



May 17, 2012

Mr. Merlin Russell Jr.  
Professional Geologist II  
Hazardous Waste Permitting  
Florida Department of Environmental Protection  
P.O. Box 3070  
Tallahassee, FL 32399

**RE: Safety-Kleen Systems, Inc. Boynton Beach Facility – 5610 Alpha Drive,  
Boynton Beach, FL 33426; EPA ID# FLD 984 167 791; Hazardous Waste  
Operating Permit Renewal Application.**

Dear Mr. Russell:

Safety-Kleen Systems, Inc. is submitting the above-referenced Operating Permit Renewal Application fee. The application document will be delivered to your attention via Fedex by Wednesday, May 23, 2012. I will also sending a copy to the FDEP Southwest District.

If you have any questions or comments, please contact me at 561-600-3076, or 561-523-4719.

Best regards,

Jeff Curtis  
EHS Manager  
Safety-Kleen Systems, Inc.  
5610 Alpha Drive  
Boynton Beach, FL 33426

SAFETY-KLEEN CORP.


5610 ALPHA DRIVE

BOYNTON BEACH, FL 33426



CHECK NO: 10985320

Invoice Number	Invoice Date	Document Number Text	Gross Amount	Discount	Net Amount
202956011712	01/17/2012	1901064737 - FEDEX JC	10,000.00	0.00	10,000.00
		Check Total .....			\$ 10,000.00
VENDOR:	202956	FLORIDA DEPARTMENT ENVIRONMENTAL			

 **Safety-Kleen Systems, Inc.** JP Morgan Chase Bank N.A. 70-2322 719 10985320  
 5360 Legacy Drive  
 Building 2, Suite 100 Chicago, Illinois  
 Plano, TX 75024  
 000941591  
 DATE: 05/04/2012  
 \$\*\*\*\*\*10,000.00  
 VOID AFTER 90 DAYS  
 PAY \*\*\* TEN THOUSAND DOLLARS  
 TO THE ORDER OF FLORIDA DEPARTMENT ENVIRONMENTAL  
 2600 BLAIR STONE ROAD  
 PROTECTION  
 TALLAHASSEE FL 32399-2400  
 Paul Lee  
 Authorized Signature  
 JMS  
 Authorized Signature

⑈ 10985320 ⑈ ⑆071923226⑆ ⑈ 000941591⑈



**HAZARDOUS WASTE FACILITY**  
**OPERATING PERMIT RENEWAL APPLICATION**

**SAFETY-KLEEN SYSTEMS, INC.**  
**5610 ALPHA DRIVE**  
**BOYNTON BEACH, FL 33426**

**FLD 984167791**

**MAY 2012**

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**APPLICATION FOR A HAZARDOUS WASTE PERMIT  
PART I – GENERAL  
TO BE COMPLETED BY ALL APPLICANTS**

Please Type or Print

**A. General Information**

1. Type of Facility in accordance with Part 270.13(a)

☐ DISPOSAL

☐ Landfill    ☐ Land Treatment    ☐ Surface Impoundment  
☐ Miscellaneous Units    Type of Unit \_\_\_\_\_

☒ STORAGE

☒ Containers    ☒ Tanks    ☐ Piles  
☐ Surface Impoundment    ☐ Containment Building  
☐ Miscellaneous Unit    Type of Unit \_\_\_\_\_

☐ TREATMENT

☐ Tanks    ☐ Piles    ☐ Surface Impoundment  
☐ Incineration    ☐ Containment Building  
☐ Boiler / Industrial Furnace    Type of Unit \_\_\_\_\_  
☐ Miscellaneous Unit    Type of Unit \_\_\_\_\_

2. Type of application:

- ☐ Temporary Operation Permit (TOP)
- ☐ Construction Permit
- ☒ Operation Permit
- ☐ Construction & Operation Permit
- ☐ Research, Development & Demonstration (RD&D) Permit
- ☐ Postclosure Permit
- ☐ Clean Closure Plan
- ☐ Subpart H Remedial Action Plan
- ☐ Equivalency Demonstration

3. Revision Number: 0 - 05/23/12

4. Date current operation began, or is expected to begin: 08 / 26 / 1991

5. Facility Name Safety-Kleen Systems, Inc.

6. EPA/DEP I.D. No. FLD 984 167 791



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7. Facility location or street address 5610 Alpha Drive, Boynton Beach, FL 33426
8. Facility mailing address 5610 Alpha Drive  
Boynton Beach FL 33426  
city state zip
9. Contact person Jeff Curtis Telephone (561) 523-4719  
Title EHS Manager  
Mailing address 5610 Alpha Drive  
Boynton Beach FL 33426  
city state zip  
E-mail address jeff.curtis@safety-kleen.com
10. Operator's name Safety-Kleen Systems, Inc. Telephone (972) 265-2000  
Mailing address 5360 Legacy Drive, Building 2, Suite 100  
Plano TX 75024  
city state zip
11. Facility owner's name Safety-Kleen Systems, Inc. Telephone (972) 265-200  
Mailing address 5360 Legacy Drive, Building 2, Suite 100  
Plano TX 75024  
city state zip
12. Legal structure  
☒ Corporation ☐ Non-profit corporation ☐ Partnership ☐ Individual  
☐ Local government ☐ State government ☐ Federal government ☐ Other
13. If an individual, partnership, or business is operating under an assumed name, specify the county and state where the name is registered.  
County N/A State \_\_\_\_\_
14. If the legal structure is a corporation, indicate the state of incorporation.  
State of incorporation Wisconsin
15. If the legal structure is an individual or partnership, list the owners.  
Name N/A  
Address \_\_\_\_\_  
Street or P.O. Box city state zip  
Name \_\_\_\_\_  
Address \_\_\_\_\_  
Street or P.O. Box city state zip

16. Site ownership status

- ☒ Owned ☐ To be purchased ☐ To be leased \_\_\_\_\_ years  
☐ Presently leased; the expiration date of the lease is \_\_\_\_/\_\_\_\_/\_\_\_\_.

If leased, indicate land owner's name \_\_\_\_\_

Address \_\_\_\_\_  
Street or P.O. Box city state zip

17. Name of engineer Robert W. Fox Registration No. 40980

Address 5909 Hampton Oaks Pkwy Suite D Tampa FL 33610  
Street or P.O. Box city state zip

Associated with Environmental Resources Management

18. Is the facility located on Indian land? ☐ Yes ☒ No

19. Existing or pending environmental permits (attach a separate sheet if necessary)

NAME OF PERMIT	AGENCY	PERMIT NUMBER	DATE ISSUED	EXPIRATION DATE
HW Permit	FDEP	49625-HO-005	01/15/2008	11/19/2012
UO/Filter Trans	FDEP	FLD984167791	03/01/2011	06/30/2012
NPDES (NEX)	FDEP	FLRNEE071-002	06/20/2007	06/19/2012
UW Lamps/Devices	FDEP	FLD984167791	02/08/2012	03/01/2013

**B. Site Information**

1. The facility is located in Palm Beach County.  
The nearest community to the facility is Boynton Beach.  
Latitude 26° 32' 22" N Longitude 80° 04' 55" W  
Method and datum GPS

2. The area of the facility site is 5.0 acres.
3. Attach a scale drawing and photographs of the facility showing the location of all past, present, and future treatment, storage and disposal areas. Also show the hazardous wastes traffic pattern including estimated volume and control.

**Part I**

**B. Site Information**

**3. FACILITY LAYOUT AND TRAFFIC PATTERNS**

The facility layout is shown in Figure 2.1-1. Site traffic patterns are illustrated in Figure 2.1-2. Site photographs are provided in Appendix A. The non-building areas of the facility are paved with asphalt or concrete as noted on the site plan (Figure 2.1-1). The stormwater retention area and the other minor areas are vegetated with grass. The majority of the vehicular traffic and loading/unloading operations occur at Areas A, B, C & D as noted in Figure 2.1-2. These areas are paved with asphalt and concrete.

Approximately once per week a tractor trailer delivers containerized product and removes containerized waste for transfer to a Safety-Kleen TSDF. This truck backs up to the eastern side of the concrete dock, located on the southern side of the facility in area B, to load and unload containers. Area A/C is used for the loading/unloading of transfer wastes and containerized permitted wastes from local area trucks. Transfer of used antifreeze occurs in Area B.

High Ridge Road, which leads to Alpha Drive, is the major access road to the facility. The access road is designed in accordance with engineering criteria appropriate for sustaining the traffic volume and loading for the industrial activities in this area. The vans and trucks that travel the routes between the Branch and its customers use the two-lane road within the industrial park. Trucks dispatched from a Safety-Kleen TSDF to deliver fresh parts washer solvent and pick up used parts washer solvent perform these activities at the aboveground tank (Area D) approximately once per week. Traffic from this facility is not expected to have a major effect on local traffic conditions.

***Part I***

***B. Site Information***

***4. SITE TOPPOGRAPHY AND SURROUNDING LAND USE***

Figure 2.2-1 is a USGS topographic map showing the facility. Due to the small size of the site, all of the information requested in FDEP's application form cannot be placed on one map. Therefore, additional maps are provided here to present the additional information requested in the application form. Specific information requested in the permit application is provided below.

***100-Year Floodplain Area***

Based on information available (Figure 2.2-2), the facility lies within in an area classified as Zone C. Such areas have been classified as "areas of minimal flooding" and do not require any special planning requirements for response to floods. Currently, the Federal Emergency Management Agency information is the acceptable and best available flood information for flood insurance purposes.

***Surface Water Bodies Within One-Quarter Mile of the Facility Property Boundary  
(e.g., Intermittent Streams and Springs)***

A canal is located adjacent to the southern property boundary. Canals exist to the north and west of the property (Figure 2.2-1).

***Surrounding Land Uses***

Surrounding land uses are shown in Figure 2.2-3.

***Legal Boundaries of the Facility***

Figure 2.2-4 shows the property boundaries.

***Drinking Water Wells Listed In Public Records or Otherwise Known to the Applicant Within One-Quarter Mile of the Facility Property Boundary***

Results of a well survey (wells within one-quarter mile of the site) are presented in Table 2.2-1.

***Intake and Discharge Structures Within One Mile***

There are no known intake or discharge structures within one mile.

***Run-Off Control System***

Stormwater run-off controls for the facility are illustrated in Figure 2.2-5. Stormwater originating from the Branch building is channeled through roof gutters and onto the pavement.

Surface run-off from the southern portion of the property is directed southward under the concrete block wall by gravity and onto the utility easements. Excess surface run-off water not percolating into the subsurface is collected in the southern storm inlet and routed to the northeast storm inlet by gravity through an 18-inch corrugated metal pipe (CMP). The northeast storm inlet (#2) is constructed with a 12-inch opening on the bottom followed by three cubic ft. of 0.75-inch washed rock. Surface run-off from the northern portion of the property is directed toward the stormwater retention area by gravity. Excess stormwater collected in this area will overflow into the northwest storm drain.

Stormwater run-off from the western portion of the property flows west through 12-inch openings in the 6-inch high curb and subsequently percolates into the subsurface (grass area) or flows into the utility easement. Similarly, run-off predominantly flowing eastward percolates into the subsurface (grass area) or flows into the utility easement or stormwater retention area.

***Access Control (fences, gates, etc.)***

Figure 2.1-1 shows access control features.

***Injection and Withdrawal Wells Both On Site and Off Site***

There are no injection or withdrawal wells on site. Results of an inventory of wells within one-quarter mile of the site are presented in Table 2.2-1.

***Buildings and Other Structures***

Buildings and other structures are shown in Figure 2.1-1. The facility is equipped with a fire suppression sprinkler system (shown in Figure 2.2-6).

***Contours Sufficient to Show Surface Water Flow***

Contours for the facility are shown in Figure 2.2-1.

***Loading and Unloading Areas***

Figure 2.1-2 shows loading and unloading areas in relation to the waste management areas.



FIGURE 2.1-2  
TRUCK TRAFFIC PATTERNS AND LOADING/UNLOADING AREAS OF HAZARDOUS WASTE  
SAFETY-KLEEN SYSTEMS, INC. FACILITY  
BOYNTON BEACH, FLORIDA

REVISION 0 - 05/23/12

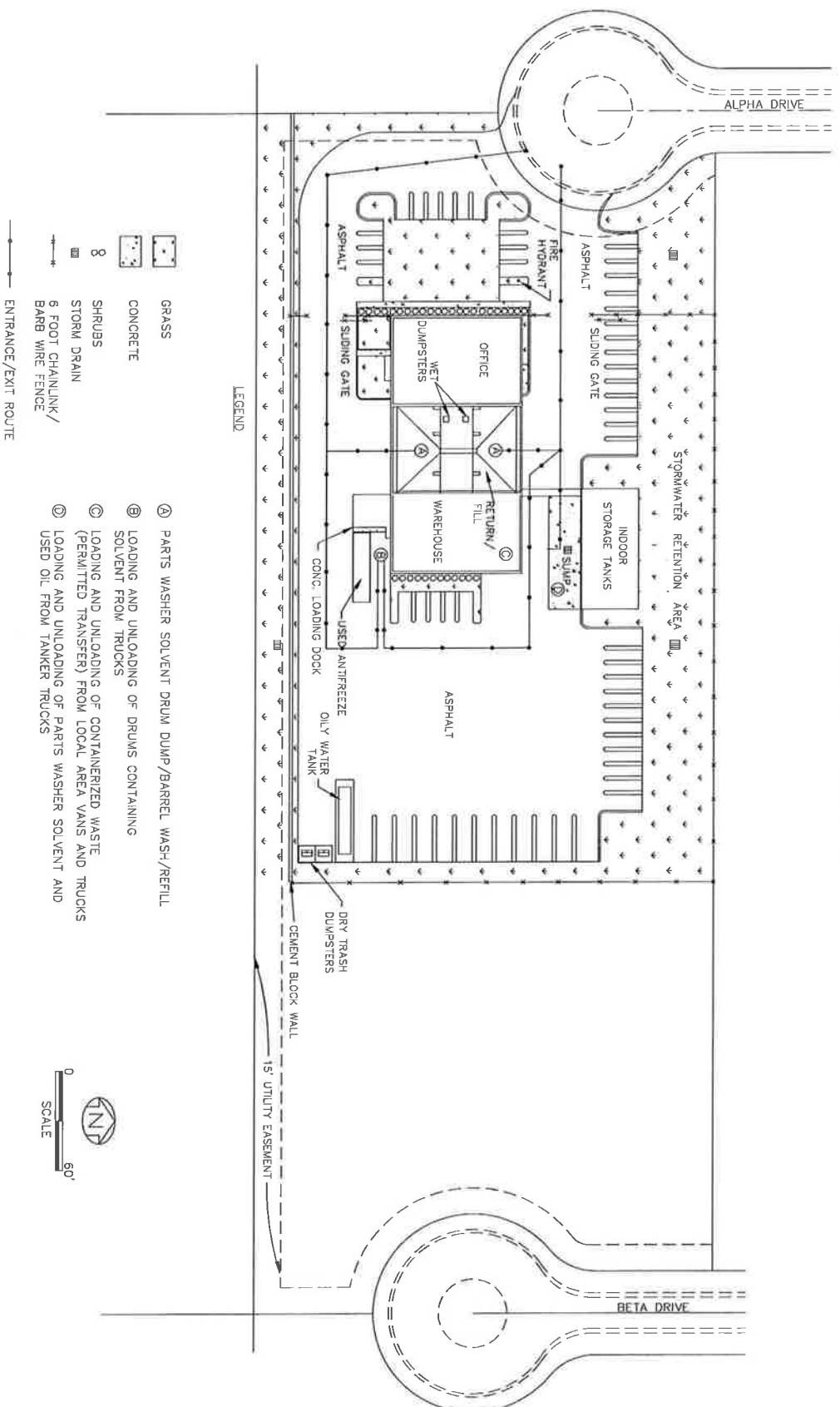
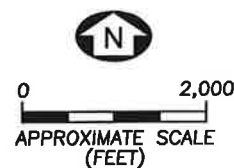
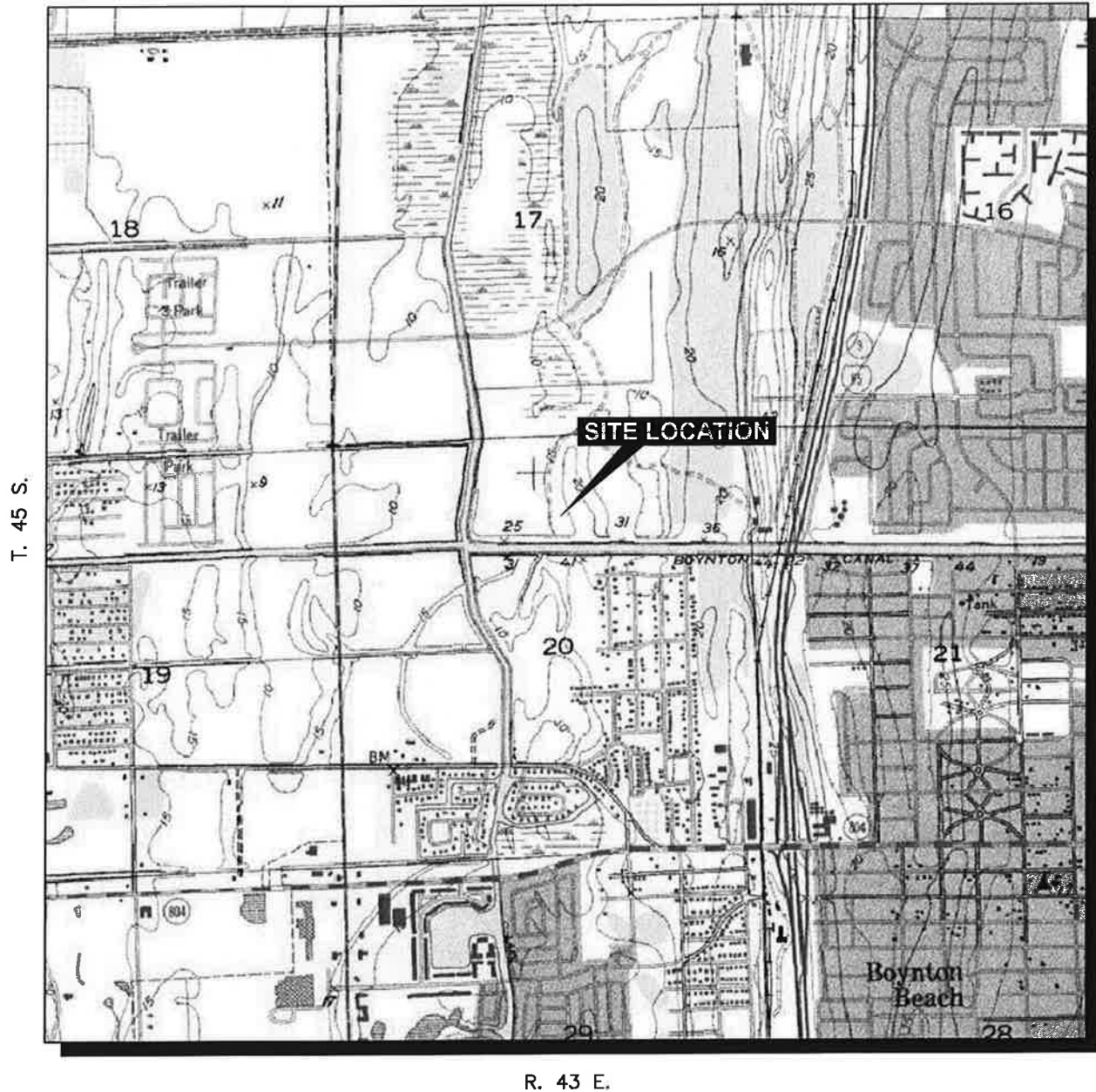




