

**APPENDIX G**  
**PREPAREDNESS AND PREVENTION PLAN**

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### **PREPAREDNESS AND PREVENTION PLAN**

This plan meets the requirements of the Vermont Hazardous Waste Management Regulations (VHWMR); 40 CFR §§ 270.14(b) (6), (8), and (9); and 40 CFR §§ 264.17, 264.32, 264.33, 264.35, 264.174, 264.176, 264.177, 264.193, 264.195, 264.198 and 264.199.

#### **G – 1.0      PREPAREDNESS AND PREVENTION REQUIREMENTS**

The Safety-Kleen Barre Service Center (BSC) is designed, constructed, maintained, and operated to minimize the possibility of fire, explosion or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents into the air, soil, or surface water which could threaten human health or the environment.

#### **G – 1.1      Equipment Requirements**

##### Internal Communications

Several internal systems are used at the BSC to signal an emergency event. Emergency buttons are in the vicinity of the tank filling ports, the areas designated for storing flammable/ignitable wastes, the return and fill station, and in the metal shelter storage area. These buttons activate an audible alarm to alert branch personnel that an emergency is occurring. **Figure G-1** details the locations of the emergency buttons.

Landline telephones are located at the return and fill station and near the warehouse container storage areas. These telephones are used for internal or external communications and, if necessary, to signal an emergency condition through the systems intercom function. The BSC is also equipped with a public address (PA) system that personnel may use to signal an emergency event. This PA system is audible throughout the BSC.

### External Communications

Landline and cellular telephones are used for external communications. Emergency contact information for outside agencies and responders is identified in **Table H-2** and posted by each landline telephone.

### Emergency Equipment

Portable fire extinguishers (ABC, 10 lbs.) are located throughout the BSC as shown on **Figure G-1**. Also detailed on **Figure G-1** are the locations of the emergency equipment stations, spill response equipment, first aid equipment and eyewash stations. In addition, the BSC is equipped with dry chemical fire suppression systems in the flammable storage area (HWMU # 4) and the metal shelter storage area (HWMU # 5).

### Water for Fire Control

There are two fire hydrants located within 500 feet of the BSC, which are served by 4-inch and 8-inch water main lines (see **Figure B-4**). The BSC's water supply has a static pressure of 38 psi and a flow rate of 810 gallons/min.

## **G – 1.2 Aisle Space Requirement**

A minimum 2-foot aisle space is maintained between rows of pallets and between rows of individual containers. This spacing allows unobstructed movement of personnel, spill control equipment, and firefighting equipment throughout BSC container storage areas.

## **G – 2.0 PREVENTATIVE PROCEDURES, STRUCTURES AND EQUIPMENT**

### **G – 2.1 Loading/Unloading Operations**

Hazardous waste loading and unloading operations at the BSC take place at designated container storage areas, the return and fill station, and the waste solvent tank (HWMU#1, Tank #3)/transfer pad. The general locations of these loading/unloading areas are shown on **Figure B-1**. Where practical, material handling equipment (e.g., hand trucks, fork trucks, etc.) is utilized.

### Loading/Unloading Tanks

The following procedure is followed to reduce potential hazards during loading and unloading operations of waste solvent and used oil to and from the bulk storage tanks (Tanks #1, #2, and #3):

1. Secure the truck/tanker for unloading or loading within the secondary containment system of the transfer pad (i.e., set brakes, engage governor, and hook up grounding equipment, as appropriate).
2. Verify available tank and tank truck capacity to prevent overfills using the tank's gauge and a stick for the tank trucks. Top hatches are opened on tank trucks to prevent a vacuum when off-loading from the tank truck and to vapor lock conditions.
3. Hose connections between the storage tank and tank truck are made to the empty vessel first. Connections are checked to ensure they are tight and locked.
4. Verify that no leaks exist.
5. Drain hoses into the receiving vessel before disconnecting to prevent spillage.
6. In the event of a spill, follow the emergency procedures outlined in the Contingency Plan (**Appendix H**).
7. Document quantity of material transferred. Ensure manifests or bills of lading are complete and accurate.

### Loading/Unloading Containers

Loading and unloading of containers to and from transport vehicles occurs in the areas shown on **Figure B-1** (Site Plan). Individual containers are loaded/unloaded manually or using a handcart, and palletized containers are loaded/unloaded using a forklift or pallet jack. Prior to moving each container, the condition of the container is visually inspected, the lids

are checked to ensure they are securely fastened, and the information on the container label is verified.

