatible Wastes

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

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

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

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

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

An inspection of all safety equipment will be conducted by response personnel before operations are resumed in the affected area(s) of the facility.

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

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

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

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

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

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

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

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

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

G-4j(3) Containment of Visible Releases

Suitable spill cleanup materials are designated for each applicable area. The material used for diking the spill is selected to be compatible with the released hazardous waste. In addition, many large tank systems are located within berms sufficient to contain most of the tanks' contents, and thus allow time for diversion of the spill, or repair and refilling of the tank. Visual examination of the spilled waste will be performed immediately. Based on results of the inspection, the appropriate methods will be selected to prevent further migration of the leak or spill. Visible contamination of soil or surface water will be cleaned up and disposed of in accordance with all applicable regulatory requirements.

G-4j(4) Notifications, Reports

All events are properly documented as directed by the Emergency Coordinator (AEDO), and/or Release Evaluator. Further information is provided in Section G-4a. Any release to the environment (except a leak or spill that is less than or equal to one pound and is immediately contained and cleaned up) will be reported to the Director of the Ohio EPA and the Regional Administrator within 24 hours of detection.

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

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

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

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

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

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

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

#### G-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

In the event of impoundment liner leakage or wall-deterioration, activities which generate wastes to that impoundment will be stopped, or those wastes will be diverted to another holding facility.

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

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

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

Appropriate earth-moving equipment and/or construction materials will be used to repair leaks from impoundments; in many cases, the waste within the impoundment will be reduced to a level below the failure point, prior to the repair. All repairs of a permanent nature will be certified by a registered professional engineer as meeting the appropriate design specifications.

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

The performance of periodic inspections, followed by appropriate maintenance or repair are the control methods used to prevent the possibility of catastrophic failure of the hazardous waste surface impoundments. All repairs of a permanent nature will be certified by a registered professional engineer as meeting the appropriate design specifications.

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

If situations arise such as a leak, an impending repair, or heavy rains, the contents of the impaired surface impoundment can be pumped through a large diameter hose or pipe to another holding facility; the stormwater retention basin can be emptied via bottom drains.

#### G-4k(2) Certification

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

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

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

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

If a hazardous waste surface impoundment has been emptied and removed from service, response actions will be consistent with the CERCLA Consent Agreement and the Consent Decree and its Stipulated Amendment.

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

For the liner portion of the surface impoundment, the repaired liner system must be certified by a qualified engineer as meeting the appropriate design specifications.

### G-5 EMERGENCY SUPPORT AND EQUIPMENT

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

#### Emergency Operations Center (EOC)

The EOC is located in the FEMP Administration Building. EOC staffing and responsibilities are outlined in Section G-1b. Resources available in the EOC include maps, engineering drawings, and other emergency reference materials. The EOC is equipped with an air-purification system, which can sustain air quality and a backup power generator.

A comprehensive communications system in the EOC includes telephones, telefax, computers, portable radios and a control module for the radio equipment in the Communications Center. The EOC can monitor or augment the FEMP emergency

communications control system in the Communications Center. Radio and cellular telephone communications can be utilized as backup communications if telephones are not available. A VHF radio is programmed for various DOE and FEMP frequencies, and an HF radio can be utilized for long distance communication. A paging system links response personnel with the Communications Center. All response personnel can be alerted simultaneously or individually, in case of an event.

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

### Mobile Operations Center

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

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

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

- A telephone key system capable of handling a maximum of twelve incoming/outgoing trunk lines and 24 extension lines. There are also provisions for a maximum of 8 external extensions.
- A VHF radio is programmed for various DOE and FEMP frequencies; an amateur band (144 MHz) radio for use with Civil Defense or for other civil emergency situations; and an HF radio for long distance communications capabilities.
- A CB radio in the cab intended for maintaining communications with any vehicles that may accompany the Mobile Operations Center during transportation.

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

### Joint Public Information Center (JPIC)

The Joint Public Information Center serves 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 Table G-5.

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

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

### Emergency Message System

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

### Local Evacuation Alarm

All process areas are linked to a Honeywell Evacuation Alarm (loudspeaker) system. In the event of an emergency in any location, dialing 6511 or calling "CONTROL" by radio will alert Emergency Preparedness via the Control Center. Appropriate evacuation and other messages will be broadcast over the loudspeakers in affected and adjacent locations. The speaker system is tested daily.

### Ambulance Alarm

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

### Offsite Emergency Warning System

In emergencies with offsite implications the Offsite Emergency Warning System warns citizens within the 2-mile immediate notification zone surrounding the FEMP. Activating the sirens alerts residents to take shelter immediately, tune to a radio or TV station and listen for an Emergency Broadcast System (EBS) message for information.

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

### Fire and Rescue

Fire and rescue equipment at the FEMP includes several vehicles with forcible entry tools, communications equipment, electric lights and generators, portable pumps, protective equipment, and heavy equipment.

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

### Decontamination Equipment

Decontamination equipment is stored in the mobile emergency spill response vehicle and in Building 46. This equipment consists of brushes, soap, diking devices and recovery containers. All of the equipment is designed to be used in

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conjunction with a portable water supply or water supplied from emergency equipment (pumpers/tankers). The mobile emergency spill response vehicle is described in further detail in Section G-5a(4).

### Medical

Medical Services, located in Building 53A, is staffed by physicians, nurses, and technicians. Medical vehicles for emergency use include two fully-equipped ambulance vehicles. There are also various pieces of diagnostic equipment, hospital wards, and other equipment. Detailed information on medical equipment appears in Section G-5e.

### Environmental Radiological Monitoring

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

### Industrial Hygiene Equipment

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

### Emergency Power System

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

### Additional Emergency Equipment

The following additional emergency equipment is maintained at the FEMP:

- Self-contained breathing apparatus (SCBA) and other respiratory equipment
- Chemically resistant clothing, boots, and gloves;
- Showers and eye wash stations in fixed locations throughout the plant
- Emergency power and lighting equipment, including power-failure lighting
- Submersible electric pumps
- Portable electric generators
- Portable gasoline-powered pumps (to 250 gpm)
- Mobile gasoline-powered pump (trailer-mounted, @ 500 gpm).

A list of FEMP emergency respiratory equipment and their typical applications and limitations is provided in Table G-3. A summary of pressurized fire extinguishers is provided in Table G-4. A summary of FEMP Emergency Alarm Signals is provided in Table G-5.

### G-5a Fire Protection Equipment

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

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

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

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

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

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

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

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

The following building are fully sprinklered with dry pipe systems:

- KC-2 Warehouse
- Building 56 Warehouse
- Building 64 Warehouse
- Building 79 Warehouse
- Building 80 Warehouse
- Building 81 Warehouse
- Trane Thermal Liquid Incinerator

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

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

#### CLASSES OF FIRE EXTINGUISHERS

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

- Class A fires involve ordinary combustibles such as wood or paper. These are most readily extinguished by removing the heat. Water extinguishers are best suited here. All-purpose dry chemical extinguishers may also be used.
- Class B fires involve flammable liquids such as gasoline or alcohol. Since these are liquid fires, the application of water may tend to "float" the fire away. The best method of extinguishment here is to remove the oxygen. Carbon dioxide, foam, or dry chemical extinguishers are best suited for Class B fires.

- Class C fires involve energized electrical equipment. Since some extinguishing agents conduct electricity and the best method of extinguishment is to remove the oxygen, carbon dioxide and dry chemicals are recommended here. An electrical fire, if the electricity can be turned off, is usually Class A and can be easily extinguished.
- Class D fires involve certain combustible metals such as magnesium which require specific extinguishing compounds to put them out.

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

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

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

#### FIRE AND SAFETY VEHICLES

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

#### FIRE AND SAFETY RESCUE UNIT 301

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

#### FIRE AND SAFETY SERVICE UNIT 300

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

### TANK TRUCK UNIT 322

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

### FIRE TRUCK - ENGINE NUMBER 311

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

### FIRE TRUCK - ENGINE NUMBER 312

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

### AMBULANCES

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

### SPILL RESPONSE VEHICLE - UNIT 328 (1988)

This Chevrolet 30-Series van, parked at the rear of Building 53, is stocked with a full array of ERT Spill Response Equipment, an on-board communications system. Other types of emergency response equipment stored in this vehicle include:

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

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

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

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

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

#### MOBILE AIR UNIT

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

#### HEAVY EQUIPMENT

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

- 2 flatbed trucks
- 2 dump trucks
- 4 tow tractors
- 6 semi-trailers
- 3 semi-tractors
- 1 tank truck
- 32 industrial trucks
- 45 industrial hand stackers
- 1 locomotive engine
- 2 front end loaders
- 4 bulldozers
- 1 road grader
- 2 cranes
- 1 back hoe
- 1 cement mixer
- 1 portable generator
- numerous tractors, pickup trucks, and small vehicles
- 1 vacuum tanker truck, "Super Sucker"

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

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

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

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

### MONITORING EQUIPMENT

Equipment used to monitor for contamination, explosive atmospheres, and hazardous releases is located on various emergency vehicles and in Building 53. This equipment includes detector tubes, air sampling equipment, explosive gas detectors, chemical analyzers and personal dosimeters.

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

Descriptions of alarm systems for HWMUs and the 90 Day Storage Area are included in Attachment G-1. Automatic electronic alarm and monitoring systems consist of the Honeywell D-1000 System and the Meteorological Tower Monitors.

### HONEYWELL D-1000 SYSTEM

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

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

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

#### METEOROLOGICAL TOWER MONITORS

- (A) Meteorological information collected includes wind speed and direction.
- (B) Information is used to calculate plume direction during a radiological or gaseous hazardous materials emergency.
- (C) Monitor readouts are received in digital readout and strip chart analog hard copy in Building 53A.
- (D) Communications Center personnel relay the information to the Emergency Coordinator (AEDO), Emergency Chief (EC) and/or Meteorologist.

#### G-5d Communication System

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

#### TWO-WAY RADIOS

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

#### RADIO RECEIVERS

These include the following:

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

#### SPECIAL TELEPHONES AND TELEPHONE SERVICE

These include the following:

- National Warning System (NAWAS) equipped with voice-activated recorder.

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

#### 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.

Off-site emergency organizations have signed mutual aid agreements and/or have agreed to provide needed assistance to the FEMP at local, county, state and federal levels. All mutual aid agreements are maintained as part of the FEMP Operating Record. Copies of the current agreements are included as Attachment G-3. A list of participants in mutual aid agreements, prefixed by the acronym "MuAid", is provided in the list of Off-Site Organizations in Table G-1.

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

The Emergency Coordinator (AEDO) will request the Communications Center Operator to initiate the call-in of additional mutual aid assistance if determines a fire or similar emergency is out of control and additional personnel are required. Equipment dispatched for such requests operate under the immediate supervision of the responder's senior on-scene official, but under the general direction of the requester's senior on-site official.

The Communications Center Operator, in the event of Contingency Plan Implementation and at the request of the Emergency Coordinator (AEDO), shall request additional assistance by calling one or more of the off-site organizations' telephone numbers listed in Table G-1; see Figure G-7 for interrelationships between these organizations.

## G-7 EVACUATION PLAN

### EVACUATION OF RCRA FACILITIES

Personnel will respond to voice warnings from a supervisor, audible alarms, or (when alone without supervision) to their own cognition of the events without the benefit of signals.

As determined by the AEDO, personnel may have to perform in-place accountability, or in the event evacuation is required, proceed to their rally point. The accountability procedures are shown in Figure G-8. 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.

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

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

#### G-8 REPORTS

Certain notifications and reports may be required by the regulatory authorities, in the event of an emergency that requires implementation of the Contingency Plan. Section G-4a describes the oral notifications and written reports required upon the implementation of the Contingency Plan. Any one or more of these reports may be required depending on the nature and extent of the emergency. Current recordkeeping / reporting procedures are maintained in the Operating Record in Building 53a.

#### G-8a Required Written Reports

##### GENERAL INCIDENT REPORTING

The FEMP will note in its operating and event reporting records the time, date, and details of any incident that requires implementation of this Contingency Plan.

A written report within 15 days after the occurrence of an incident that requires implementation of the Contingency Plan, notifying Ohio EPA that this Contingency Plan has been implemented (Form B Notification to Ohio EPA of Implementation of Contingency Plan) shall be submitted to the Ohio EPA by DOE as outlined in Section G-4a. Form B is shown in Figure G-10.

##### RESUMPTION OF OPERATIONS REPORTING

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

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G-9 AMENDING THE CONTINGENCY PLAN

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

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

## ATTACHMENT G-1

### Emergency Procedures, Site Layout and Equipment Information

Attachment G-1 contains the description of evacuation procedures, a listing of safety and emergency equipment and site layouts of the hazardous waste management units (HWMUs). Hazardous Waste Management Units for which information is presented are listed below. The listing is followed by a description of the general procedures to be implemented by FEMP personnel in the event of an explosion, fire or spill. The remainder of Attachment G-1 describes the evacuation routes from individual units to Rally Points, and safety and emergency equipment for each HWMU and the 90 Day Storage Area.

#### 90 Day Storage Area

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

#### Hazardous Waste Management Units

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

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

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

- HWMU No. 1 - Fire Training Facility
- ~~HWMU No. 2 - Parts Cleaner in Welding Shop (Maintenance Bldg 12) (Removed)~~
- HWMU No. 3 - Waste Oil Storage in Garage
- HWMU No. 4 - Drum Storage Area Near Loading Dock (Lab Bldg)
- HWMU No. 5 - Drum Storage Area South of W-26 (Lab Bldg)
- ~~HWMU No. 6 - Drummed HF Residue/Associated Storage Areas Inside Plant 4 (Closed)~~
- 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 (Closed under "Generator Closure Protocol")~~
- ~~HWMU No. 9 - Nitric Acid Rail Car and Area (Closed)~~
- HWMU No. 10 - NAR System Components
- HWMU No. 11 - Tank Farm Sump
- ~~HWMU No. 12 - Wheelabrator (Building 66) (Removed)~~
- HWMU No. 13 - Wheelabrator Dust Collector (Building 66)
- HWMU No. 14 - Box Furnace
- HWMU No. 15 - Oxidation Furnace #1
- HWMU No. 16 - Primary Calciner
- HWMU No. 17 - Plant 8 East Drum Storage Pad
- HWMU No. 18 - Plant 8 West Drum Storage Pad
- HWMU No. 21 - Hilco Oil Recovery
- HWMU No. 22 - Abandoned Sump West of Pilot Plant
- ~~HWMU No. 23 - Well Drilling Storage Area (Removed)~~
- ~~HWMU No. 24 - Equipment Storage Area (Removed)~~
- HWMU No. 25 - Plant 1 Storage Building (Building 67)
- HWMU No. 26 - Detrex Still
- HWMU No. 27 - Waste Pit No. 4

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- HWMU No. 28 - Trane Thermal Liquid Incinerator
- ~~HWMU No. 30 - Barium Chloride Salt Treatment Facility (Closed)~~
- 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 (Removed)~~
- ~~HWMU No. 40 - Bio Surge Lagoon (Removed)~~
- HWMU No. 41 - Sludge Drying Beds
- HWMU No. 42 - Waste Pit No. 5
- ~~HWMU No. 43 - Lime Sludge Ponds (Removed)~~
- ~~HWMU No. 44 - Coal Pile Runoff Basin (Removed)~~
- ~~HWMU No. 45 - UST No. 5 (Removed)~~
- HWMU No. 46 - Uranyl Nitrate Tanks (NFS Storage Area)
- HWMU No. 47 - Uranyl Nitrate Tanks (North of Plant 2)
- HWMU No. 48 - Uranyl Nitrate Tanks (Southeast of Plant 2)
- HWMU No. 49 - Uranyl Nitrate Tanks (Digestion Area)
- HWMU No. 50 - Uranyl Nitrate Tanks (Raffinate Building)
- HWMU No. 51 - Experimental Treatment Facility (ETF)
- HWMU No. 52 - North and South Solvent Tanks (Pilot Plant)
- ~~HWMU No. 53 - Safe Geometry Digestion Sump (Plant 1) (Closed)~~
- HWMU No. 54 - Thorium Nitrate Storage Tank, T-2

### General Information

Hazardous Waste Management Unit (HWMU) and the 90-Day Storage Area emergency procedures are described specifically in this section. Responses to an event are identical for each HWMU and the 90-Day Storage Area and the details are given for the response to the three types of events:

- 1) an explosion;
- 2) a fire; or
- 3) a spill of hazardous waste

A response involves the action that endangered personnel must take when encountering an actual or potential explosion, fire, or spill. Personnel may have the knowledge and judgement to discern the severity of the situation. Personnel lacking knowledge sufficient to discern the severity of the situation should immediately move to a safe location and contact the Emergency Coordinator (AEDO). The categorization level of an EVENT may not reach an EMERGENCY level, and thus will not cause the implementation of this Contingency Plan. The situation may nevertheless warrant a protective and remediation response. For example, an incident that does not involve the 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, may not require implementation of this Contingency Plan. See Section G-3 and G-4c for guidelines the Emergency Coordinator (AEDO) uses in determining implementation of this Contingency Plan. See Section G-4 of this Contingency Plan for general emergency response procedures.

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

### 1. Purpose and Scope of the Contingency Plan

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

### 2. Reason for Activating the Contingency Plan

#### 2.1 Explosion

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

- 2.1.2 Pull the nearest fire alarm. Report the exact location of the fire to the Communication Center by two-way radio or telephone, if an alarm box is not near.
- 2.1.3 Leave the area promptly by the least dangerous and most direct or designated route. Continue the escape by evacuating to the designated rally point (Figure G-1) before trying to make a radio report to summon the Emergency Response Team (ERT).
- 2.1.4 Using nearby emergency equipment may not be possible if it is in what appears to be the danger zone.
- 2.1.5 Report the nature of the problem and exact location to the Communication Center by two-way radio or telephone and wait for assistance from the ERT.
- 2.1.6 Supervisor or senior person in charge should take account of all personnel and summon immediate medical attention to seriously injured personnel.
- 2.1.7 Continue evacuation to the next safe rally point before taking account of all personnel, if it is evident that the explosion poses a threat to the designated Rally Point or if this rally point is downwind in the path of smoke or vapors.
- 2.1.8 Use any available and appropriate emergency equipment such as eyewash and shower, if exposed to fumes, smoke, or other hazardous physical irritations. Notify your supervisor and report to medical personnel in Building 53A immediately. Anyone who is aware of any exposure to a fellow worker should request immediate medical help for that person.

## 2.2 FIRE

- 2.2.1 Any employee who detects an actual or potential fire situation in the vicinity should immediately alert all nearby workers.
- 2.2.2 Pull the nearest fire alarm. Report the exact location of the fire to the Communication Center by two-way radio or telephone, if an alarm box is not near.
- 2.2.3 Use available fire fighting equipment to fight the fire until the ERT arrives if there is no immediate danger involved and you have proper training and certification. Provide yourself with protection from fire, fumes, and smoke before using this equipment. Close any equipment (such as ventilation) that does not serve to control the fire in the building.
- 2.2.4 Immediately use available emergency equipment to provide first aid for burns and other minor injuries.
- 2.2.5 Supervisor or senior person in charge should take account of all personnel and summon immediate medical attention to seriously injured personnel.
- 2.2.6 Leave the building quickly and calmly by the least dangerous and most direct or designated route, if there are noticeable vapors, smoke, irritation, or other discernible imminent or immediate danger to your health.
- 2.2.7 Evacuate to the designated rally point, if there is an immediate danger or evidence that the fire cannot be controlled by local action. Supervisor or senior person in charge should take account of all personnel.

2.2.8 Continue evacuation to the next safe rally point, if this rally point is downwind in the path of smoke or fumes, before taking account of all of the personnel.

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

### 2.3 HAZARDOUS WASTE SPILL

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

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

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

NOTE: Only trained personnel equipped with proper respiratory

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

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

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

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

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

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

### SAFETY EQUIPMENT

HWMUs are supplied with varying levels and amounts of safety equipment depending upon the use, occupancy, and contents of the unit. The remainder of Attachment G-1 lists the locations of safety and emergency equipment designated for each HWMU. Only personnel with the appropriate training and experience shall utilize the specified safety equipment: fire extinguishers, respirators and protective clothing, and spill clean-up equipment.

### 90 DAY STORAGE AREA

The 90 Day Storage Area is a temporary container storage area. This area has been moved to Bay 3 of the KC-2 Warehouse (Building 63) in Building 64 (between columns 2 and 5).

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

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

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

~~• Manual Fire Alarms~~

- ~~1) On outside South wall of Building~~

~~• Fire Extinguishers~~

- ~~1) 10# ABC On outside East wall~~

~~• Spill Cleanup Equipment~~

- ~~1) At inside East wall of building~~

~~• Respirator Cabinet~~

- ~~1) At East side of building~~  
~~2) In Building 64 at north end of building~~

~~• Eye Wash / Safety Shower~~

- ~~1) Southwest corner of 90 day holding area, near truck entrance~~

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### HWMU No. 1 - FIRE TRAINING FACILITY

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

Personnel should evacuate to Rally Point No. 7 1. Rally Point No. 7 1 is located on ~~"B" Street~~ at the Northeast corner of the FEMP East Parking Lot ~~Plant 1 Pad~~. Movement is east on the unnamed gravel road to south on the North Access Road ~~"B" Street~~ to the FEMP East Parking Lot, then north to Rally Point #1 at the Northeast corner of the Parking Lot. ~~Plant 1 Pad.~~

The Alternate Rally Point is No. 3 2. Rally Point No. 3 2 is located at the West side of the FEMP West Parking Lot, just north of the Stormwater Retention Basin. ~~intersection of 2nd Street and "C" Streets.~~ Movement from to Rally Point No. 7 2 is west through the parking lot to the rally point. ~~south on "B" Street and east on 2nd Street until the intersection at "C" Street.~~

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

BLDG.  
#73

Burning  
Area



Production Area Security Fence

North Access Road

1

West  
Parking  
Lot

East  
Parking  
Lot

2

# FIRE TRAINING FACILITY HWMU #1

- = Primary Evacuation Route
- = Alternate Evacuation Route

= Rally Point

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

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

This has been removed from the HWMU list.

HWMU No. 3 - WASTE OIL STORAGE IN GARAGE

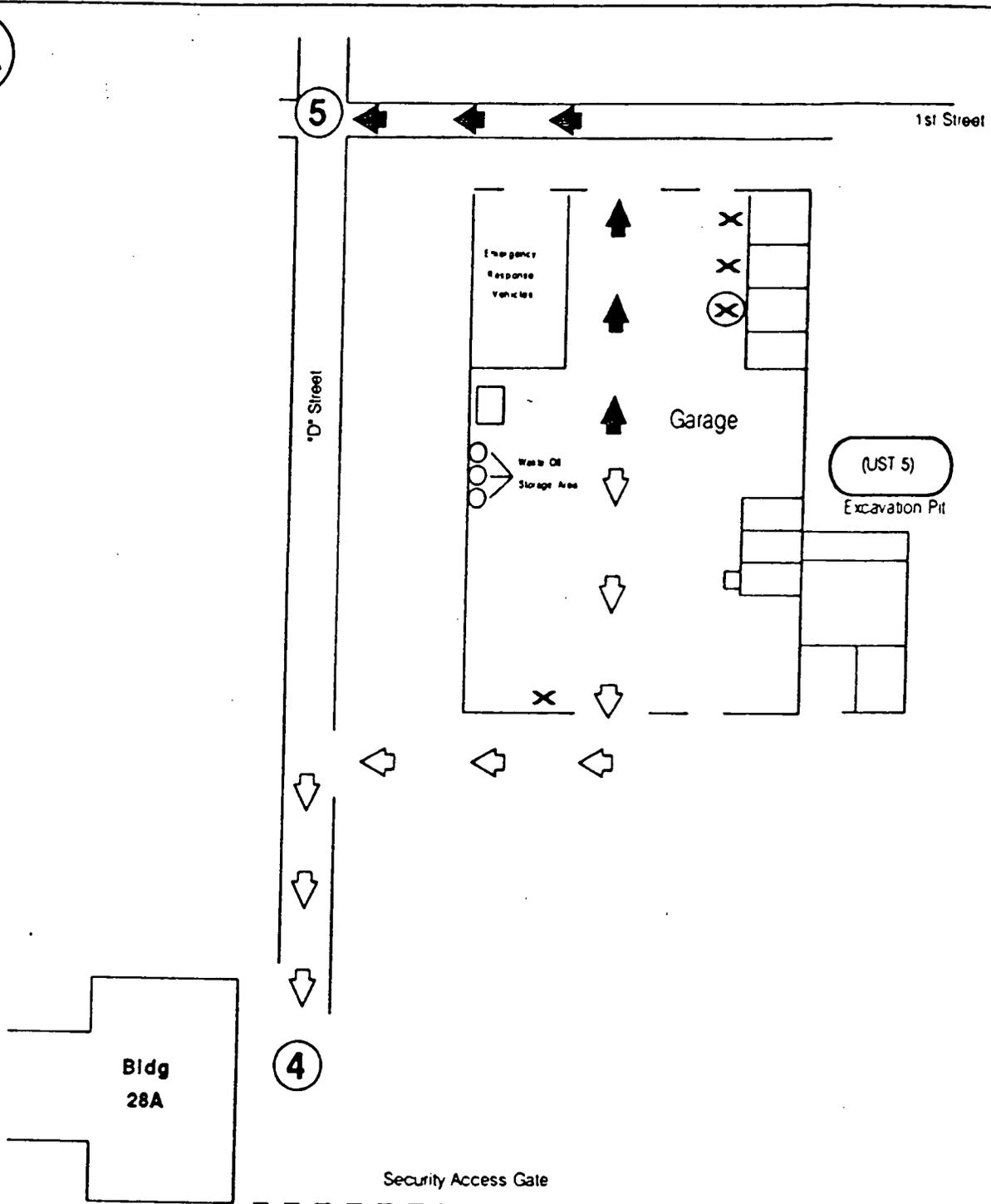
This area was located on the West wall of Building 31 (garage). The containers stored oil mixed with hazardous waste.