FIGURE 2.2-1  
SITE LOCATION  
SAFETY-KLEEN SYSTEMS, INC.  
BOYNTON BEACH, FLORIDA

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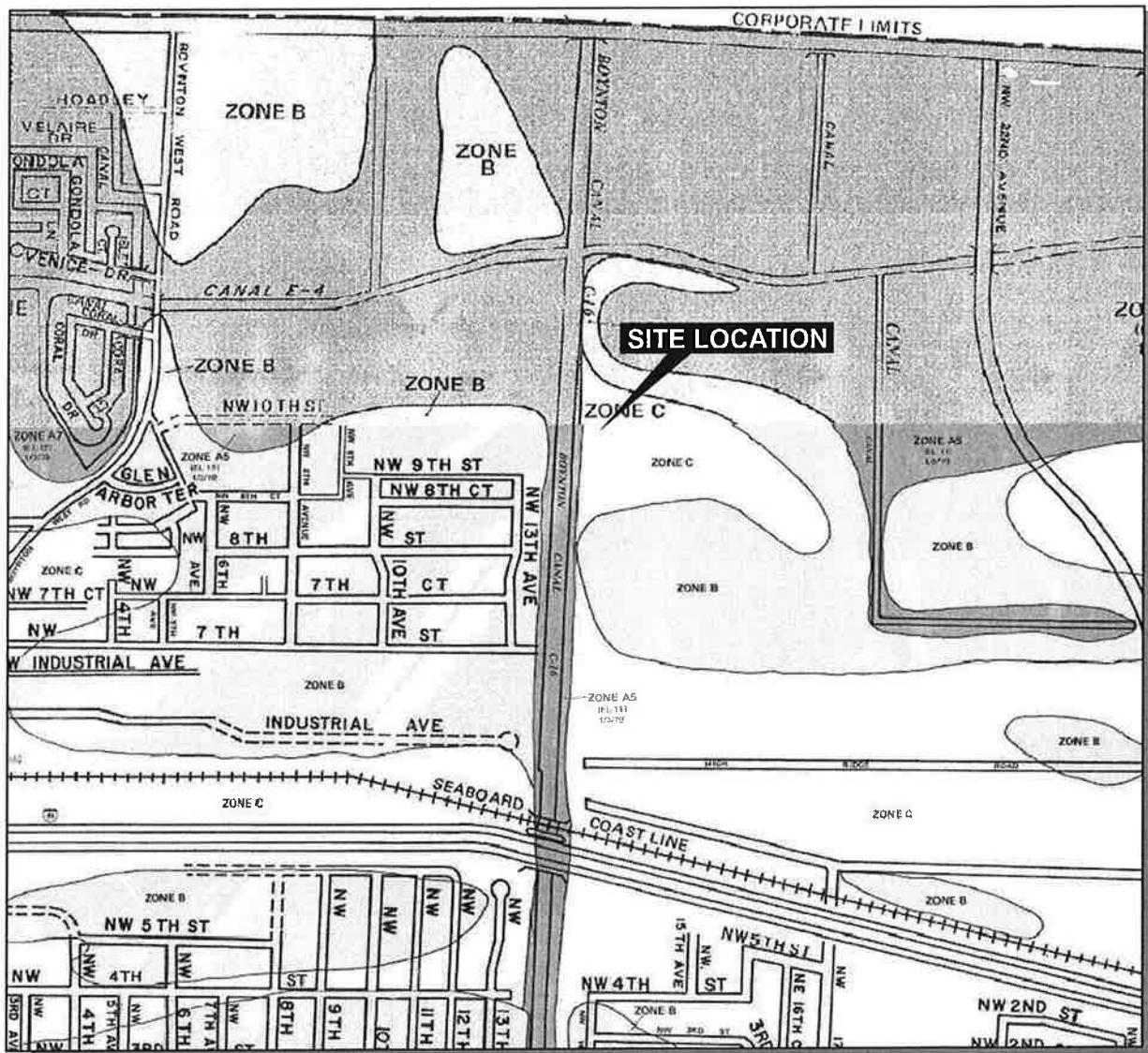
**ERM.**

Source: USGS Quadrangle Map of Lake Worth, FL., 1983.

58585SAFKLN\BOYLOC.DWG\YMT\REV\05/16/12

FIGURE 2.2-2  
FLOOD INSURANCE MAP  
SAFETY-KLEEN SYSTEMS, INC. FACILITY  
BOYNTON BEACH, FLORIDA

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KEY TO MAP

500-Year Flood Boundary	—
100-Year Flood Boundary	—
Zone Designations* With Date of Identification	12/2/74
100-Year Flood Boundary	—
500-Year Flood Boundary	—
Base Flood Elevation Line With Elevation in Feet**	573
Base Flood Elevation in Feet	573
Base Flood Elevation in Feet	573
Elevation Reference Mark	RM37X
Zone B Boundary	—
River Mile	0.115

\*\* Referenced to the National Hydrographic Vertical Datum of 1929

\*EXPLANATION OF ZONE DESIGNATIONS

ZONE	EXPLANATION
A	Areas of 100-year flood; base flood elevations and flood hazard factors not determined.
A0	Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; average depths of inundation are shown, but no flood hazard factors are determined.
AH	Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; base flood elevations are shown, but no flood hazard factors are determined.
A1-A30	Areas of 100-year flood; base flood elevations and flood hazard factors determined.
A99	Areas of 100-year flood to be protected by flood protection system under construction; base flood elevations and flood hazard factors not determined.
B	Areas between limits of the 100-year flood and 500-year flood; or certain areas subject to 100-year flooding with average depths less than one (1) foot or where the contributing drainage area is less than one square mile; or areas protected by levees from the base flood. (Medium Shading)
C	Areas of minimal flooding. (No shading)
D	Areas of underflooded, but possible, flood hazards.
V	Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors not determined.
V-A30	Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors determined.

INITIAL IDENTIFICATION  
MARCH 8, 1974

FLOOD HAZARD BOUNDARY MAP REVISIONS:  
MARCH 10, 1976

FLOOD INSURANCE RATE MAP EFFECTIVE:  
JANUARY 3, 1978

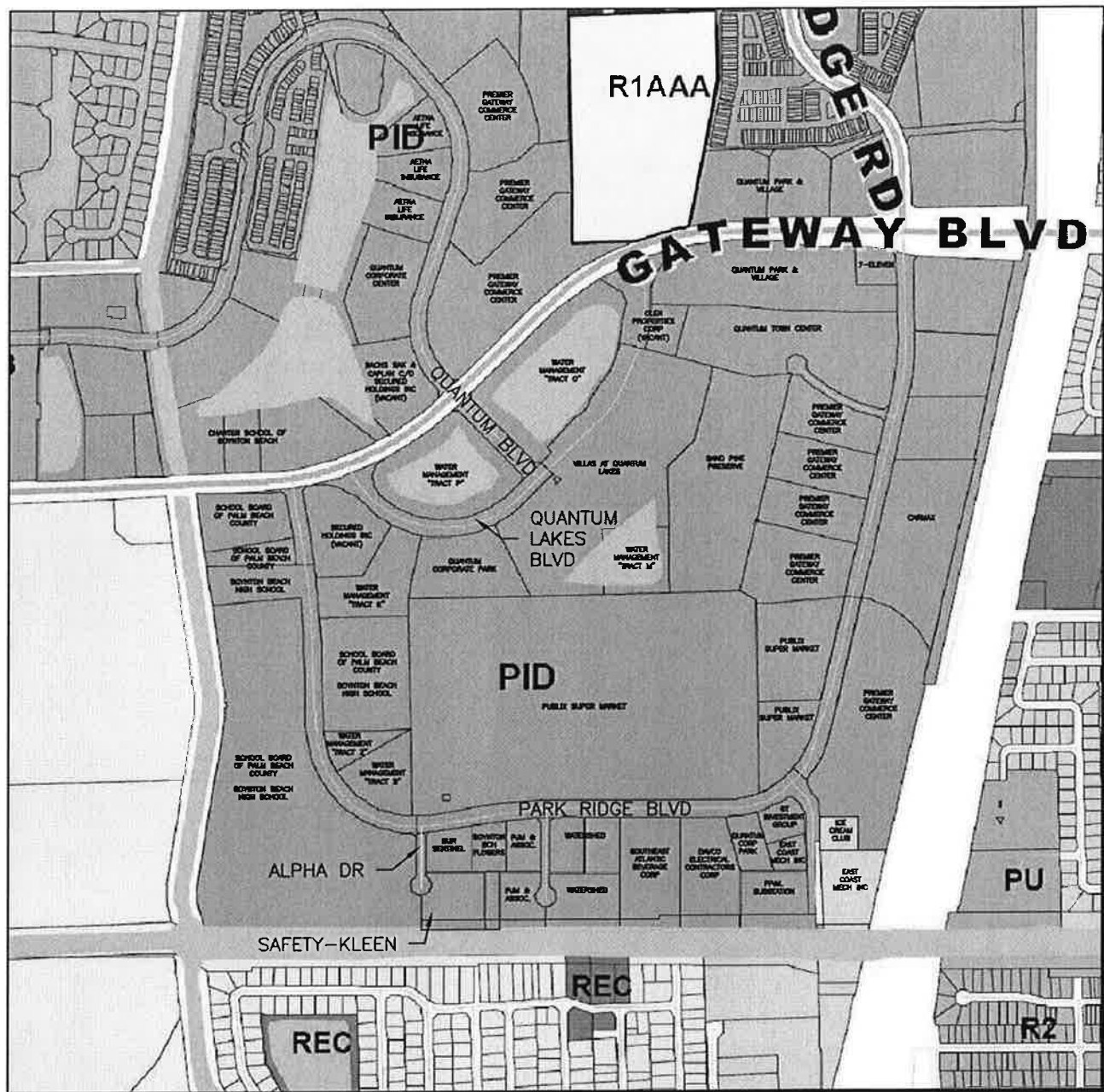
FLOOD INSURANCE RATE MAP REVISIONS:  
Map revised September 30, 1982 to change zone designations and base flood elevations reflecting wave action effects, to add connected areas and special flood hazard areas, and to change special flood hazard areas, corporate limits, and scale.  
(Note: Some special flood hazard areas added for this map revision were taken from the effective FIRM for Palm Beach County, Florida, dated February 1, 1979 and are shown with this date.)



0 1,200  
APPROXIMATE SCALE  
(FEET)



FIGURE 2.2-3  
SURROUNDING LAND USES  
SAFETY-KLEEN SYSTEMS, INC. FACILITY  
BOYNTON BEACH, FLORIDA



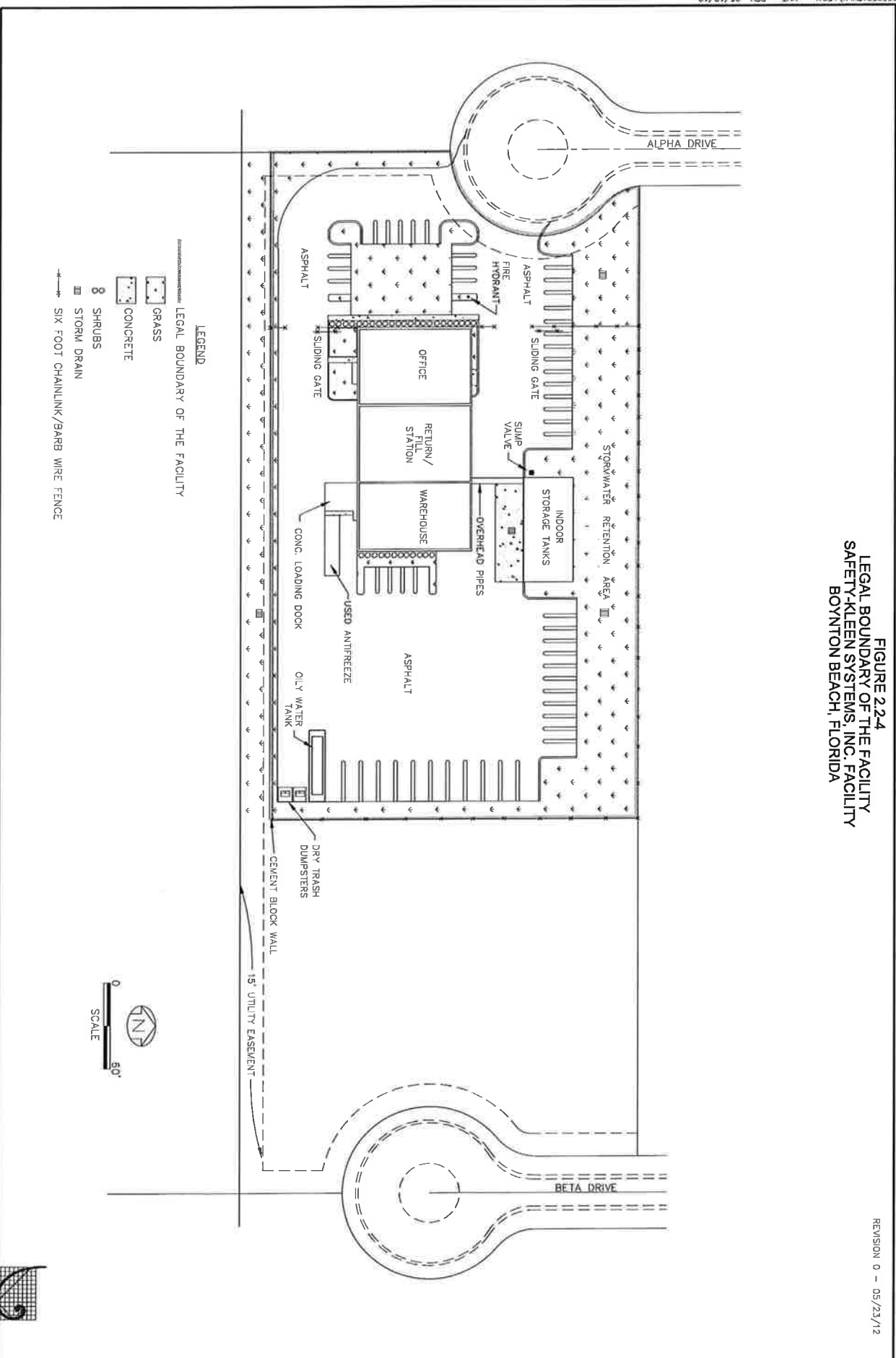
**LEGEND**

PID - PLANNED INDUSTRIAL DEVELOPMENT

SOURCE: PALM BEACH COUNTY DEVELOPMENT DEPT., PLANNING AND ZONING, 10/05/10.

FIGURE 2.2-4  
LEGAL BOUNDARY OF THE FACILITY  
SAFETY-KLEEN SYSTEMS, INC. FACILITY  
BOYNTON BEACH, FLORIDA

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**TABLE 2.2-1**

**PERMITTED WELLS WITHIN ONE-QUARTER MILE OF THE SITE  
SAFETY-KLEEN SYSTEMS, INC.  
BOYNTON BEACH, FLORIDA**

<b>Str</b>	<b>Owner Name</b>	<b>Well Type</b>	<b>Well Depth</b>	<b>Well Diameter</b>	<b>Case Depth</b>	<b>Permit No.</b>
000	Allan Murray Nursery Inc.	Agricultural	75	2	NA	50-00103-W
000	Allan Murray Nursery Inc.	Agricultural	75	2	NA	50-00103-W
000	Allan Murray Nursery Inc.	Agricultural	70	6	NA	50-00103-W
000	Allan Murray Nursery Inc.	Agricultural	86	6	NA	50-00103-W
000	Allan Murray Nursery Inc.	Agricultural	75	6	NA	50-00103-W
184543	Boynton Nurseries	Agricultural	94	8	NA	50-00145-W
04543	Manalapan, Town	PWS	206	8	NA	50-00506-W
04543	Manalapan, Town	PWS	206	8	NA	50-00506-W
04543	Manalapan, Town	PWS	114	8	NA	50-00506-W
04543	Manalapan, Town	PWS	57	6	NA	50-00506-W
04543	Manalapan, Town	PWS	62	6	NA	50-00506-W
04543	Manalapan, Town	PWS	75	12	NA	50-00506-W
04543	Manalapan, Town	PWS	75	12	NA	50-00506-W
174543	Motorola, Inc.	Landscape	90	4	NA	50-01194-W
164543	Quantum Property Owners	Commercial	NA	NA	NA	50-01685-W
000	N.C.E. Corp.	Golf Course	NA	NA	NA	50-01830-W

Information provided by South Florida Water Management District

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4. Attach a topographic map which shows all the features indicated in the instructions for this part.