### **G – 2.2      Run-off and Run-on**

The hazardous waste management units at the BSC are enclosed and equipped with secondary containment to prevent run-off. Run-on does not occur because the units are within enclosed structures. Additional information about these units is included in **Appendices K and L**.

### **G – 2.3      Water Supplies**

There are no surface water supply users in the region surrounding the BSC.

### **G – 2.4      Equipment and Power Failures**

Power failures do not impact container management or waste solvent/used oil loading/unloading operations. If a power failure occurs while transferring containerized waste solvent into the wet dumpster at the return and fill station, the transfer operation would cease. Any waste material in the covered and secondarily contained dumpster would remain in the dumpster until power is restored. Loading/unloading operations of containerized wastes would not be affected since they are performed without electrically powered equipment.

### **G – 2.5      Personal Protective Equipment**

The procedures for use of personal protective equipment are as follows:

Eye Protection: Approved safety glasses or goggles are required to be worn in all waste management areas. Safety glasses/goggles are not required in the office area, locker room or other areas where hazardous wastes are not managed.

Footwear: Proper footwear is required for employees who routinely handle hazardous wastes. Employees are required to wear steel-toed safety shoes or boots when handling hazardous waste in the warehouse, dock area, tank farm, and metal storage shelter.

Hand Protection: Appropriate chemical resistant gloves must be worn by personnel who may handle hazardous waste.

Respiratory Protective Equipment: Respirators are not typically required for employees conducting routine operations at the BSC. If required, this equipment is selected based on hazards posed. Respirators are issued to employees who handle hazardous waste; these employees are trained in the proper use of their equipment.

Other Protective Clothing/Equipment: Uniforms, coveralls, and/other protective clothing are provided to Safety-Kleen personnel who may come in contact with hazardous waste.

### **G – 3.0 PREVENTION OF REACTION OF IGNITABLE, REACTIVE, & INCOMPATIBLE WASTES**

Containerized wastes are managed by facility personnel in accordance with applicable U.S. DOT regulations and the VHWMR. This management practice ensures that incompatible wastes are stored and managed properly.

#### **G – 3.1 Precautions to Prevent Ignition or Reaction of Ignitable and Reactive Waste**

Containers and tanks are used to store ignitable hazardous wastes, and these containers and tanks are compatible with the wastes stored in them. To prevent ignition of ignitable wastes, sources of ignition (e.g., smoking, open flames, etc.) are prohibited in the container and tank storage areas, which are clearly marked with "No Smoking" signs. Reactive wastes are prohibited at the BSC.

#### **G – 3.2 Precautions for Handling Ignitable and Reactive Waste, and Mixing Incompatible Waste**

Reactive wastes are prohibited at the BSC. Specific fire prevention measures for handling ignitable wastes are described below. Incompatible wastes are not mixed at the BSC.

##### Fire prevention and minimization measures:

- a. Waste and product materials are not managed or handled in the vicinity of ignition

sources. BSC personnel may only smoke in designated outdoor areas (e.g., outside the office door). The aboveground storage tanks are separated from the warehouse building to minimize the potential for fire spreading.

- b. Labpack containers are not packed or opened at the BSC.
- c. Ignitable wastes are managed so to not:
  - 1. *Become subject to extreme heat or pressure, fire or explosion, or a violent reaction.* Ignitable waste is stored in a tank or containers apart from sources of extreme heat and fire. Reactive wastes are prohibited from the facility, eliminating those wastes as a potential source of explosions and violent reactions. The tanks are vented and kept at ambient temperature to minimize the potential for pressure build up. Forklifts used to transport ignitable waste are rated LPS (liquefied petroleum gas units with additional safeguards to the exhaust, fuel, and electrical systems) or equivalent.
  - 2. *Produce uncontrolled toxic mists, fumes, dusts, or gases in quantities sufficient to threaten human health.* The vapor pressure of Safety-Kleen hydrocarbon-based solvent is low (i.e., 2 mm Hg), and that solvent reacts only with strong oxidizers, which are managed separately in containers on a 10-day transfer basis. Toxic mists, fumes, and gases will not form in quantities sufficient to threaten human health since the solvent's low vapor pressure assures that vaporization will be minimal under normal working conditions. Since all wastes are managed in either containers or tanks at the BSC, dust will not be generated.
  - 3. *Produce uncontrolled fires or gases in quantities sufficient to pose a risk of fire or explosion.* See sections **a.** above and **d.** below.
  - 4. *Damage the structural integrity of the facility.* The parts washer solvents will not cause deterioration of the tank, drums, or other structural components of the facility, as those devices are compatible with the wastes stored in and near them.