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

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

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

- Manual Fire Alarm
  - 1) Located on East wall by Men's Restroom
- Fire Extinguishers
  - 1) 15# CO<sub>2</sub> North end by office on East wall
  - 2) 10# ABC North end by office on East wall
  - 3) 10# ABC South end by overhead door
- Eye Wash/Safety Shower Station
  - 1) Located on East wall of garage across from HWMU (Portable Unit)
- Spill Cleanup Equipment
  - 1) Outside by South truck door
- Respirator Cabinet
  - 1) Located outside Supervisor's Office on East wall



# WASTE OIL STORAGE IN GARAGE HWMU #3

- ◄ = primary route
- ◄ = alternate route
- X = fire extinguisher
- ⊗ = manual fire alarm
- ⑤ = rally point

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

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

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

The Alternate Rally Point is No. 5 6. Rally Point No. 6 is located north of the West Water Tower, at the Waste Pit Area access gate. Movement to Rally Point No. 6 is north to 1st Street, west to "A" Street, then north to 2nd Street and west to the rally point. ~~5 is located at the intersection of 1st and "D" Street. Movement from Rally Point No. 8 is East on 1st Street to the intersection of "D" Street.~~

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



Waste Pt  
Security Fence

'A' Street

2nd Street

6

1st Street

'B' Street

8

Lab Building  
(BLDG. 15A)

**DRUM STORAGE AREA NEAR  
LOADING DOCK (LAB BLDG.)  
HWMU #4**



= Primary Evacuation Route



= Alternate Evacuation Route



= Rally Point

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. 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 6. Rally Point No. 6 is located north of the West Water Tower, at the Waste Pit Area access gate. Movement to Rally Point No. 6 is north to 1st Street, west to "A" Street, then north to 2nd Street and west to the rally point. ~~5 is located at the intersection of 1st and "D" Street. Movement from Rally Point No. 8 is East on 1st Street to the intersection of "D" Street.~~

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

- Manual Fire Alarm
  - 1) Located in South corridor by S-42
- Fire Extinguishers - West Corridor
  - 1) 5# CO<sub>2</sub> Southwest corner of W-26
  - 2) 5# CO<sub>2</sub> Southwest corner of W-26
  - 3) 5# CO<sub>2</sub> First Floor at West end of Room W-18
- Eye Wash Station
  - 1) In hallway by W-24
- Safety Shower
  - 1) Located in doorway to Room W-22A
- Spill Cleanup Equipment
  - 1) Located in Room W-22A

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- Respirator Cabinet
  - 1) East wall Room W-28 by doorway to W-24



Waste Pit  
Security Fence

'A' Street

2nd Street

6

1st Street

'B' Street

8

Lab Building  
(BLDG. 15A)

Drum  
Storage  
Area

**DRUM STORAGE AREA SOUTH  
OF ROOM W-26 (LAB BLDG.)  
HWMU #5**



= Primary Evacuation Route



= Alternate Evacuation Route



= Rally Point

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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.  
~~Closed in accordance with OEPA letter of April 28, 1995.~~

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

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

~~• Manual Fire Alarm~~

- ~~1) First floor at column E-2~~

~~• Fire Extinguishers~~

- ~~1) 15# CO<sub>2</sub> First floor North wall next to elevator~~
- ~~2) 10# ABC First floor next to Northeast door~~

~~• Eye Wash/Safety Shower Station~~

- ~~1) At column D-6~~

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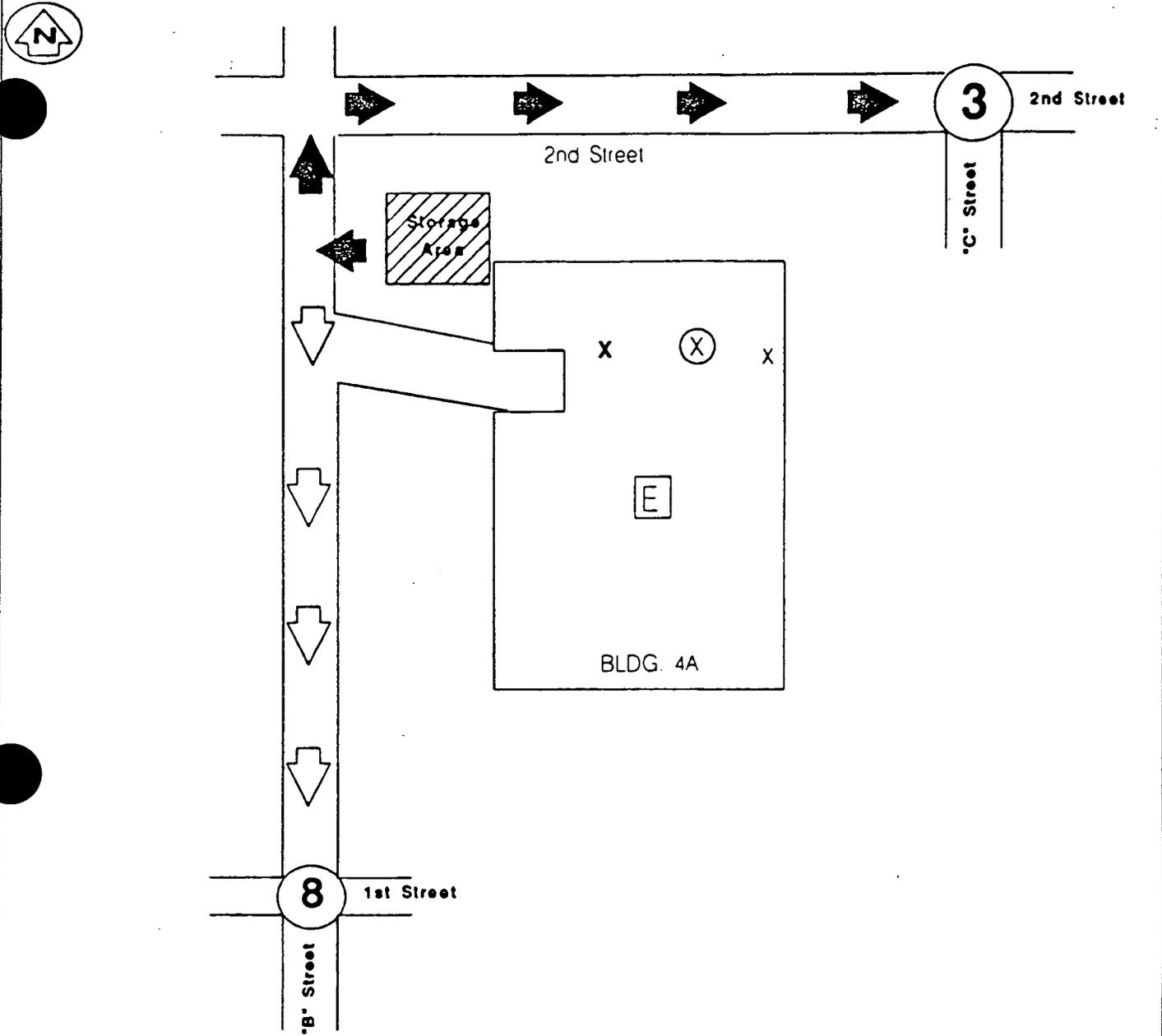
HWMU No. 7 - DRUMMED HF RESIDUE/ASSOCIATED STORAGE AREAS NORTHWEST OF PLANT 4

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

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

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

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



**DRUMMED HF RESIDUE/ASSOCIATED  
STORAGE AREAS NORTHWEST OF PLANT 4  
HWMU #7**

- X = fire extinguisher
- ⊗ = manual fire alarm
- ◁ = alternate route
- ◻ E = eye wash/safety shower
- ➡ = primary route
- ⊙ 3 = rally point

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

This unit is located in a graveled area South of the Cooling Towers. This unit has been closed under the "generator closure" protocol as discussed in the OEPA correspondence to DOE-FN dated April 13, 1995.

~~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 southeast to "D" Street north of Building 12, south on "D" Street to 2nd Street and west on 2nd Street to the intersection of "C" Street.~~

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

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

### HWMU No. 9 - NITRIC ACID RAIL CAR AND AREA

The Nitric Acid Rail Car Area is located near the end of track #2, due East of Building 63 (KC-2 Warehouse). The tank car contained 50 to 100 gallons of waste nitric acid. The acid has been removed and treated and the tank car has been cut into small pieces for scrap. ~~Closed in accordance with OEPA letter of April 25, 1995.~~

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

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

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

~~• Manual Fire Alarm~~

- ~~1) Outside on South wall of Building 63 (KC 2 Warehouse)~~

~~• Fire Extinguisher~~

- ~~1) 20# ABC on South wall of Building 63 outside Bay 7~~

~~• Eye Wash/Safety Shower Stations~~

- ~~1) Use portable eye washes at Bays 5, 6, and 7 of Building 63~~

~~The spill cleanup equipment has been removed since the Rail Car has been removed and emptied.~~

~~• Respirator Cabinets~~

- ~~1) Use respirators in cabinets in Bays 5, 6, and 7 of Building 63~~

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

### HWMU No. 10 - NAR SYSTEM COMPONENTS

This unit is located in the NAR Tank Farm and in the Denitrification Area which converted uranyl nitrate to uranium oxide.

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

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

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

- Manual Fire Alarms
  - 1) West side of North personnel door in the Denitrification Area
  - 2) West wall of Extraction Area by Column B-8
  
- Fire Extinguishers
  - 1) 10# ABC First floor Denitrification Area by Column B-14
  - 2) 10# ABC First floor Denitrification Area by Column D-16
  - 3) 10# ABC Inside door of Supervisor's Office
  - 4) ABC First floor Denitrification Area by Column A-17
  - 5) ABC First floor Denitrification Area by Column C-20
  - 6) ABC Second floor Denitrification Area by Column A-17
  - 7) ABC Second floor, lower level, by Column A-20
  - 8) ABC Second floor, lower level, by Column C-15
  - 9) BC Third floor by Column C-20

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- Eye Wash/Safety Shower Stations

- 1) ~~First floor Denitrification Area by Column C-17~~
- 2) ~~Second floor Denitrification Area West of Column D-18~~
- 3) ~~Inside South wall of NAR Tank Farm~~
- 4) ~~First floor Extraction Area by Column B-13~~
- 5) ~~Second floor Extraction Area by Column C-17~~
- 6) ~~First floor Denitrification Area, East of Column D-15~~
- 1) Secondary containment area (Tanks F1-23 and F1-24) located outside and south of Plant 2/3

- Portable Eyewash/Safety Showers

Portable eyewash/safety showers are to be placed in areas where hazardous work is occurring. Areas of concern within HWMU 10 include the denitrification area, and the secondary containment area located outside and south of Plant 2/3.

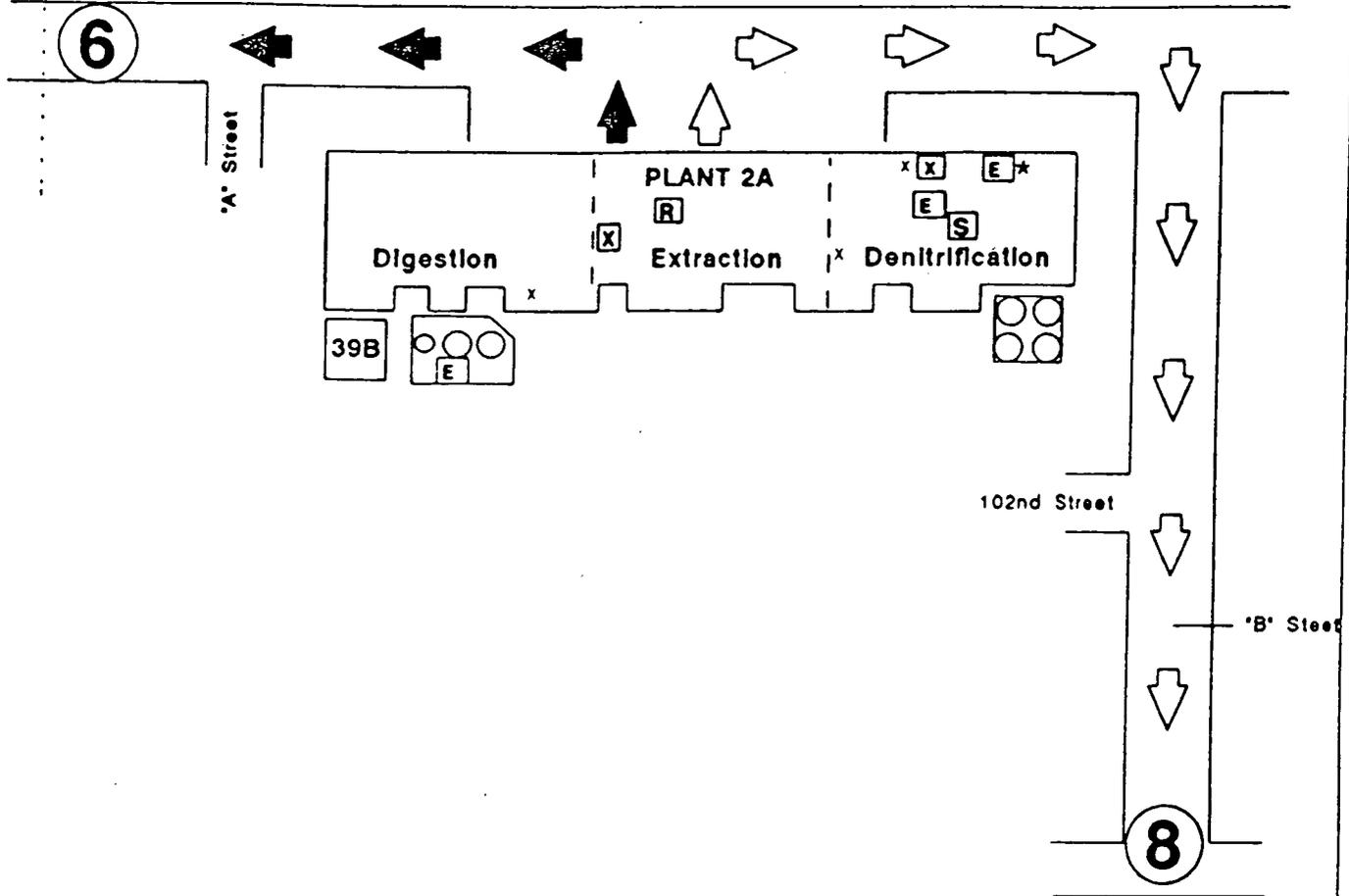
- Mounted Heated Eyewashes

- 1) First floor, Denitrification area, by Column C-16

- Spill Cleanup Equipment

- 1) First Floor Denitrification Area East of Column B-17
- 2) First Floor Denitrification Area East of Column C-19

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



# NAR SYSTEM COMPONENTS

## HWMU #10

**E** = eye wash/safety shower

**R** = respirator cabinet

= primary evacuation route

**X** = manual fire alarm

**S** = spill response equipment

= alternate evacuation route

**X** = fire extinguisher

**\*** = on second floor

**6** = rally point

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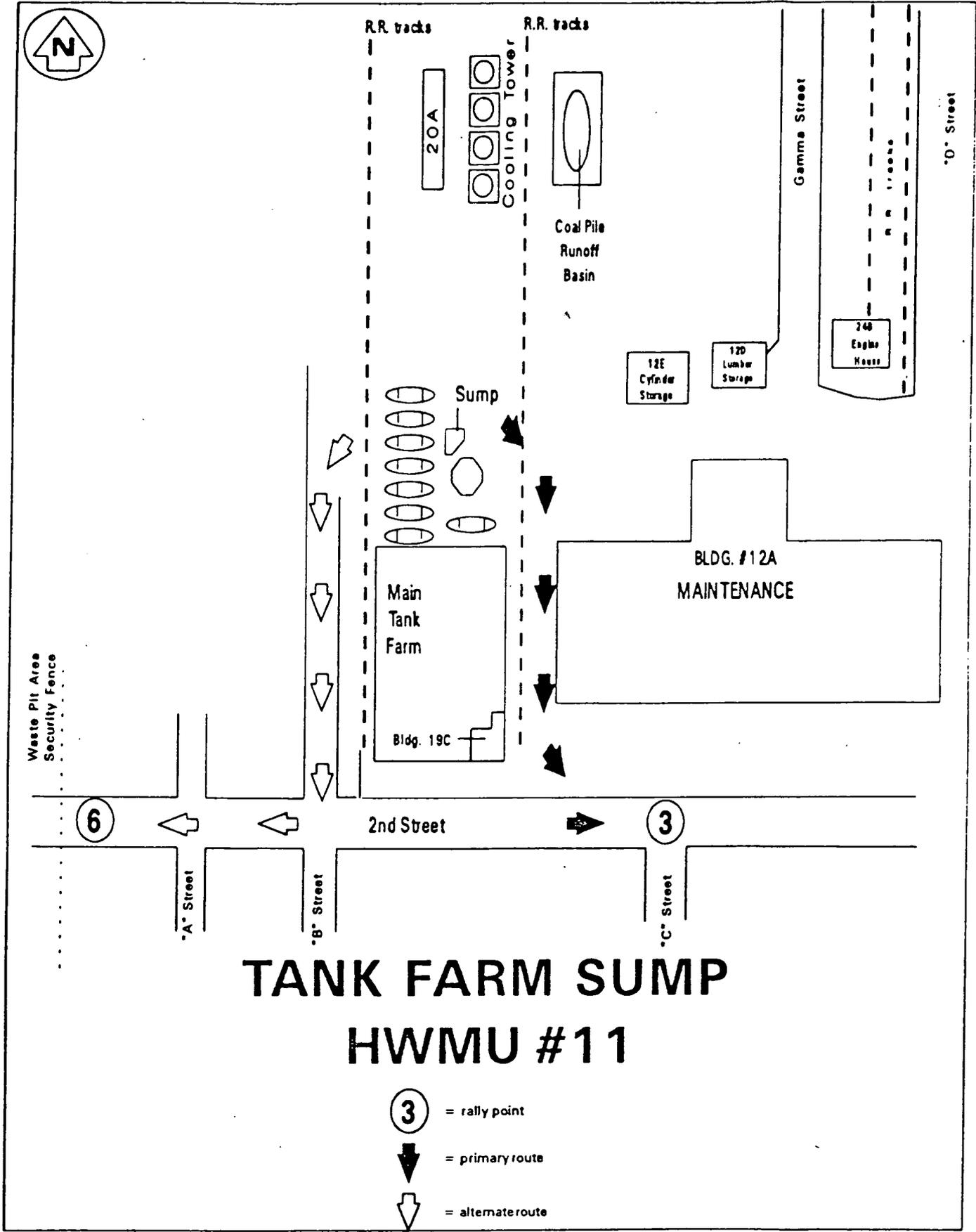
HWMU No. 11 - TANK FARM SUMP

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

Personnel should evacuate to Rally Point 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 6. Rally Point No. 6 is located north of the West Water Tower, at the Waste Pit Area access gate. Movement to Rally Point No. 6 is south on "B" Street, then west on 2nd Street to the Waste Pit Area access gate. ~~5 is located at the intersection of 1st Street and "D" Street. Movement from Rally Point No. 3 is east on 2nd Street and south on "D" Street to the intersection of 1st Street.~~

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



# TANK FARM SUMP HWMU #11

- 3** = rally point
- = primary route
- ⇨** = alternate route

### 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. ~~This has been removed from the HWMU list~~

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

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

~~• Manual Fire Alarm~~

- ~~1) Outside near Northeast corner of Building 1A~~
- ~~2) Outside Northeast of Building 66~~

~~• Fire Extinguishers~~

- ~~1) 20# ABC on East side of Drum Dryer~~
- ~~2) 15# CO<sub>2</sub> outside on South end of Building 66 by Wheelabrator~~

~~• Eye Wash/Safety Shower Station~~

- ~~1) Inside Building 66 on East side of Drum Dryer~~

~~• Spill Cleanup Equipment~~

- ~~1) Behind the fence Northeast of the Building 66~~

~~• Respirator Cabinets~~

- ~~1) Inside Building 1A, in Primary Satellite Clothing Area~~
- ~~2) Inside Building 71, in the Northeast corner~~

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

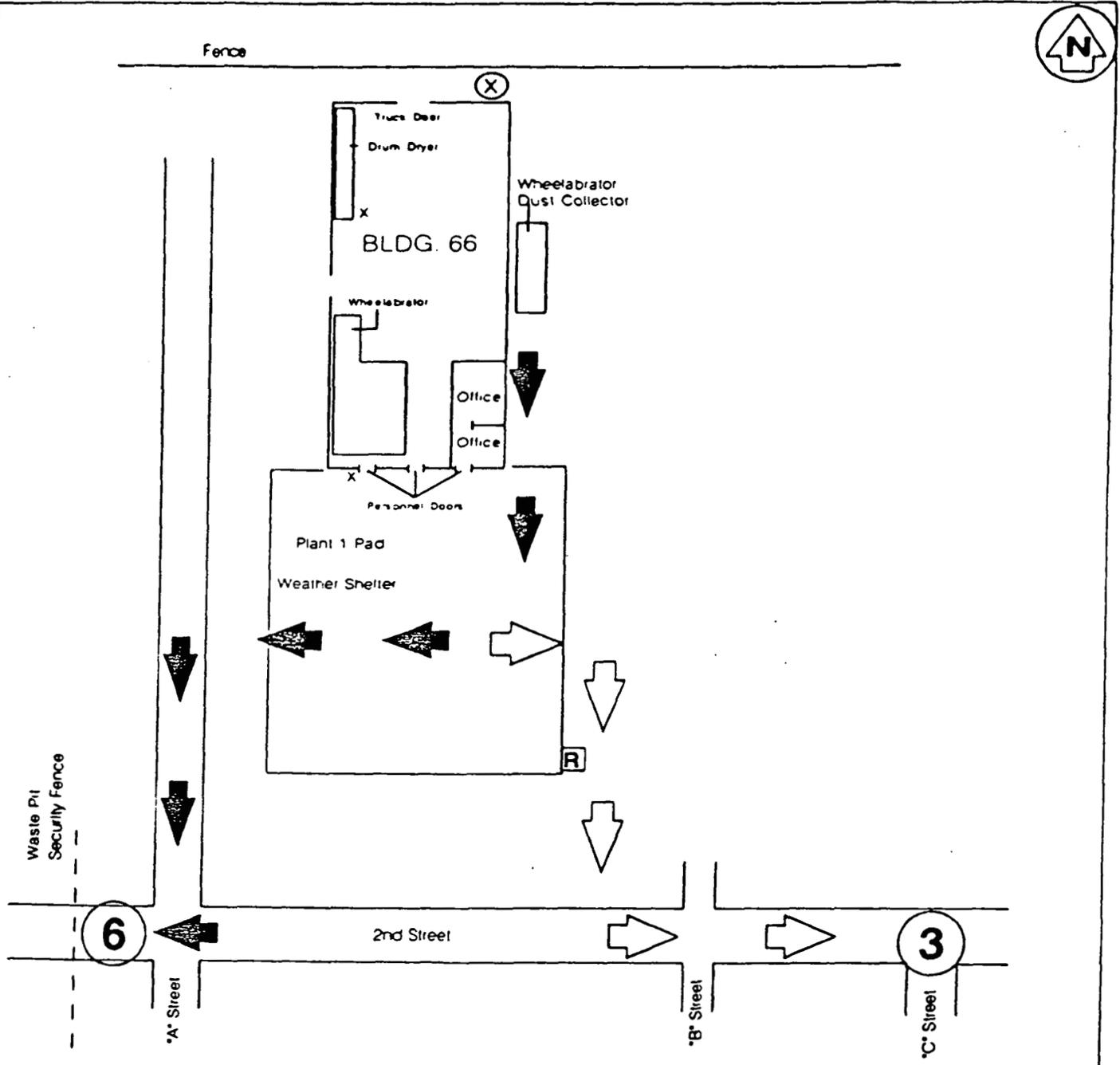
The Wheelabrator Dust Collector is a component of the drum reconditioning system in Building 66.