5. Is the facility located in a 100-year flood plain? ☐ Yes ☒ No

6. The facility complies with the wellhead protection requirements of Rule 62-730.521, F.A.C. ☒ Yes ☐ No

**C. Land Use Information**

1. The present zoning of the site is Light Industrial

2. If a zoning change is needed, what should the new zoning be? N/A

**D. Operating Information**

1. Is waste generated on-site? ☒ Yes ☐ No

2. List the NAICS codes (5 to 6 digits) 562112

3. Use the codes and units provided in the instructions to complete the following table. Specify:

- Each process used for treating, storing or disposing of hazardous waste (including design capacities) at the facility, and
- The hazardous waste(s) listed or designated in 40 CFR Part 261, including the annual quantities, to be treated, stored, or disposed by each process at the facility.

PROCESS CODE	PROCESS DESIGN CAPACITY AND UNITS OF MEASURE	HAZARDOUS WASTE CODE	ANNUAL QUANTITY OF HAZARDOUS WASTE AND UNITS OF MEASURE
See Attached			

***Drainage or Flood Control Barriers***

The facility has formal controls. The site is not located in the 100-year floodplain, as shown in Figure 2.2-2. Figure 2.2-5 shows the drainage controls.

***Hazardous Waste Units***

Hazardous waste management units at the facility include the return/fill station, container storage area, and the aboveground storage tank for waste solvent. Locations of these units are shown in Figure 2.1-2.

***Wind Rose***

A wind rose is shown in Figure 2.2-7.

**Part I**

***D. Operating Information***

***2. DESCRIPTION OF FACILITY OPERATION***

***Description of the Business***

Safety-Kleen Systems, Inc. of Plano, Texas is an international service oriented company whose customers are primarily engaged in automotive repair and industrial maintenance. Since 1968, Safety-Kleen has been offering a leasing service for petroleum-based hydrocarbon solvents and small parts washing equipment.

Safety-Kleen's solvent cycle is essentially a closed loop, moving from the Branch to the customer, from the customer to the Branch, from the Branch to the recycle facility, and then from the recycle center back to the Branch for redistribution to customers. This closed loop supplies Safety-Kleen with most of its solvent requirements (nearly two-thirds of the clean solvent delivered to the field has been previously used by its customers). Ownership of the solvent remains with Safety-Kleen. Solvent containers (product and waste) are transported in specially-equipped, enclosed route trucks. Five aboveground tanks are maintained at the Safety-Kleen Boynton Beach facility. These tanks are used for storage of waste solvent, product 150 solvent, used oil, and oily water.

The Safety-Kleen parts washing equipment, together with the solvents are leased to customers; the leasing charge includes regularly scheduled solvent changes and machine maintenance. The business is conducted from local Branches (sales branches) located in 45 states. The Branches warehouse the products and equipment required to service the customers in their sales area. On a contractual basis, service representatives furnish clean solvent to the customers, pick up the used solvent, and ensure that the leased equipment is in good working order. In 1979, Safety-Kleen expanded their scope of operations to make their solvent leasing service available to owners of parts cleaning equipment, regardless of manufacturer, using Safety-Kleen's solvents.



Basically, Safety-Kleen handles two types of parts washers. The original service offered by the company in 1968 was the parts cleaner service and it remains the primary business activity. This service involves the leasing of a small parts degreasing unit which consists of a sink affixed to a container of parts washer solvent. On a regularly scheduled basis, a Safety-Kleen sales representative cleans and inspects the parts washer machine and replaces the container of used solvent with one of clean product. Safety-Kleen has also established a parts cleaner service for users who own their own machines. This service provides a solvent reclamation service to these customers regardless of machine model. All clean parts washer solvents are delivered to customers in containers. All spent parts washer solvents are transported from the customer to the Branch in containers.

Upon return of the spent solvent to the branch, the material is transferred from the containers to a wet dumpster. Most of the 150 solvent used by customers will be utilized by the Branch for the washing of used containers. After drums have been washed, the spent solvent is pumped into the waste solvent storage tank. Cleaned containers are filled with product solvent in preparation for the next days services. Periodically, a tanker truck is dispatched from one of the Safety-Kleen TSDF's to deliver a load of clean solvent and collect the spent solvent at the Branch. Containers of clean solvent may be stored at the return/fill station or in the permitted storage areas. Containers of waste solvent may be stored in the permitted storage areas.

A second type of parts washer, the immersion cleaner, is available for the removal of varnish and gum from such things as carburetors and transmissions. This machine consists of an immersible basket with an agitator affixed to a container of the immersion cleaner. The spent solvent remains in the container after delivery to the Branch, where it is stored in a permitted storage area of the warehouse. Periodically, a box trailer truck is dispatched from a Safety-Kleen TSDF to deliver fresh solvent and collect the containers of spent solvent for reclamation. Warehouse space is dedicated for the storage of clean immersion cleaner. The immersion cleaner remains in the original covered containers during transfer between the Branch and the recycle facilities.

Safety-Kleen provides a dry cleaning waste reclamation service where containers of dry cleaning wastes are collected and stored temporarily at the Branch before shipment to the TSDF's for reclamation and processing. All dry cleaning wastes remain in their original containers while at the Boynton Beach facility.

Safety-Kleen also provides a paint waste reclamation service. Wastes containing various thinners and paints are collected in containers and stored temporarily at the Branch before shipment to the permitted Safety-Kleen TSDF for reclamation and processing. Paint wastes are managed as permitted wastes. All paint wastes remain in their original containers while at the Boynton Beach facility.

Fluid Recovery Services (FRS) is a program managed by the Safety-Kleen Branch. Under this program, other types of waste are collected by the Branch and sent out to the recycle centers. The FRS wastes are managed as transfer wastes. Examples of the types of wastes that may be received from FRS customers include:

- Spent hydrocarbon distillates, such as waste fuel, oil, petroleum, naptha, etc.
- Lubricating oils, hydraulic oils, synthetic oils, and machine oils.
- Industrial halogenated solvents such as 1,1,1-trichloroethane, tetrachloroethylene, Freon, and trichloroethane.
- Photographic and x-ray related wastes.
- Paint and lacquer thinners.
- Other hazardous and non-hazardous halogenated and non-halogenated wastes.

In 1990 Safety-Kleen began offering a service for the collection of spent antifreeze (ethylene glycol) from automobile service stations. This service is offered in conjunction with Safety-Kleen's used oil collection service. All used antifreeze collected and managed by Safety-Kleen within Florida is recycled. The trucks used to collect and transport waste ethylene glycol are the same trucks used for collection and transport of

used oil. At the customer locations, Safety-Kleen pumps used antifreeze and transports the material to the Branch for off-loading into a tank for storage. The ethylene glycol/used oil mixture is transferred to the Safety-Kleen re-refinery in East Chicago, Indiana, where the ethylene glycol is extracted from the oil by distillation. After separation, the ethylene glycol is shipped to a glycol refinery for additional purification into a pure product which is then sold on the open market. This procedure is in accordance with FDEP's *Best Management Practices for Managing Used Antifreeze at Vehicular Repair Facilities*, dated April, 2011.

In 1996, the Branch became registered in Florida as a transporter and storage facility for mercury-containing lamps and devices destined for recycling. This registration includes a commitment to comply with the regulations of Florida Administrative Code (FAC) 62-737.400. As a registered storage facility, the Branch can store up to 2,000 Kilograms of lamps/devices for a period of up to 180 days. Safety-Kleen provides customers with empty four-foot and eight-foot boxes which hold up to 39 lamps. Boxes containing lamps are picked up from customers and are handled at the Branch as non-hazardous transfer wastes. The boxes are stored at the Branch in a designated area that is labeled in accordance with FAC 62-737.400(5)(b), and is partially isolated from other transfer wastes to avoid potential for accidental breakage. The boxes are periodically shipped to a permitted mercury recovery or reclamation facility. Prior to shipment out of the Branch, the boxes are placed on pallets and shrink-wrapped with plastic.

Containers of hazardous waste are picked up at customer locations and transported back to the Branch in route trucks. Each route truck is equipped with a hand-truck and electric lift gate for movement of containers. Upon arrival at the Branch, containers are placed on pallets and moved by way of forklift to the appropriate areas. Containers of used parts washer solvent are unloaded at the return/fill area and are dumped by hand into the wet dumpster for transfer via piping to the hazardous waste used solvent tank. Forklifts are used for loading containerized hazardous waste containers onto trucks for transport to Safety-Kleen TSDF's.

Safety-Kleen constructed the Boynton Beach Branch with the intent that it will be a long-term facility for the distribution of Safety-Kleen products. No on-site disposal activity occurs at the facility and, hence no disposal capacity will be exhausted that will necessitate closure of the facility. Based on current business and facility conditions, the Boynton Beach facility is expected to remain in operation at least until the year 2035.

**PART I****D. Operating Information**

3.

Waste Type	Process Code(s)	Estimated Annual Amounts (Tons)	Waste Codes
Spent Parts Washer Solvent	S01* S02**	848	D001 and D-codes listed in Note below
Branch-Generated Liquids Solids (Debris)	S01*	17	D001 and D-codes listed in Note below; F001, F002, F003, F004, F005
Dumpster Sediment	S01*	Included above	D001 and D-codes listed in note below
Tank Bottoms	S01*	Included above	D001 and D-codes listed in note below
Used Immersion Cleaner (IC 699)	S01*	28	D-codes listed in note below
Dry Cleaning Waste (Perchloroethylene)	S01*	290	F002 and D-codes listed in note below
Dry Cleaning Waste (Non-perchloroethylene)	S01*	Included above	D-codes listed in note below
Paint Wastes	S01*	46	D001, F003, F005 and D-codes listed in note below
Fluid Recovery Service (FRS)	S01***	220	Transfer wastes-waste codes assigned by generator
Mercury-Containing Lamps/Devices	N/A***	Less than 2.2	N/A-handled as non-hazardous transfer wastes

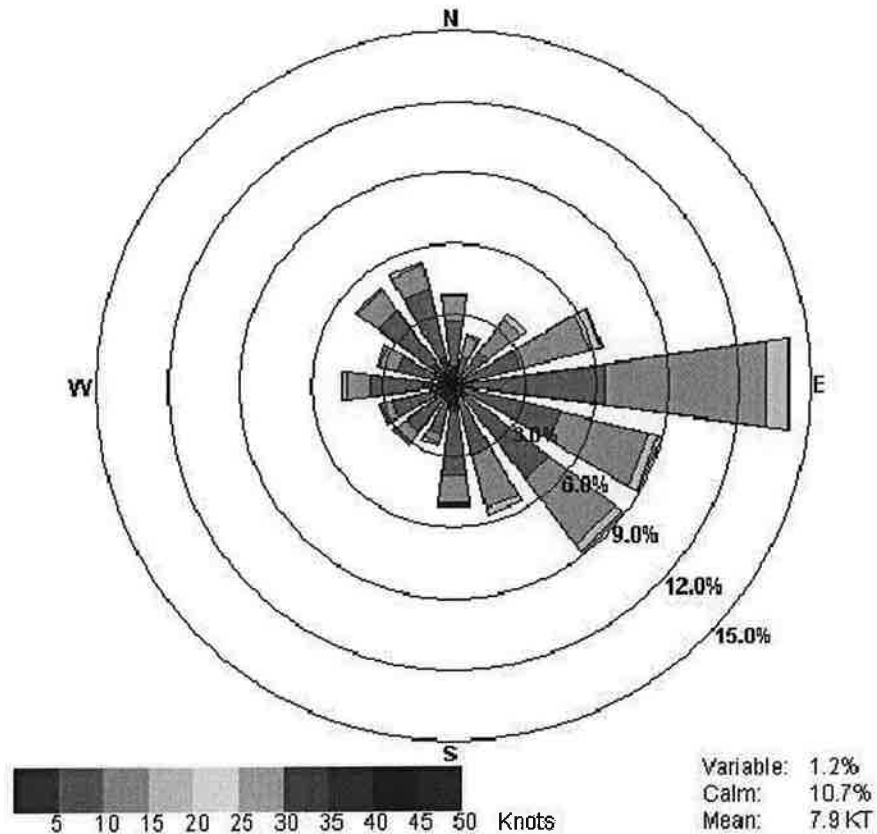
**NOTES:**

D-Codes: D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D023, D024, D025, D026, D027, D028, D029, D030, D032, D033, D034, D035, D036, D037, D038, D039, D040, D041, D042, D043

- \* This waste will be stored in containers in the building container storage area. The maximum capacity in the container storage area for hazardous waste and product is 29,400 gallons, with 6,912 gallons being waste
- \*\* The spent parts washer solvent storage tank has a capacity of 15,000 gallons and may be filled to 14,250 gallons
- \*\*\* This waste will be held for transfer in containers in the transfer area

FIGURE 2.2-7  
WIND ROSE  
SAFETY-KLEEN SYSTEMS, INC. FACILITY  
BOYNTON BEACH, FLORIDA

WEST PALM BEACH INTL ARPT  
10-year summary



**LEGEND**

1. WIND ROSE GRAPH OBTAINED FROM THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION WEB SITE - [WWW.NCDC.NOAA.GOV/OA/CLIMATE/ISD](http://WWW.NCDC.NOAA.GOV/OA/CLIMATE/ISD).
2. WIND ROSE BASED ON THE MOST RECENT 10-YEAR PERIOD AVAILABLE ON THE REFERENCED WEBSITE.
3. WIND ROSE GENERATED ON AUGUST 15, 2007



Revision Number	0
Date	05/23/12
Page	1 of 4

**APPLICATION FOR A HAZARDOUS WASTE FACILITY PERMIT CERTIFICATION  
TO BE COMPLETED BY ALL APPLICANTS**

**Signature and Certification**

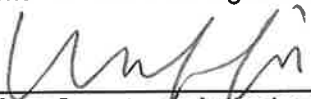
Facility Name Safety-Kleen Systems, Inc.

EPA/DEP I.D. No. FLD 984 167 791

The following certifications must be included with the submittal of an application for a hazardous waste authorization. The certifications must be signed by the owner of a sole proprietorship; or by a general partner of a partnership; or by a principal executive officer of at least the level of vice president of a corporation or business association, or by a duly authorized representative of that person. If the same person is a facility operator, facility owner, and real property owner, that person can cross out and initial the signature blocks under "1. Facility Operator" and "2. Facility Owner," and add the words "Facility Owner and Operator" at the line "Signature of the Land Owner or Authorized Representative."

**1. Facility      Operator**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. Further, I agree to comply with the provisions of Chapter 403, Florida Statutes, and all rules of the Department of Environmental Protection. It is understood that the permit is only transferable in accordance with Chapter 62-730, F.A.C., and, if granted a permit, the Department of Environmental Protection will be notified prior to the sale or legal transfer of the permitted facility.

  
Signature of the Operator or Authorized Representative\*

Virgil W. Duffie, III, Senior Vice President and  
Name and Title (Please type or print)      Assistant Secretary

Date 5/2/12

Telephone (972) 265-2051

- \* Attach a letter of authorization

Revision Number	0
Date	05/23/12
Page	2 of 4

## 2. Facility Owner

This is to certify that I understand this application is submitted for the purpose of obtaining a permit to construct, operate, or conduct remedial activities at a hazardous waste management facility on the property as described. As owner of the facility, I understand fully that the facility operator and I are jointly responsible for compliance with the provisions of Chapter 403, Florida Statutes, and all rules of the Department of Environmental Protection.

  
 Signature of the Facility Owner or Authorized Representative\*

Virgil W. Duffie, III, Senior Vice President and  
 Name and Title (Please type or print) Assistant Secretary

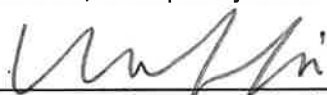
Date 5/2/12

Telephone (972) 265-2051

\* Attach a letter of authorization

## 3. Land Owner

This is to certify that I, as land owner, understand that this application is submitted for the purpose of obtaining a permit for the construction, operation or postclosure of a hazardous waste management facility on the property as described. For hazardous waste facilities that close with waste in place, I further understand that I am responsible for providing the notice in the deed to the property required by 40 CFR 264.119 and 265.119, as adopted by reference in Chapter 62-730, F.A.C.

  
 Signature of the Land Owner or Authorized Representative\*

Virgil W. Duffie, III, Senior Vice President and Assistant  
 Name and Title (Please type or print) Secretary

Date 5/2/12

Telephone (972) 265-2051


\* Attach a letter of authorization





**Signatory Authority**  
**Florida Administrative Code §62-730.220(8)**  
**Applications for Permits and Other Authorizations**

I, Virgil Duffie, Senior Vice President and Assistant Secretary for Safety-Kleen Systems, Inc. certify that I am authorized to sign all documents under 40 CFR §270.11 and Florida Administrative Code §62-730.220 Applications for Permits and Other Authorizations.

  
\_\_\_\_\_  
Virgil Duffie  
Senior Vice President – Assistant Secretary

5-2-12  
Date

**40 CFR § 270.11 Signatories to permit applications and reports.**

(a) Applications. All permit applications shall be signed as follows:

(1) For a corporation: By a responsible corporate officer. For the purpose of this section, a responsible corporate officer means (i) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decisionmaking functions for the corporation, or (ii) the manager of one or more manufacturing, production or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding \$25 million (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

(b) Reports. All reports required by permits and other information requested by the Director shall be signed by a person described in paragraph (a) of this section, or by a duly authorized representative of that person. A person is a duly authorized representative only if:

(1) The authorization is made in writing by a person described in paragraph (a) of this section;

(2) The authorization specifies either an individual or a position having responsibility for overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, or position of equivalent responsibility. (A duly authorized representative may thus be either a named individual or any individual occupying a named position); and

(3) The written authorization is submitted to the Director.

**Florida Administrative Code §62-730.220(8) Applications for Permits and Other Authorizations.**

All applications for an authorization shall be certified by the facility owner, facility operator, and real property owner. The determination of the proper person to sign applications as owner, operator and real property owner shall be made in accordance with the provisions of 40 CFR 270.11.

Revision Number	0
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Page	3 of 4

**4 Professional Engineer Registered in Florida**

Complete this certification when required to do so by Chapter 471, F.S., or when not exempted by Rule 62-730.220(7), F.A.C.