- d. “No Smoking” signs are posted in areas where flammable/ignitable materials are handled or stored.
- e. Fire extinguishers and the dry chemical fire suppression systems in the flammable storage area (HWMU # 4) and the metal shelter storage area (HWMU # 5) are inspected once per month, by facility personnel, and are tested by a certified third-party inspection company once per year.

### **G – 3.3 Management of Ignitable Wastes in Containers**

Container storage areas are managed to prevent fire and explosion by storing containers properly (e.g., adequate aisle space, accurate labeling, ensuring containers are in good condition and kept closed, etc.) and posting appropriate warning signs (e.g., “No Smoking”, “Hazardous Waste”).

Ignitable containerized wastes are stored in the flammable storage area (HWMU #4) and the Class 1B metal storage shelter (HWMU # 5), both of which meet the National Fire Protection Association (NFPA) 50-foot setback requirement. Both HWMU #4 and #5 are equipped with a fire suppression system and Class 1, Division 2 explosion-proof lighting.

The warehouse building, where HWMU #4 is located, is constructed with 8" concrete block walls, which are 2-hour fire-rated. There is a 20" explosion-proof exhaust fan with an intake screen, exterior louvers, and bird screen.

### **G – 3.4 Management of Incompatible Wastes in Containers**

The BSC manages containerized waste in accordance with applicable USDOT and VHWMR compatibility/segregation requirements. **Appendix K** includes additional information on the segregation of incompatible wastes.

### **G – 3.5 Management of Ignitable Wastes in Tank Systems**

Tank #3 (HWMU #1) is constructed in accordance with Underwriters Laboratories Standard 142 and located 50 feet from the property line, meeting National Fire Protection and the VHWMR

setback requirements. Ignitable wastes are handled in accordance with **Section G – 3.2.c.1. through 4.**, above.

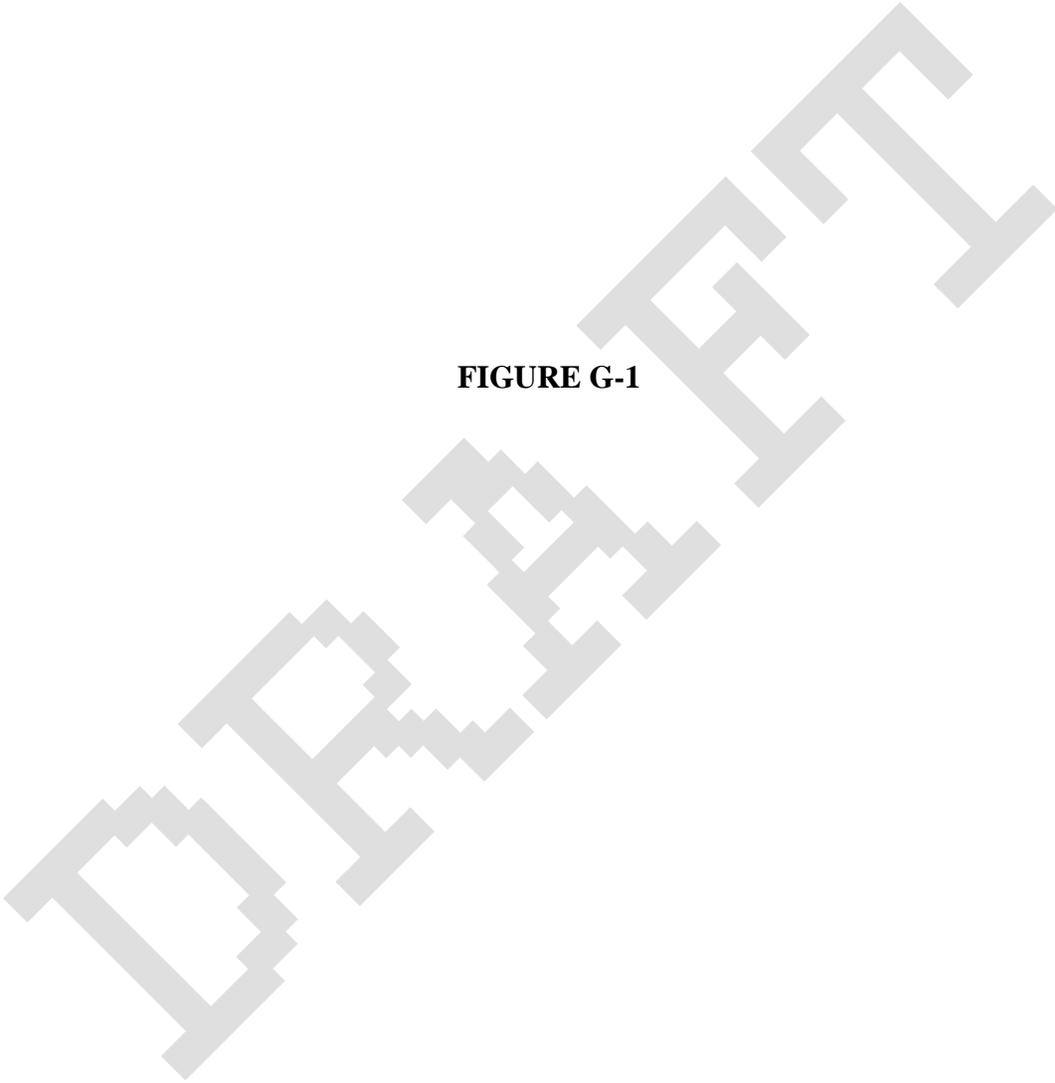
### **G – 3.6 Management of Incompatible Wastes in Tank Systems**