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

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

- Manual Fire Alarm
  - 1) Outside on East end of North wall of Building 66
  - 2) Outside Northeast corner of Building 66
- Fire Extinguishers
  - 1) 20# ABC on East side of Drum Dryer
  - 2) 15# CO<sub>2</sub> Outside on South end of Building 66 by Wheelabrator
- Eye Wash/Safety Shower Station
  - 1) Inside Building 66 on East side of Drum Dryer
- Spill Cleanup Equipment
  - 1) Behind the fence Northeast of the Building 66
- Respirator Cabinets
  - 1) Inside Building 1A, in Primary Satellite Clothing Area
  - 2) Inside Building 71, in the Northeast corner



## WHEELABRATOR DUST COLLECTOR HWMU #13

- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li><span style="border: 1px solid black; padding: 2px;">R</span> = Respirator cabinet</li> <li><span style="border: 1px solid black; border-radius: 50%; padding: 2px;">X</span> = manual fire alarm</li> <li><span style="font-size: 1.2em;">X</span> = fire extinguisher</li> </ul> | <ul style="list-style-type: none"> <li><span style="border: 1px solid black; border-radius: 50%; padding: 5px;">6</span> = Rally Point</li> <li><span style="font-size: 1.5em;">↓</span> = Primary evacuation route</li> <li><span style="font-size: 1.5em;">⇨</span> = Alternate evacuation route</li> </ul> |
|---|---|

HWMU No. 14 - BOX FURNACE

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

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

The Alternate Rally Point is No. 5 6. Rally Point No. 6 is located north of the West Water Tower, at the Waste Pit Area access gate. Movement is west on 101st Street to north on "A" Street, then west on 2nd Street to the rally point. ~~5 is located at the intersection of "D" Street and 1st Street. Movement from Rally Point No. 8 is east on 1st Street to the intersection of "D" Street.~~

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

- Manual Fire Alarm
  - 1) Inside Building 3A at Southeast entrance door.
- Fire Extinguishers
  - 1) 10# ABC First Floor Building 8A Column C-10 by overhead door
  - 2) 10# ABC Box Furnace Pad outside North door
- Eye Wash/Safety Shower Station
  - 1) East of NaOH Storage Tank Northeast of Building 8A
- Spill Cleanup Equipment
  - 1) Located North of Building 8A, East of Tank 28A
- Respirator Cabinet
  - 1) 1st Floor Northwest in Building 8A near Office



6

2nd Street

Bldg. 3A

x

101st Street

'B' Street

'A' Street

Storage Tanks

S

Box Furnace

Storage Tanks

E

East Drum Storage Pad

Building 8A

1st Street

8

# BOX FURNACE HWMU #14

- X = Fire Extinguisher
- (X) = Manual Fire Alarm
- E = Emergency Eye Wash Station
- R = Respirator Cabinet
- S = Safety Shower
- (thick arrow) = Primary Evacuation Route
- (thin arrow) = Alternate Evacuation Route
- (8) = Rally Point

HWMU No. 15 - OXIDATION FURNACE # 1

This furnace is located in Plant 8 and functioned as a combined reprocessing, recovery and pre-treatment unit.

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

The Alternate Rally Point is No. 5 6. Rally Point No. 6 is located north of the West Water Tower, at the Waste Pit access gate. Movement is west on 101st Street to north on "A" Street, then west on 2nd Street to the rally point. ~~5 is located at the intersection of "D" Street and 1st Street. Movement from Rally Point No. 8 is east on 1st Street to the intersection of "D" Street.~~

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

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



6

2nd Street

Bldg. 3A

101st Street

"B" Street

"A" Street

Storage Tanks  
Box Furnace

Storage Tanks

East Drum  
Storage Pad

Oxidation  
Furnace #1

Building 8A

# OXIDATION FURNACE #1 HWMU #15

1st Street

8

- X = Fire Extinguisher
- (X) = Manual Fire Alarm
- E = Emergency Eye Wash Station
- R = Respirator Cabinet

- S = Safety Shower
- ➔ = Primary Evacuation Route
- = Alternate Evacuation Route
- (8) = Rally Point

HWMU No. 16 - PRIMARY CALCINER

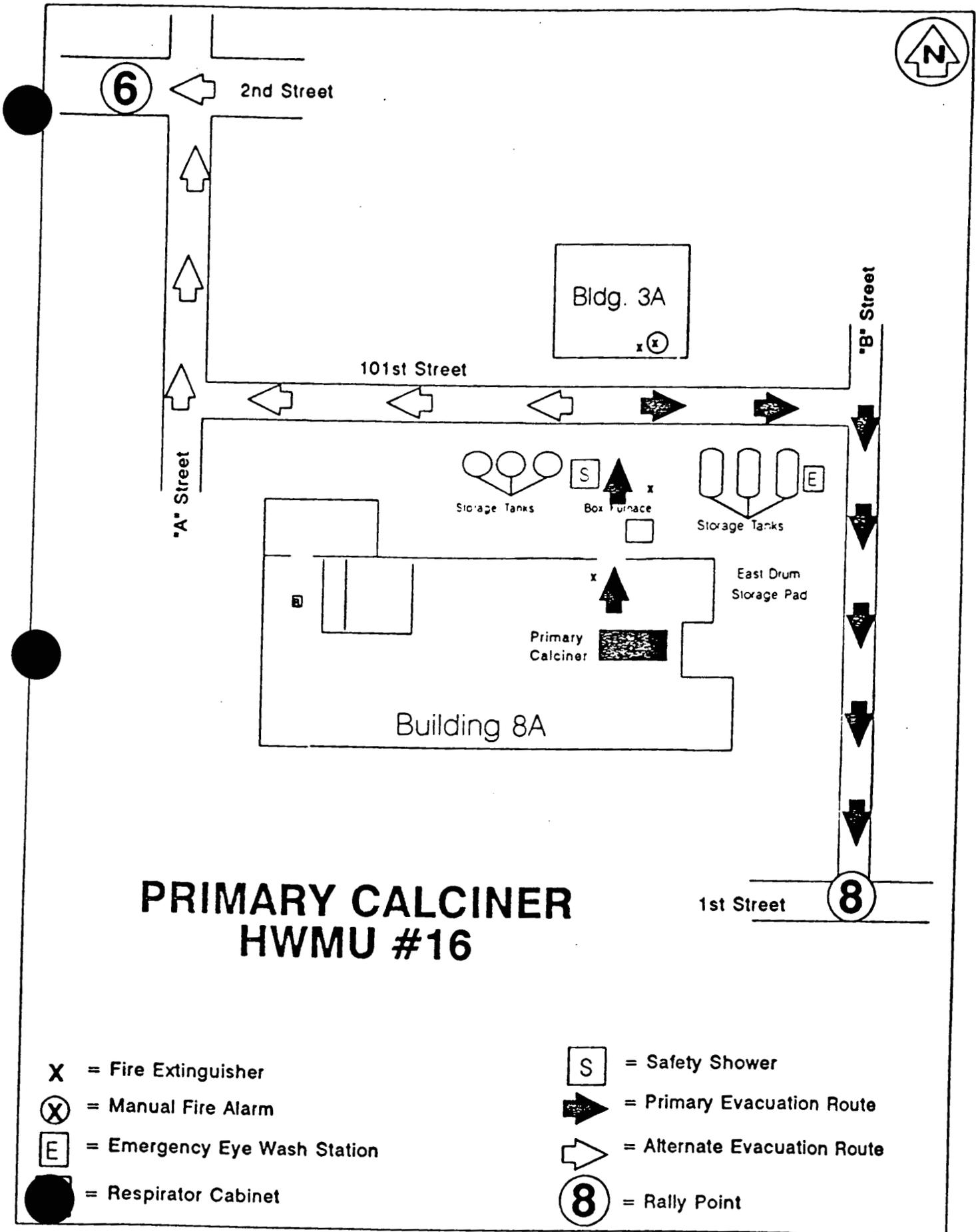
This unit is located in Plant 8 and consists of a steel shell 13 ft 6 inches in diameter with eight refractory brick lined hearths and three burners.

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

The Alternate Rally Point is No. 5 6. Rally Point No. 6 is located north of the West Water Tower, at the Waste Pit access gate. Movement is west on 101st Street to north on "A" Street, then west on 2nd Street to the rally point. ~~5 is located at the intersection of "D" Street and 1st Street. Movement from Rally Point No. 8 is east on 1st Street to the intersection of "D" Street.~~

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

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



HWMU No. 17 - PLANT 8 EAST DRUM STORAGE PAD

This unit is a container storage area located East of Plant 8.

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

The Alternate Rally Point is No. 5 6. Rally Point No. 6 is located north of the West Water Tower, at the Waste Pit access gate. Movement is north on "B" Street to west on 101st Street, then north on "A" Street to 2nd Street and west to the rally point. ~~5 is located at the intersection of "D" Street and 1st Street. Movement from Rally Point No. 8 is east on 1st Street to the intersection of "D" Street.~~

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

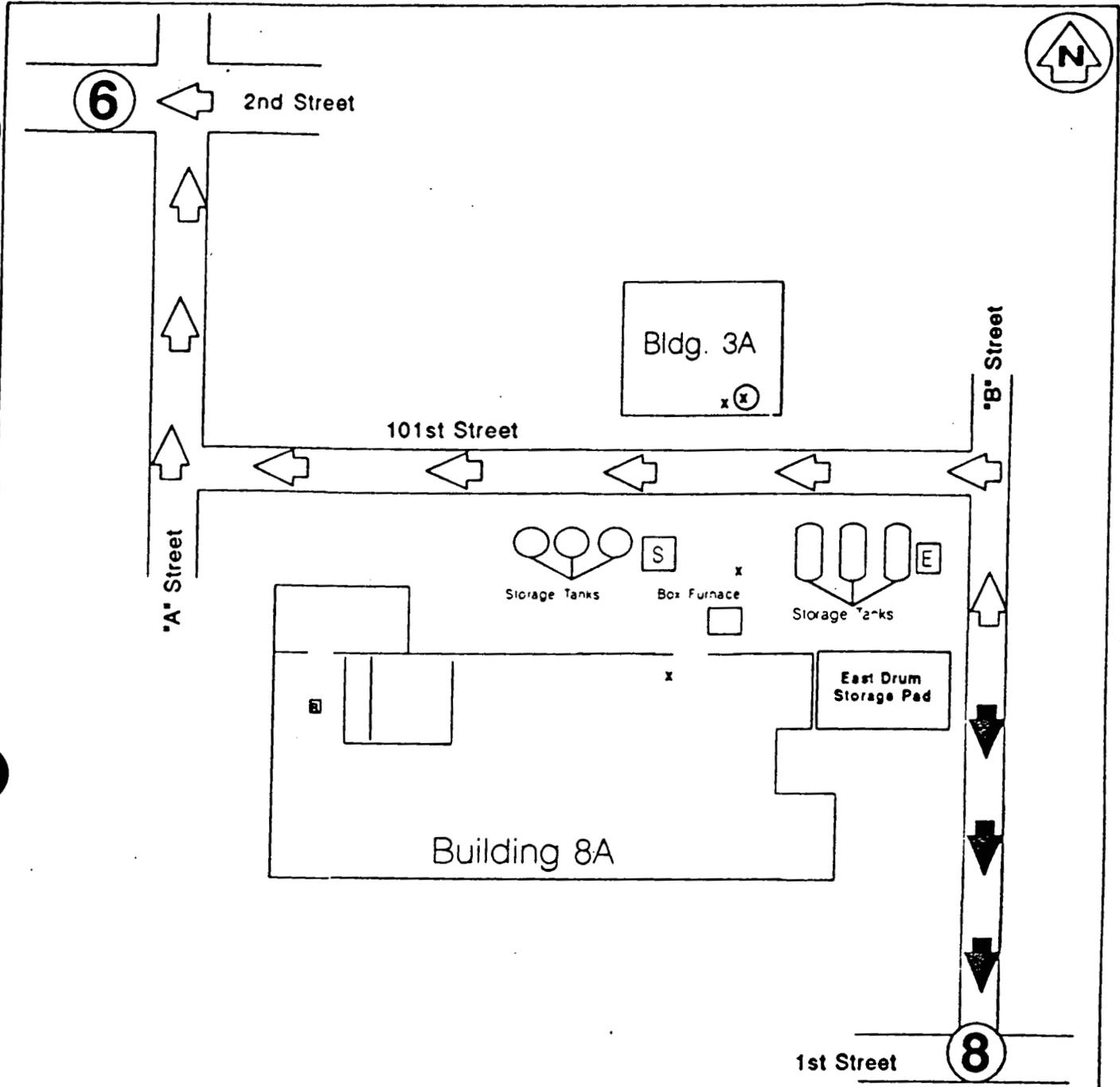
The following is a list of safety equipment assigned to this unit:

- Manual Fire Alarm
  - 1) Inside east end of Building 8A by elevator
  
- Fire Extinguishers
  - 1) 10# ABC First Floor Building 8A by elevator
  - 2) 10# ABC First Floor at Column C-10
  
- Eye Wash/Safety Shower Station
  - 1) East of NaOH Storage Tank Northeast of Building 8A
  
- Spill Cleanup Equipment
  - 1) Located North of Building 8A, East of Tank 28A

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- Respirator Cabinet (Plant 8)
  - 1) 1st Floor at Southeast Satellite Clothing Area near new Rotary Kiln



**PLANT 8 EAST DRUM STORAGE PAD  
HWMU #17**

- X = Fire Extinguisher
- (X) = Manual Fire Alarm
- (E) = Emergency Eye Wash Station
- (R) = Respirator Cabinet
- (S) = Safety Shower
- (Solid Arrow) = Primary Evacuation Route
- (Open Arrow) = Alternate Evacuation Route
- (8) = Rally Point

HWMU No. 18 - PLANT 8 WEST DRUM STORAGE PAD

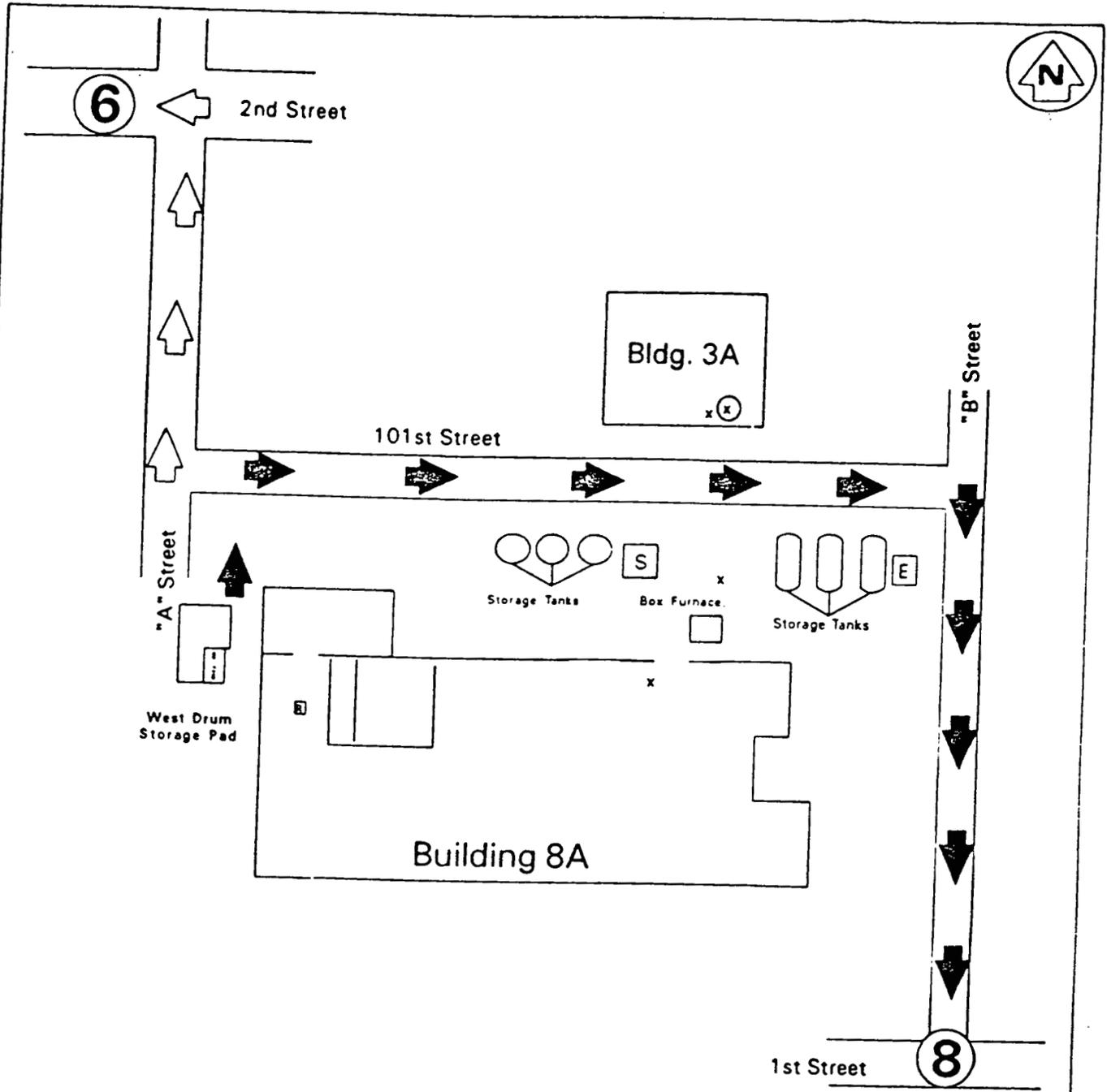
The Plant 8 West Drum Storage Pad is located in the West section of the Production Area.

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

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

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

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



**PLANT 8 WEST DRUM STORAGE PAD  
HWMU #18**

- |                                |                                |
|--------------------------------|--------------------------------|
| X = Fire Extinguisher          | S = Safety Shower              |
| (X) = Manual Fire Alarm        | ➔ = Primary Evacuation Route   |
| E = Emergency Eye Wash Station | ⬅ = Alternate Evacuation Route |
| R = Respirator Cabinet         | (8) = Rally Point              |

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

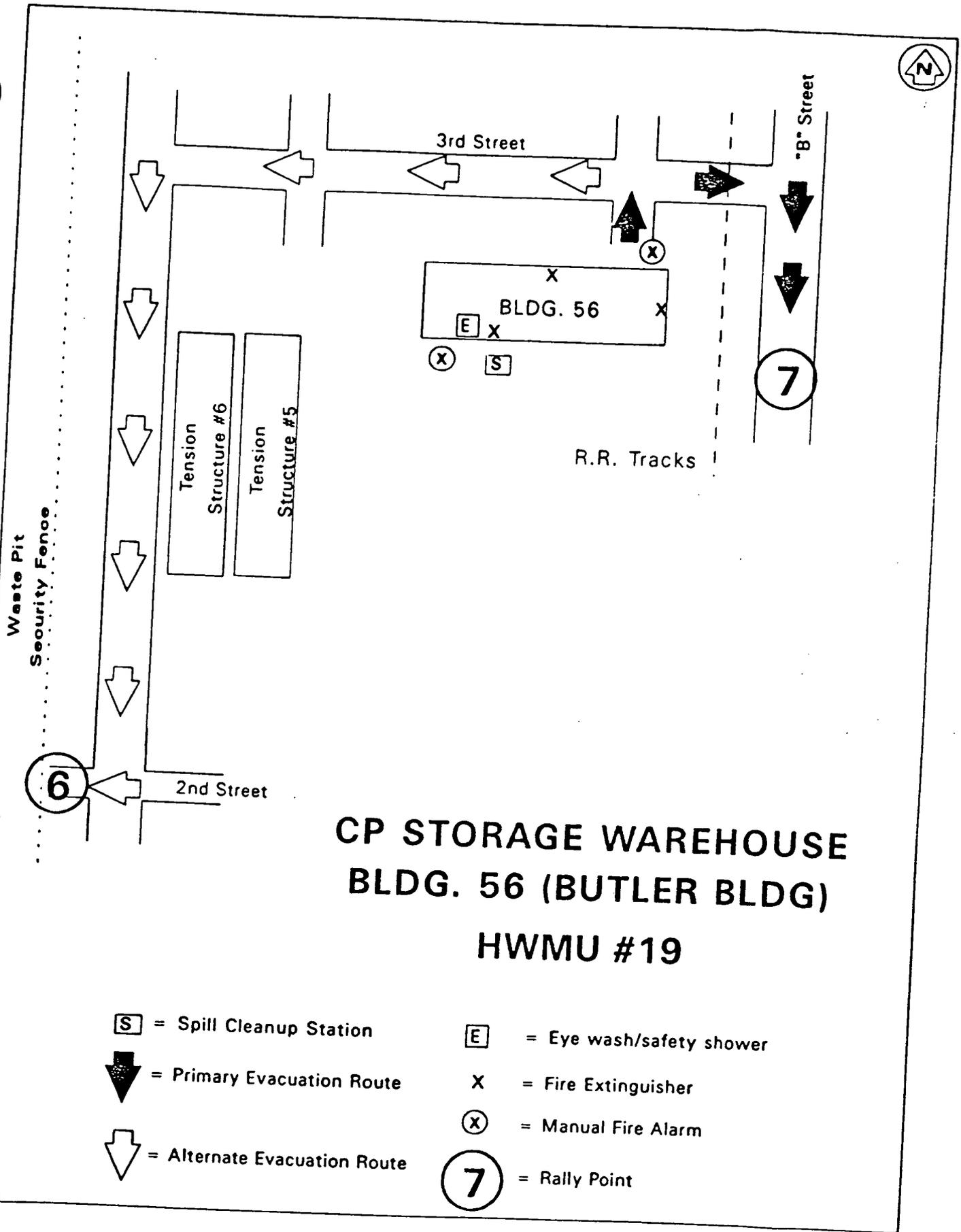
The CP Storage Warehouse is a pre-engineered, ribbed, unheated building covered by metal roofing. This warehouse is being used for the storage of containers of hazardous waste with free liquids.

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 6. Rally Point No. 6 is located north of the West Water Tower, at the Waste Pit Area access gate. Movement is west on 3rd Street to south on "A" Street, then west on 2nd Street to the rally point. 3 is located at the intersection of 2nd Street and "C" Street. Movement is south across Plant 1 storage pad to 2nd Street, and east on 2nd Street to the intersection of "C" Street.

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

- Manual Fire Alarms
  - 1) On outside Northeast building corner
  - 2) On outside Southwest building corner
- Fire Extinguishers
  - 1) 20# ABC on South wall between South pedestrian door and Southwest truck door
  - 2) 10# ABC on North wall center of building
  - 3) 10# ABC on East wall by East truck door
- Spill Cleanup Equipment
  - 1) Located near the West inside wall, center of building
  - 2) Located near the East inside wall, center of building
  - 3) Outside, Southwest corner of building near truck door



**CP STORAGE WAREHOUSE  
BLDG. 56 (BUTLER BLDG)  
HWMU #19**

- S** = Spill Cleanup Station
- E** = Eye wash/safety shower
- ↓** = Primary Evacuation Route
- X** = Fire Extinguisher
- ⇩** = Alternate Evacuation Route
- (X)** = Manual Fire Alarm
- (7)** = Rally Point

HWMU No. 20 - PLANT 1 PAD

The Plant 1 Pad provides indoor and outdoor storage for hazardous waste.