This is to certify that the engineering features of this hazardous waste management facility have been designed or examined by me and found to conform to engineering principles applicable to such facilities. In my professional judgement, this facility, when properly constructed, maintained and operated, or closed, will comply with all applicable statutes of the State of Florida and rules of the Department of Environmental Protection.

**Safety-Kleen Systems, Inc. - Boynton Beach Branch Renewal Application**

*RW Fox*

Signature

**Robert W. Fox**

Name (please type)

Florida Registration Number **40980**

Mailing Address **5909 Hampton Oaks Pkwy., Suite D**  
street or P.O. Box

**Tampa**  
city

**FL**  
state

**33610**  
zip

Date **May 18, 2012**

Telephone **( 813 ) 622-8727 x110**

**(PLEASE AFFIX SEAL)**

*RW Fox*  
*5/18/12*

***Part II***

***A. General***

***1. SITE TOPPOGRAPHY AND SURROUNDING LAND USE***

Figure 2.2-1 is a USGS topographic map showing the facility. Due to the small size of the site, all of the information requested in FDEP's application form cannot be place on one map. Therefore, additional maps are provided here to present the additional information requested in the application form. Specific information requested in the permit application is provided below.

***100-Year Floodplain Area***

Based on information available (Figure 2.2-2), the facility lies within an area classified as Zone C. Such areas have been classified as "areas of minimal flooding" and do not require any special planning requirements for response to floods. Currently, the Federal Emergency Management Agency information is the acceptable and best available flood information for flood insurance purposes.

***Surface Water Bodies Within One-Quarter Mile of the Facility Property Boundary  
(e.g., Intermittent Streams and Springs)***

A canal is located adjacent to the southern property boundary, and canals exist to the north and west of the property (Figure 2.2-1).

***Surrounding Land Uses***

Surrounding land uses are shown in Figure 2.2-3.

***Legal Boundaries of the Facility***

Figure 2.2-4 shows the property boundaries.

***Drinking Water Wells Listed in Public Records or Otherwise Known to the Applicant Within One-Quarter Mile of the Facility Property Boundary***

Results of a well survey (wells within one-quarter mile of the site) are presented in Table 2.2-1.

***Intake and Discharge Structures Within One Mile***

There are no known intake or discharge structures within one mile.

***Run-Off Control System***

Stormwater run-off controls for the facility are illustrated in Figure 2.2-5. Stormwater originating from the Branch building is channeled through roof gutters and onto the pavement. Surface run-off from the southern portion of the property is directed southward under the concrete block wall by gravity and onto the utility easements. Excess surface run-off water not percolating into the subsurface is collected in the southern storm inlet and routed to the northeast storm inlet by gravity through an 18-inch corrugated metal pipe (CMP). The northeast storm inlet (#2) is constructed with a 12 inch opening on the bottom followed by three cubic ft. of 0.75-inch washed rock. Surface run-off from the northern portion of the property is directed toward the stormwater retention area by gravity. Excess stormwater collected in this area overflows into the northwest storm drain. Stormwater run-off from the western portion of the property flows west through 12-inch openings in the 6-inch high curb and subsequently percolates into the subsurface (grass area) or flows into the utility easement. Similarly, run-off predominantly flowing eastward percolates into the subsurface (grass area) or flows into the utility easement or stormwater retention area.

***Access Control (fences, gates, etc.)***

Figure 2.1-1 shows access control features.

***Injection and Withdrawal Wells Both On Site and Off Site***

There are no injection or withdrawal wells on site. Results of an inventory of wells within one-quarter mile of the site are presented in Table 2.2-1.

***Buildings and Other Structures***

Buildings and other structures are shown in Figure 2.1-1.

***Contours Sufficient to Show Surface Water Flow***

Contours for the facility are shown in Figure 2.2-1.

***Loading and Unloading Areas***

Figure 2.1-2 shows loading/unloading areas in relation to the waste management areas.

***Drainage or Flood Control Barriers***

The facility has formal controls. The site is not located in the 100-year floodplain, as Shown in Figure 2.2-2. Figure 2.2-5 shows the drainage controls.

***Hazardous Waste Units***

Figure 2.1- 2 shows hazardous waste management units.

***Wind Rose***

A wind rose is shown in Figure 2.2-6.

***FACILITY LAYOUT AND TRAFFIC PATTERNS***

The facility layout is shown in Figure 2.1-1. Site traffic patterns are illustrated in Figure 2.1-2. Site photographs are provided in Appendix A. The non-building areas of the facility are paved with asphalt or concrete as noted on the site plan (Figure 2.1-1). The stormwater retention area and the other minor areas are vegetated with grass. The

**FIGURE 2.1-1**  
**FACILITY LAYOUT AND ACCESS CONTROL FEATURES**  
**SAFETY-KLEEN SYSTEMS, INC. FACILITY**  
**BOYNTON BEACH, FLORIDA**

REVISION 0 - 05/23/12

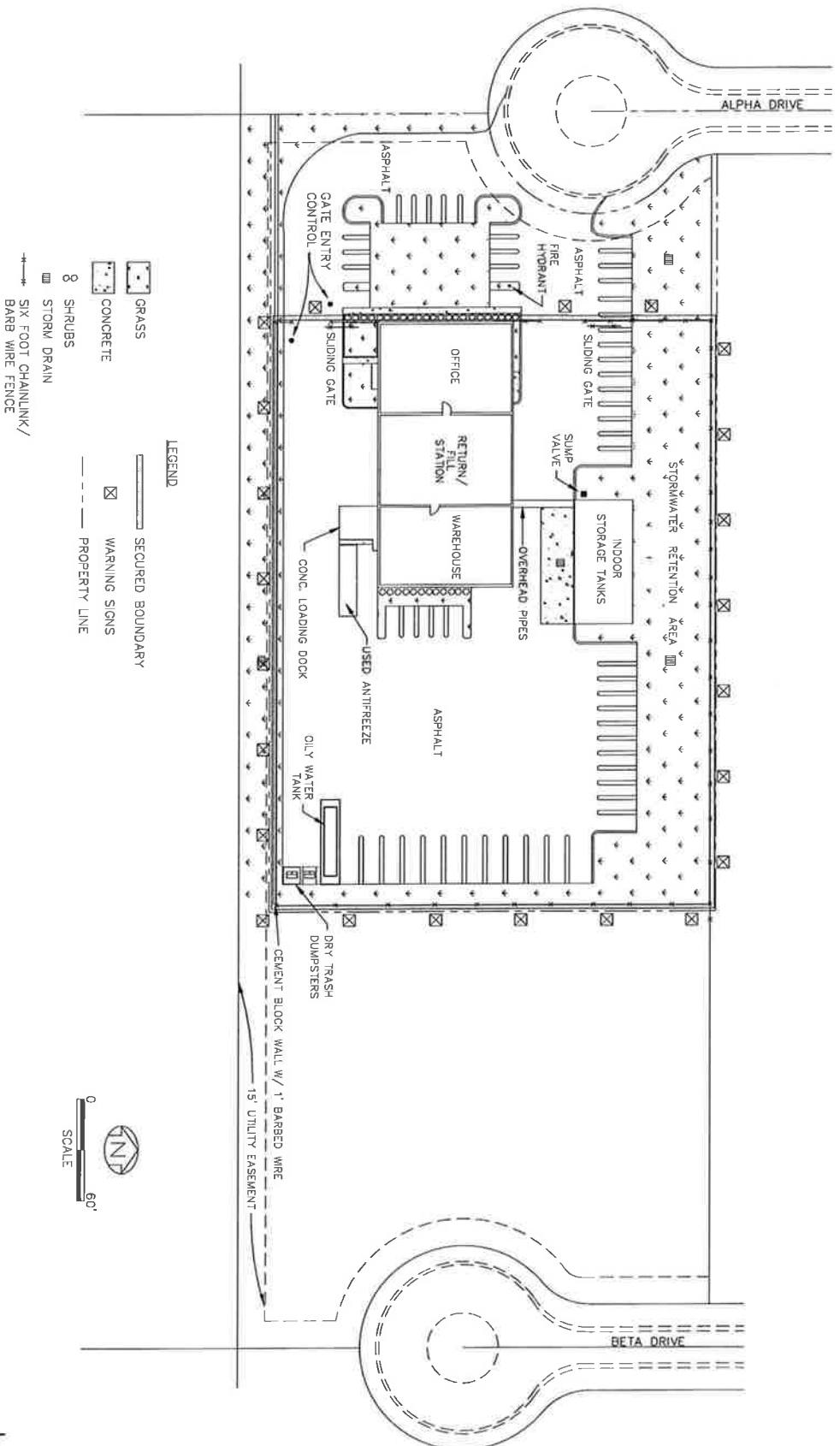


FIGURE 2.1-2  
TRUCK TRAFFIC PATTERNS AND LOADING/UNLOADING AREAS OF HAZARDOUS WASTE  
SAFETY-KLEEN SYSTEMS, INC. FACILITY  
BOYNTON BEACH, FLORIDA

REVISION 0 - 05/23/12

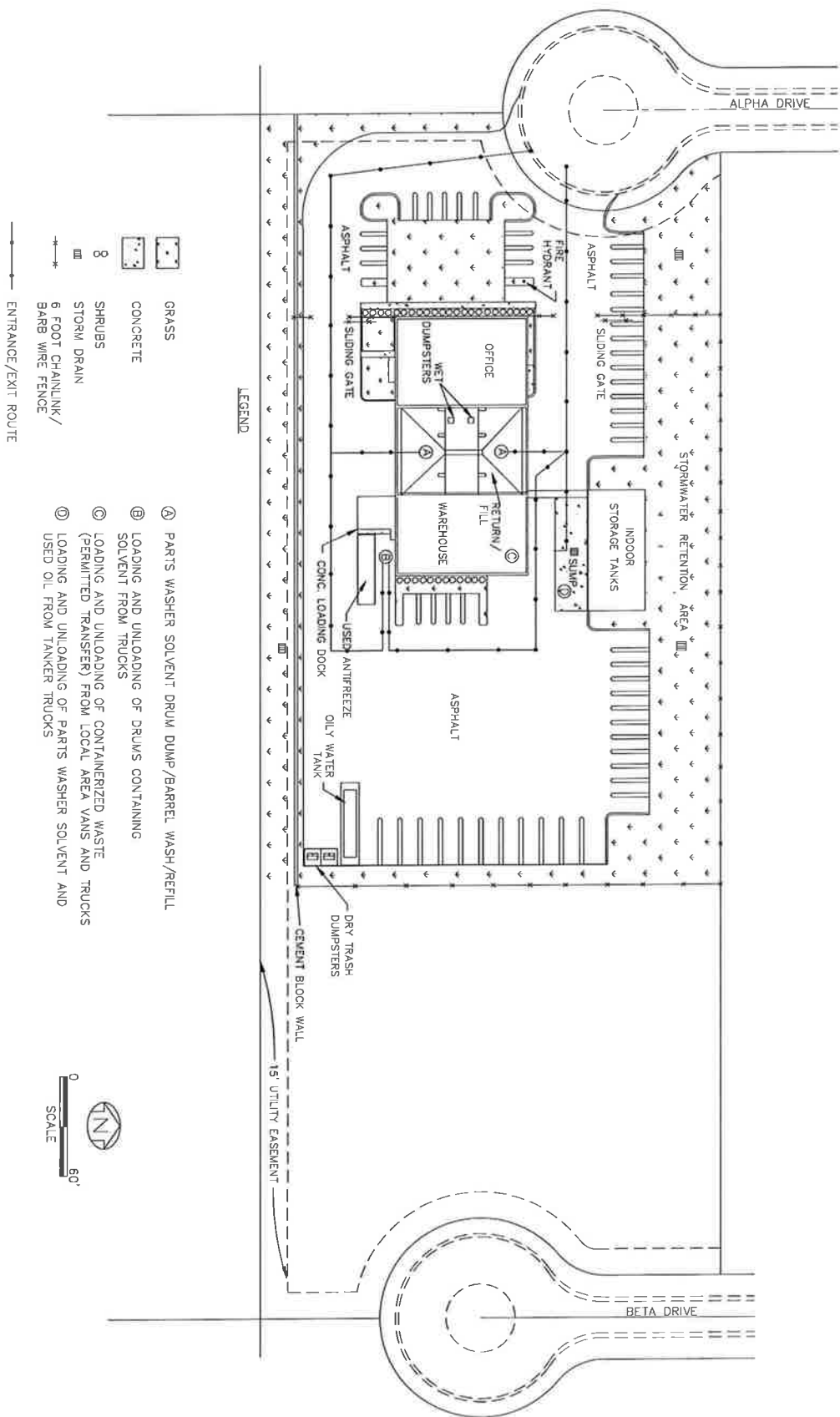
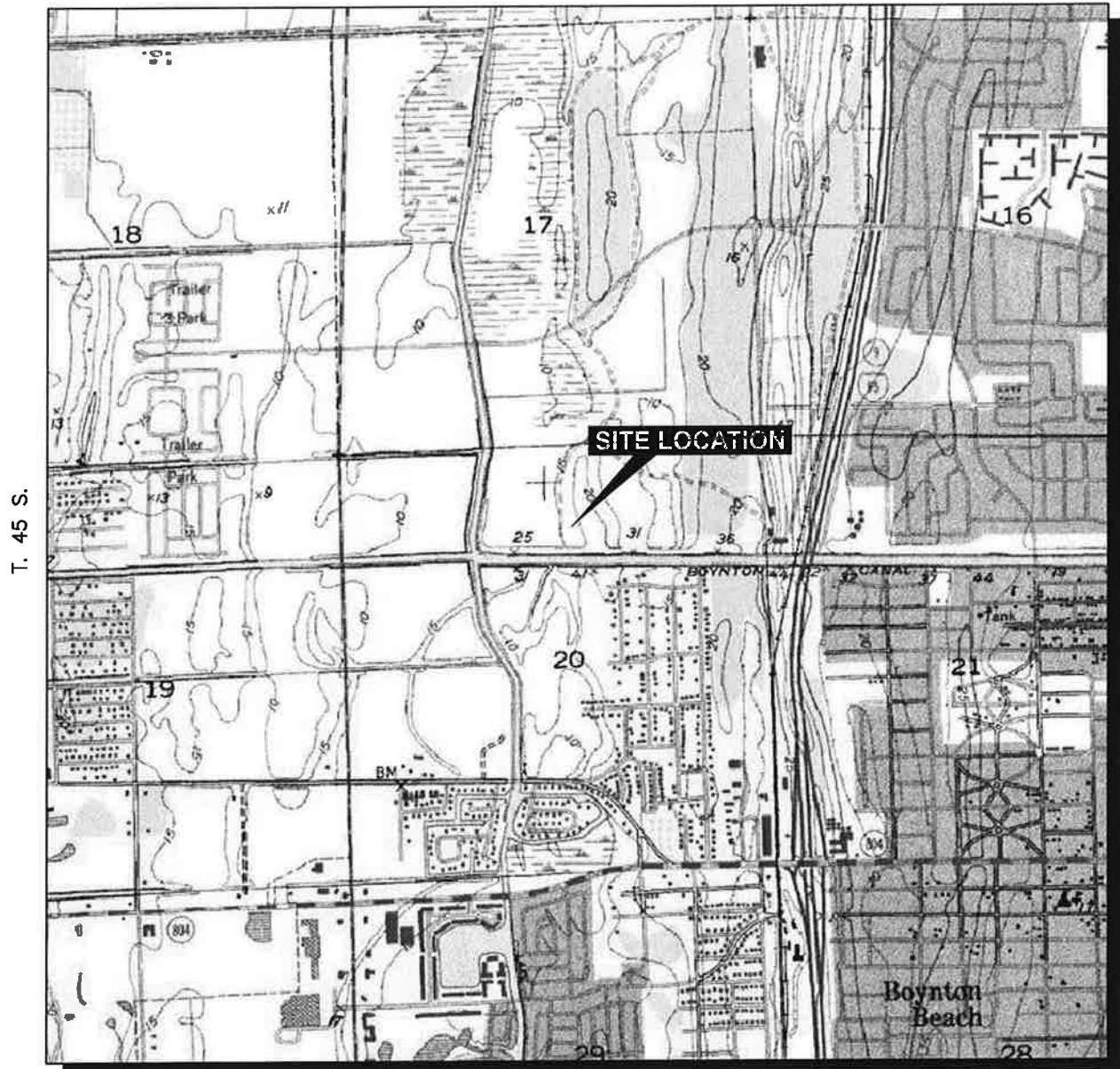
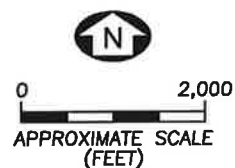


FIGURE 2.2-1  
SITE LOCATION  
SAFETY-KLEEN SYSTEMS, INC.  
BOYNTON BEACH, FLORIDA

REVISION 0 - 05/23/12



R. 43 E.



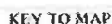
**ERM.**

Source: USGS Quadrangle Map of Lake Worth, FL., 1983.

58585SAFKLN\BOYL0C.DWG\YMT\REV\05/16/12



REVISION 0 - 05/23/12

\*EXPLANATION OF ZONE DESIGNATIONS

FEDERAL IDENTIFICATION  
MARCH 9, 1974

FLOOD HAZARD BOUNDARY MAP REVISIONS.  
2/24/81 TO 3/29/81

FLOOD INSURANCE RATE MAP EFFECTIVE  
JANUARY 1, 1976

FLOOD INSURANCE RATE MAP REVISIONS  
Revised September 30, 1952 to change zone designat

Map revised September 30, 1962 to change zone designations and base flood elevations reflecting wave action effects, to add unshaded areas and special flood hazard area, and to change special flood hazard areas, corporate limits, and scale.