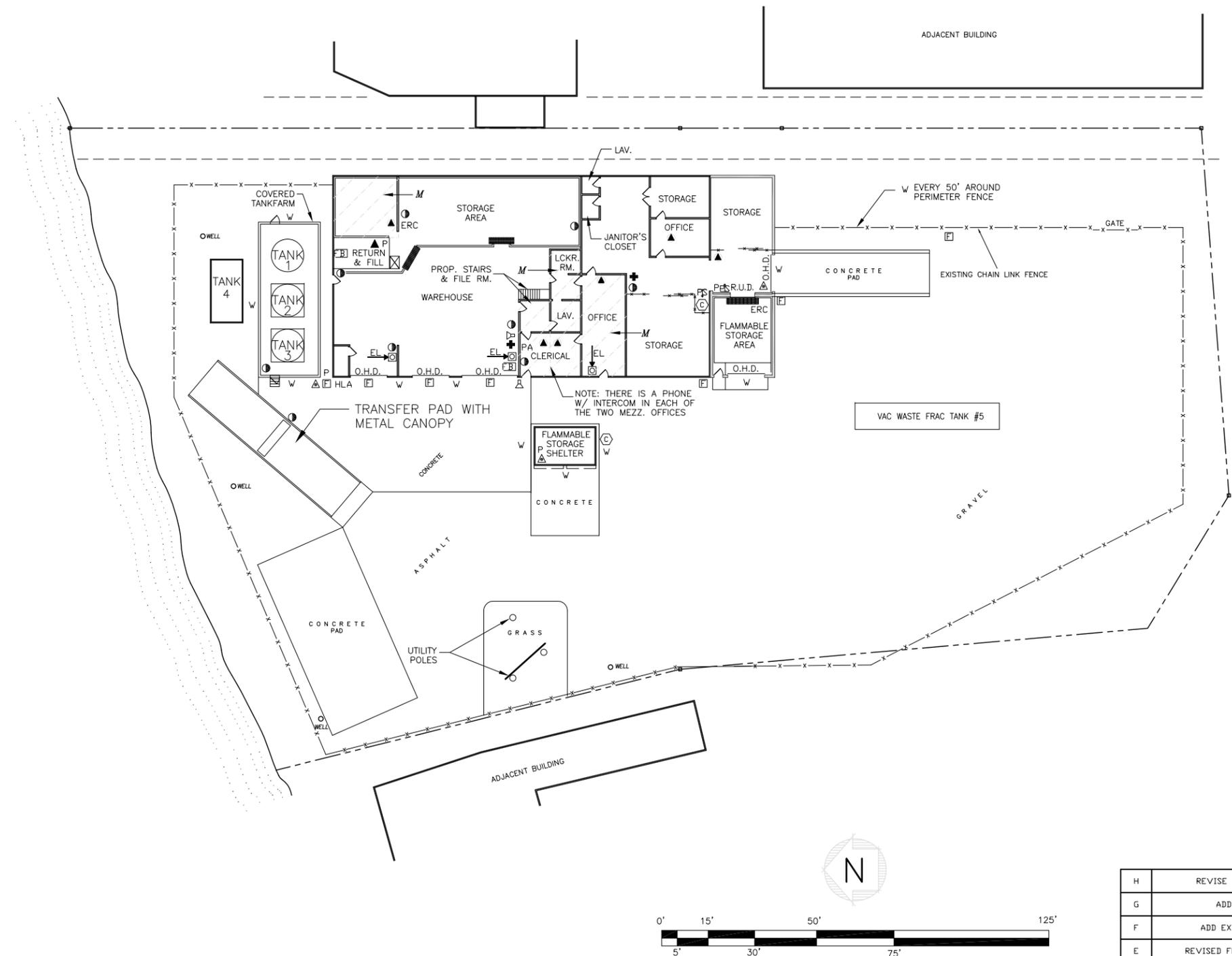
The BSC does not manage incompatible wastes in tank systems.