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

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

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

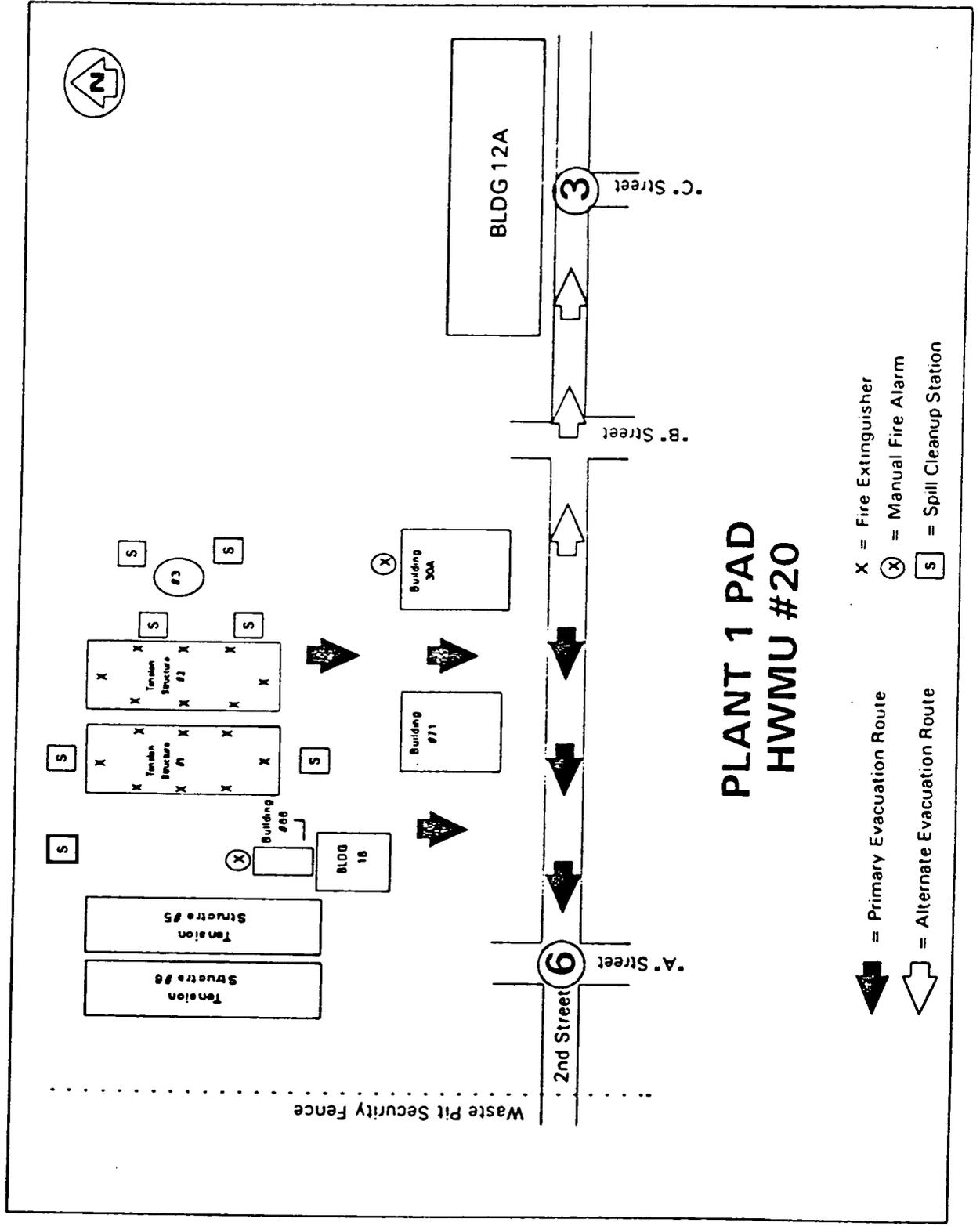
- Manual Fire Alarms
  - 1) Outside Northeast corner of Building 1A
  - 2) Outside on North wall of Building 30A
  - 3) Outside on East end of North wall of Building 66
- Fire Extinguishers
  - 1) 10# ABC Middle of West side of Drum Shelter
  - 2-9) 10# ABC Eight (8) in ~~West~~ Tension Support Structure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

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- Respirator Cabinet
  - 1) Inside Building 1A in Primary Satellite Clothing Area

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



**PLANT 1 PAD  
HWMU #20**

- = Primary Evacuation Route
- = Alternate Evacuation Route
- X = Fire Extinguisher
- (X) = Manual Fire Alarm
- (S) = Spill Cleanup Station

HWMU No. 21 - HILCO OIL RECOVERY

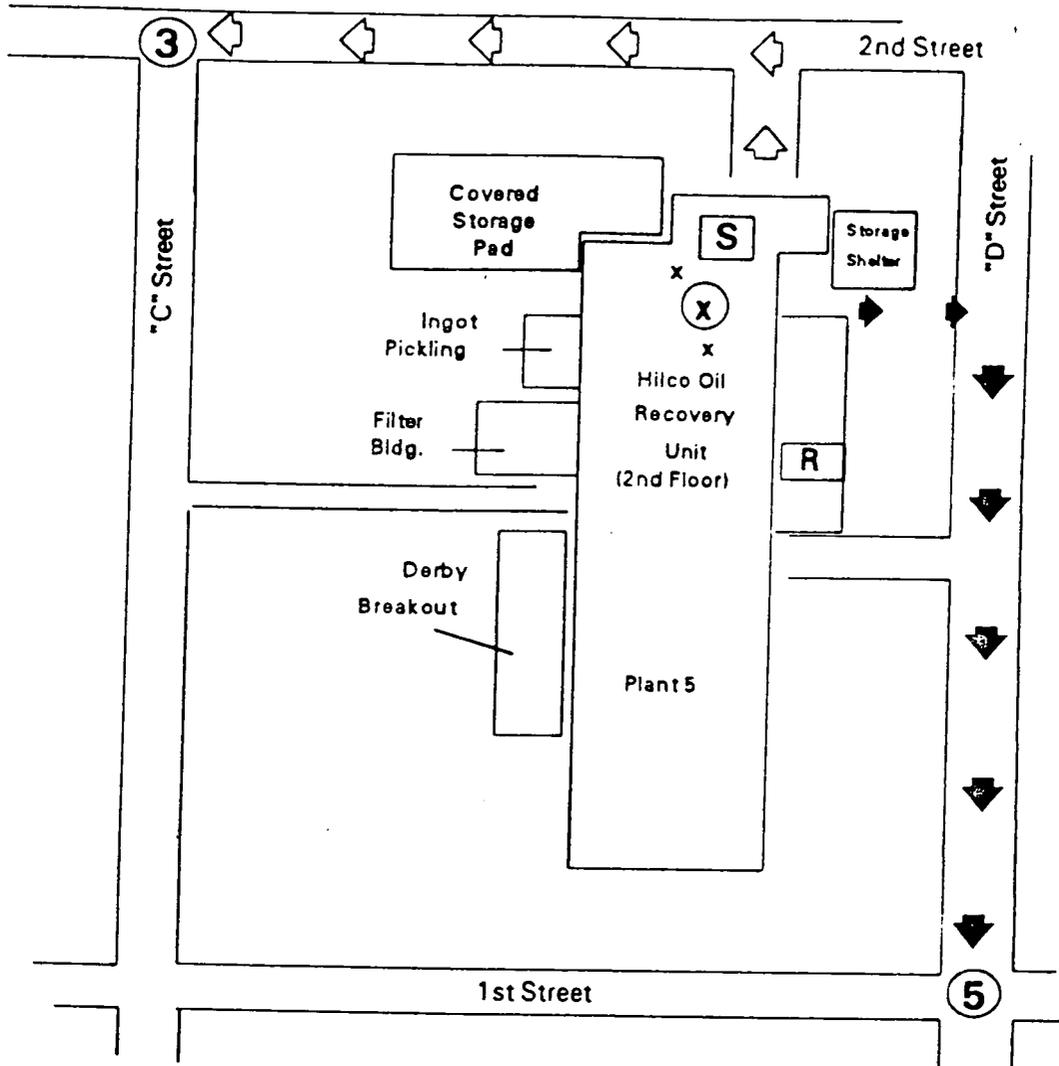
This unit is located in Plant 5 and consists of an oil holding tank on the second floor of Plant 5 and the Stokes pump area on the first floor. The system has not operated since June 1989.

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 3. Rally Point No. 3 is located at the intersection of 2nd Street and "C" Street. Movement is north to 2nd Street, then west to the intersection of 2nd and "C" Streets. ~~which is located on "D" Street at the East corner of the Security Building (Bldg 28A). Movement from Rally Point No. 5 is south on "D" Street to the East corner of the Security Building (Bldg 28A).~~

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

- Manual Fire Alarm
  - 1) Second floor at location 3D - West of HWMU
- Fire Extinguishers
  - 1) 10# ABC Second Floor at location 3D
  - 2) 10# ABC Second Floor Graphite Shop Southeast corner
- Respirator Cabinet
  - 1) First Floor inside Maintenance Shop East of location F11
- Spill Cleanup Equipment
  - 1) Second Floor at Hilco Unit



# HILCO OIL RECOVERY HWMU #21

- S** = spill cleanup equipment
- X** = fire extinguisher
- R** = respirator cabinet
- X** = fire alarm
- = primary route
- = alternate 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 6. Rally Point No. 6 is located north of the West Water Tower, at the Waste Pit Area access gate. Movement is north on "A" Street to the intersection of 2nd Street, then west on 2nd Street to the rally point. ~~5 is located at the intersection of 1st and "D" Street. Movement from Rally Point No. 8 is east on 1st Street to the intersection of "D" Street.~~

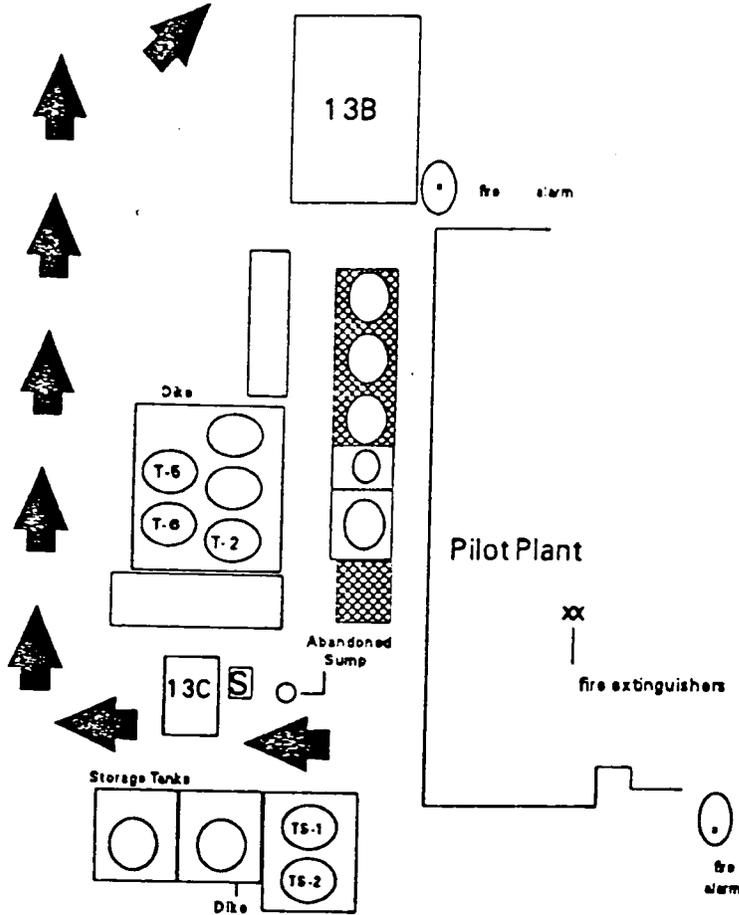
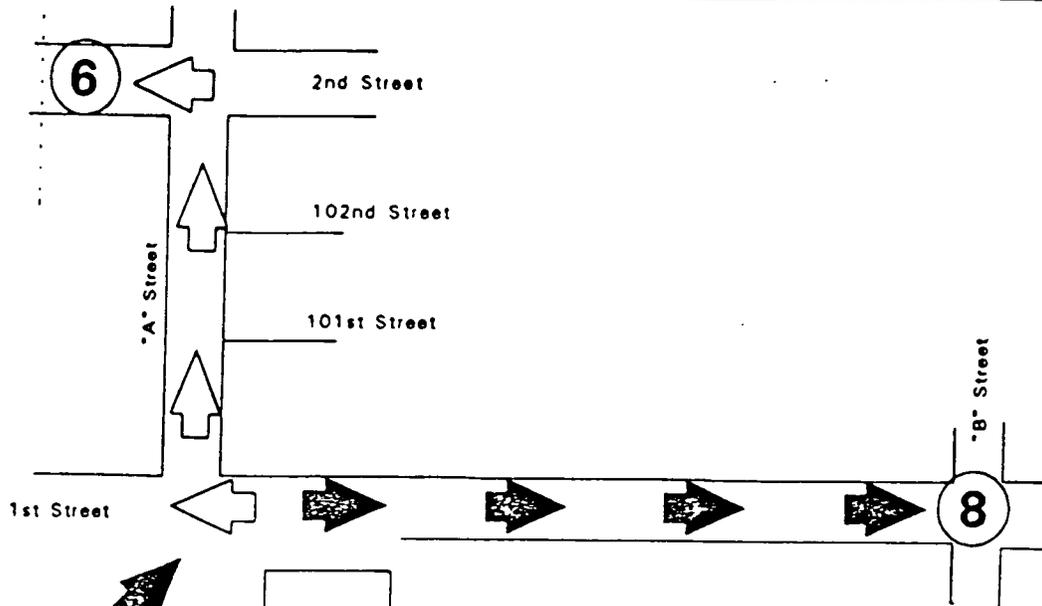
The following is a list of safety equipment assigned to this unit:

- Manual Fire Alarms
  - 1) Outside on South wall of Pilot Plant near center of building
  - 2) Outside at South end of East wall of Building 13B
- Fire Extinguishers
  - 1) 10# ABC outside West Solvent Tanks Berm
- Eye Wash/Safety Shower Station
  - 1) On outside South wall of Pilot Plant near West end of building
- Safety Shower Station
  - 1) On outside West wall of Pilot Plant
- Spill Cleanup Equipment
  - 1) West of HWMU

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



**ABONDONED SUMP WEST  
OF PILOT PLANT  
HWMU #22**

= Alternate Evacuation Route    = Primary Evacuation Route

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HWMU No. 23 - WELL DRILLING STORAGE AREA

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

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

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

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

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HWMU No. 24 - EQUIPMENT STORAGE AREA

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

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

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

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

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

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

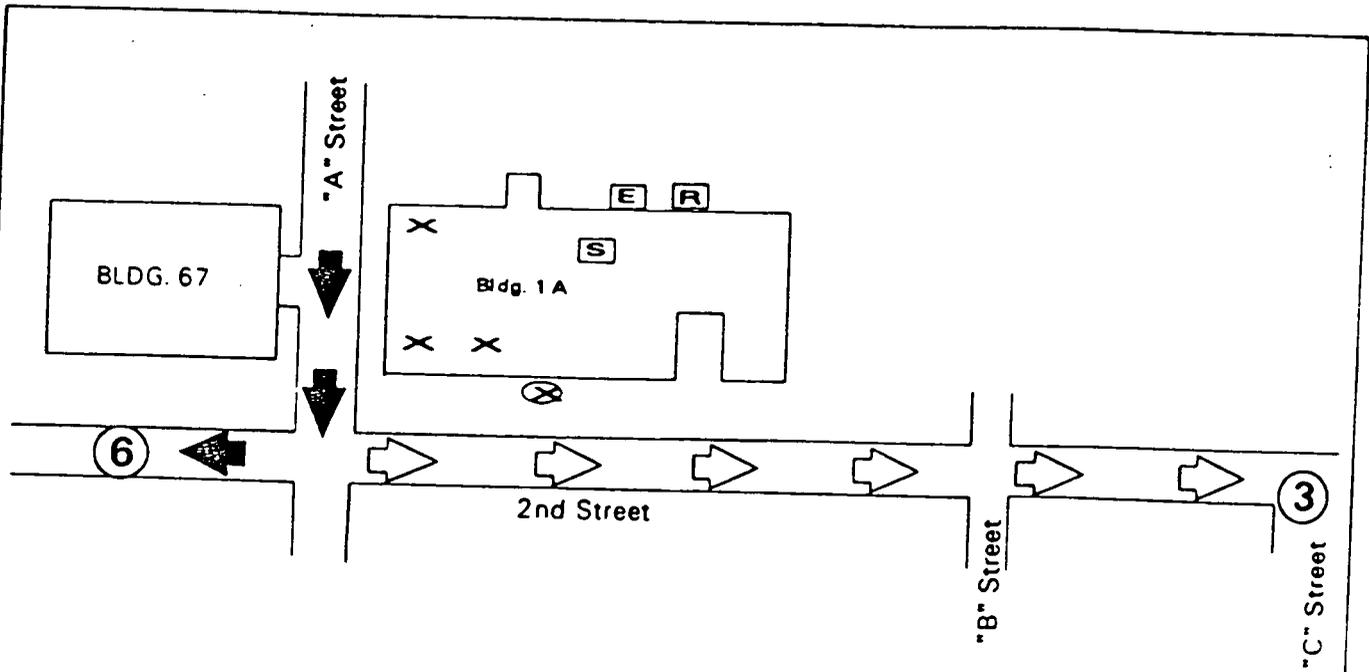
- Manual Fire Alarm
  - 1) Outside on South wall of Building 1A near center
  - 2) Outside Northeast corner of Plant 1
  
- Fire Extinguishers
  - 1) 10# ABC Building 1A at Column 2B
  - 2) 15# CO<sub>2</sub> Building 1A at Column 4E
  - 3) 10# ABC Building 1A at Column 2E
  
- Eye Wash Station
  - 1) None are available at this unit. Use the station outside Building 1A on North wall North of Column 8B
  - 2) Also one on second floor of Building 1A on east side of Supervisors Office

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- Spill Cleanup Equipment
  - 1) Use equipment in Building 1A at column 8C
  
- Respirator Cabinets
  - 1) None are available at this unit. Use respirators from cabinets located in Building 1A Satellite Clothing Area or Building 71 Northeast corner against North wall by Supervisor's Office, Building 1A

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



**PLANT 1 STORAGE BLDG (BLDG. 67)  
HWMU #25**

- [R]** = respirator cabinet
- [S]** = spill cleanup equipment
- [X]** = fire extinguisher
- [◀]** = alternate evacuation route
- (6)** = rally point
- [E]** = eye wash
- [▶]** = primary evacuation route
- (⊗)** = manual fire alarm

HWMU No. 26 - DETREX STILL

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

Personnel should evacuate to Rally Point No. 6. Rally Point No. 6 is located North of the West Water Tower, at the Waste Pit Area access gate. Movement is south past the West side of Plant 1 to 2nd Street and west to the Waste Pit Area access gate.

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

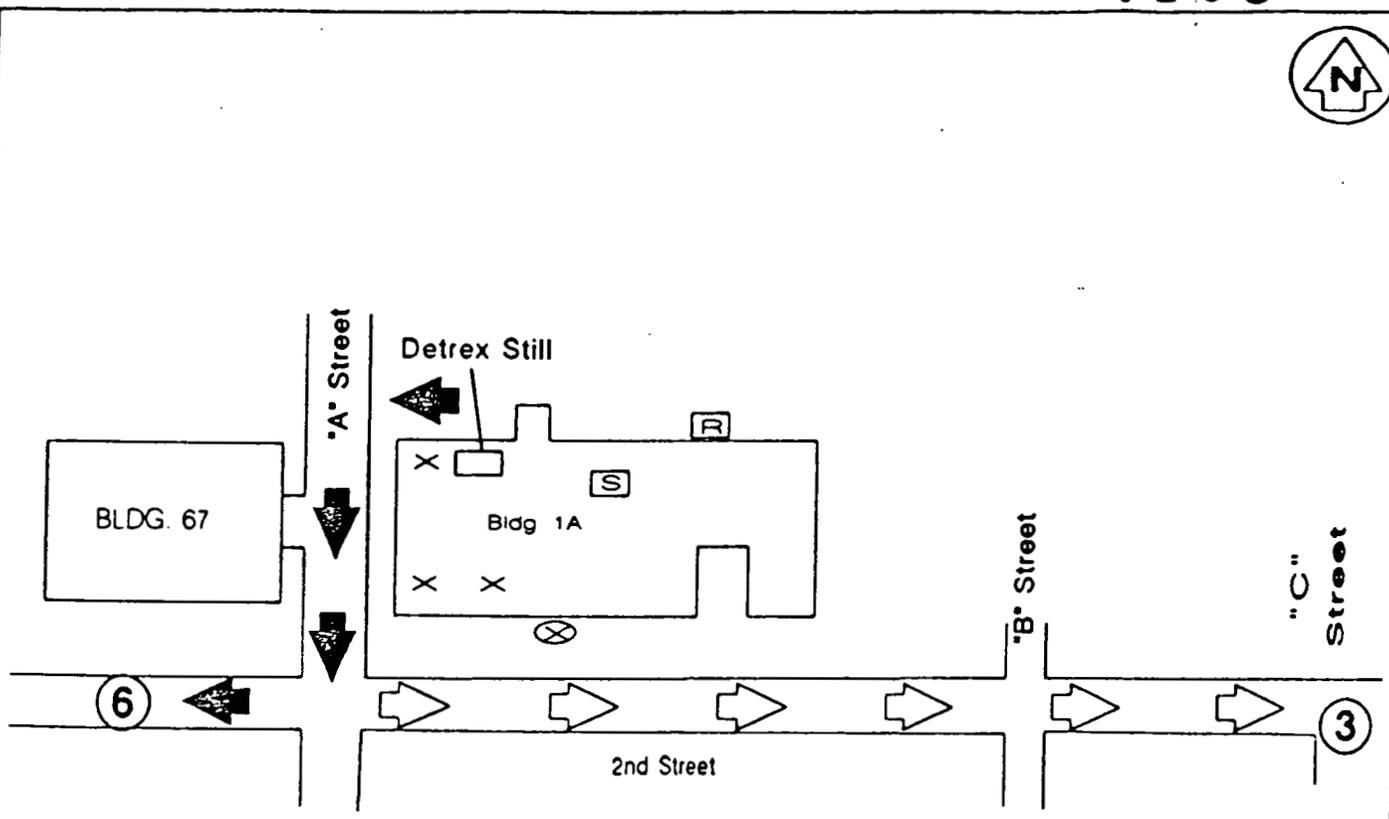
The following is a list of safety equipment assigned to this unit:

- Manual Fire Alarm
  - 1) West of column 7C
  - 2) Northeast of Building 66 (Outside)
- Fire Extinguisher
  - 1) 10# ABC First Floor at column 7C
- Eye Wash Station
  - 1) Outside against North wall near exit from Satellite Clothing Area
  - 2) Second floor east side of Supervisors Office
- Spill Cleanup Equipment
  - 1) By Column 8C
- Respirator Cabinet
  - 1) Outside against North wall by Supervisor's Office
  - 2) Inside Building 1A Satellite Clothing Area

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3) Inside Northeast corner of Building 71



# DETREX STILL

## HWMU #26

- = respirator cabinet
- = spill cleanup equipment
- = fire extinguisher
- = alternate evacuation route
- = rally point
- = primary evacuation route
- = manual fire alarm

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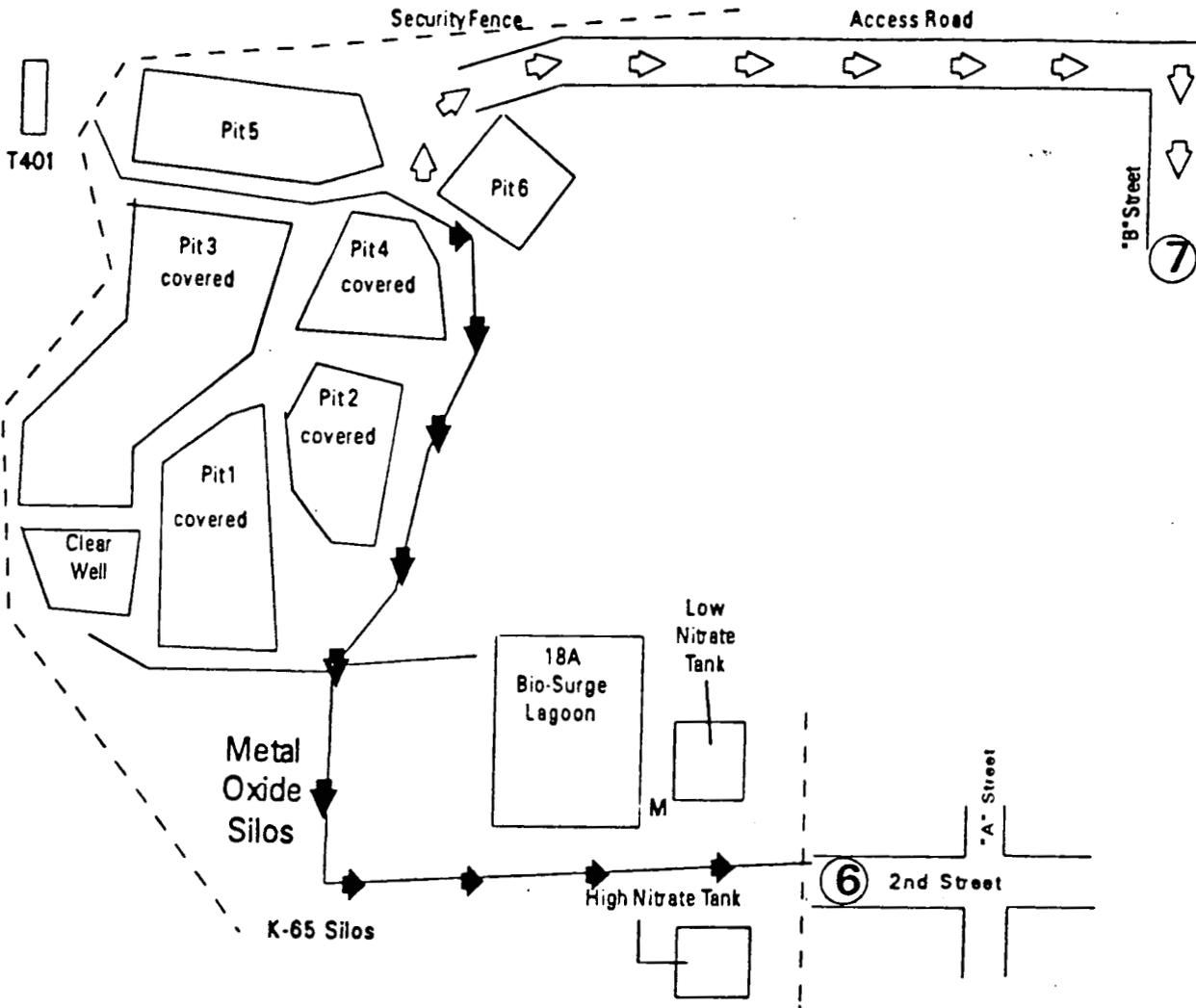
HWMU No. 27 - WASTE PIT No. 4

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

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

The Alternate Rally Point is No. 7. Rally Point No. 7 is located on "B" Street west of the Boiler Plant. Movement is north past Pit 6 on the access road, then east to "B" Street and south on "B" Street to the Point.