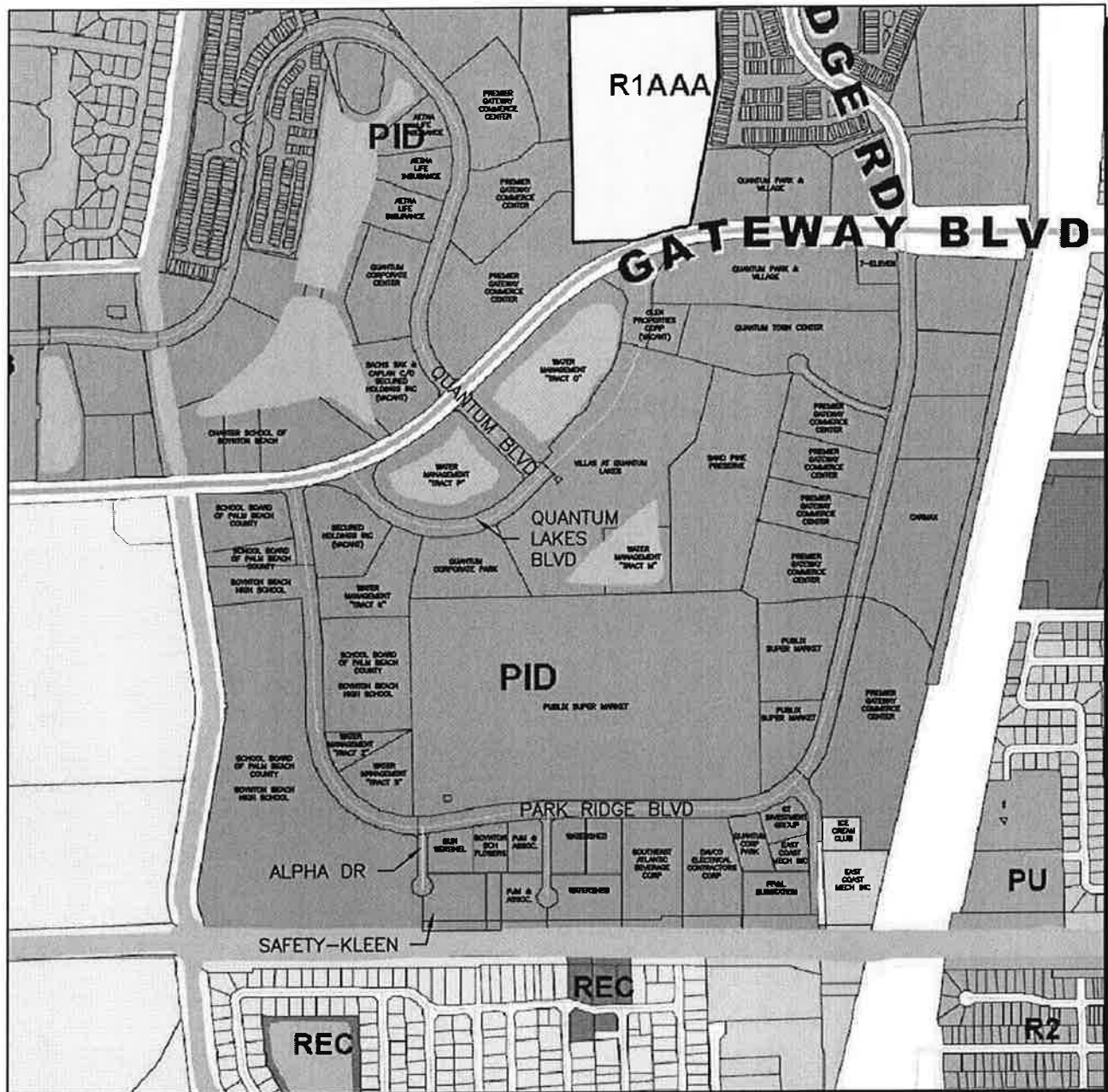
(Note: Some special flood hazard areas added for this map revision were taken from the effective FIRM for Palm Beach County, Florida, dated February 1, 1979 and are shown with this date.)



0 1,200  
APPROXIMATE SCALE  
(FEET)



FIGURE 2.2-3  
SURROUNDING LAND USES  
SAFETY-KLEEN SYSTEMS, INC. FACILITY  
BOYNTON BEACH, FLORIDA



**LEGEND**

PID - PLANNED INDUSTRIAL DEVELOPMENT

SOURCE: PALM BEACH COUNTY DEVELOPMENT DEPT., PLANNING AND ZONING, 10/05/10.



**FIGURE 2.2-4**  
**LEGAL BOUNDARY OF THE FACILITY**  
**SAFETY-KLEEN SYSTEMS, INC. FACILITY**  
**BOYNTON BEACH, FLORIDA**

REVISION 0 - 05/23/12

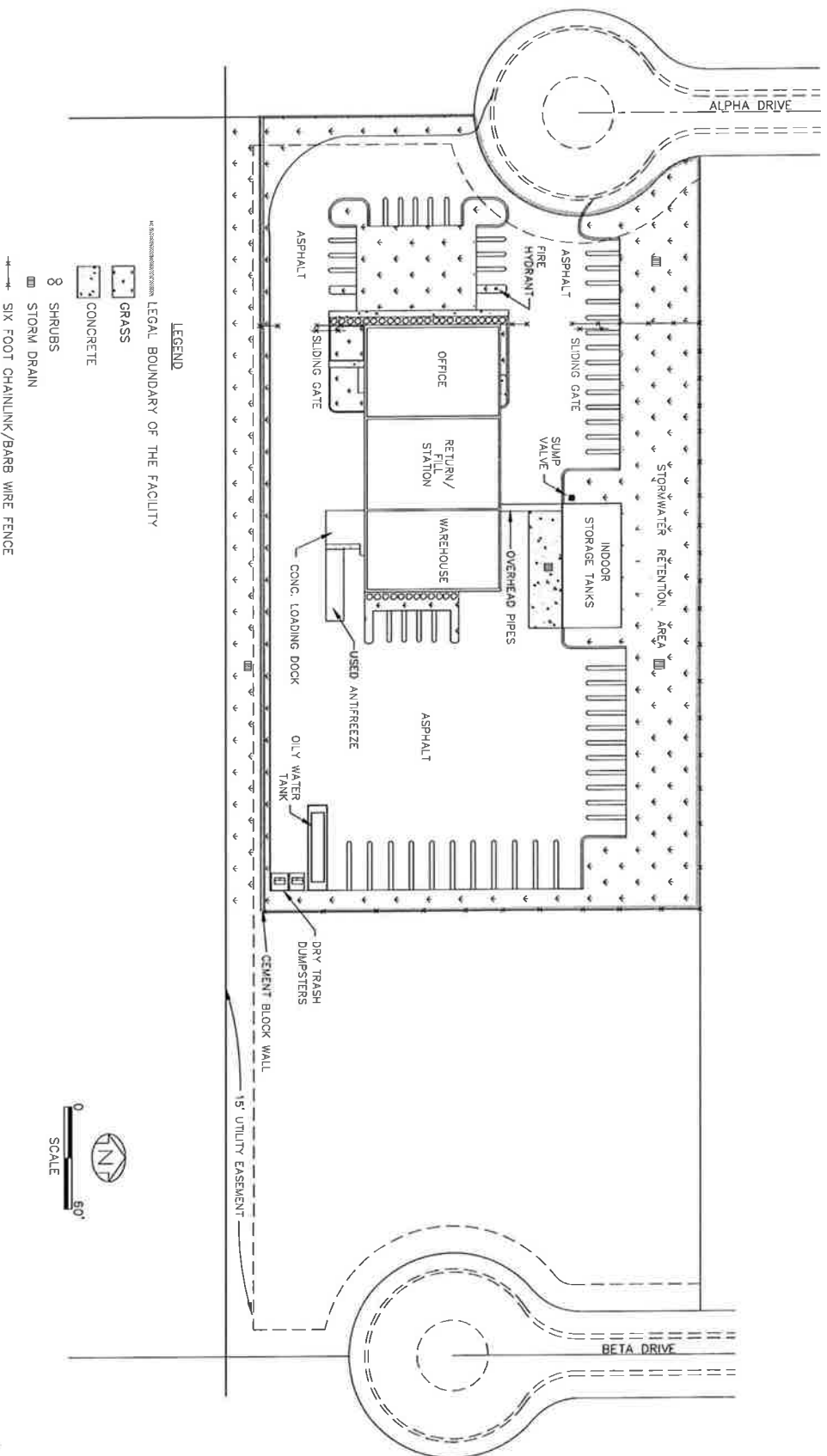
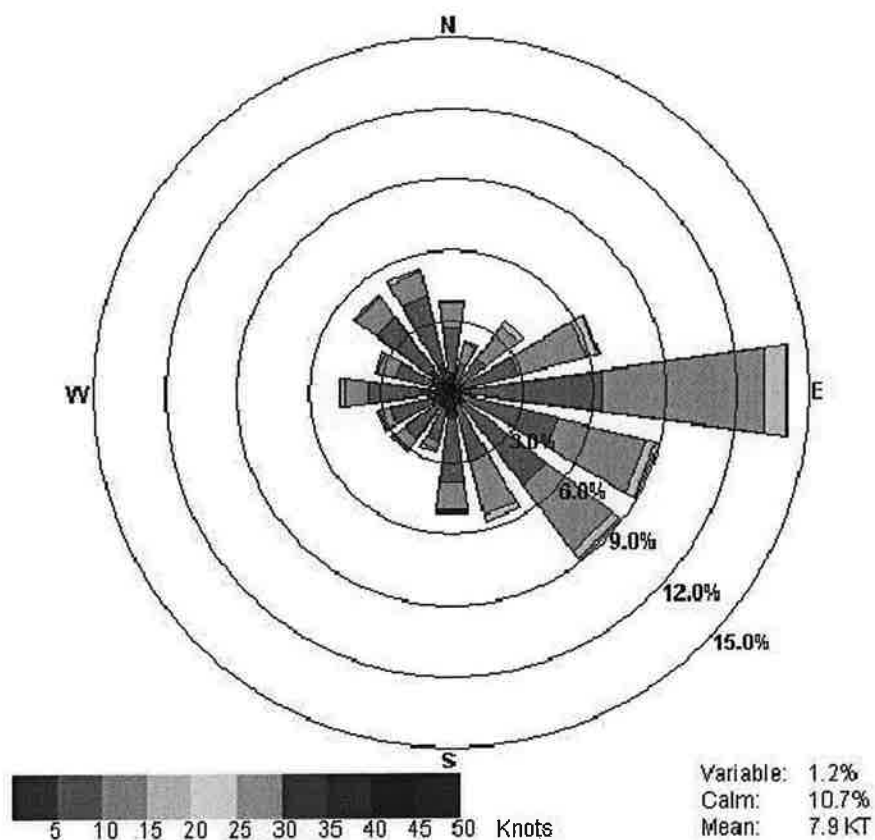


FIGURE 2.2-7  
WIND ROSE  
SAFETY-KLEEN SYSTEMS, INC. FACILITY  
BOYNTON BEACH, FLORIDA

# WEST PALM BEACH INTL ARPT

10-year summary



## LEGEND

1. WIND ROSE GRAPH OBTAINED FROM THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION WEB SITE - [WWW.NCDC.NOAA.GOV/OA/CLIMATE/ISD](http://WWW.NCDC.NOAA.GOV/OA/CLIMATE/ISD).
2. WIND ROSE BASED ON THE MOST RECENT 10-YEAR PERIOD AVAILABLE ON THE REFERENCED WEBSITE.
3. WIND ROSE GENERATED ON AUGUST 15, 2007



ERM.

majority of the vehicular traffic and loading/unloading operations occur at Areas A, B, C & D as noted in Figure 2.1-2. These areas are paved with asphalt and concrete.

Approximately once per week a tractor trailer delivers containerized product and removes containerized waste for transfer to a Safety-Kleen TSDF. This truck backs up to the eastern side of the concrete dock, located on the southern side of the facility in area B, to load and unload containers. Area A/C is used for the loading/unloading of transfer wastes and containerized permitted wastes from local area trucks. Transfer of used antifreeze occurs in Area B. Loading/unloading of used oil/used antifreeze mixtures occurs in Area D. High Ridge Road, which leads to Alpha Drive, is the major access road to the facility. The access road is designed in accordance with engineering criteria for sustaining the traffic volume and loading for the industrial activities in this area. The trucks that travel the routes between the Branch and its customers use the two lane road within the industrial park. Trucks dispatched from a Safety-Kleen TSDF to deliver fresh parts washer solvent and pick up used parts washer solvent perform these activities at the aboveground tank (Area D) approximately once per week. Traffic from this facility is not expected to have a major effect on local traffic conditions.

## ***Part II***

### ***A. General***

#### ***2. FINANCIAL ASSURANCE FOR CLOSURE***

Safety-Kleen is the operator of the Boynton Beach, Florida Branch. Financial assurance is provided through the use of the financial test specified in Subpart H of 40 CFR Part 264.

The current financial assurance mechanism has been annually adjusted with the inflation factor and is in place at the time of this permit application.

Table 1. 2012 Closure Cost Estimate Worksheet, Safety-Kleen Branch Service Center, Boynton Beach, FL (309701)

Activity	Category	Hourly Rate or Unit Charge	Hours or Unit Estimate	Subtotal (Includes 10% Markup for Subcontractors)
<b>1. PROJECT COORDINATION AND SCHEDULING</b>				
<u>Prime Contractor Costs</u>				
- Obtain subcontractor quotes and coordinate activities with subcontractor prior to implementing closure	Project Manager	\$94	10	\$940
- Coordinate scope and schedule of project activities with owner/operator, decontamination contractor, regulatory agencies and analytical laboratory	Project Manager	\$94	10	\$940
- Review facility permit and closure plan	Project Manager	\$94	6	\$564
	Field Engineer	\$60	6	\$360
- Prepare project/site specific Health and Safety Plan	Health/Safety Specialist	\$80	6	\$480
- Prepare project activity and project status reports	Project Manager	\$94	4	\$376
	Office Expenses	\$100	1	\$100
	Miscellaneous Expenses	\$100	1	\$100
<b>Activity 1. Subtotal</b>				<b>\$3,860</b>
<b>2. MOBILIZE TO SITE AND PREPARE FOR CLOSURE</b>				
<u>Assumptions</u>				
- Waste mineral spirits tank is full (      gallons)				
- Maximum capacity 155 gallons of sediment per drum washer = 155 x 2 = 310 gallons = 6 - 55 gallon drums				
- One CSA will be closed with maximum capacity of 6,912 gallons = 127 - 55 gallon drums				
<u>Prime Contractor Costs</u>				
- Mobilize Prime Contractor	Project Manager	\$503	2	\$1,006
(round trip = 2)	Field Engineer	\$503	2	\$1,006
- Project Management and Supervision and participate in on-site coordination meeting with owner/operator and subcontractors	Project Manager	\$94	8	\$752
	Vehicle (per day)	\$50	1	\$50
	Per diem	\$95	1	\$95
- Supervise waste loading activities	Field Engineer	\$60	8	\$480
	Vehicle (per day)	\$50	1	\$50
	Per diem	\$95	1	\$95
- Purchase 6 55 gallon drums for drum washer sediment	55-gallon Drums	\$65	6	\$429
<u>Subcontractor Costs</u>				
- Subcontractor mobilization (round trip = 2)	Mobilize	\$1,781	2	\$3,918
- Subcontractor per diem (total project 3 persons x 7 days)	Per Diem	\$95	21	\$2,195
- Subcontractor PPE (includes tyvek, respirator, cartridges, boot, gloves etc for 3-man crew)	Equipment/Consumables	\$1,311	LS	\$1,442
- Transfer tank contents to tankers	Labor/equipment/expenses	\$0.33	14250	\$5,173
- Transport waste mineral spirits to a TSD for treatment/disposal				
Assumes 2 tanker trailers required to remove 12,000 gallons (5,000 gallons max each load)				
Estimated cost per mile = \$1.81/mile + markup, overhead and profit = \$2.52/mile				
Estimated mileage = 500 miles	Transport 3 trailers x 500 miles	\$2.52	1500	\$3,780
Estimated disposal/treatment cost (per gallon)	TSD @ \$0.56/gallon (ETC cost)	\$0.560	15000	\$8,400
- Transfer drum washer sediment to drums	Labor/equipment/expenses	\$0.97	310	\$331
- Transfer drums of drum washer sediment to trucks with forklift (unit is based on total drums divided by 4 drums per pallet)	Labor/equipment/expenses	\$37	2	\$61
- Transfer drums from CSA to trucks with forklift (unit is based on total drums divided by 4 drums per pallet)	Labor/equipment/expenses	\$37	32	\$1,302
- Transfer drums from Flammable Materials Storage Shed to trucks with forklift (unit is based on total drums divided by 4 drums per pallet)	Labor/equipment/expenses	\$37	0	\$0
- Transport drums to TSD for Treatment/Disposal				
Assumes 2 trucks to transport drums (84 per truck max)				
Estimated cost per mile = \$2.21/mile + markup, overhead and profit = \$3.06/mile	Transport 2 trailers x 500 miles	\$3.06	1000	\$3,386
Estimated mileage = 500 miles	TSD @ \$107/drum (ETC cost)	\$107	127	\$13,589
Estimated disposal/treatment cost (per drum) (ETC 2004)				
<b>Activity 2. Subtotal</b>				<b>\$47,520</b>

Table 1. 2012 Closure Cost Estimate Worksheet, Safety-Kleen Branch Service Center, Boynton Beach, FL (309701)

