CONTINGENCY PLAN
90-DAY WASTE STORAGE AREA
BUILDING 905
SUPERCONDUCTING MAGNET DIVISION

1.0 Purpose

The purpose of this document is to provide working guidelines for building personnel in the event of a spill, fire, or other emergency involving this waste storage area. Response plans for small-scale spills, fires, and medical emergencies are provided in Section 5. This plan is **NOT** intended as a substitute for emergency response training. Respond to emergencies, spills, or fires **ONLY** to your level of training. Brookhaven National Laboratory's Standards - Based Management Systems (SBMS) is a Web based information system that contains the most current requirements for spills and emergencies.

2.0 Notification

For all incidents that cannot be handled by the building personnel the primary responsibility of the building personnel is to IMMEDIATELY contact the individuals listed in Table 1.

Table 1
EMERGENCY COORDINATORS
STORAGE AREA, BUILDING 905

Position	Name	Contact Numbers
90 Day Area Manager	John Cintorino	2544 (office) 631/494-0171 (cell)
90 Day Area Manager (Alt)	Glenn Jochen	7320(office) 631/603-9205 (cell)
ESH Coordinator	Walter Czekaj	4721(office) 631/905-9336 (cell)

3.0 Site Description

3.1 Site Map

Figure 1 is a site map of the less-than-90 day waste storage area showing it's location in building # 905
Figure 2 is a more detailed view of the less-than-90 day waste storage area showing the area details for the location of the waste pickup area, emergency Spill/safety equipment cabinet, telephone, Fire Pull Boxes, Fire Extinguishers (and Type), rollup doors, and exterior exits.
Figure 3 is a detailed view of the 90-day storage area up close.

3.2 Emergency /Safety Equipment
Emergency /Safety Equipment at this storage location, as shown in Figure 1(2 and 3 and pictures of the indicated areas on pages 11 thru 14), includes the items indicated below:

☒ ABC Fire Extinguisher
☒ CO2 Fire Extinguisher
☐ Halon Fire Extinguisher
☒ Fire Detection System (Rate of Rise)
☒ Fire Alarm Pull Box
☐ Sprinkler System, Water Or CO_2
☐ Shower *
☐ Eye Wash *
☒ Absorbent Material
☐ First Aid Kit
☒ Gloves
☒ Lab Coats / Coveralls
☒ Eye And Face Protection

* = FYI - Combined unit located at 905 (main building)
north exterior doors (grids F6 and K6).

4.0 Types of Wastes and Hazards

4.1 Waste Types

- Oil
- Flammable liquids
- Acids and Bases (either corrosives or oxidizers/reactives)

4.2 General Hazards

Personnel should read the Material Safety Data Sheet (MSDS) for any chemical product before handling or use. Regulations require that copies of the MSDS for a product containing hazardous components be made available to users (MSDS

information is available at the BNL Chemical Management System Web site). Personal protective equipment (PPE) specified for a particular substance may be used by on-site personnel if they have been properly trained in its use. The mixing of incompatible substances in the same container in forbidden. Containers holding incompatible material must be physically segregated.

4.3 Oil

Although oil products are normally combustible, they require exposure to direct flame or high heat to cause ignition. Avoid contact of oil and oil waste products with oxidizers. They contact may cause or increase the ease of ignition.

4.4 Flammable Liquids

Flammable liquids may be readily ignited at ambient room temperatures. These compounds may generate substantial quantities of flammable vapors in air at ambient temperatures. If the vapor concentration in air exceeds a critical percentage, the vapors can be easily ignited. Ignition can be caused by heat, friction, static electricity, or the operation of electrical switches/apparatus. Always ensure adequate ventilation to prevent the buildup of vapors and avoid contact with oxidizers.

Flammable solvents may be absorbed through and/or cause defatting of the skin. Absorption of solvents or inhalation of the vapors generated by them is harmful and may cause both short-term effects and permanent physical damage.