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



**WASTE PIT NO. 4**  
**HWMU #27**

- ◁ = alternate evacuation route
- ▶ = primary evacuation route

- M = Methanol Tank
- ⑥ = rally point

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### HWMU No. 28 - TRANE THERMAL LIQUID INCINERATOR

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

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

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

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

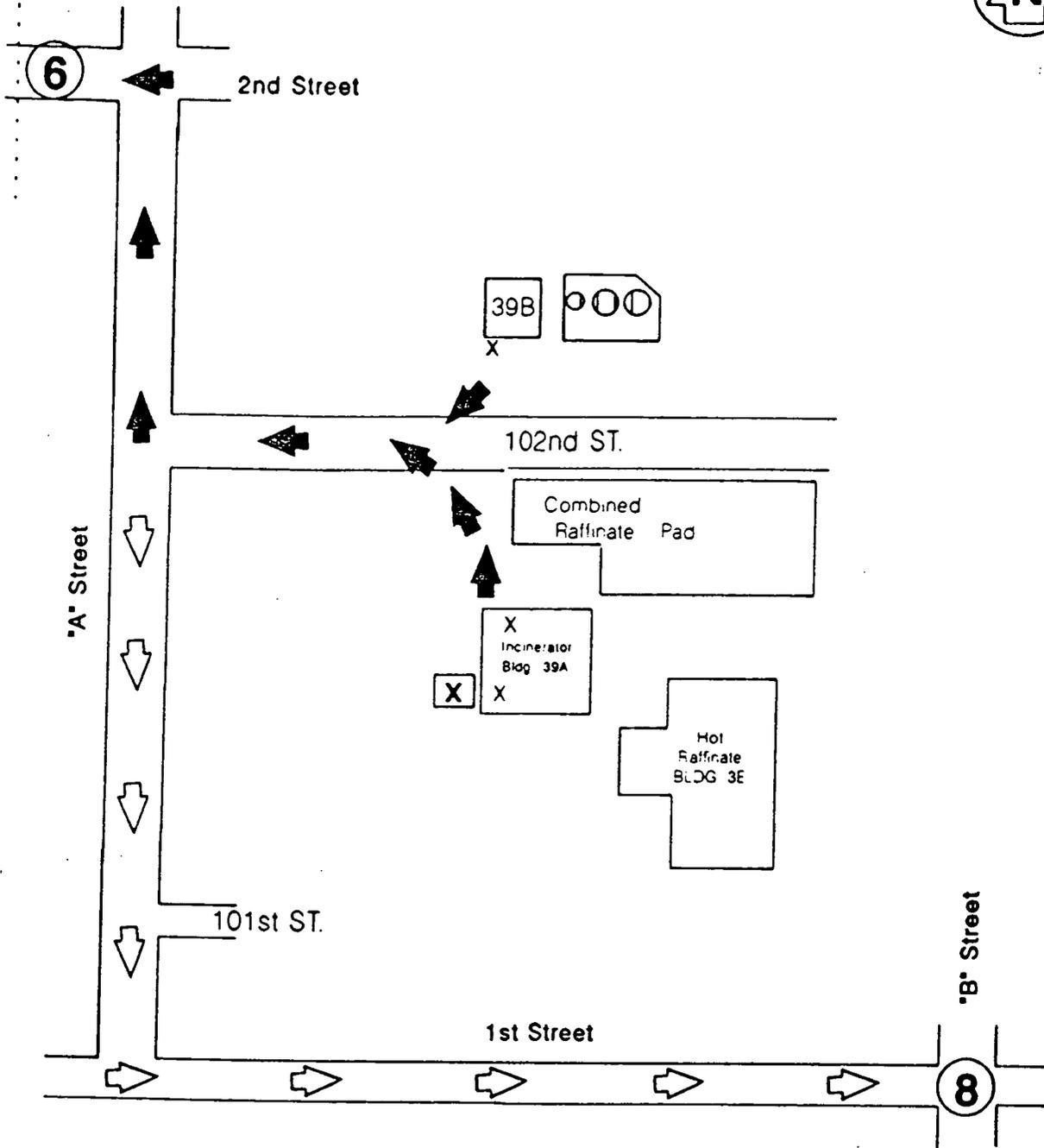
- Manual Fire Alarm
  - 1) Outside at Southwest corner of Building 39A
- Fire Extinguishers
  - 1) 10# ABC First Floor Incinerator Bldg. (39A) North wall
  - 2) 10# ABC First Floor Incinerator Bldg. (39A) Southwest corner
  - 3) ABC Outside, located at shelter southwest of trough Building 39B
- Eye Wash Station and Safety Shower
  - 1) ~~Off Northeast corner of Incinerator Bldg. (39A) in Combined Raffinate Pad area~~

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● Portable Eyewash/Safety Showers

Portable eyewash/safety showers are to be placed in areas at HWMU 28 where hazardous work is occurring



# TRANE THERMAL LIQUID INCINERATOR HWMU #28

**X** = Manual Fire Alarm

**X** = Fire Extinguisher

**6** = Rally Point

= Primary Evacuation Route

= Alternate Evacuation Route

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

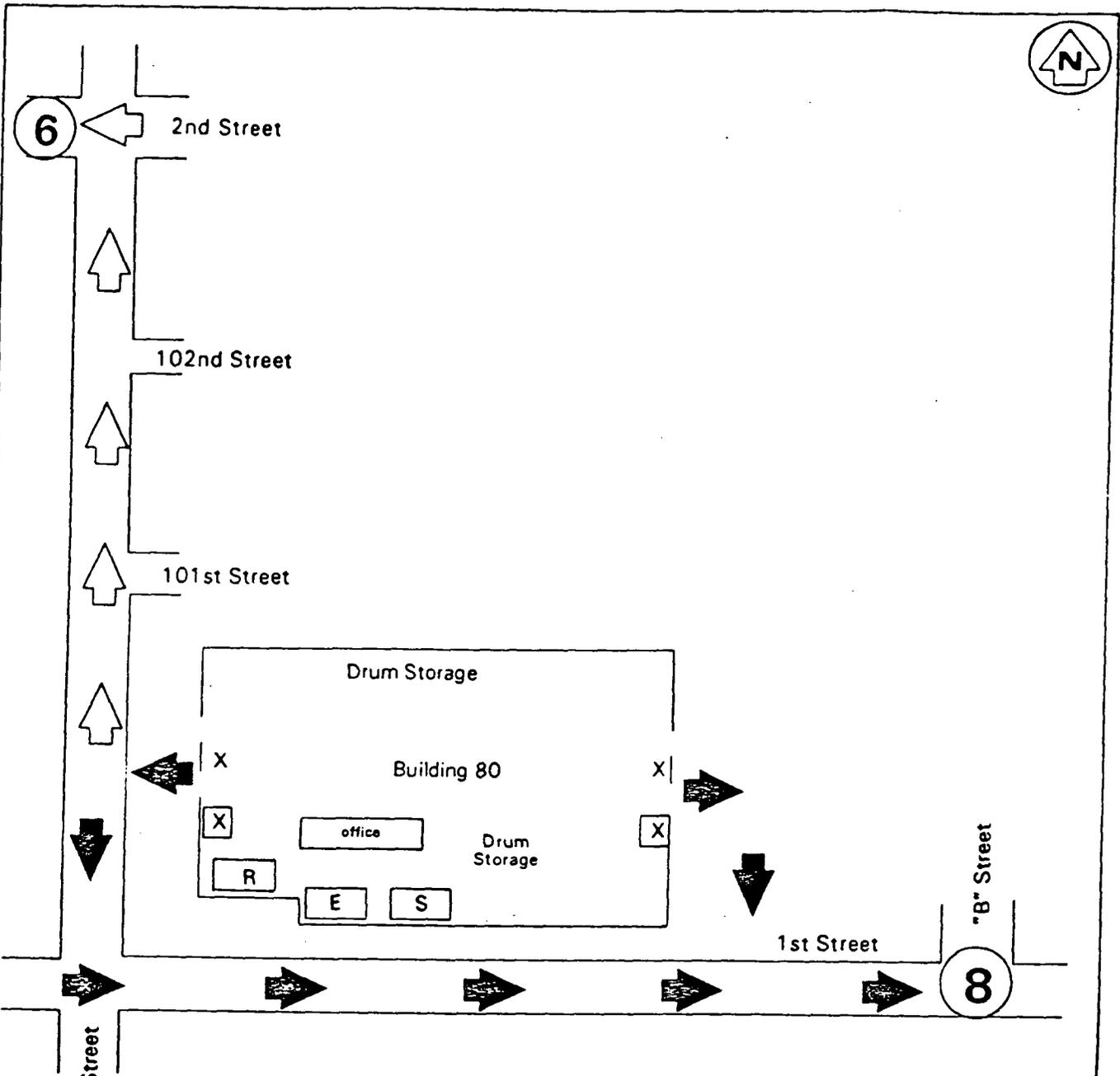
The Plant 8 Warehouse storage unit is a pre-engineered, ribbed, unheated building covered by metal roofing. The warehouse is being used for storage of containers without free liquids.

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

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

- Manual Fire Alarms
  - 1) Inside Building 80 on East wall
  - 2) Inside Building 80 on West wall
- Fire Extinguishers
  - 1) 10# ABC at East door
  - 2) 10# ABC at West door
  - 3) 10# ABC in riser room
- Eye Wash/Safety Shower Station
  - 1) Near Southwest corner of building behind Office (Portable Unit)
- Spill Cleanup Equipment
  - 1) Near Southwest corner of building behind Office
- Respirator Cabinet
  - 1) On South wall of building behind Office



**PLANT 8 WAREHOUSE (BUILDING 80)  
HWMU #29**

- |                                    |                              |
|------------------------------------|------------------------------|
| <b>R</b> = Respirator Cabinet      | <b>X</b> = Fire Extinguisher |
| <b>E</b> = Eye Wash/Safety Shower  | = Primary Evacuation Route   |
| <b>S</b> = Spill Cleanup Equipment | = Alternate Evacuation Route |
| <b>X</b> = Manual Fire Alarm       | <b>8</b> = Rally Point       |

HWMU No. 30 - BARIUM CHLORIDE SALT TREATMENT FACILITY

This unit was used to convert barium chloride into barium sulfate. It has been emptied, cleaned and dismantled in accordance with the Closure Plan schedule. Clean Closure was certified on April 2, 1990, and USEPA approval of the closure was received on April 19, 1990.

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

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

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

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

This unit is an above ground storage tank located West of the Pilot Plant.

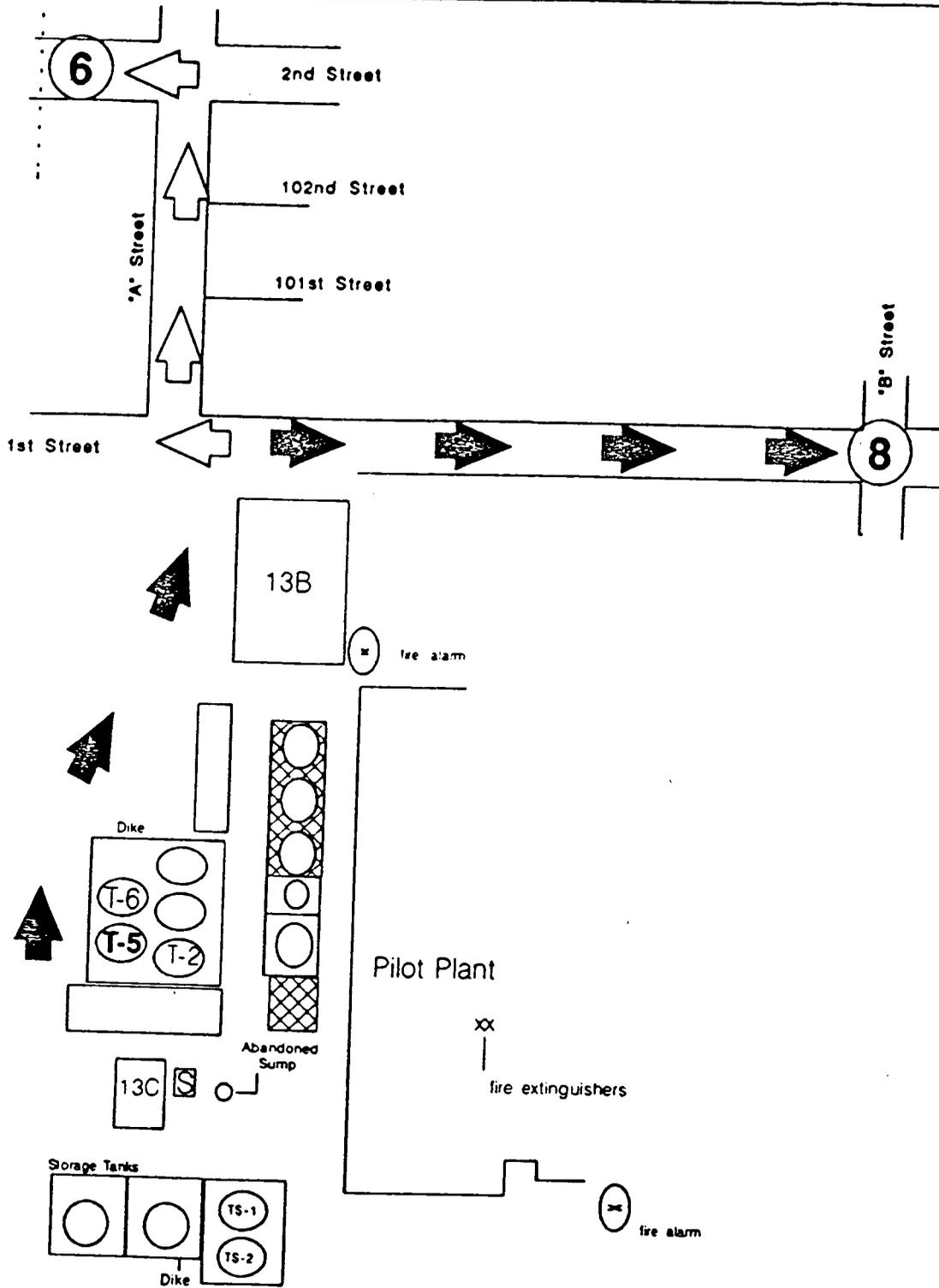
Personnel should evacuate to Rally Point No. 8. Rally Point No. 8 is located at the intersection of 1st and "B" Street. Movement is north to 1st Street, then east to "B" Street.

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

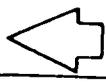
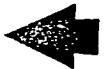
The following is a list of safety equipment assigned to this unit:

- Manual Fire Alarms
  - 1) Outside on South wall of Pilot Plant near center of building
  - 2) Outside at South end of East wall of Building 13B
- Fire Extinguishers
  - 1) 10# ABC at West Solvent Tanks Berm
- Eye Wash/Safety Shower Station
  - 1) On outside South wall of Pilot Plant near West end of building
- Safety Shower Station
  - 1) On outside West wall of Pilot Plant
- Spill Cleanup Equipment
  - 1) East of Bldg. 13C

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



**TANK FOR BULK STORAGE OF SOLVENTS, T-5  
HWMU #31**

 = Alternate Evacuation Route
  = Primary Evacuation Route

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

This unit is an above ground storage tank located West of the Pilot Plant.

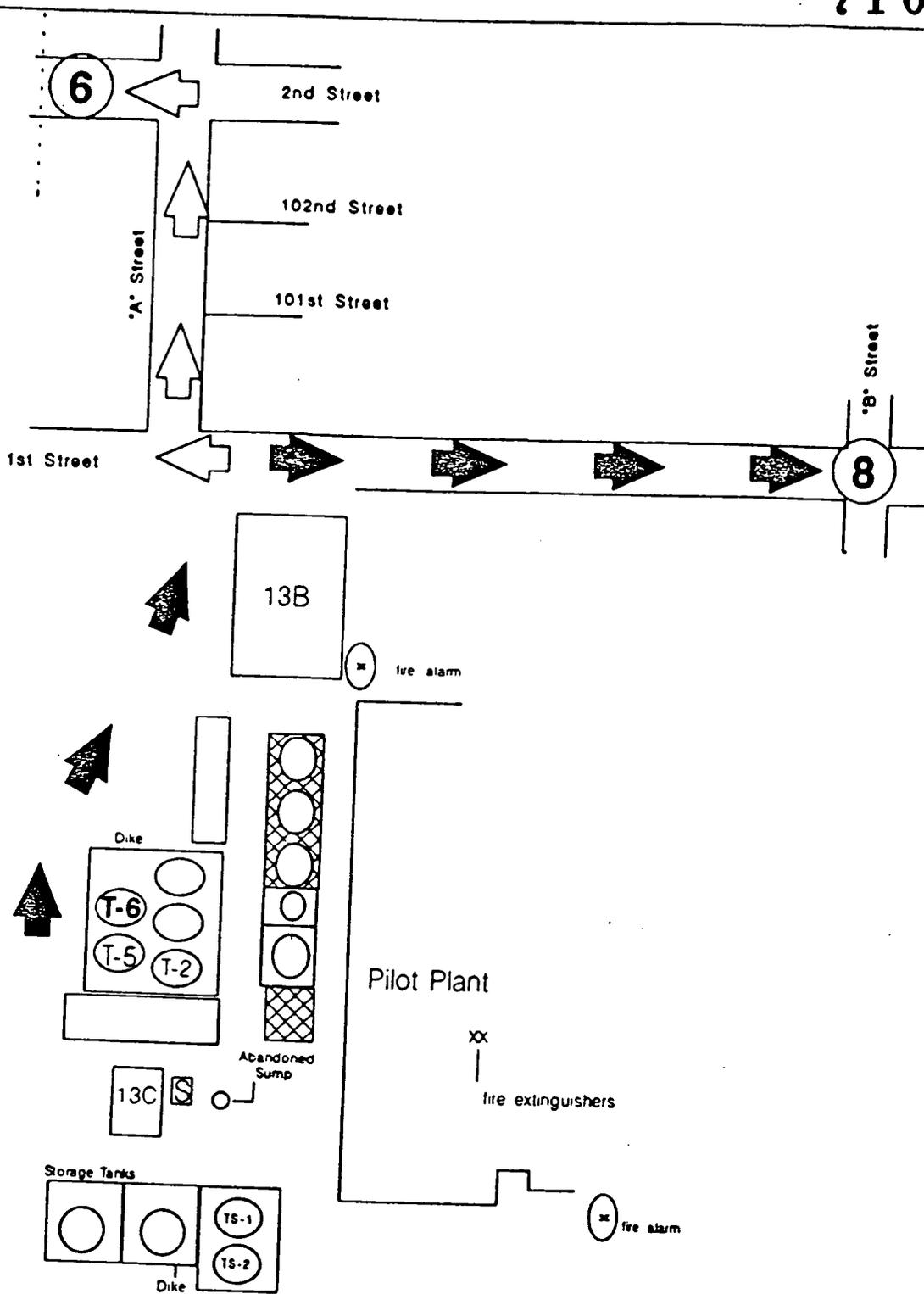
Personnel should evacuate to Rally Point No. 8. Rally Point No. 8 is located at the intersection of 1st and "B" Street. Movement is north to 1st Street, then east to "B" Street.

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

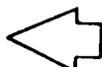
The following is a list of safety equipment assigned to this unit.

- Manual Fire Alarms
  - 1) Outside on South wall of Pilot Plant near center of building
  - 2) Outside at South end of East wall of Building 13B
- Fire Extinguishers
  - 1) 10# ABC at West Solvent Tanks Berm
- Eye Wash/Safety Shower Station
  - 1) On outside South wall of Pilot Plant near West end of building
- Safety Shower Station
  - 1) On outside West wall of Pilot Plant
- Spill Cleanup Equipment
  - 1) East of Building 13C

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



**TANK FOR BULK STORAGE OF SOLVENTS, T-6  
HWMU #32**

 = Alternate Evacuation Route
  = Primary Evacuation Route

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

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

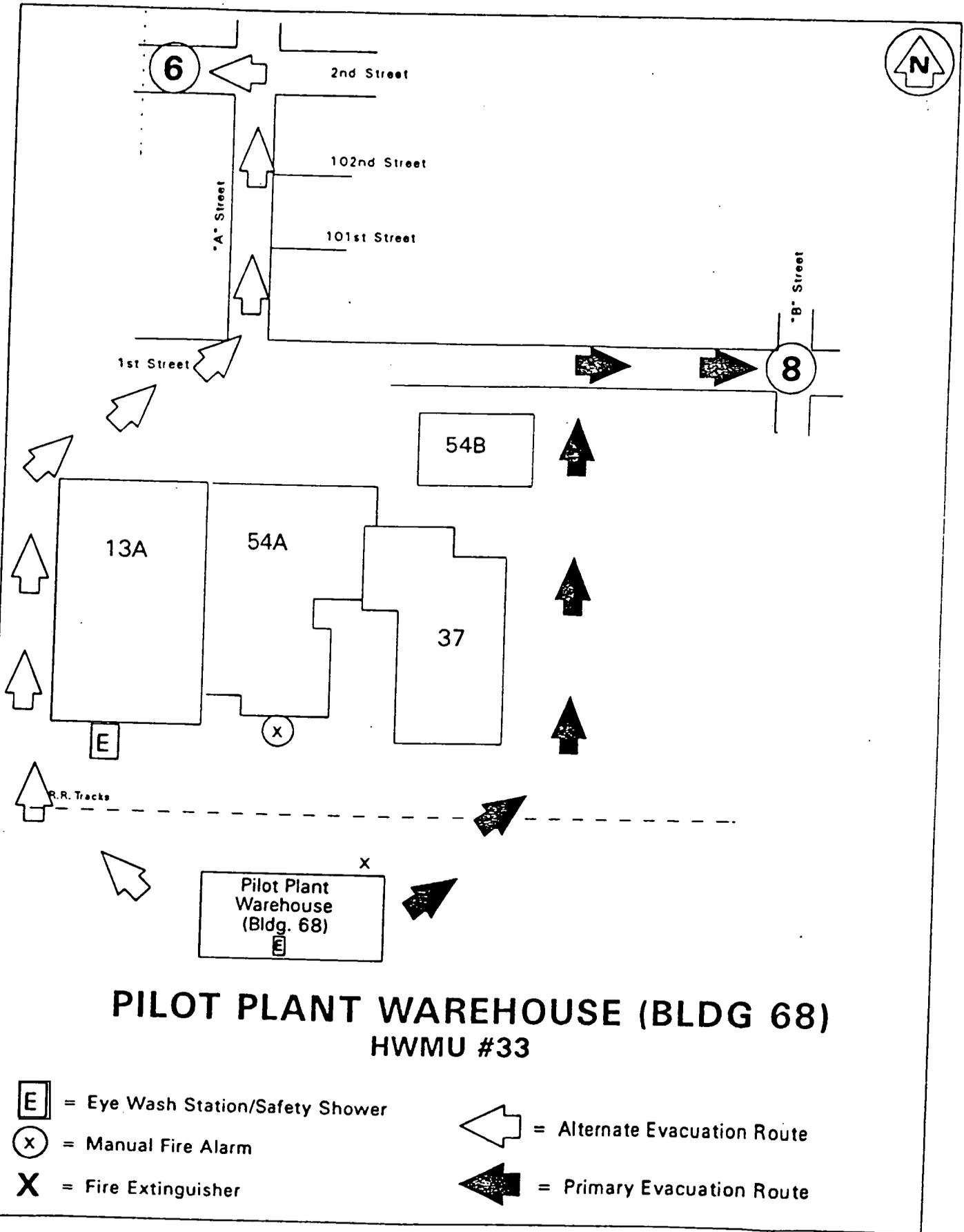
Personnel should evacuate to Rally Point No. 8. Rally Point No. 8 is located at the intersection of 1st and "B" Street. Movement is East, then north to 1st Street then proceed east to the intersection of "B" Street.