Activity	Category	Hourly Rate or Unit Charge	Hours or Unit Estimate	Subtotal (Includes 10% Markup for Subcontractors)
<b>3. STORAGE TANK DECONTAMINATION AND REMOVAL</b>				
<u>Assumptions:</u>				
- The tank, piping and appurtenant equipment are removed and scrapped				
- Rinsate sampling is not necessary because the tank will be scrapped				
- Includes decontamination of the containment area				
- 1 day to decontaminate AST and containment, 1 day to remove AST and scrap				
- Assumes containment area to remain in place following decontamination				
- Assumes 1 rinsate sample required to leave containment in place				
- Assumes 2 soil samples required from beneath containment area. Actual number of samples will be based on engineer's inspection.				
<u>Prime Contractor Costs</u>				
- Project Management and Supervision	Project Manager	\$94	8	\$752
	Vehicle (per day)	\$50	1	\$50
	Per diem	\$95	1	\$95
- Supervise Storage Tank Decontamination and Removal Activities	Field Engineer	\$60	16	\$960
	Vehicle (per day)	\$50	2	\$100
	Per diem	\$95	2	\$190
	Air monitoring equipment	\$404	1	\$404
- Collect soil samples	Sample Technician	\$60	4	\$240
	Vehicle (per day)	\$50	0.5	\$25
	Per diem	\$95	0.5	\$48
	Sample supplies/shipping	\$250	LS	\$250
<u>Subcontractor Costs</u>				
- Disconnect electrical appurtenances	Labor/equipment	\$750	LS	\$825
- Decontaminate waste AST, piping and appurtenant equipment (unit cost based on pressure washing 40 sq ft/hour in level B PPE and 1036 sq ft total surface area)	Labor	\$3.65	1036	\$4,160
	Equipment	\$187	LS	\$206
- Decontaminate containment area (unit cost based on pressure washing 200 sq ft per hour (level C PPE) and 2295 sq ft) Equipment includes pressure washer and operation costs (per day)	Labor	\$1.11	2915	\$3,559
	Equipment	\$187	LS	\$206
- Remove AST from containment Includes certificate of destruction for UST	Labor/equipment/expenses	\$3,601	LS	\$3,961
<u>Laboratory Subcontractor Costs</u>				
- Analyze 1 rinsate sample from containment area for VOCs, SVOCs and TAL metals	VOCs @ \$147/sample SVOCs @ \$265/sample Metals @ \$336/sample Total per sample cost	\$748	1	\$823
- Analyze 2 soil samples for VOCs, SVOCs, and Metals (8)	VOCs @ \$147/sample SVOCs @ \$265/sample Metals @ \$97/sample Preserved Sample Containers @ \$10/sample Total per sample cost	\$519	3	\$1,713
<b>Activity 3. Subtotal</b>				<b>\$18,565</b>

Table 1. 2012 Closure Cost Estimate Worksheet, Safety-Kleen Branch Service Center, Boynton Beach, FL (309701)

Activity		Category	Hourly Rate or Unit Charge	Hours or Unit Estimate	Subtotal (Includes 10% Markup for Subcontractors)
4. DECONTAMINATE THE RETURN/FILL STATION					
<u>Assumptions:</u>					
- Decontamination shall consist of washing with detergent/water solution and rinsing with high-pressure spray					
- Return/Fill structure and dock area will remain in place					
- Rinsate sampling is not necessary because the drum washers will be scrapped					
- Assumes 2 soil samples required from beneath containment area. Actual number of samples will be based on engineer's inspection					
- Square footage used for decontamination includes containment					
<u>Prime Contractor Costs</u>					
- Inspect containment for cracks, gaps, or other potential lapses of integrity (P.E. or designee)	Project Engineer		\$94	8	\$752
	Vehicle (per day)		\$50	1	\$50
	Per diem		\$95	1	\$95
- Fill cracks and gaps (if necessary) prior to implementing decontamination activities	Field Engineer		\$60	4	\$240
	Vehicle (per day)		\$50	0.5	\$25
	Per diem		\$95	0.5	\$48
- Supervise washing of R/F Station and associated components (i.e. piping, pumps, and appurtenances)	Field Engineer		\$60	16	\$960
	Vehicle (per day)		\$50	2	\$100
	Per diem		\$95	2	\$190
- Collect 2 soil samples for analysis of VOCs, SVOCs and metals	Field Engineer		\$60	4	\$240
	Vehicle (per day)		\$50	0.50	\$25
	Per diem		\$95	0.50	\$48
- 4 hrs total for sampling	Sample supplies		\$250	LS	\$250
<u>Subcontractor Costs</u>					
- Decontaminate drum washers, grating, containment and piping (unit cost based on pressure washing 1000 sq ft total surface area) Equipment includes pressure washer and operation costs/day	Labor		\$2.92	4055	\$13,025
	Equipment		\$375	LS	\$413
- Remove drum washers, ancillary equipment and scrap	Labor/equipment/expenses		\$1,800	LS	\$1,980
<u>Laboratory Subcontractor Costs</u>					
- Analyze 2 soil samples for VOCs, SVOCs, and Metals (8)	VOCs @ \$147/sample				
	SVOCs @ \$265/sample				
	Metals @ \$97/sample				
	Preserved Sample Containers @ \$10/sample				
	Total per sample cost		\$519	2	\$1,142
Activity 4. Subtotal					\$19,581



Table 1. 2012 Closure Cost Estimate Worksheet, Safety-Kleen Branch Service Center, Boynton Beach, FL (309701)

Activity		Category	Hourly Rate or Unit Charge	Hours or Unit Estimate	Subtotal (Includes 10% Markup for Subcontractors)
<b>5. DECONTAMINATE CONTAINER STORAGE AREA</b>					
<u>Assumptions:</u>					
- One CSA with total capacity of 5,000 gallons/3,000 sq ft					
- Decontamination shall consist of washing with a detergent water solution and rinsing with a high-pressure spray					
- CSA remains in-place following closure					
- Decontamination of CSA includes floor, curbing and containment trenches, requires approximately 1 day.					
- Any ramps leading into the storage areas (if present) will also be decontaminated.					
- Assumes 1 rinsate and 2 soil samples required. Actual number of soil samples will be based on engineer's inspection.					
<u>Prime Contractor Costs</u>					
- Inspect the floor of each CSA for cracks, gaps, or other potential lapses of integrity (P.E. or designee)	Project Engineer		\$94	8	\$752
	Vehicle (per day)		\$50	1	\$50
	Per diem		\$95	1	\$95
- Fill cracks and gaps (if necessary) prior to implementing decontamination activities	Field Engineer		\$60	4	\$240
	Vehicle (per day)		\$50	0.5	\$25
	Per diem		\$95	0.5	\$48
- Supervise and document decontamination of CSA	Field Engineer		\$60	8	\$480
	Vehicle (per day)		\$50	1	\$50
	Per diem		\$95	1	\$95
- Collect sample of final rinsate from each CSA and submit for laboratory analysis	Field Engineer		\$60	4	\$240
	Vehicle (per day)		\$50	0.5	\$25
	Per diem		\$95	0.5	\$48
- Collect 2 soil samples for analysis of VOCs, SVOCs and metals	Field Engineer		\$60	4	\$240
	Vehicle (per day)		\$50	0.5	\$25
	Per diem		\$95	0.5	\$48
	Sample supplies		\$250	LS	\$250
<u>Subcontractor Costs</u>					
Decontaminate container storage area (unit cost based on pressure washing 105 sq ft per hour and 3800 sq ft) Equipment includes pressure washer and operation costs (1/2 day)	Labor		\$1.11	3800	\$4,640
	Equipment		\$187	LS	\$206
<u>Laboratory Subcontractor Costs</u>					
- Analyze 1 rinsate sample from containment area for VOCs, SVOCs and TAL metals	VOCs @ \$147/sample				
	SVOCs @ \$265/sample				
	Metals @ \$336/sample				
	Total per sample cost		\$748	1	\$823
- Analyze 2 soil samples for VOCs, SVOCs, and Metals (8)	VOCs @ \$147/sample				
	SVOCs @ \$265/sample				
	Metals @ \$97/sample				
	Preserved Sample Containers @ \$10/sample				
	Total per sample cost		\$519	2	\$1,142
Activity 5. Subtotal					\$9,768

Table 1. 2012 Closure Cost Estimate Worksheet, Safety-Kleen Branch Service Center, Boynton Beach, FL (309701)

Activity		Category	Hourly Rate or Unit Charge	Hours or Unit Estimate	Subtotal (Includes 10% Markup for Subcontractors)
6 CONTAINERIZE, STAGE, TRANSPORT AND DISPOSE OF DECONTAMINATION WASTES					
<u>Assumptions:</u>					
- 700 gallons wash water generated from decontamination of waste AST (including residual sludge) + 250 gallons from the containment = 18 drums					
- 450 gallons wash water generated from decontamination of the return/fill structure, and 250 gallons for the containment = 700 gallons = 13 drums					
- 500 gallons of wash water generated from decontamination of CSA = 10 drums					
- PPE, plastic sheeting, consumables contained in 5 drums					
<u>Prime Contractor Costs</u>					
- Ensure drums are properly labeled, coordinate pick up and disposal		Project Manager	\$94	8	\$752
		Vehicle (per day)	\$50	1	\$50
		Per diem	\$95	1	\$95
- Purchase 55-gallon drums		Drums @ \$65 each	\$65	51	\$3,647
<u>Subcontractor Costs</u>					
- Load Drums for Transport with forklift (unit is based on total drums divided by 4/pallet)		Labor/equipment/expenses	\$37	13	\$529
- Transport drums to TSD for Treatment/Disposal					
Assumes 1 truck to transport 46 drums (84 per truck max)					
Estimated cost per mile = \$2.21/mile x overhead, profit and markup = \$3.06/mile					
Estimated mileage = 500 miles					
		Transport 1 trailer x 500 miles	\$3.06	500	\$1,530
		TSD (based on ETC rate)	\$107	48	\$5,136
Estimated disposal/treatment cost/drum for rinsate					
Estimated disposal/treatment cost for PPE drums (assumed haz to landfill)		TSD (based on ETC rate)	\$100	5	\$500
Activity 6 Subtotal					\$12,239

Table 1. 2012 Closure Cost Estimate Worksheet, Safety-Kleen Branch Service Center, Boynton Beach, FL (309701)

		Hourly Rate or Unit Charge	Hours or Unit Estimate	Subtotal (Includes 10% Markup for Subcontractors)
Activity	Category			
8. CLOSURE CERTIFICATION REPORT				
<u>Assumptions:</u>				
- Closure certification report signed by a State Registered P.E. and owner/operator				
- Closure results verify clean closure				
<u>Prime Contractor Costs</u>				
- Compile field notes, photographs, manifests and other documentation	Project Manager	\$94	4	\$376
	Field Engineer	\$60	8	\$480
- Compile any rinsate, and/or soil sample data into summary tables	Project Manager	\$94	8	\$752
	Field Engineer	\$60	8	\$480
- Prepare Closure Certification Report	Project Manager	\$94	20	\$1,880
	Field Engineer	\$60	8	\$480
- Prepare closure certification statement	Project Engineer	\$94	4	\$376
- Office Expenses	Drafting/Clerical	\$42	4	\$168
	Miscellaneous/Copying/Postage	\$150	LS	\$165
Activity 8. Subtotal				\$5,157
COST ESTIMATE ACTIVITIES SUMMARY				
1. PROJECT COORDINATION AND SCHEDULING				\$3,860
2. MOBILIZE TO SITE AND PREPARE FOR CLOSURE				\$47,520
3. STORAGE TANK DECONTAMINATION AND REMOVAL				\$18,565
4. DECONTAMINATE THE RETURN/FILL STATION				\$19,581
5. DECONTAMINATE CONTAINER STORAGE AREA				\$8,768
6 CONTAINERIZE, STAGE, TRANSPORT AND DISPOSE OF DECONTAMINATION WASTES				\$12,239
8 CLOSURE CERTIFICATION REPORT				\$5,157
SUBTOTAL				\$115,689
LOCATION FACTOR For ECHOS RATES (Location Factor for zip code 33426 is 0.84)				
TOTAL CLOSURE COST ESTIMATE (Adjusted for location)				\$101,599
Closure cost thru 2012 with inflation adjustment				112,485.00
15% contingency				
Total				\$129,358

**Notes:**

- Prime Contractor, Decontamination Subcontractor labor rates, Transportation, Equipment and Analytical rates obtained from Environmental Cost Handling Options and Solutions (ECHOS) Environmental Remediation Cost Data, 12th Edition, 2006
- Prime contractor labor rates include overhead (20%), profit (20%) and markup (50%)
- Subcontractor labor rates include overhead (5%) and profit (10%)
- A 10% markup was applied to subcontractor prices
- Assumes waste inventory and decontamination wastes transported to an appropriate TSD Facility, which is assumed to be located within 500 miles (for purposes of estimating mileage only)
- Waste Inventory disposal/treatment unit cost obtained from Environmental Technology Council, Fuels Blending Prices May 2004, and includes the low cost for bulk liquids (\$0.56/gallon) based on suitability of mineral spirits for fuel, and average cost (\$107/drum) for drummed wastes (<http://etc.org/costsurvey8.cfm>)
- Location Factor is not applied to Waste Disposal costs derived from ETC

***Part II***

***A. General***

***4. FACILITY SECURITY***

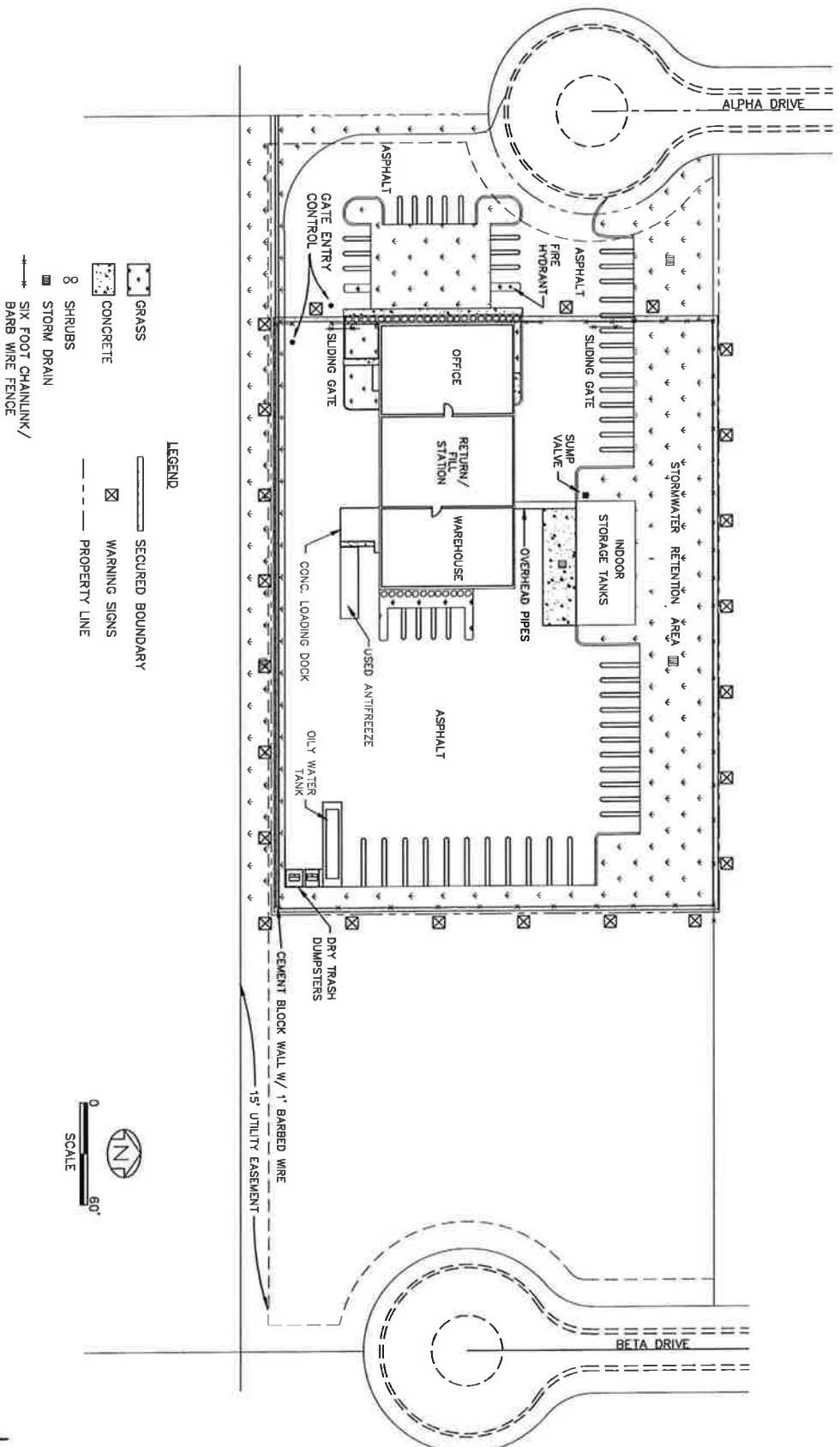
***SECURITY PROCEDURES AND EQUIPMENT***

In accordance with 40 CFR 264.14, access to the facility is controlled through the following methods:

1. Entry to the container storage and return/fill areas will be controlled through gates and doors. All gates and doors will be locked at all times when facility is not in operation. The entire facility is surrounded by a chain-link fence topped with barbed wire.
2. The combination of doors and signs prevents unknowing entry and minimizes the potential for unauthorized entry of people or livestock into the facility.
3. Signs are posted at the entrance of the facility and additional locations so that they are visible from any approach at 25 feet. Signs are marked “DANGER – UNAUTHORIZED PERSONNEL KEEP OUT”.
4. “NO SMOKING” signs are posted in areas where hazardous wastes are handled.

FIGURE 5.1-1  
FACILITY LAYOUT AND ACCESS CONTROL FEATURES  
SAFETY-KLEEN SYSTEMS, INC. FACILITY  
BOYNTON BEACH, FLORIDA

REVISION 0 - 05/23/12



58055AFKLN\LAYOUT\ACCESS5 YMT REV 05/18/12

***SAFETY-KLEEN SYSTEMS, INC.  
BOYNTON BEACH FACILITY***

***PREPAREDNESS, PREVENTION, CONTINGENCY PLAN, AND  
EMERGENCY PROCEDURES FOR DAILY BUSINESS OPERATIONS***



**Revision Date: 04/13/12**

**Safety-Kleen 309701  
Boynton Beach Branch  
Emergency Phone Numbers**

**Primary:** William Cruz  
5238 Rivermill Lane  
Lake Worth, FL 33463  
Office (561) 736-1339  
Cell (954) 459-1918

**Alternate:** Jeff Labelle  
2924 Scanlan Aveune  
Lake Worth, FL 33461  
Office (561) 736-1339  
Cell (561) 767-0822

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**Emergency Notification Numbers**

Infotrac (Safety-Kleen's 24 Hour Emergency Response Reporting System)  
1-800-468-1760

Florida DEP- Southeast District

(561) 681-6600 (Monday – Friday, 8:00 a.m. to 5:00 p.m. except Holidays)  
After Hours, please call (850) 413-9911 or 1-800-320-0519

If you are unable to contact the DEP at the above, please call:  
National Response Center 1-800-424-8802

**Emergency Teams to be Notified:**

Boynton Beach Fire Station #5  
Emergency Operations Center  
2080 High Ridge Road  
Boynton Beach, FL 33426  
(561) 742-6333 or 911

Boynton Beach Police Department  
135 NE 1<sup>st</sup> Ave  
Boynton Beach, FL 33435  
(561) 375-6100 or 911

Bethesda Memorial Hospital  
2815 S. Seacrest Blvd.  
Boynton Beach, FL 33435  
(561) 737-7733



***PREPAREDNESS, PREVENTION, CONTINGENCY PLAN, AND EMERGENCY  
PROCEDURES FOR DAILY BUSINESS OPERATIONS***

***GENERAL INFORMATION***

***Purpose***

The preparedness, prevention, and contingency plan and emergency procedures are designed to ensure that Safety-Kleen reduces the possibility of emergency situations and, should they occur, respond in a manner to prevent or minimize hazards to human health or the environment from fire, explosion, or any unplanned sudden or non-sudden release of hazardous material constituents to the air, soil, surface water, or ground water at the facility.