4.5 Corrosives-Acids/Bases

Acids and bases are strong tissue irritants. The effect of skin exposure can vary from dermatitis through complete destruction of tissues (i.e. chemical burns). The vapors of acids and bases can cause damage to soft body tissues such as the eyes and the respiratory tract. Corrosives can generate toxic vapors or gases by themselves (i.e. hydrochloric acid, ammonium hydroxide) and by reaction with other chemical substances (i.e., cyanides, sulfides). Some acids such as nitric and sulfuric are oxidizers as well as corrosives.

4.6 Oxidizers /Reactives-Acids

These materials react vigorously with other chemicals and may self decompose when heated. Personnel should become familiar with the MSDS specific to the material and handle accordingly.

5.0 Emergency Response Action Plans

5.1 Spills

Spills must be handles in accordance with the SBMS Subject Area for Spill Response.

5.1.1 General Procedural Requirements

- Never attempt to clean up any spill without first notifying the storage area manager
- Never perform any spill cleanup without at least one other person available to provide assistance.
- Do not attempt to clean up any spill greater than the quantity recommended for the hazard category.
- When performing a spill cleanup, always wear PPE consisting of eye protection, splash apron, and the correct type of respiratory protection and gloves for the particular type of material spilled.
- Do not allow any spilled material to contact the skin or eyes.
- Do NOT respond to any spills of an unknown type; treat unknowns as toxic materials.

5.1.2 Oils

Local response maximum recommended quantity: 5 Gallons

Spill Cleanup
Oil spills always pose a moderate fire risk. Remove all sources of ignition prior to any cleanup. Use an inert absorbent material to clean up the spill. The use of rags or paper towels is not recommended. Place the cleanup-generated waste into a metal vapor-tight container and treat it as a hazardous waste. Notify the Storage Area Manager of any waste generated during spill cleanup.

Protective Equipment
Goggles or face shield, splash apron, butyl or silver shield gloves, and air purifying respirator with organic vapor cartridges.

5.1.3 Flammable Liquids

Local Response Maximum Recommended Quantity: 1 Liter

Spill Cleanup
Flammable liquid spills always pose a high fire risk due to the vapors generated. Remove all sources of ignition prior to any clean up. Use an inert absorbent material to clean up the spill. The use of rags or paper towels is not recommended. Place the cleanup-generated waste into a metal vapor-tight container and treat it as a hazardous waste. Notify the Storage Area Manager of any waste generated during spill cleanup.

Protective Equipment
Goggles or face shield, splash apron, butyl or silver shield gloves, and air purifying respirator with organic vapor cartridges.

5.1.4 Corrosives-Acids/Bases

Local Response Maximum Recommended Quantity 2 Liters

Spill Cleanup
Use an inert absorbent material to clean up the spill. Do not use rags or paper towels that may react with the spill. Place the cleanup-generated waste into a glass or plastic vapor-tight container and treat it as a hazardous waste. Notify the Storage Area Manager of any waste generated during spill cleanup. Neutralize the area with a wash of sodium carbonate for acids or weak acid solution (acetic or citric acids) for alkaline spills, if available and you are trained to do so.

Protective Equipment

Goggles or face shield, splash apron, neoprene or silver shield gloves, and air purifying respirator with acid mist cartridges.

5.1.5 Oxidizers /Reactives-Acids

Local Response Maximum recommended Quantity: 2 Liters

Spill Cleanup
Use an inert absorbent material to clean up the spill. Do not use rags or paper towels that may react with the spill. Place the cleanup-generated waste into a glass or plastic vapor-tight container and treat it as a hazardous waste. Notify the Storage Area Manager of any waste generated during spill cleanup.
NOTE: Many oxidizer solutions (e.g. chromic acid) are also corrosive; check the guidelines for acids/bases prior to cleanup.

Protective Equipment

Goggles or face shield, splash apron, neoprene or silver shield gloves, and air purifying respirator with acid gas/organic vapor cartridge.

5.2 FIRES

DO NOT attempt to fight fires of ANY size if you have not been trained in the use of the available extinguishing agents.