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

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

- Manual Fire Alarm
  - 1) On outside South wall of Pilot Plant near center of building
- Fire Extinguisher
  - 1) 20# ABC North wall on outside of building
- Eye Wash Station and Safety Showers
  - 1) On outside south wall of Pilot Plant near West end
- Spill Control Kit
  - 1) On outside of building, at north gate of fence surrounding building

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



**PILOT PLANT WAREHOUSE (BLDG 68)**  
**HWMU #33**

-  = Eye Wash Station/Safety Shower
-  = Manual Fire Alarm
-  = Fire Extinguisher
-  = Alternate Evacuation Route
-  = Primary Evacuation Route

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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. The 90 Day Storage Area, which is used as a temporary container storage area, is located in Bay 3.

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 is east to "D" Street, south on "D" Street to 2nd Street, then west on 2nd Street until the intersection at "C" Street.

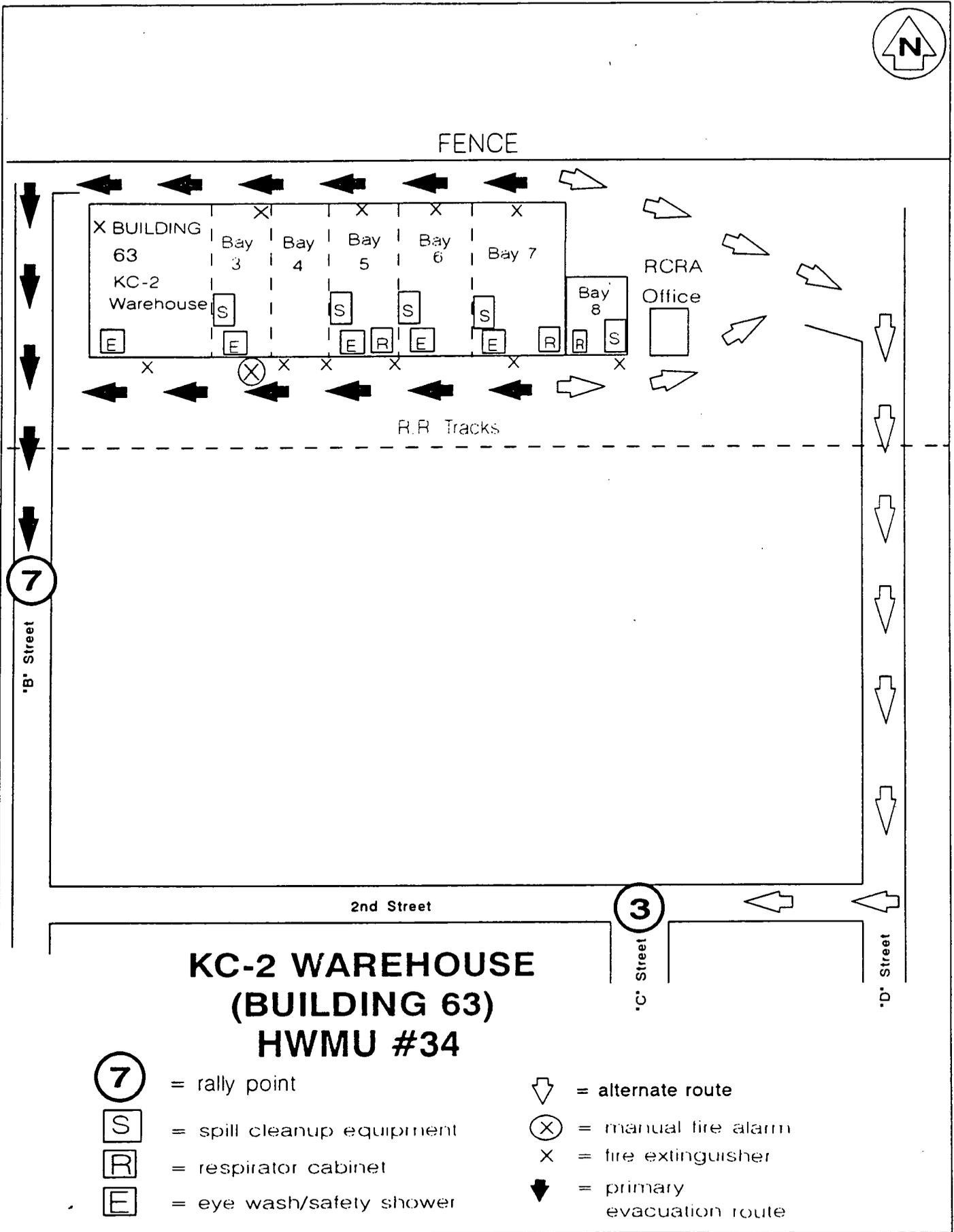
The following is a list of safety equipment assigned to this unit:

- Manual Fire Alarm
  - 1) Outside South wall center of building
- Fire Extinguishers
  - 1) 20# ABC inside by West door of Bay 1
  - 2) 20# ABC outside South door of Bay 2
  - 3) 15# CO<sub>2</sub> at the riser between Bays 3 and 4
  - 4) 20# ABC between Bays 4 and 5
  - 5) 20# ABC between Bays 5 and 6
  - 6) 20# ABC East of Bay 8 door
  - 7)-13) 20# ABC inside North end of Bays 2,3,4,5,6,7,8
  - 14) 20# ABC east of Bay 8 door

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

- Eye Wash/Safety Shower Stations
  - Five ~~(5)~~ Six (6) portable, all in Bay 1 during winter months;  
four ~~five~~ are moved to Bays 3, 5, 6, 7 and 8 during summer, and when  
personnel are working in those bays.
  
- Spill Cleanup Equipment
  - 1) Inside Bay 5
  - 2) Inside Bay 6
  - 3) Inside Bay 7
  - 4) Inside Bay 1
  - 5) ~~Inside Bay 8~~
  - 6) Inside Bay 3
  
- Respirator Cabinets
  - 1) Inside Bay 1
  - 2) Inside Bay 8

Access to equipment inside Building 63 can be gained only by personnel having a key to Bays 1, 5, 6, 7, or 8. Those personnel desiring access to this unit are required to have a two-way radio to facilitate emergency notification.



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

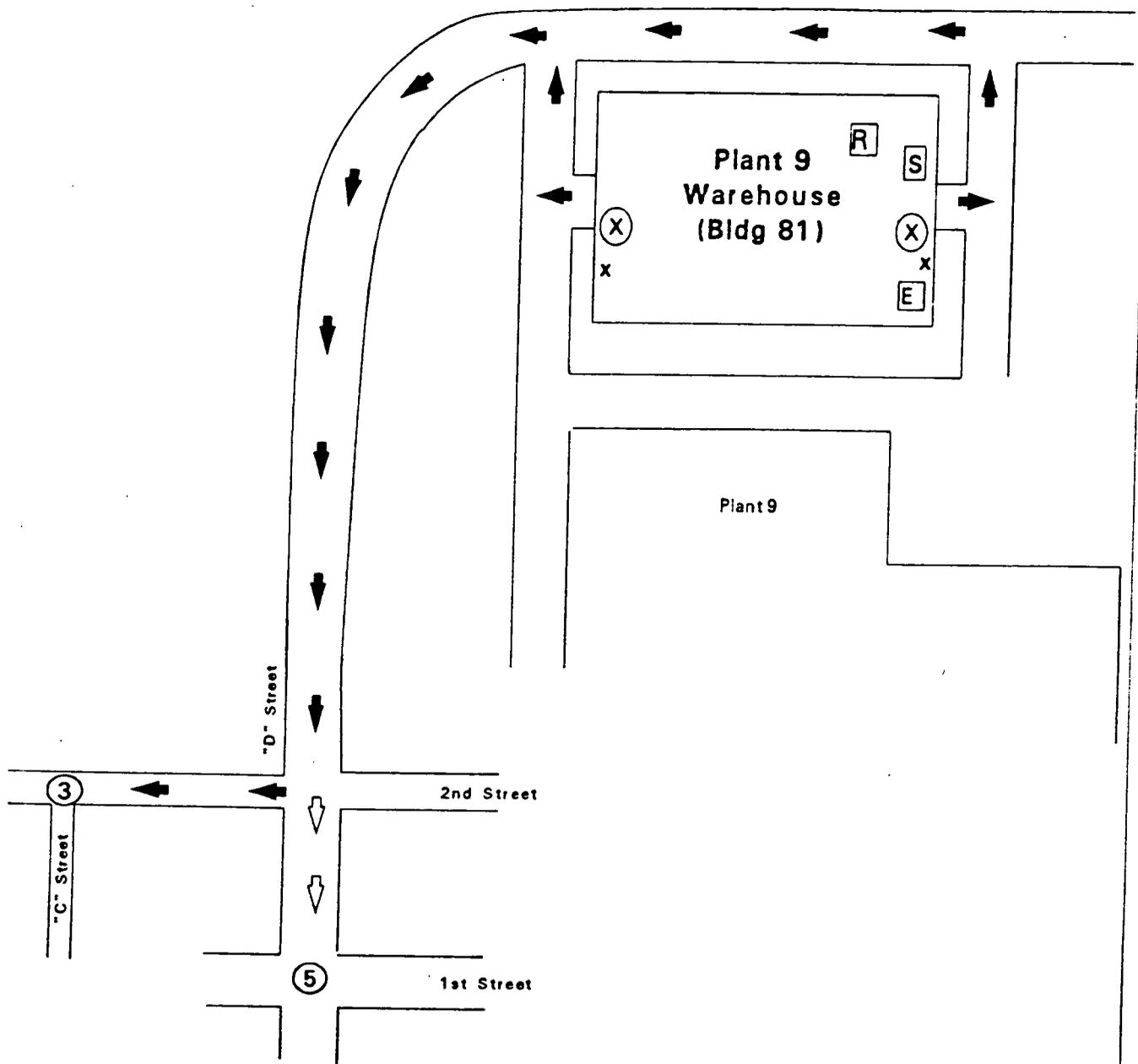
The Plant 9 Warehouse storage unit is an 80' X 100' single story, pre-engineered, ribbed, metal building covered with metal roofing. The warehouse is constructed to store hazardous waste with and without free liquids and is equipped with a sprinkler system to provide fire protection for the storage of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

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

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

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

- Manual Fire Alarms
  - 1) Inside East wall
  - 2) Inside West wall
  
- Fire Extinguishers
  - 1) 10# ABC East personnel door
  - 2) 10# ABC West personnel door
  - 3) 10# ABC in riser room
  
- Eye Wash/Safety Shower Station
  - 1) At Southeast corner of building near office (Portable Unit)
  
- Spill Cleanup Equipment and Respirator Cabinet
  - 1) At East end North of roll up door



**PLANT 9 WAREHOUSE (BLDG. 81)**  
**HWMU #35**

- ⑤ = rally point
- S = spill cleanup equipment
- R = respirator cabinet
- E = eye wash/safety shower
- x = fire extinguisher
- ⊗ = manual fire alarm
- ➡ = primary route
- ⇨ = alternate route

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HWMU No. 36 - STORAGE PAD NORTH OF PLANT 6

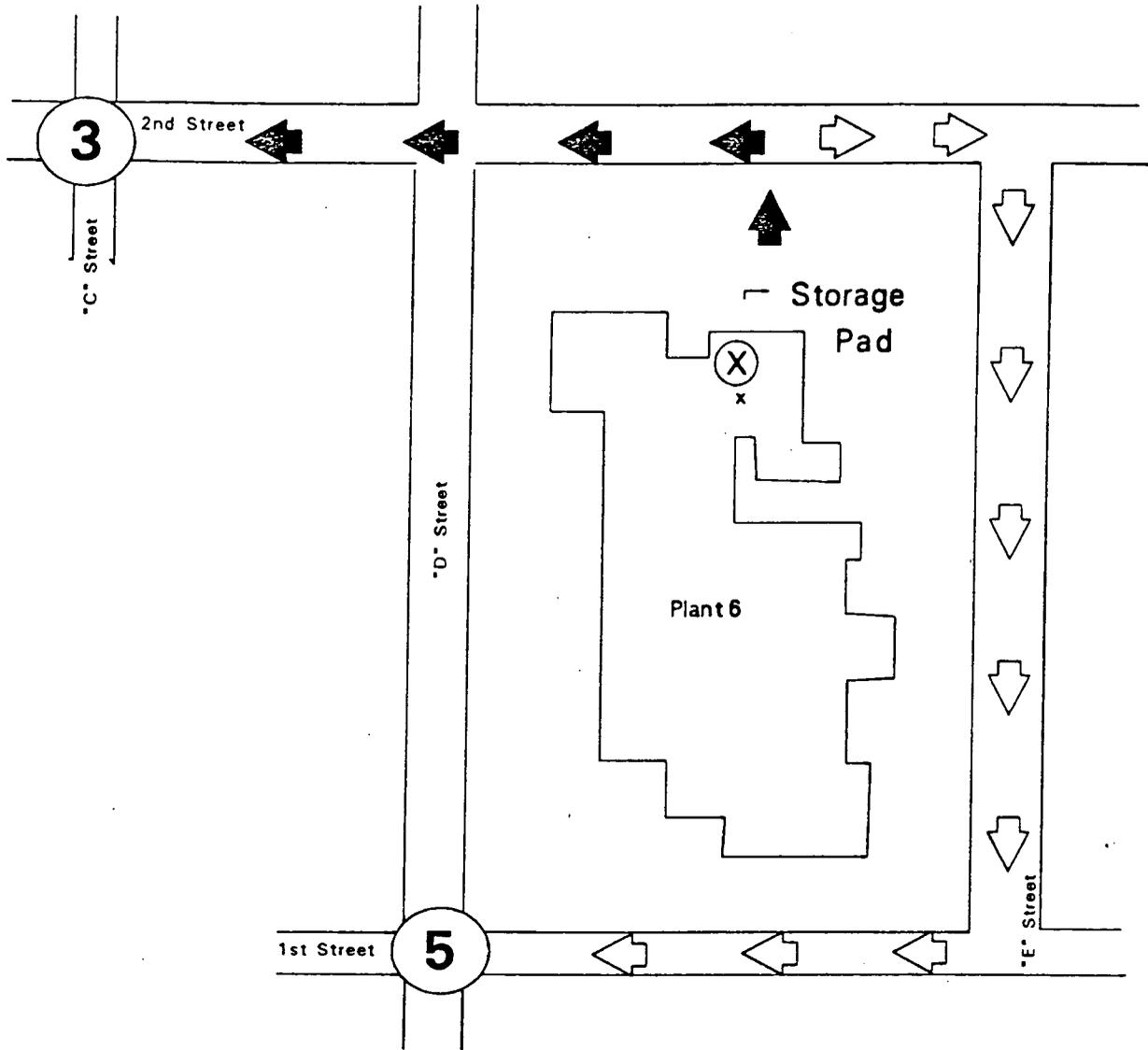
This area is North of and adjacent to Plant 6.

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~~ is east on 2nd Street to south on "E" Street, then west on 1st Street to the intersection of "D" Street.

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

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



### STORAGE PAD NORTH OF PLANT 6 HWMU #36

- X = fire extinguisher
- ⊗ = fire alarm
- ◀ = primary route
- ⊙ = rally point
- ▶ = alternate route

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.

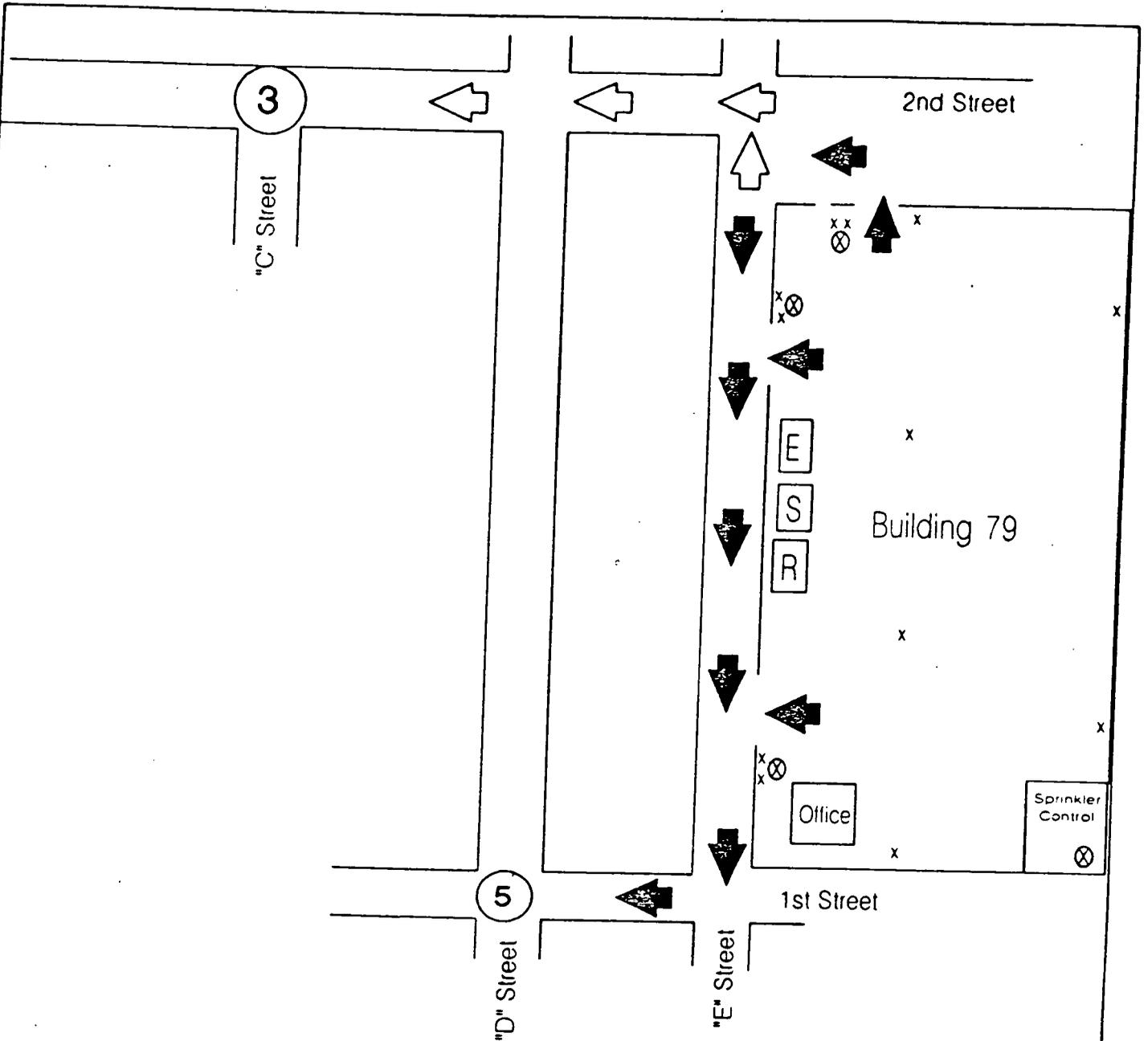
The Alternate Rally Point is No. 3. Rally Point No. 3 is located at the intersection of 2nd Street and "C" Street. Movement is north on "E" Street to 2nd Street, and west on 2nd Street to the Point.

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

- Manual Fire Alarms
  - 1) By Southwest entrance door
  - 2) By Northwest entrance door
  - 3) North entrance door at Loading Dock
  - 4) Inside Southeast Sprinkler Control Room
- Fire Extinguishers
  - 1) 20# ABC on the North wall in the center
  - 2) 20# ABC on the South Wall in the center
  - 3) 20# ABC on the East wall near the North end
  - 4) 20# ABC on the East wall near the South end
  - 5) 20# ABC on a column in the center of building (towards North end)
  - 6) 20# ABC on a column in the center of building (towards South end)
  - 7) 10# ABC in riser room (Southwest corner)
- Eye Wash/Safety Shower Station
  - 1) At West wall near center

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

- Respirator Cabinet
  - 1) At West wall near center
  
- Spill Cleanup Equipment (Middle of West wall)
  - 1) Pigs and absorbent pads
  - 2) All purpose absorbent material
  - 3) Six 55-gallon Salvage drums
  - 4) Six 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)**  
**HWMU #37**

- |   |                     |     |                           |
|---|---------------------|-----|---------------------------|
| X | = fire extinguisher | (5) | = rally point             |
| ⊗ | = manual fire alarm | R   | = respirator cabinet      |
| ⇨ | = alternative route | E   | = eye wash/safety shower  |
| ➔ | = primary route     | S   | = spill cleanup equipment |

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### HWMU No. 38 - HF TANK CAR

The HF Tank Car HWMU is located on the railroad spur immediately off the Northwest corner of Building 12A. The HF Tank Car (# OROX177501) has been moved from that location to the spur west of the Tank Farm in order to provide a secondary containment sump. Currently this tank car 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.

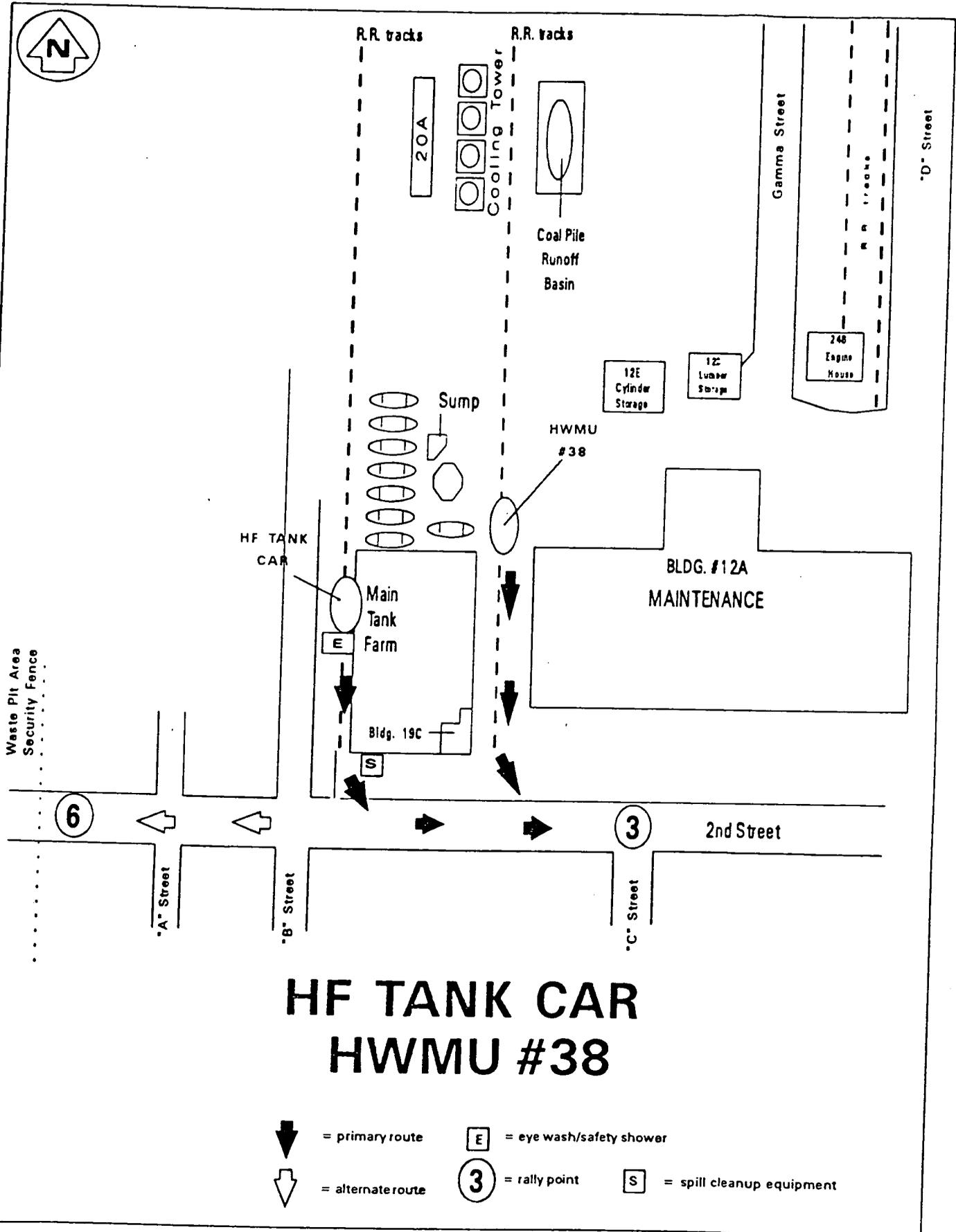
The Alternate Rally Point is No. 6. Rally Point No. 6 is located north of the West Water Tower, at the Waste Pit Area access gate. Movement is south to 2nd Street then west to the rally point.