The provisions of the plan are to be carried out immediately if there is a fire, explosion, or release of hazardous materials that could threaten human health or the environment. All responses must conform with the procedures contained in this plan.

***General Description of Activities***

The business activities conducted at the Boynton Beach Branch relate to the leasing and servicing of Safety-Kleen Parts Cleaning Equipment, including the provisions of a solvent leasing service for the customers. Clean solvents are distributed from, and the used solvents returned to, the Branch, where separate storage tanks are utilized for the storage of clean and used parts washer solvent. One 20,000-gallon fresh parts washer solvent storage tank is utilized at the facility. One 15,000-gallon tank is used to contain hazardous waste solvent. One 15,000-gallon and one 20,000-gallon are used for storage of Used Oil. One 5,000-gallon tank is for oily water. Warehouse space is designated for the storage of containers of both clean and used immersion cleaner, parts washer solvent, paint waste, Fluid Recovery Services (FRS) wastes, and dry cleaning wastes. Overpack containers are used for the management of containers whose integrity has been compromised.



Parts washer solvents are transported in covered containers between the Branch and customers. Upon returning to the Branch, the used parts washer solvent is transferred from the containers into a wet dumpster (solvent return receptacle) in which coarse solids in the parts washer solvents are retained. Used parts washer solvent from the wet dumpster flows into a 15,000-gallon aboveground tank for storage. Hazardous waste washer solvent is picked up regularly by a bulk tank truck from a Safety-Kleen TSDF, which at the same time delivers clean parts washer solvent. The sludge in the wet dumpster is regularly cleaned out, containerized, and stored as Branch generated waste in the flammable permitted waste storage area for later shipment to a permitted Safety-Kleen TSDF for reclamation or disposal.

The immersion cleaner remains in a covered container at all times during transportation and storage. The solvent is not transferred to another container while being used by the customers or while in storage at the Branch.

Dry cleaning wastes are picked up at commercial dry cleaning establishments in containers. Dry cleaning wastes handled by Safety-Kleen consist of spent filter cartridges, powder residue from diatomaceous or other powder filter systems, and still bottoms, all of which fall into the categories of either perchloroethylene-based waste or naphtha-based waste. The dry cleaning wastes are packaged on the customer's premises in containers.

All antifreeze collected and managed by Safety-Kleen within Florida is recycled. At the customer's location, Safety-Kleen pumps waste ethylene glycol (antifreeze) into a Safety-Kleen used oil tanker truck. The used antifreeze/oil mixture is transported from the customer site to the branch, or Bidsite for storage until transport to the SK East Chicago, Indiana re-refinery. There the used antifreeze is separated using distillation and sent to a recycling facility for reprocessing into a pure product which is then sold on the open market. This procedure is in accordance with FDEP's Best Management Practices for Managing Used Antifreeze at Vehicle Repair Facilities, dated April, 2011.

Safety-Kleen also provides a paint waste reclamation service. Wastes containing various thinners and paints are collected in containers and are stored at the south building flammable permitted storage area. Paint wastes are received at the Branch on manifests which are terminated at that point. These wastes are then re-manifested and shipped to a permitted Safety-Kleen TSDF, and the regenerated solvent may be distributed to Safety-Kleen customers for use as a product.

The FRS wastes are packaged in polyethylene or steel containers which are not opened until they reach a permitted Safety-Kleen TSDF. The FRS wastes are transfer wastes and may be stored onsite for up to 10 days. The FRS wastes may also undergo branch-to-branch or truck-to-truck transfer. This transfer will occur at the return/fill station inside secondary containment.

These wastes exhibit essentially the same biological, physical, and chemical properties as the fresh product. The waste materials are basically fresh products with impurities of dirt and metals, and may also be contaminated with other solvents. Material Safety Data Sheets (MSDSs) for each hazardous material are available at the Branch and on demand by fax through a company-owned MSDS information service, which has 24-hour phone or fax access.

The Branch is registered in Florida as a transporter and storage facility for mercury-containing lamps and devices destined for recycling. This registration includes a commitment to comply with the requirements of Florida Administrative Code (FAC) 62-737.400. As a registered storage facility, the Branch can store up to 2,000 kilograms of lamps/devices for a period of up to 180 days. Safety-Kleen provides customers with empty four-foot and eight-foot boxes which hold up to 39 lamps. Boxes containing lamps are picked up from customers and are handled at the Branch as nonhazardous transfer wastes. The boxes are stored at the Branch in a designated area within the transfer waste storage area. These materials are labeled in accordance with FAC 62-737.400(5)(b), and are partially isolated from other transfer wastes to avoid potential for accidental breakage. The boxes are periodically shipped to a permitted mercury recovery or reclamation facility. Prior to shipment out of the Branch, the boxes are placed on pallets and shrink-wrapped with plastic.

Figures 5.1-1 and 5.1-2 show the basic site and floor plans and the locations of waste management facilities and facility storage. Table 5.1-1 provides a list of permitted and transfer wastes handled at the facility.

**Note: All waste containers are unloaded within 72 hours of arrival at the facility and all waste containers are shipped outbound within 72 hours of being loaded for shipment.**

### ***INSPECTION PROCEDURES***

#### ***Inspection of Safety Equipment***

The purpose of the inspection plan is to establish a procedure and schedule for the systematic monitoring and inspection of emergency and spill control equipment to ensure proper operation, and to maintain compliance. Table 5.2-1 is an Inspection Schedule.

The Branch Manager or designee is responsible for carrying out the inspection in accordance with the following procedure and schedule.

- A weekly inspection of fire extinguishers must be performed to ensure that the tag date has not expired and the units are properly charged and accessible.
- A weekly inspection of eyewash stands must be performed to assure accessibility; check for proper operation of this equipment on a monthly basis. Inventory of the first-aid kit must be checked on a weekly basis.
- A weekly check of the supply of spill control equipment (absorbent material) must be performed.
- A weekly check of the conditions and inventory of other emergency equipment will be made. This includes gloves, aprons, goggles, respirators, and other personal protective equipment.

### ***Inspection of Security Equipment***

The Branch Manager or designee, using the Weekly Inspection Log (Figure 5.2-1 or similar), inspects the security features of the facility weekly (e.g., gates and locks), looking for any evidence of sticking, corrosion, or unusual activity. The facility fence will be checked weekly for deterioration, gaps, and broken wire ties.

### ***Inspection of Waste Management Facilities***

The purpose of the inspection plan is to establish a procedure and schedule for the systematic monitoring and inspection of hazardous waste management and other material management facilities to ensure proper operation and maintain compliance. Table 5.2-1 provides an Inspection Schedule.

The Branch Manager or designee is responsible for carrying out the inspections of all hazardous waste management facilities in accordance with the following procedure and schedule.

Daily inspections of aboveground tanks will include the following:

- Note volume in tank.
- Observe tank exterior for loose anchoring, wet stops, leaks.
- Check the automatic high level alarm. In addition, measure the depth of used solvent in the tanks to confirm the proper functioning of the automatic alarm system and to determine unexpected deviations in tank measuring data, or a sudden drop in liquid level, which may indicate leakage.
- Inspect secondary containment walls and piping.

- Inspect transfer pumps for leaking seals and overheated motors.
- Inspect the solvent dispensing hose, fittings, and valve for any leaks, damage, or wear that could cause a leak to develop.
- Inspect the valves for proper seat. Stem leaks from worn glands and warped valve bodies should be repaired. If the valve cannot be repaired, replace the unit.

Also, the tanks will be visually inspected and tested periodically.

Daily inspection of the solvent return receptacle (wet dumpster) will consist of an inspection for leaks and excess dumpster mud build-up.

Daily inspections of the container storage area include the following:

- Verify that total volume is within permitted limits.
- Physically examine the condition of containers to verify that leaks have not occurred since the last inspection.
- Verify that all container identification, dates, and hazardous waste labels are attached and current.
- Inspect container placement and stacking such as aisle space, height, and stability of stacks.
- Examine containment areas to detect signs of deterioration and failure of the containment system such as cracks, breakage, settlement, and spillage.

***Corrective Action***

Any discrepancies or deficiencies found during routine inspections will be recorded in the inspection log and brought to the attention of a supervisor. At this time an evaluation of the seriousness of the problem will be noted and a decision made if the situation requires immediate action or the problem can be handled as routine maintenance. The evaluation of the seriousness of the problem will be recorded in the facility's inspection log. If the problem poses a threat to human health or the environment, action will be taken immediately. The Branch Manager has the overall responsibility for resolving any discrepancies found during the routine inspection.

***EMERGENCY NOTIFICATION***

***Emergency Coordinator***

The Branch Manager or designee is the emergency coordinator. Page iii at the beginning of this section includes the names, home addresses, and both office and cell phone numbers of the primary emergency coordinator and alternate. At least one employee will be either present on the facility premises or on call with responsibility for coordinating all emergency response measures at all times. This primary emergency coordinator and alternate emergency coordinator are thoroughly familiar with all aspects of the facility's contingency plan, all operations and activities at the facility, the location and characteristics of materials handled, the location of all records within the facility, and the facility layout. In addition, these coordinators have the authority to commit the resources needed to carry out the contingency plan.

***EMERGENCY RESPONSE AGENCIES AND TEAM MEMBERS***

The agencies and response team members to be notified whenever an imminent or actual emergency occurs are presented on page iii, located at the beginning of this plan.

### ***ACTIONS OF THE EMERGENCY COORDINATOR***

Whenever there is an imminent or actual emergency situation, the emergency coordinator (or the designee when the emergency coordinator is on call) must immediately:

- a. Notify all facility personnel present of the emergency. The relatively small size of this facility makes direct verbal communication the most expedient form of emergency notification. The emergency coordinator may also elect to proceed to the front of the building and repeatedly sound a car horn to notify building occupants of an emergency. A head count will be performed by the emergency coordinator.
- b. Notify appropriate state or local agencies with designated response roles if their help is needed.
- c. Summon the primary emergency coordinator, if that person is absent.

Whenever a release, fire, or explosion occurs, the emergency coordinator must immediately identify the character, exact source, amount, and areal extent of any released materials. Because of the limited types of chemicals in storage, the identification processes can easily be performed visually.

### ***Procedure for Assessing Possible Hazard to the Environment and Human Health***

- After identification of the character, source, amount, and extent of a release, fire, or explosion, the emergency coordinator must decide whether the situation can be contained or cleaned up by plant personnel and equipment.

- If a fire or explosion is determined uncontrollable by plant personnel or threatening neighboring establishments or population, assistance from a local emergency response agency shall be summoned immediately and an evacuation order requested.
- In case of a release outside of the containment area that is deemed immediately uncontrollable or unrecoverable, the local emergency response agency and/or specialty cleanup contractor shall be called in.
- After termination of a fire or explosion or containment and preliminary cleanup of a spill, evaluate whether residues in the form of gas or liquid have become airborne, seeped into ground water, and/or flowed into surface water bodies.
- Expert assistance should be requested to determine whether the escaped materials are potentially harmful and whether the receiving medium ultimately will be a populated area, public water supply source, a private well, or an environmentally sensitive area.
- Additional steps shall then be taken to mitigate the potential impact on the environment and human health, in accordance with expert recommendations.

If the emergency coordinator determines that the facility has had a release, fire, or explosion or other emergency that could threaten human health, or the environment outside the facility, the coordinator must report those findings, as follows:



- If the assessment indicates that evacuation of local areas may be advisable, the coordinator must immediately notify appropriate authorities. The coordinator must be available to help appropriate officials decide whether local areas should be evacuated.
- The coordinator must immediately notify the State Warning Point at (850) 413-9911 (24 hours).
- The coordinator must immediately notify the Southeast District of the FDEP, (561) 681-6600 during regular business hours, or the National Response Center (800) 424-8802, by telephone.

The report must include:

- (1) Name and telephone number of notifier;
- (2) Name and address of facility;
- (3) Time and type of incident (e.g., release, fire);
- (4) Name and quantity of material(s) involved, to the extent known;
- (5) The extent of injuries, if any; and
- (6) The possible hazards to human health, or the environment outside the facility.

Immediate assistance in assessing and responding to an emergency is obtained by the emergency coordinator by calling the 24-hour Safety-Kleen emergency number ((800) 468-1760). The 24 hour emergency number identified as Infotrac is a vendor contracted by Safety-Kleen to respond to all reports of spills or chemical emergencies. All Safety-Kleen facilities in the state use this contractual arrangement with Infotrac. This allows Safety-Kleen to respond to any emergency with a maximum of effort, thereby reducing the threat to human health or the environment.

During an emergency, the emergency coordinator must take all reasonable measures necessary to ensure that fires, explosions, and releases do not occur, recur, or spread to other hazardous waste at the facility. These measures must include, where applicable, stopping processes and operations, collecting and containing released waste, and removing or isolating containers.

If the facility stops operations in response to a fire, explosion, or release, the emergency coordinator must monitor for leaks, pressure build-up, gas generation, or ruptures in valves, pipes, or other equipment, wherever this is appropriate.

Immediately after an emergency, the emergency coordinator must provide for treating, storing, or disposing of recovered waste, contaminated soil or surface water, or any other material that results from a release, fire, or explosion at the facility.

The emergency coordinator must ensure that, in the affected area(s) of the facility:

- No waste that may be incompatible with the released material is treated or stored until cleanup procedures are completed; and
- All emergency equipment listed in the contingency plan is cleaned and fit for its intended use before operations are resumed.

The owner or operator must notify the appropriate state and local authorities that the facility is in compliance with the requirements of the preceding paragraph, before operations are resumed in the affected area(s) of the facility.

The owner or operator must note in the operating record the time, date, and details of any incident that requires implementing the contingency plan. Within 15 days after the incident, the owner

must submit a written report on the incident to the Southeast District of the FDEP, at 400 North Congress Avenue, Suite 200, West Palm Beach, FL 33401. The report must include:

1. Name, address, and telephone number of the owner or operator;
2. Name, address, and telephone number of the facility;
3. Date, time, and type of incident (e.g., fire, explosion);
4. Name and quantity of material(s) involved;
5. The extent of injuries, if any;
6. An assessment of actual or potential hazards to human health or the environment, where this is applicable; and
7. Estimated quantity and disposition of recovered material that resulted from the incident.

#### ***POTENTIAL SPILL SOURCES***

The following is a list of activities that have the potential for a small scale (less than 55 gallons of waste) pollution incident.

1. Moving of containers.  
Every time a container is moved, the possibility exists that it could tip over or be dropped. To minimize the possibility of spillage of solvent under those conditions, all container lids must be secured before the container is moved.

2. Delivery truck container transfers.
  - a. Individual delivery containers hold from 5 to 55 gallons of waste, a quantity which can be contained by oil sorbent clay or pads, if accidentally spilled.
  - b. Each vehicle is equipped with a hoist and hand cart for ease of moving clean solvent containers off the truck and into the customer's shop and returning the dirty solvent containers to the truck.
  - c. Lids are secured on containers during movement to prevent a spill.
  - d. Each truck contains a complete spill kit, shovel, and a quantity of sorbent material to contain minor spills.
  - e. The cargo must be secured in the route vehicle before transit.

### ***Spills Inside Buildings***

In the event of a spill indoors, the doors and windows should be opened to improve the ventilation in the confined area. Following the instructions of the Material Safety Data Sheet (MSDS), a worker would enter the area wearing, safety glasses, rubber gloves, boots, and mop up the liquid and return it to dirty storage. The cleanup is completed only when the workers have cleaned themselves and the emergency equipment with soap and water.

### ***Spills on Concrete Pads***

Concrete pads in loading and unloading areas are, in most cases, equipped with secondary containment. Under most spill conditions, product can be totally contained on the concrete surface and in the containment system. Upon containment, arrangements must be immediately undertaken to recover the material. Any soil that may be involved must be removed and handled in the same manner as the material spilled.

### ***Tank Spills or Leakage***

Aboveground tanks are underlain by a concrete slab and surrounded by a concrete dike to contain any spilled or leaked used oil and solvent. The containment system has been sized in accordance with the regulations, and the product will be totally contained under most spill conditions.

Should a spill occur, arrangements must be immediately undertaken to recover the material. In the event of leakage, tank repair or replacement will be initiated. Any soil that may be involved must be removed and handled in the same manner as the material spilled.

### ***Spill Control Procedures***

If a harmful discharge occurs:

1. Stop the discharge, if possible, by immediately transferring the liquid to a good container.
2. Retain, contain, or slow the flow of the material, if possible, by diking with sorbent pad or dirt. Based on the seriousness of the incident, the emergency coordinator will select the level of personal protective equipment required to address the incident. Pump and mop up the liquid from the floor into a good container and return the container to storage for subsequent shipment to a permitted Safety-Kleen TSDF for reclamation/disposal. The area and equipment that comes in contact with the spill must be decontaminated with soap and water. All residues resulting from containment and decontamination should be collected for proper disposal.
3. If the material escapes the containment efforts, immediately call the cleanup contractor with response time less than two hours (page iii). Record the date, time, and name of person taking the message. Call the primary emergency coordinator, if that person is absent.