A fire that is improperly handled will not extinguish and may increase in intensity. Immediately notify the Storage Area Manager, the Fire Department, and the Safety Representative in the event of a fire of any size. Do not fight any fire where the base of the fire exceeds approximately 1 square foot or where additional flammable material may be at immediate risk of ignition. Leave the area immediately.

5.2.1 Flammable Liquids and Oil

Do no use water or extinguish flammable liquid or oil fires. Use only a dry chemical ABC or AB fire extinguisher for flammable liquid and oil fires.

5.2.2 Corrosives-Acids /Bases

Acids and bases generally will not support a fire but may react with other materials involved in the fire, potentially increasing the risk of toxic decomposition products.

5.2.3 Oxidizers/Reactives-Acids

Oxidizers will not generally burn. They will, however, support the combustion of organic materials and some metals. Fires involving oxidizers will burn with greater than normal intensity. Do no attempt to fight fires involving oxidizers.

Some acids are also oxidizers. Most acids and bases will only increase the risks from toxic decomposition products.

5.3 Chemical Contamination Emergencies

SEEK MEDICAL ASSISTANCE IMMEDIATELY

When an individual has been contaminated with hazardous materials, it is important to remove as much of the material from the person as quickly as possible. When assisting an individual contaminated with hazardous materials, use caution to prevent contaminating yourself with the hazardous material.

5.3.1 Eye Contact

If any hazardous material contacts the eyes, immediately flush the eyes with cold or lukewarm water, holding the eyes open to irrigate under the lids. Maintain the flush for at least 15 minutes. Seek medical attention

5.3.2 Skin Contact

For hazardous material contact with the skin, remove any contaminated clothing and immediately flush the affected area with large volumes of water for at least 15 minutes. For all material except bases, wash the area with soap and water. Seek medical attention.

5.4 Evacuations

5.4.1 Local

If an evacuation for the building containing this storage area is required, leave the storage area immediately and notify personnel in adjacent rooms of the potential hazard. Leave the building using the exit routes indicated on the fire evacuation wall diagrams posted within the building.

5.4.2 Facility

Facility evacuation alarms and procedures, as documented in the BNL Emergency Response Plan, are as follows:

- Evacuate the building immediately on any ringing of fire alarms or upon notification by the Local Emergency Coordinator.
- Continuous sounding of the site sirens for 5 minutes: Proceed immediately to the building assembly area. Await instructions, which may include the nature of the emergency, the type, sequence, and routes for evacuation.
- Intermittent sounding of the site sirens for 5 minutes: Evacuate the site immediately.
- Car pools will convene in the usual manner unless otherwise noted.

Figure 1 Location of 90-Day area in building # 905 and the locations of the eye/shower was stations:

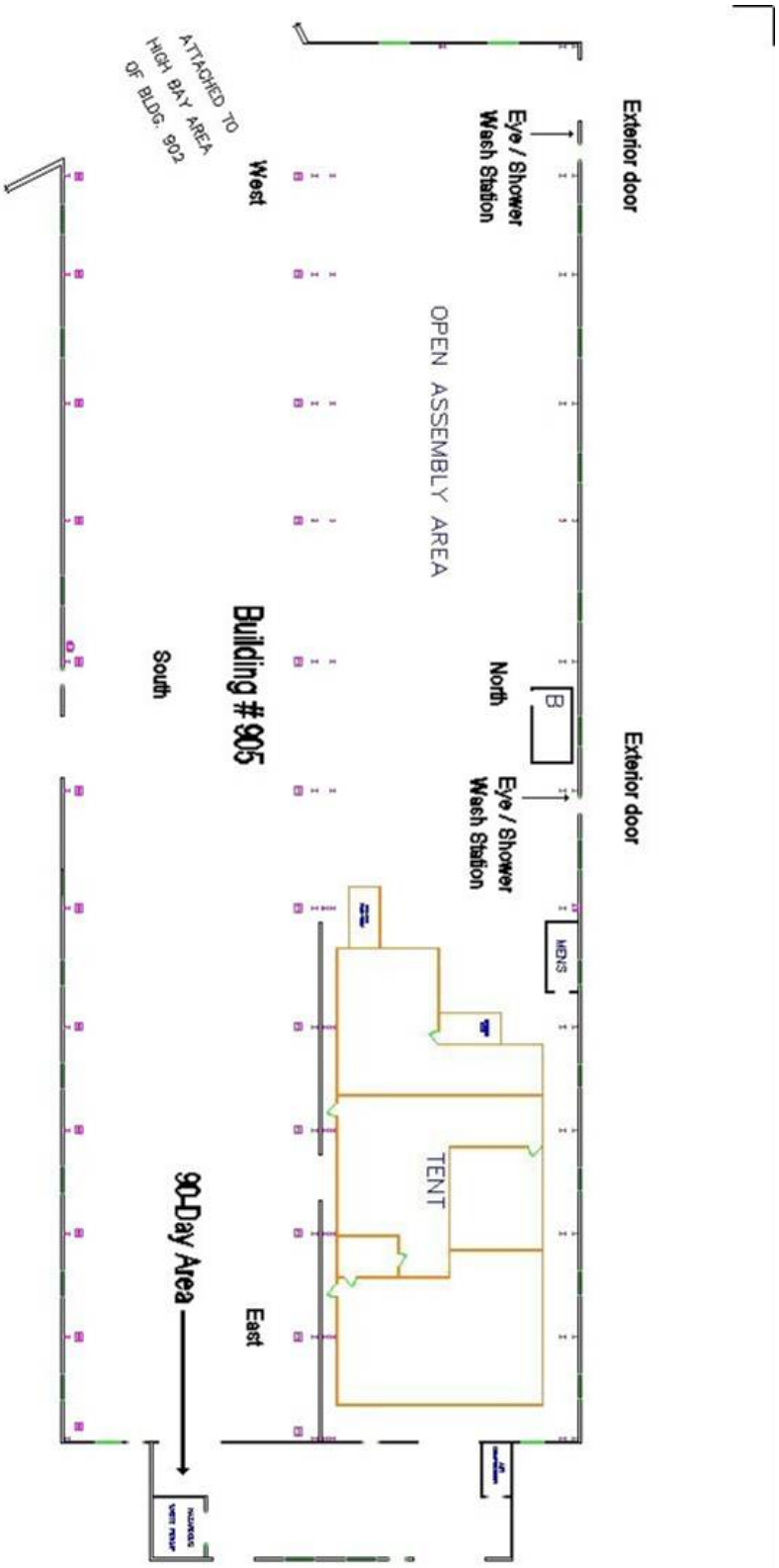


Figure 2 East end of building # 905
90-Day area locations for:
Spills Emergency Equipment Cabinet
Fire Extinguishers (ABC and CO2)
Fire Alarm Pull Boxes
Rollup Doors
Exterior Doors
Telephone