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

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

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

- Spill Cleanup Equipment
  - 1) At the south end of Tank Farm secondary containment.



# HF TANK CAR HWMU #38

-  = primary route
-  = alternate route
-  = eye wash/safety shower
-  = rally point
-  = spill cleanup equipment

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HWMU No. 39 - CLEARWELL

The Clearwell is a surface impoundment located West of the Production Area in the Waste Pit Area. This has been removed from the HWMU list.

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

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

~~• Fire Extinguisher~~

- ~~1) 15# CO<sub>2</sub> on East side outside of the Clearwell Pump House (Building 18G)~~

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

HWMU No. 40 - BIO-SURGE LAGOON

This unit is a surface impoundment located west of the Production Area and was constructed in September 1986. ~~This has been removed from the HWMU list.~~

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

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

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

~~• Fire Extinguishers~~

- ~~1) 10# ABC by the Methanol Tank at Southeast corner of Lagoon~~
- ~~2) 15# CO<sub>2</sub> by the Methanol Tank at Southeast corner of Lagoon~~

~~• Row Boat and Life Preserver~~

- ~~1) At Southeast corner of Lagoon~~
- ~~2) Life Preserver at Northwest corner of Lagoon (Life Preservers are required within 5 feet of Lagoon.)~~

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HWMU No. 41 - SLUDGE DRYING BEDS

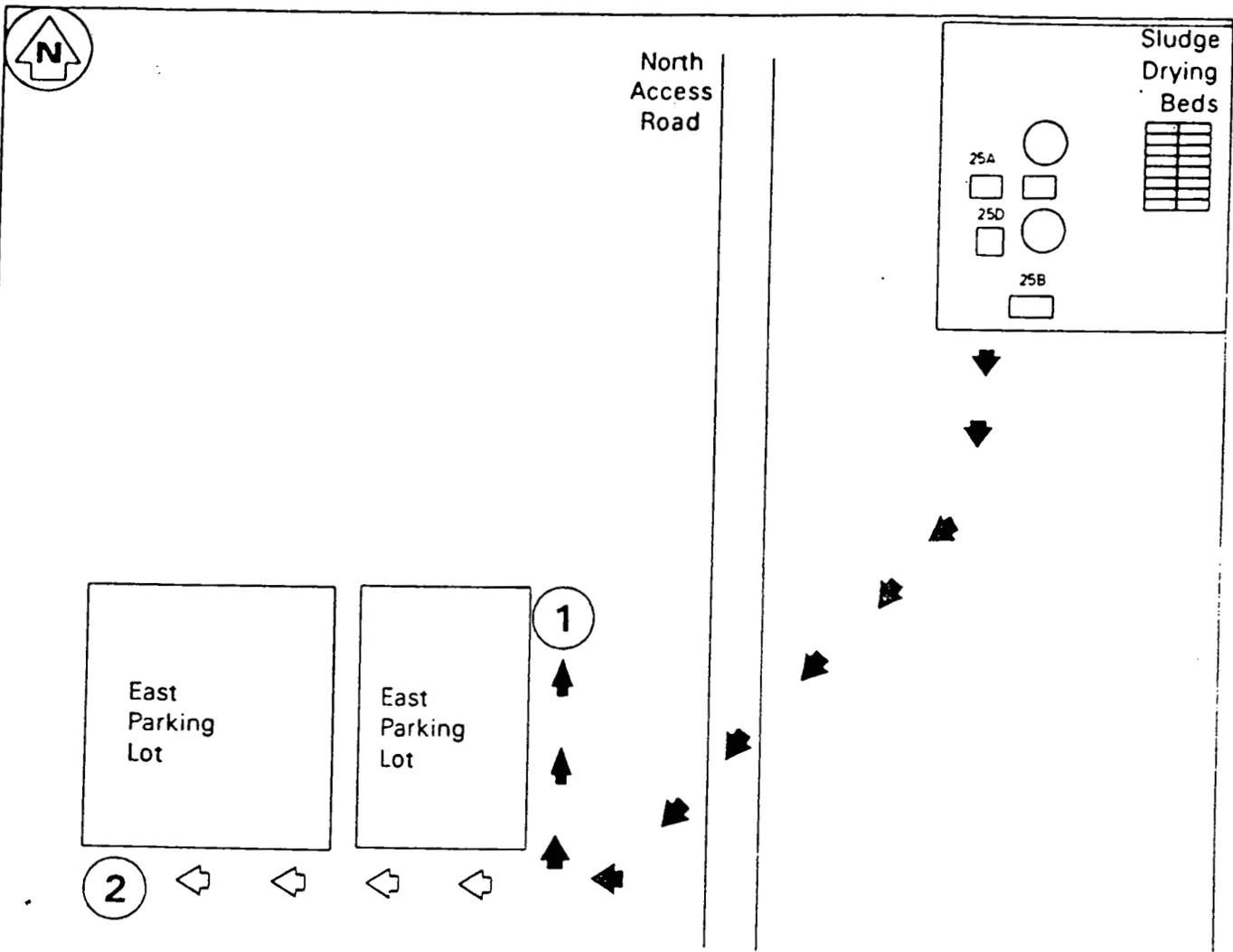
The Sludge Drying Beds are surface impoundments that are part of the sanitary wastewater treatment system and are located east of the Production Area.

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

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

There is no safety equipment assigned to this unit.

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



# SLUDGE DRYING BEDS

## HWMU #41

- ① = rally point
- ◁ = alternate evacuation route
- ◄ = primary evacuation route

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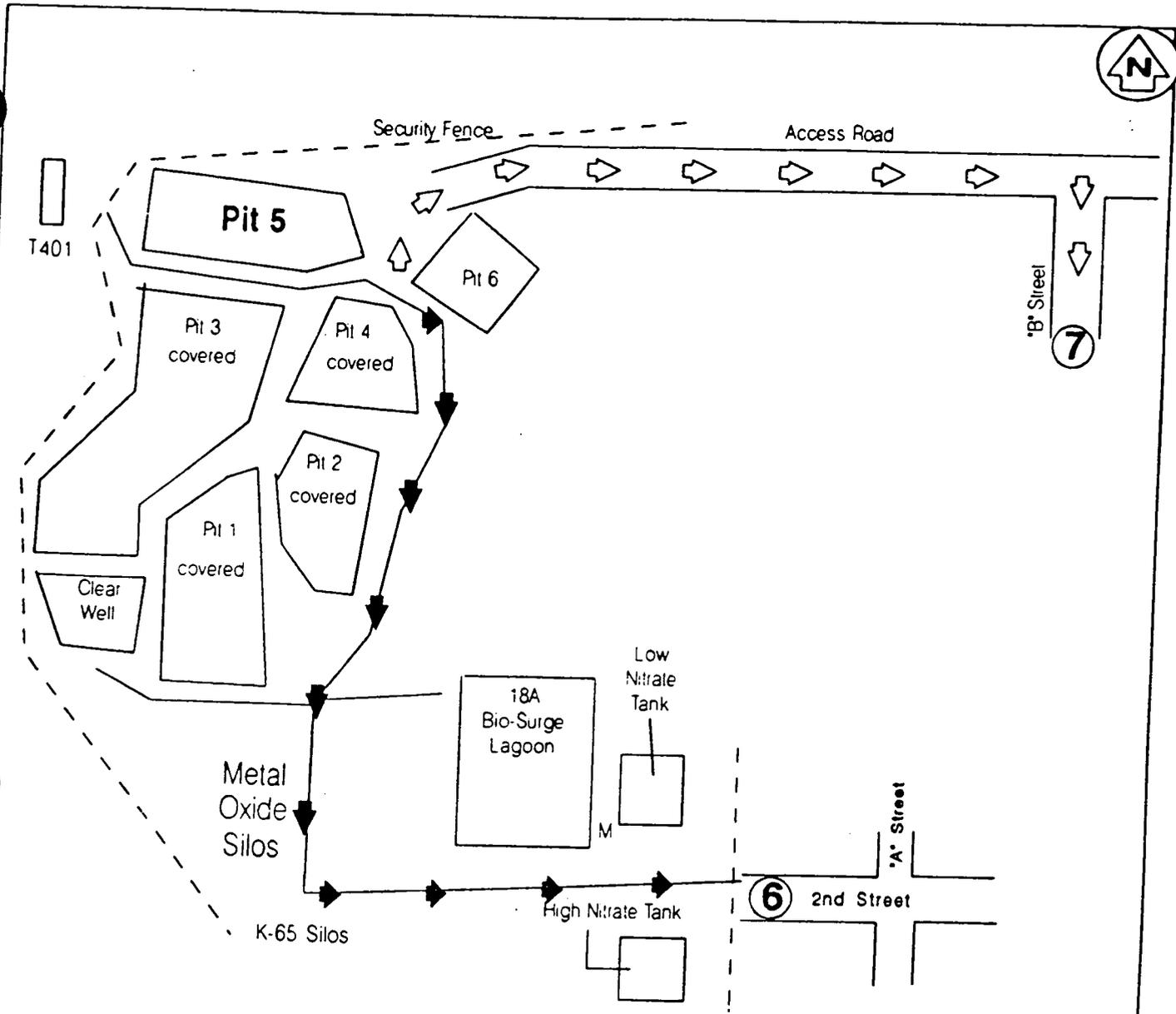
HWMU No. 42 - WASTE PIT NO. 5

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

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

The Alternate Rally Point is No. 7. Rally Point No. 7 is located on "B" Street west of the Boiler Plant. Movement is around Pit 6 on the access road, then east to "B" Street and south on "B" Street to the Point.

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



**WASTE PIT NO. 5**  
**HWMU #42**

↗ = alternate evacuation route  
 ➡ = primary evacuation route

M = Methanol Tank  
 ⑥ = rally point

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HWMU No. 43 - LIME SLUDGE PONDS

The Lime Sludge Ponds are immediately west of the Production Area. This unit has been removed from the HWMU list.

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

~~The Alternate Rally Point is No. 7. Rally Point No. 7 is located on "B" Street west of the Boiler Plant. Movement is west, then northeast on the access road, then east to "B" Street and south on "B" Street to the Point.~~

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

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HWMU No. 44 - COAL PILE RUNOFF BASIN

The Coal Pile Runoff Basin is east of the Boiler Plant. This unit has been removed from the HWMU list.

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

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

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

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HWMU No. 45 - UST NO. 5

UST No. 5 is East of Building 31. This unit has been removed from the HWMU list. ~~The surrounding soil has been excavated, but the tank has not yet been removed.~~

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

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

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

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

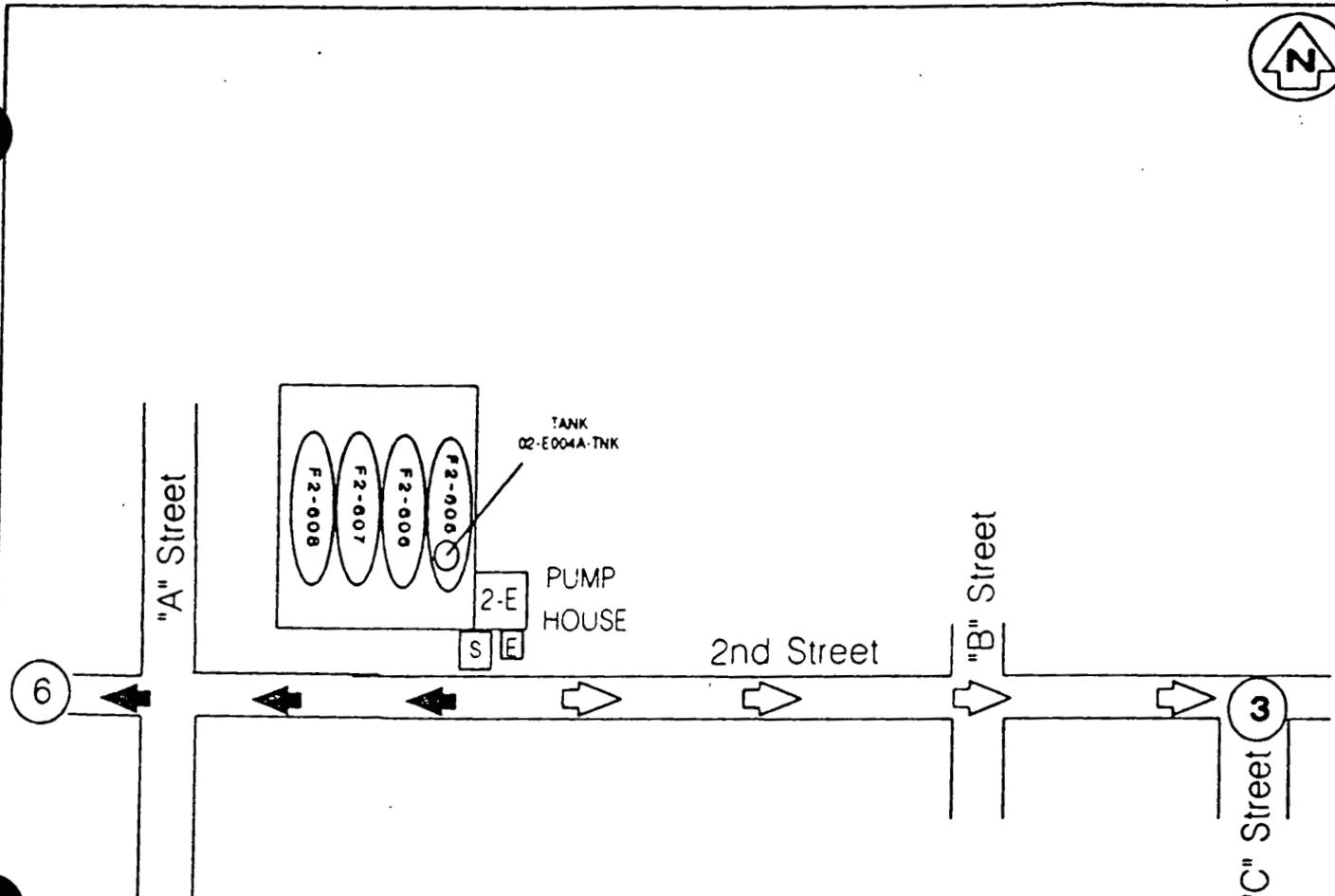
Those personnel desiring access to this HWMU are required to have a two-way radio for emergency notification purposes.

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

- Fire Extinguisher
  - 1) 10# ABC outside, on South side of Pump House 2E
- Eye Wash/Safety Shower Stations
  - 1) Outside, on South side of Pump House 2E
- Spill Cleanup Equipment
  - 1) Outside, by South side of Pump House 2E

• Portable Eyewash/Safety Showers

Portable eyewash/safety showers are to be placed in areas at HWMU 46 where hazardous work is occurring.



# URANYL NITRATE TANKS (NFS STORAGE AREA) HWMU #46

-  = primary evacuation route
-  = alternate evacuation route
-  = rally point

 = spill cleanup equipment

 = eye wash/safety shower

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

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

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

The Alternate Rally Point is No. 3. Rally Point No. 3 is located just east of the intersection of 2nd Street and "B" Street. Movement is east on 2nd Street to the Rally Point.

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

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

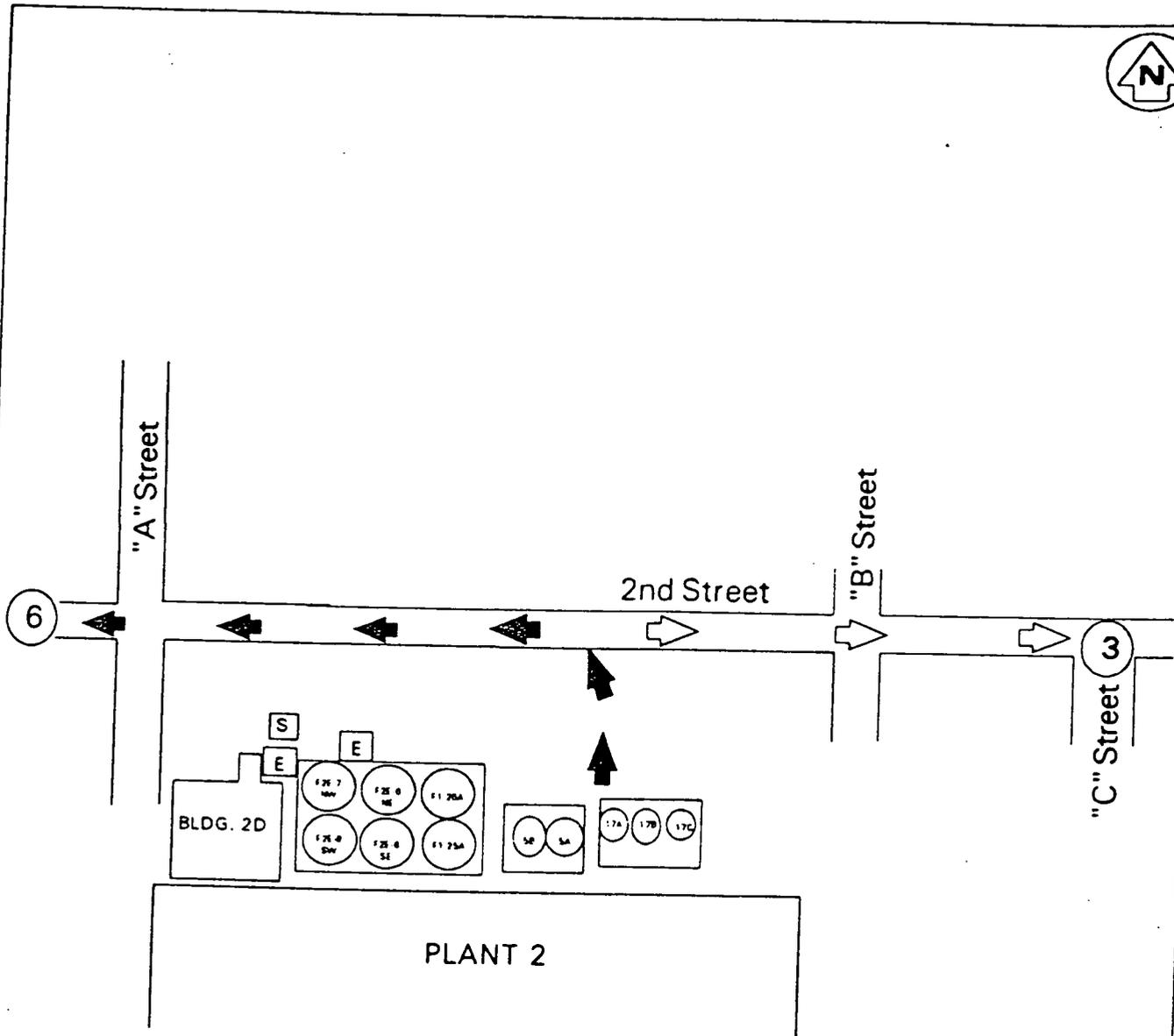
- Fire Extinguisher
  - 1) 10# ABC on post, just north of (outside) containment area
- Eye Wash/Safety Shower Station
  - 1) ~~In containment area of HWMU~~
  - 2) ~~At northeast corner of Building 2D~~
- Heated Eyewash, Mounted
  - 1) North of HWMU 47, outside secondary containment
- Spill Cleanup Materials
  - 1) ~~Outside, by North wall of Building 2D~~
  - 1) North of HWMU 47, outside secondary containment

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● **Portable Eyewash/Safety Showers**

Portable eyewash/safety showers are to be placed in areas at HWMU 47 where hazardous work is occurring.



# URANYL NITRATE TANKS (NORTH OF PLANT 2) HWMU #47

- 
- = primary evacuation route
  = spill cleanup equipment
- = alternate evacuation route
  = eye wash/safety shower
- = rally point

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

This unit is near the southeast corner of Plant 2 and consists of one above ground storage tank containing corrosive material.

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

The Alternate Rally Point is No. 3. Rally Point No. 3 is located just east of the intersection of 2nd Street and "B" Street. Movement is east to "B" Street, north on "B" Street to 2nd Street, and east on 2nd Street to the Rally Point.

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

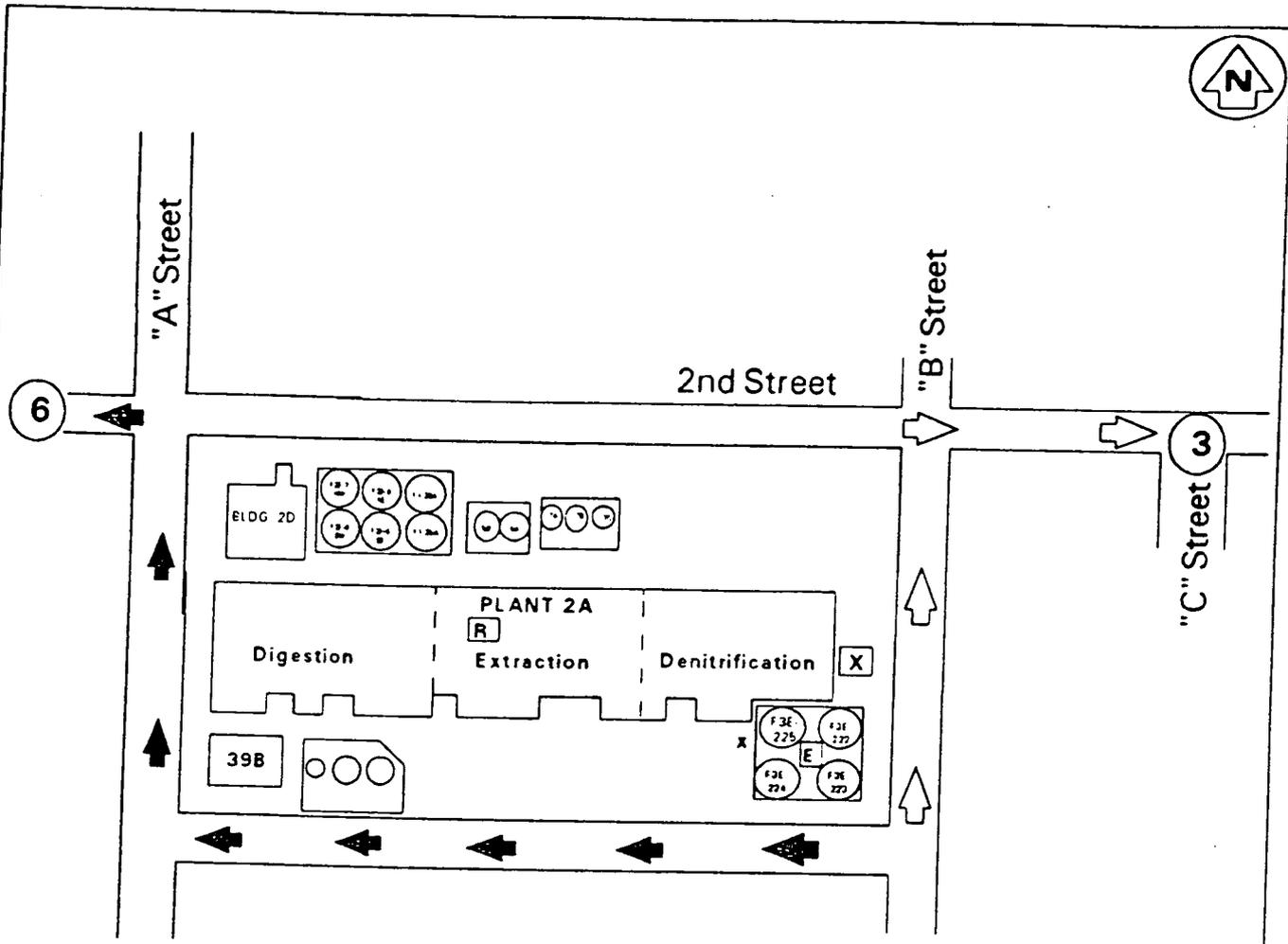
- Manual Fire Alarm
  - 1) At East end of Building 2A between pedestrian door and roll up door
- Fire Extinguisher
  - 1) BC Outside Building 2A on South wall, west of near HWMU 48
- Eye Wash/Safety Shower Station
  - 1) ~~Center of Tank Containment Area~~
- Heated Eyewashes, Mounted
  - 1) South of HWMU 48, Outside secondary containment
- Portable Eyewash/Safety Showers
 

Portable eyewash/safety showers are to be placed in areas at HWMU 48 where hazardous work is occurring.