### **G – 3.7 Freeze Protection**

Containerized freezable wastes are stored in either HWMU #3 or #4, which are located inside the heated warehouse building. Bulk non-hazardous vacuum service waste is stored outside in a heated fractionalization tank. Tank #3 (HWMU #1) is equipped with self-regulating heat tape and insulation to prevent freezing of incidental water that may be introduced to the tank in waste or through condensation.

**FIGURE G-1**





**LEGEND**

- DRY CHEMICAL FIRE EXTINGUISHER  
HAND HELD TYPE (ABC)
- ✚ FIRST-AID KIT
- ▲ SAFETY SHOWER WITH EYE WASH FOUNTAIN
- △ EYEWASH ONLY OR HANDSPRAY
- ▲ TELEPHONE W/INTERCOM
- ☒ FIRE BLANKET
- ⚡ ALERT (HORN)
- ☒ PULL STATION
- PA PERSONNEL ALARM ANNUCIATOR PANEL
- W WARNING SIGN(S)
- EL → ☒ MAIN ELECTRIC SWITCH
- HLA HIGH LEVEL ALARM
- P PERSONNEL EMERGENCY BUTTUN
- ☒ 150W FLOOD LIGHT
- ERC EMERGENCY RESPONSE CENTER - CONTAINS:  
SHOVEL, BROOM, SPILL TOWELS, GLOVES,  
GLASSES, APRONS, DRUM FOR SPILL
- ⊙ SPRINKLER SYSTEM STORAGE CYLINDER
- M MEZZANINE
- O.H.D. OVER HEAD DOOR
- R.U.D. ROLL UP DOOR

**GENERAL NOTES**

**TANK LEGEND**

TANK NO.	TANK VOLUME	TANK CONTENTS	REMARKS
1	15,000 USG	USED OIL	VERTICAL TANK
2	15,000 USG	USED OIL	VERTICAL TANK
3	15,000 USG	USED MINERAL SPIRITS	VERTICAL TANK
4	12,000 USG	CLEAN MINERAL SPIRITS	HORIZONTAL TANK
5	18,000 USG	VAC WASTE	HORIZONTAL FRAC TANK

**FIGURE G-1**

H	REVISE TANKS & FIGURE NO.	JEK	DS	DS	091621
G	ADD EXTINGUISHERS	JEK	DS	DS	080819
F	ADD EXTINGUISHER AT T/P	JEK	DS	DS	051619
E	REVISED FOR PART B PERMITTING	JEK	MH	MH	090204
D	ADDED TANK 4, REMOVED NON-HAZ. STORAGE SHED; UPDATED EQUIP. LOCATIONS	MBH	KJM	DP/DD	010897
C	ADDED TRANSFER PAD W/ METAL CANOPY, ADDED CONCRETE PAD, RELOCATED FENCE	MCO	KJM	DP	053096
B	MISC. REV.	MBH	KJM	-	101692
A	RELEASED FOR PART "B" PERMIT	MBH	KJM	-	100792
NO.	DESCRIPTION	BY	CHK	APPR	DATE
REVISIONS					

TITLE  
**SITE PLAN SHOWING EMERG. EQUIP LOCATIONS - EXISTING**

**SAFETY-KLEEN SYSTEMS, INC.**  
 2600 N. CENT. EXPRESSWAY STE 400 RICHARDSON, TX. 75080  
 PHONE 800-669-5740

SCALE 1"=20'-0"	BY MBH	CHKD KJM	APPROVED DP	EHS -	DATE 10-07-92
SERVICE CENTER LOCATION BARRE, VT			SC-DWG NUMBER 7015-SP00-003	REV. NO. H	