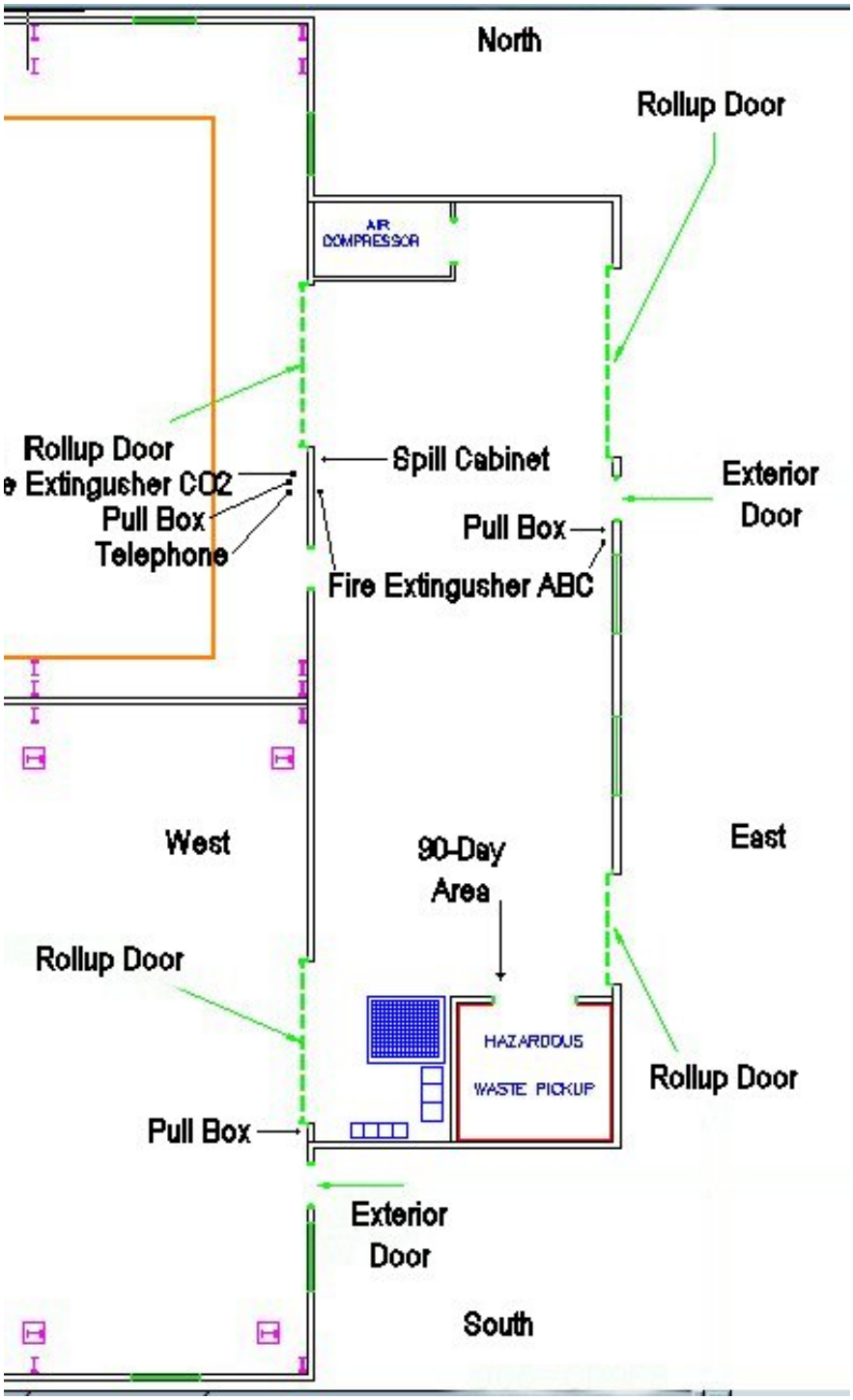
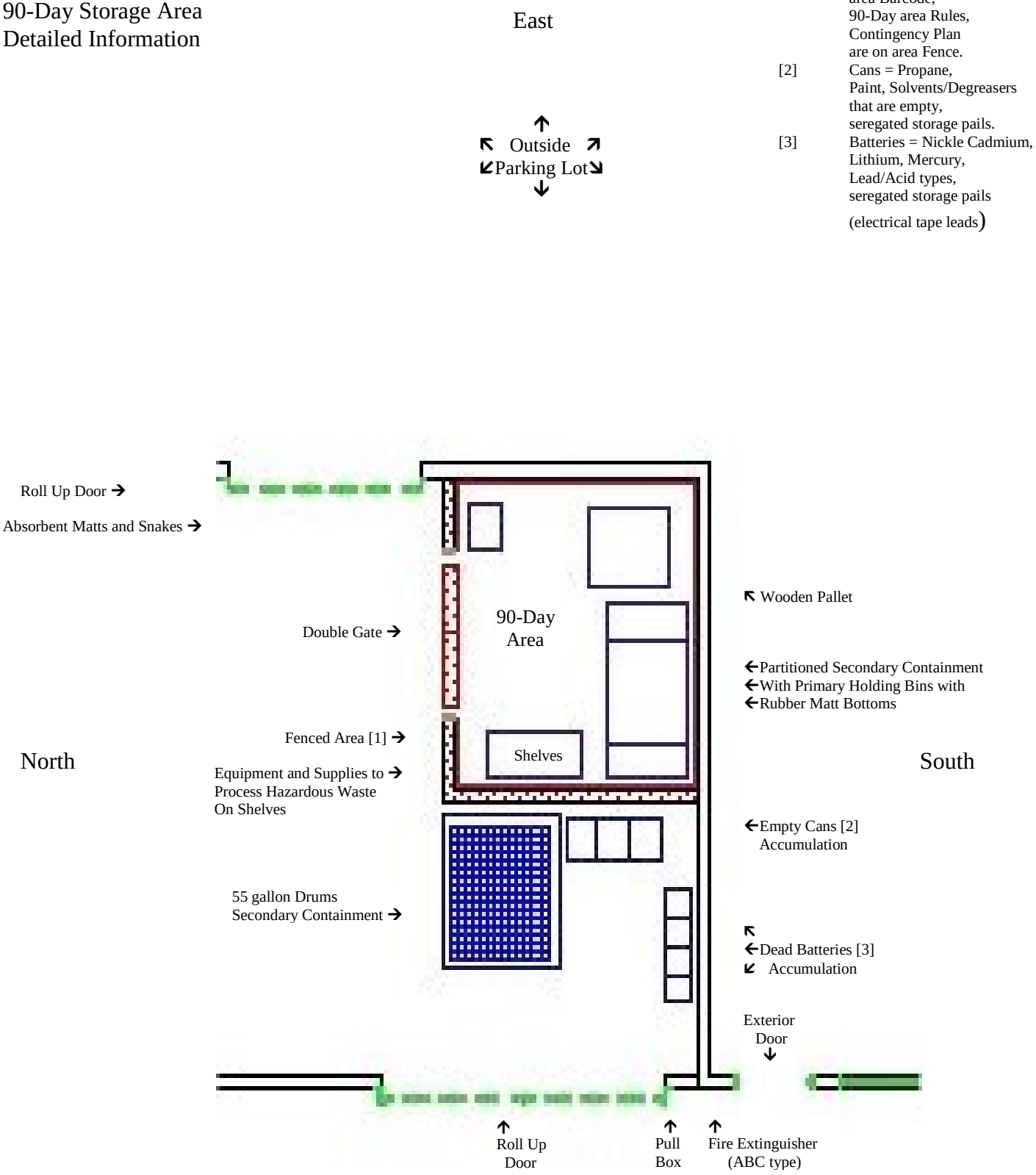