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- Spill Cleanup Material
  - 1) ~~Located South of the Storage Tank Area~~
  - 2) ~~First Floor Denitrification Area, Column A 17~~
  - 1) South of HWMU 48, Outside secondary containment
  
- Respirator Cabinet
  - 1) ~~At Control Point Entrance near Column C9 inside Building 2A~~
  - 1) At change out cabinet in nearby trailer



# URANYL NITRATE TANKS (SOUTHEAST OF PLANT 2) HWMU #48

-  = primary evacuation route
-  = alternate evacuation route
-  = rally point

-  = spill cleanup equipment
-  = eye wash/safety shower

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

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

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

The alternate rally point is No. 3. It is located just east of the intersection of 2nd Street and "B" Street. Movement is north to 2nd Street, and east on 2nd Street to the Rally Point.

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

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

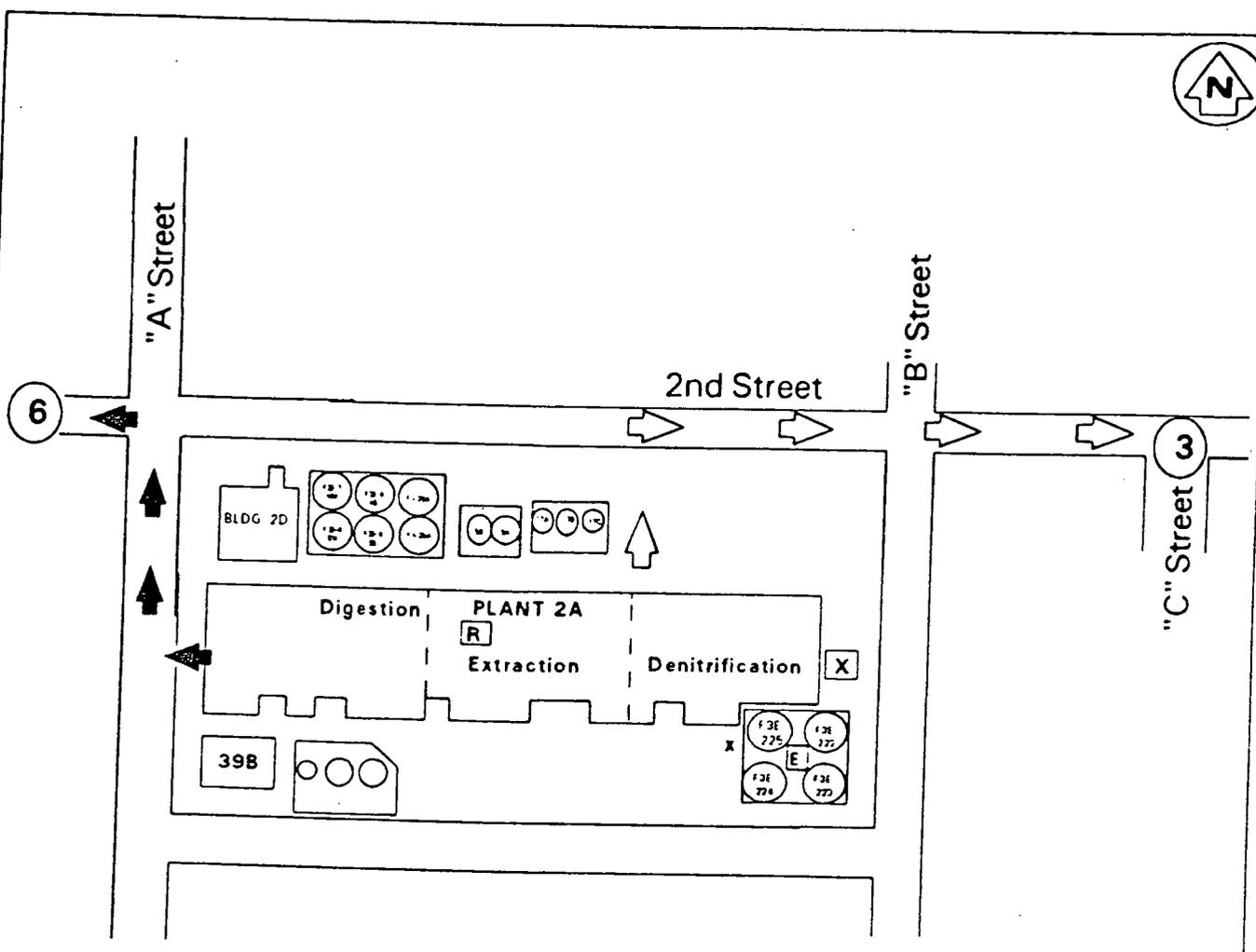
- Manual Fire Alarms
  - 1) On East wall between Digestion and Extraction Areas
  - 2) At West end of ~~Extraction~~ Digestion Area
  
- Fire Extinguishers
  - 1) 10# ABC First Floor, west end of Digestion Area, by Column B1
  - 2) 10# ABC First Floor, in Digestion Area, by Column C1
  - 3) 10# ABC First Floor in Digestion Area east of Column C7
  - 4) 10# ABC First Floor in Extraction Area near Column C8
  - 5) 10# ABC Second Floor by Column B8 B6
  - 6) ABC Second Floor, west of Digestion Area, near Column C27
  - 7) ABC Second Floor, east of Digestion Area

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

- Eye Wash/Safety Shower Stations
  - 1) First Floor on South wall of Digestion Area near Column A-6
  - 2) First Floor on South wall of Digestion Area near Column A-3
  - 3) First Floor North Digestion Area near Tank D1-8
  - 4) First Floor North Digestion Area north Tank F1-26
  - 5) Second Floor by center stairs
  - 6) Second Floor North Digestion Area Southeast Corner
  
- Spill Cleanup Equipment
  - 1) At East end of Digestion Area east of Column C7
  
- Respirator Cabinet
  - 1) At Control Point entrance near Column C9



# URANYL NITRATE TANKS (DIGESTION AREA) HWMU #49

- |  |   |
|--|---|
|  = primary evacuation route   |  = spill cleanup equipment |
|  = alternate evacuation route |  = eye wash/safety shower  |
|  = rally point                |   |

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

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

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

The Alternate Rally Point is No. 6. Rally Point No. 6 is located North of the West Water Tower. Movement is west to "A" Street, north on "A" Street to 2nd Street, then west to the point.

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

- Manual Fire Alarm
  - 1) North wall by entrance
- Fire Extinguishers
  - 1) 15# CO<sub>2</sub> on entrance wall to East bay near tanks F1-301, 302, and 303
- Eyewash/Safety Shower Stations
  - 1) ~~Near tank F1-303~~
  - 2) ~~Near tank F1-308~~
- Heated Eyewashes
  - 1) Near the center of building, fastened to column
- Portable Eyewash/Safety Showers

Portable eyewash/safety showers are to be placed in areas at HWMU 50 where hazardous work is occurring.

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- Spill Cleanup Equipment
  - 1) Outside by entrance door
  
- Respirator Cabinet
  - 1) ~~At entrance by Control Point~~
  - 1) At change out cabinet in nearby trailer

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



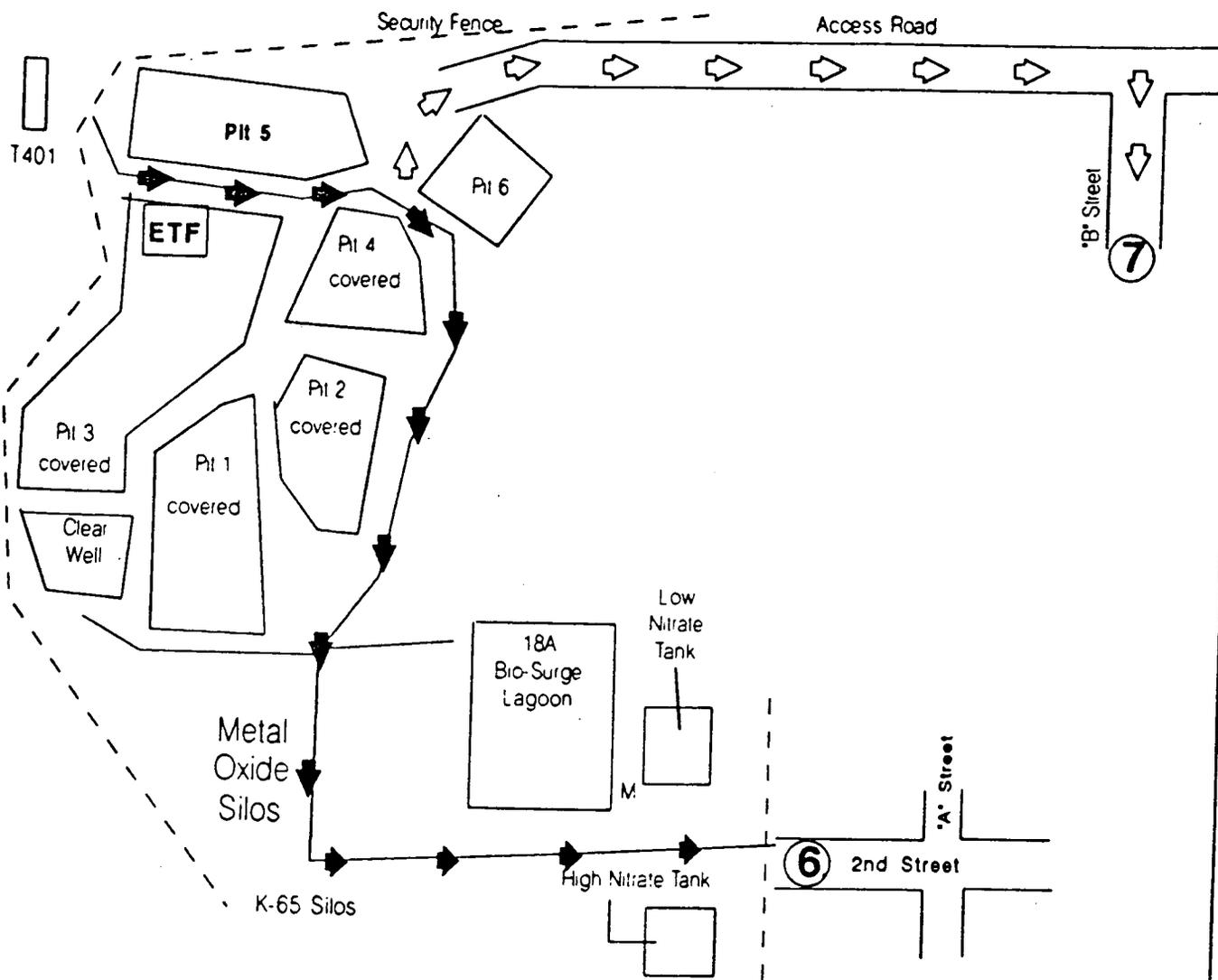
HWMU No. 51 EXPERIMENTAL TREATMENT FACILITY (ETF)

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

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

The Alternate Rally Point is No. 7. Rally Point No. 7 is located on "B" Street west of the Boiler Plant. Movement is past Pit 5 and around Pit 6 on the access road, then east to "B" Street and south on "B" Street to the Point.

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



# EXPERIMENTAL TREATMENT FACILITY (ETF) HWMU #51

- = alternate evacuation route
- = primary evacuation route

- M = Methanol Tank
- = rally point

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

This unit consists of two above ground storage tanks (Tanks T1S & T2S) located southwest of the Pilot Plant.

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

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

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

- Manual Fire Alarm
  - 1) On outside South wall of Pilot Plant near center of building
  - 2) On outside South end of East wall of Building 13B
- Fire Extinguishers
  - 1) 10# ABC outside Southwest Solvent Tanks Berm
- Eye Wash/Safety Shower Station
  - 1) Outside on South wall of Pilot Plant near West end
- Safety Shower Station
  - 1) Outside on West wall of Pilot Plant
- Spill Cleanup Equipment
  - 1) East of Sump House (Building 13C)

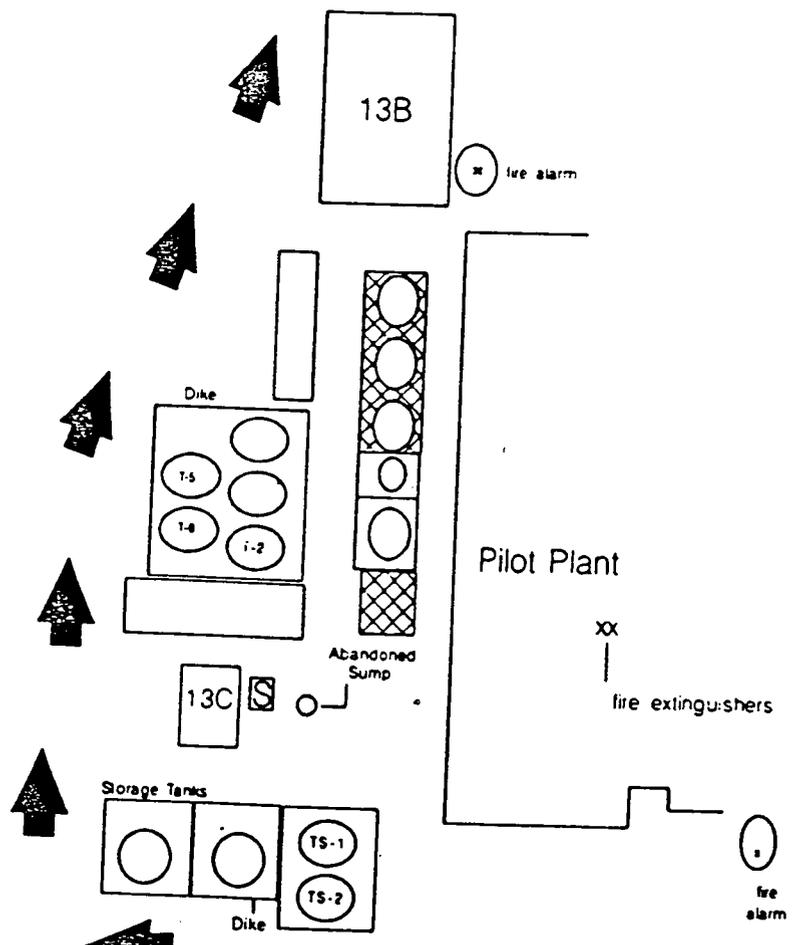
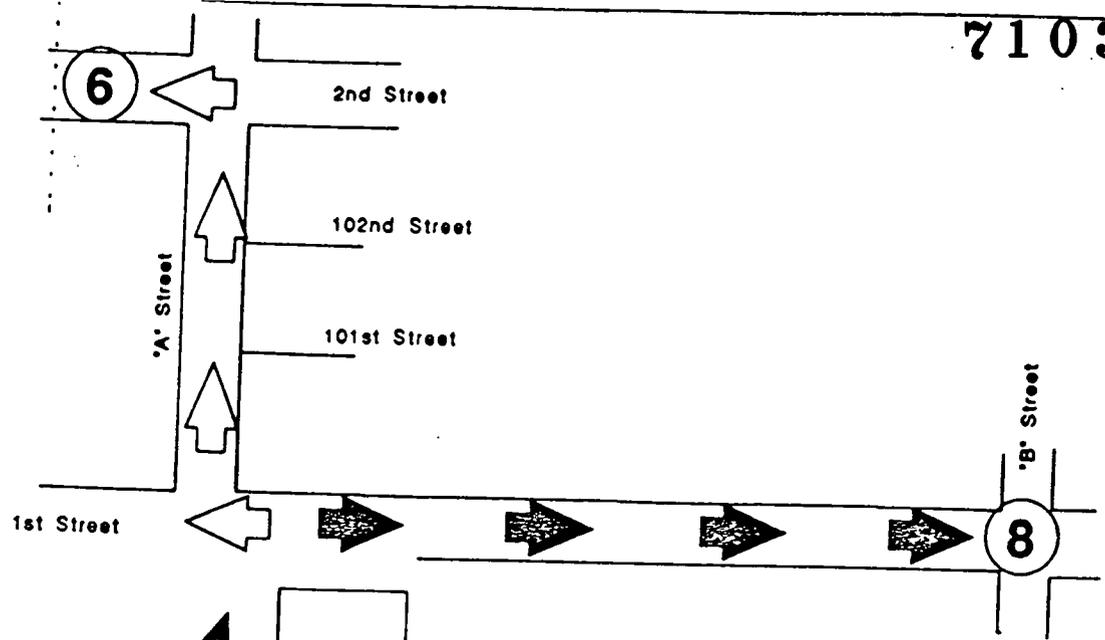
Those personnel desiring access to this HWMU are required to have a two-way radio

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to facilitate emergency notification.



**NORTH & SOUTH SOLVENT  
TANKS (PILOT PLANT)  
HWMU #52**

◀ = Alternate Evacuation Route      ▶ = Primary Evacuation Route

HWMU No. 53 - SAFE GEOMETRY DIGESTION SUMP

The Safe Geometry Digestion Sump is located on the second floor of Plant 1 in Building 1A. ~~Closed in accordance with meeting with OEPA on March 2, 1995.~~

~~Personnel should evacuate to Rally Point No. 6. Rally Point No. 6 is located North of the West Water Tower, at the Waste Pit Area access gate. Movement is south past the west side of Plant 1 to 2nd Street and west to the Waste Pit Area access gate.~~

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

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

~~• Manual Fire Alarm~~

- ~~1) First Floor, west of column 7C~~

~~• Fire Extinguishers~~

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

~~• Eye Wash Station~~

- ~~1) On East wall, south of column 5B near the Sump~~
- ~~2) On center of wall next to the Safe Geometry Digestion Sump~~

~~• Spill Cleanup Equipment~~

- ~~1) First Floor at column 8C~~

~~• Respirator Cabinet~~

- ~~1) Inside Building 1A Satellite Clothing Area~~
- ~~2) Inside Northeast corner of Building 71~~

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HWMU No. 54 - TANK FOR BULK STORAGE OF THORIUM NITRATE SOLUTION, T-2

This unit is an above ground storage tank located West of the Pilot Plant.

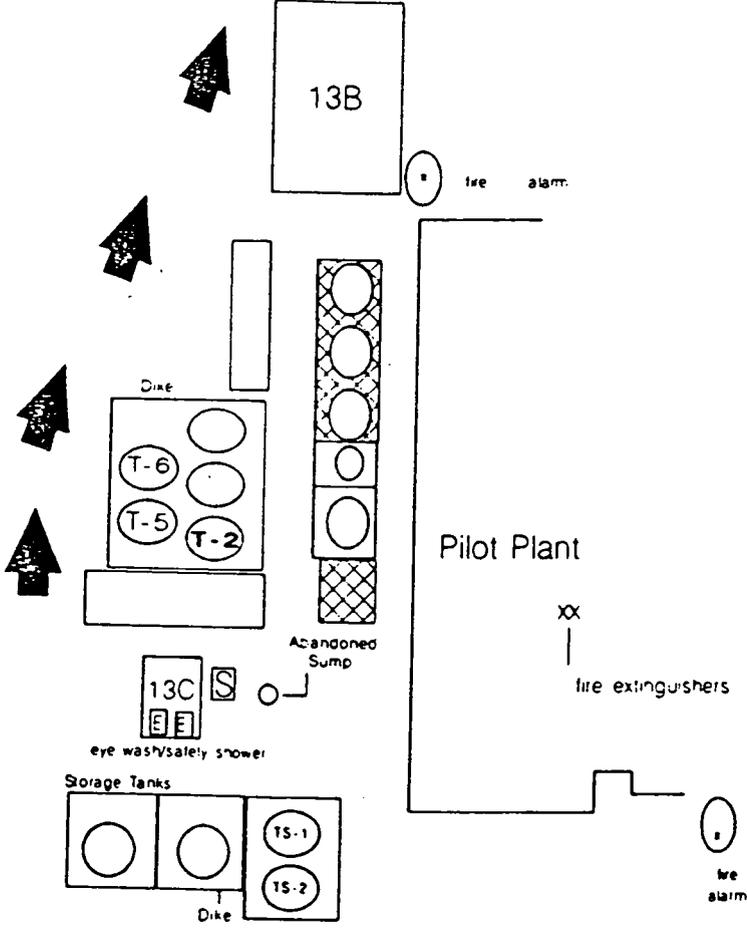
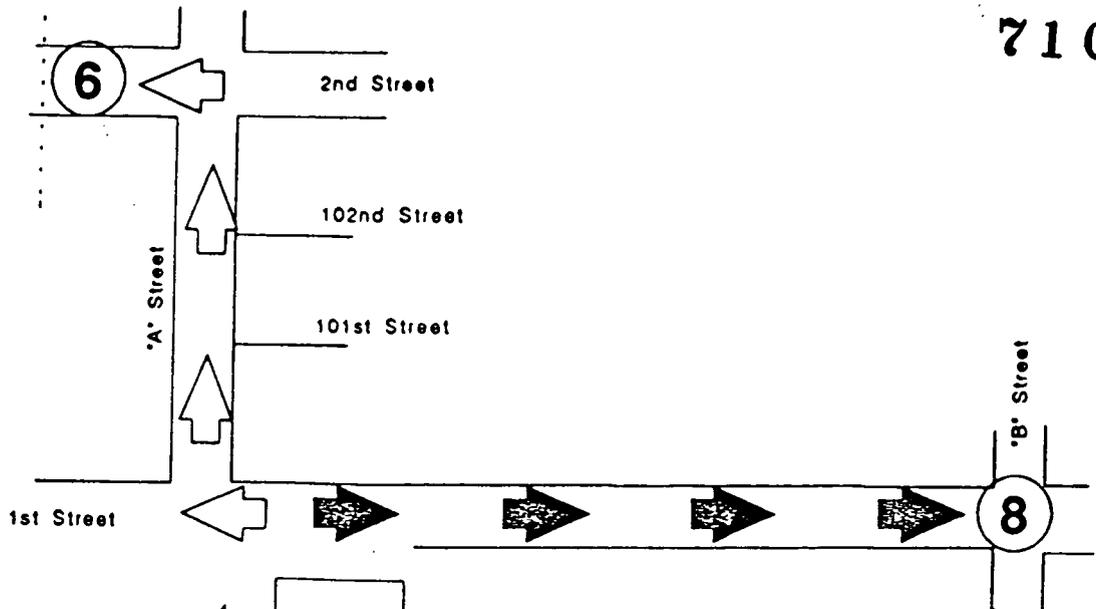
Personnel should evacuate to Rally Point No. 8. Rally Point No. 8 is located at the intersection of 1st and "B" Street. Movement is north to 1st Street, then east to "B" Street.

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

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

- Manual Fire Alarms
  - 1) Outside on South wall of Pilot Plant near center of building
  - 2) Outside at South end of East wall of Building 13B
- Fire Extinguishers
  - 1) 10# ABC at West Solvent Tanks Berm
- Eye Wash/Safety Shower Station
  - 1) ~~On outside South wall of Pilot Plant near West end of building~~  
Two portable units inside the Sump House (Building 13C)
- Safety Shower Station
  - 1) ~~On outside West wall of Pilot Plant~~
- Spill Cleanup Equipment
  - 1) East of Building 13C

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



# THORIUM NITRATE STORAGE TANK, T-2 HWMU #54

 = Alternate Evacuation Route       = Primary Evacuation Route