Figure 3
90-Day Storage Area
Detailed Information



^-- 90-Day Area Documents on Fence --^
(Contact info, BARCODE, Rules, Contingency plan, etc.)

90-Day Harzardous Waste Pickup Area

^ Secondary Confinement and separation ^

<----Wooden Pallet


^ Equipment and supplies to process hazardous waste ^


Empty Cans (sorted by type)
Batteries (Sorted by chemical hazard) ----^
^--- Secondary Containment for 55 gallon drums


EXIT
FIRE EXTINGUISHER
^ Emergency light ^
Pull Box ----->
Exterior Door
^ Fire Extinguisher ABC type ^


<-- Spill Cabinet
with emergency equipment
<---- Fire Extinguisher ABC Type
^-- Telephone, Pull Box, and Fire Extinguisher (CO2 type)--^
on other side of wall.


Pull Box ---->
Telephone ---->
NO SMOKING
Fire Extinguisher (CO2 type)---->
^-- Spill Cabinet with emergency equipment and Fire Extinguisher (ABC type)--^
on other side of wall.

NOTE:

1- Updated for verbage, floor plan, and pictures by J. Cintorino ext 2544 (04/26/2010).

2-Updated for new department ES&H rep (W.Czekaj) and first page footer placement by J.Cintorino ext 2544 (06/19/2012).