4. Immediately recover spilled solvent to reduce property and environmental damage using the emergency and safety equipment stored onsite for such situations (Figure 5.6-1 and Table 5.6-1), or call in emergency response contractors (page iii). Start recovery operations immediately.

After recovery of spilled solvent, wash all contaminated impervious surfaces and equipment with soap and water. The residue of spill- or fire-contaminated soils and waste waters must be removed and disposed of at a permitted Safety-Kleen TSDF. In addition, the recovered solvent will be sent to a permitted Safety-Kleen TSDF for reclamation.

5. Report any incident as soon as possible to the 24-hour Safety-Kleen emergency line ((800) 468-1760). If a representative of Safety-Kleen's Environmental Department does not respond within 30 minutes, the emergency coordinator should call the State Warning Point ((850) 413-9911), or the National Response Center ((800) 424-8802).
6. The person reporting a spill should be prepared to give their name, position, company name, address, and telephone number. The person reporting also should give the nature of the material spilled (e.g., immersion cleaner, etc.) and, if possible, some estimate of the amount, and whether it is near a stream or could enter a stream by flowing through ditches or storm sewers.

If assistance is needed, the emergency coordinator should describe the containment status and specify any additional equipment needed. When reporting a spill, record the date and time of the call and the name of the person answering the call at the above number.

Spill prevention plans are reviewed with facility personnel every year, and records of the training are kept at the facility.

Information on every spill must be entered into Safety-Kleen's internal reporting system. A notification of each spill will be sent to the Corporate Environment Health and Safety Department.

Reports of emergency incidents will be transmitted to the FDEP or designee within 15 days of occurrence. This report shall include:

1. Name, address, and telephone number of the owner of operator;
2. Name, address, and telephone number of the facility;
3. Date, time, and type of incident (e.g., fire, explosion);
4. Name and quantity of materials involved;
5. The extent of injuries, if any;
6. An assessment of actual or potential hazards to human health or the environment, where this is applicable; and
7. Estimated quantity and disposition of recovered material that resulted from the incident.

### ***Containment Systems***

#### *Containerized Wastes*

Containers are stored in the container storage areas. The storage area is totally contained by a sloped concrete floor and collection trench(Figure 5.6-3). The containment system is maintained.

Any small spill that might occur would drain to the collection trench. The containment system is free of cracks. Containers are stored on pallets whenever possible.

In the container storage area, containers are handled with a fork-lift and/or a hand-truck free of sharp points. Every time a container is moved, the possibility exists that it will be tipped over, dropped, or punctured. To minimize the possibility of spillage, container lids are secured and containers are kept in an upright position. A small portable electric pump is available to quickly transfer the liquid from any leaking container into a safe container. Each route truck is equipped with a lift gate or an electric hoist. The appropriate device is used in the loading/unloading operation to minimize chances for spillage and/or employee injury. Containerized wastes at the Boynton Beach facility are loaded/unloaded in the vicinity of the contained concrete dock on the south side of the building (Figure 5.1-2) and return/fill dock. The return/fill dock is completely enclosed within secondary containment.

Because these areas are fully enclosed, spills originating in these areas should not come in contact with stormwater.

All containers are covered during movement and are located within diked, concrete floored areas to contain any potential spill. All spills of small quantities of waste that occur onsite will be cleaned up immediately through the use of hand-held electric pumps, mops, wet/dry vacuums, or sorbent materials, should a spill occur. Any spilled waste is contained for offsite recycling/reclamation.

All containerized waste movement is performed manually, by a pallet jack, or propane-fueled forklift truck. Therefore, power outages are not expected to threaten employee safety.

#### ***Return/Fill Station***

The return/fill station (Figure 5.6-4) is a covered, grated dock with concrete pads and curbing.



Sloping of the containment area is essentially non-detectable. However, there is a slight slope toward the sump. Delivery trucks are positioned in the containment area during loading/unloading. Any spills which occur on the concrete are cleaned up and the area decontaminated. The decontamination process should result in *de minimus* amounts of residue remaining. All traffic areas are covered by either concrete or asphalt, thus preventing direct contact with soils and ground water.

### ***Tank Area***

The tank area (Figure 5.6-5) houses five tanks within an enclosed building, and is provided with containment. The foundation slab is surrounded by a 36" concrete dike. Tankers used for off-loading/loading park on the concrete pad south of the tank area. Any leaks or spills at the tanker connections will be removed by absorbent or by wet vacuuming.

Employee training emphasizes the importance of inspection, maintenance, personal safety, and reporting of conditions with pollution incident potential. This training, coupled with Safety-Kleen's containment system and immediate cleanup of any spills, will greatly minimize, or eliminate the chance of contamination of ground water and/or surface water in the vicinity of the site. Surface run-off at the site does not come into contact with stored products or wastes in the waste management areas.

### ***DECONTAMINATION***

Once the spilled material has been cleaned up, the spill area and equipment used during the spill clean-up must be decontaminated and/or disposed, as described below.

*Concrete Surfaces/Containment Area*

- Concrete surfaces/containment areas will be cleaned with a detergent solution and then rinsed with hot water. The rinsate will be collected via wet vacuums and placed in containers. Visual inspection will be used to determine the success of the decontamination procedure.
- The intent of the surface decontamination is to prevent current or future releases of materials to the environment. Vigorous cleaning with detergent is sufficient to prevent releases to the environment during normal operations. Potential for hazards from residual materials to future occupants of the facility are addressed in the closure plans for the facility and the decontamination procedures incorporated therein.

*Equipment*

The equipment used to clean the area includes mops, pails, scrub brushes, and a wet/dry vacuum. Equipment which is considered reusable (i.e., pails, wet/dry vacuum, hoses) will be washed with detergent, and wash water and rinsate will be collected for proper disposal. All non-reusable equipment and/or equipment which is not capable of being decontaminated will be containerized and disposed of as hazardous waste.

*Wash Water and Rinsate*

If the rinsate or other wastes generated in the clean-up process is determined to be hazardous, it will be properly disposed of as a hazardous waste; otherwise, the material will be disposed of as an industrial waste. It should be noted that wash water and rinsate will not be allowed to drain to soil or surface waters.

## ***EMERGENCY RESPONSE EQUIPMENT AND COMMUNICATION***

Due to the small size of the facility, routine communication will be accomplished by voice communication or intercom. Emergency alarms are available at the tank farm and return/fill station. Telephones are used in case of a spill or fire emergency to summon assistance. Emergency numbers are posted by phones throughout the facility. Included with these phone numbers is the 24-hour Safety-Kleen spill number. Figure 5.6-1 provides the locations of fire extinguishers, first-aid kits, and emergency eyewashes. Other emergency response equipment (Table 5.6-1) is kept in a small storage area inside the warehouse near the return/fill station. This equipment includes mops and buckets, soap, shovels, and spill sorbent pads. Rubber gloves, boots, pumps, and a wet/dry vacuum cleaner are stored in an emergency supply area near the container storage area. Descriptions and uses of the equipment are provided in Table 5.8-1. The City of Boynton Beach supplies water for domestic use, decontamination, and fire fighting. Adequate aisle space is provided in the container storage area for movement in an emergency situation.

Pails, hoses, and detergents are the primary equipment that will be used for decontamination. The equipment available at the facility for emergency situations is adequate for most cases. Large or serious emergency situations will be remediated by local emergency response teams or special emergency response or cleanup contractors. The facility is constructed and operates in accordance with National Fire Protection Association (NFPA) standards and applicable local ordinances. Applicable health and safety standards are also observed at the facility.

## ***FIRE CONTROL PROCEDURES***

In the event of a fire at the facility, the following activities will be executed:

- Call the Fire Department (page iii). (Note: Center aisles are available in the container storage area to permit fire department personnel to pass freely with fire fighting equipment.)
- Act quickly with fire extinguishers to put out the fire before it spreads.
- Call the Police Department (page iii) to maintain traffic and on-lookers.
- Call the local hospital (page iii) to notify the type and extent of injuries, if any.

Areas within the Branch building (offices, return/fill station, container storage area) and the storage building have automatic fire fighting sprinkler systems (Figure 5.9-1). In addition, building walls have a four-hour fire rating.

### ***Ignitable Wastes***

All wastes and products are kept away from ignition sources--Personnel must confine smoking and open flames to remote areas, separate from any solvent (e.g., Outside front of facility). The parts washer solvent and paint waste handling areas are separated from the office area to minimize the potential for a fire to spread or injury to personnel to occur.

The tank farm is more than 20 feet from the property line. Likewise, the flammable storage area is 50 feet or more from the property line. Both of these distances meet the NFPA code for storage of ignitable materials.

Ignitable wastes are handled so that they do not:

1. Become subject to extreme heat or pressure, fire or explosion, or a violent reaction--The parts washer solvents and paint wastes are stored in a tank or in containers, none of which are near sources of extreme heat, fire, potential explosion sources or subject to violent reactions. The tanks are vented and the containers kept at room temperature to minimize the potential for pressure build-up. The tanks are under cover and painted white to reflect sunlight.
2. Produce uncontrolled toxic mists, fumes, dusts, or gases in quantities sufficient to threaten human health--The vapor pressure of petroleum based parts washer solvent is low (2 mm mercury) and it and the paint waste may react with strong oxidizers and reactive metals only. Toxic mists, fumes, and dusts do not form in quantities sufficient to threaten human health since strong oxidizers are not handled at this facility and the solvent vaporization is minimal under normal working conditions.

[Note: Drycleaning wastes are initially not flammable, but may produce toxic gases and hydrochloric acid at elevated temperatures (about 1,200°F).]

3. Produce uncontrolled fires or gases in quantities sufficient to pose a risk of fire or explosion--See "1" above and "4" below.
4. Damage the structural integrity of the Safety-Kleen facility--The parts washer solvent and paint wastes do not cause deterioration of the tank, drums, or other structural components of the facility.

***Incompatible Wastes***

Incompatible wastes are segregated in an appropriate manner in accordance with industry standards. All waste or products are kept away from ignition sources. Employees must confine smoking or open flames to designated safe areas.

Materials are handled so they do not:

- a. Generate extreme heat or pressure, fire or explosion, or violent reaction.
- b. Produce uncontrolled toxic mists, fumes, dusts, or gases in sufficient quantities to threaten human health.
- c. Produce uncontrolled fires or gases in sufficient quantities to pose a risk of fire or explosion.
- d. Damage the structural integrity of the Safety-Kleen facility.

Adequate aisle space is maintained to allow unobstructed movement of personnel, fire protection equipment, and decontamination equipment to any area of the facility operation in an emergency.

***External Factors***

The design of the facility is such that a harmful spill is highly unlikely to occur from most external factors. The storage tanks are inaccessible to non-Safety-Kleen personnel. Also, the container storage areas are in buildings which are inaccessible to unauthorized personnel.

1. Vandalism - Only extreme vandalism would result in a solvent spill or fire. Responses to spills and fires are described in a previous section of this Plan.
2. Strikes - A strike would not result in a solvent spill or fire.
3. Power Failure - A power failure would not result in a spill or fire. Should a power failure occur, all activities requiring electricity will cease.
4. Flooding - The waste management facility elevation is above the projected 100-year flood plain; therefore, a 100-year flood will not affect the facility.
5. Storms or Cold Weather - The solvent return/fill station, tank storage, and the container storage areas are roofed to eliminate the possibility of rain entering the waste management areas. Neither snow, cold weather, nor stormwater is expected to affect the facility.
6. Hurricanes - Safety-Kleen will adhere to the following procedures in the event of an approaching hurricane:

### **Hurricane Watch**

- Compile list of employees with telephone numbers. Give each a call-in number for the branch (Branch Manager cell phone or branch number) in the event operations are interrupted.
- Prepare battery-operated radio ( if the facility has one) and other equipment in the case of a power outage.
- Complete clean up of facility property – all empty drums, containers, trash containers, chairs, spill kits, etc. should be brought inside the facility structure.
- Facility services should be restricted to local routes (no more than 30-45 minutes from the facility) in case weather conditions deteriorate.
- Ensure any areas which may be exposed to rainwater are clean and secure filling nozzles.
- Route trucks should be re-fueled prior to the storm, emptied of all wastes and products, secure lift gates and side compartments.
- Ensure all bulk collection trucks have off-loaded into the facility storage tank or BIDS terminal.
- Move trucks inside building as possible and park the remaining trucks as close to the building as possible (preferably at the bay doors).
- Secure computers, monitors, etc. and wrap in plastic with tape.
- If possible schedule solvent tanker in a manner, which would allow the maximum volume of liquid to remain in the storage tanks as the structural integrity of a tank increases with content volume. Camlock all ends of hose fittings and turn off valves at the storage tanks.
- After all preparation has concluded, all employees should be sent home and the facility secured. Turn off main breaker.



### **Hurricane Warning**

- All employees are excused from work if their county of residence is put under a Hurricane Warning. However, the branch manager or other key personnel may be available to perform some last minute activities if weather permits.
- Notification, via incident alert system or telephone, that a hurricane warning has been posted.
- Walk-around of facility to ensure all preparation work conducted under the Hurricane Watch has been completed.
- Completion of any remaining items that were not finished.

### **Following Hurricane**

- Depending on the intensity of the storm, the following actions should be carried out as soon as conditions permit.
- Employees should phone-in, following local government employee guidelines, for returning to work.
- Branch manager and/or the emergency coordinator should be the first people to enter the facility. Perform a complete walk-around of the facility checking for security of premises, waste management areas, determine if there are any safety issues that pose risk for employees, inspect for any damage, looting, or theft and generate a list of items to report.

### ***EVACUATION PLAN***

In an uncontrolled emergency, all persons are to be evacuated from the area by means of a verbal cry or use of the public address system and are to assemble across the street from the entrance drive to the facility to assure that all personnel are accounted for and out of the area. The emergency coordinator may elect to use a car horn as a means of emergency notification. A head count will be performed by the emergency coordinator. The Fire Department must be notified at the time of evacuation either from a safe onsite building or neighboring facilities. Clearly marked exits exist in warehouse and office area.

### ***AVAILABILITY AND REVISION OF THE PREPAREDNESS, PREVENTION, AND CONTINGENCY PLAN***

This Plan and all revisions to the Plan are kept at the facility and regularly updated throughout the operating life of the facility. Copies of this document are provided to local authorities and organizations listed under the Preparedness and Prevention Plan, which may be called upon to provide emergency services. This Plan and all revisions to the Plan are made readily available to employees working at the facility.

This Plan is reviewed and updated, if necessary, whenever:

1. The facility permit is modified to allow new process wastes to be stored or treated, or applicable regulations are revised;
2. The list or location of emergency equipment changes;
3. The facility changes in its design, construction, operation, maintenance, or other circumstances in a way that:
  - a. Materially increase the potential for fires, explosions, or releases of hazardous waste or hazardous waste constituents, or
  - b. Changes in response necessary in an emergency.

4. The names, addresses, or phone numbers of emergency coordinators change;
5. The employee assigned to each emergency task changes, or
6. The plan fails when implemented in an emergency.

#### ***ARRANGEMENTS WITH LOCAL AUTHORITIES***

Arrangements have been made to familiarize the Police Department, Fire Department, and local emergency response teams with the layout of the facility, properties of hazardous materials handled (Material Safety Data Sheets) at the facility and associated hazards, places where facility personnel would normally be working, entrances to and roads inside the facility, and possible evacuation routes. Potential primary and secondary spill control contractors are identified in this Plan.

Arrangements have been made to familiarize the local hospital with the properties of hazardous waste handled at the facility and the types of injuries or illnesses which would result from fires, explosions, or releases at the facility.

Appendix A of this Plan (located at the end of this section) includes copies of example distribution letters for transmittal. Copies of updated transmittal letters are kept on file at the facility.

*Revision 0 – 05/23/12*

*Appendix A*

*Example Letters to Local Authorities*

---

(Date)

**HAND DELIVERED**

Boynton Beach Fire Department – Station #5  
2080 High Ridge Road  
Boynton Beach, FL 33426

RE: Safety-Kleen Systems, Inc., 5610 Alpha Drive, Boynton Beach, FL 33426

Dear Sir/Madam:

Under terms of the Environmental Protection Agency (EPA) regulations 40 CFR 264, Subpart D, Safety-Kleen Systems, Inc. (SK) must provide local police, fire departments, hospitals, and state or local emergency response teams with a copy of the contingency plan for the above-referenced facility, and any revisions to the plan. A copy of the updated contingency plan is enclosed for your files. Please review this updated contingency plan. Also enclosed are Material Safety Data Sheets (MSDSs) for materials handled at the facility.

EPA regulations 40 CFR 264, Subpart C, require that SK attempt to make arrangements for the provision of emergency assistance. Emergency assistance for this facility may be needed from the police and fire departments, state emergency response teams, and hospitals. The completion and return of the enclosed form will acknowledge receipt of this update to the contingency plan and provides your agreement to be available for emergency assistance.

Thank you for your cooperation in this matter. Should you have any questions or desire to visit our facility, please contact me at (561) 736-1339.

Sincerely,

Branch Manager  
Safety-Kleen – Boynton Beach

Enclosures

\_\_\_\_\_  
(Date)

Boynton Beach Fire Department – Station #5  
2080 High Ridge Road  
Boynton Beach, FL 33426

Branch Manager  
Safety-Kleen Systems, Inc.  
5610 Alpha Drive  
Boynton Beach, FL 33426

RE: Safety-Kleen Systems, Inc., 5610 Alpha Drive, Boynton Beach, FL 33426

Dear Branch Manager:

This is to acknowledge that the Boynton Beach Fire Department has been made aware of the potential need for emergency assistance associated with the operation of the Safety-Kleen Systems, Inc. (SK) facility at 5610 Alpha Drive, Boynton Beach, FL 33426. The Boynton Beach Fire Department understands that the emergency coordinator is available to provide additional information on the nature of assistance that may potentially be required, type of physical and chemical hazards that may potentially be encountered, and the type of injury or illness that may potentially occur.

This is to acknowledge receipt of the updated contingency plan information for the Boynton Beach, Florida facility.

The Boynton Beach Fire Department \_\_\_\_\_ (agrees/declines) to be available to provide emergency assistance for the Safety-Kleen Systems, Inc. facility at 5610 Alpha Drive, Boynton Beach, FL 33426.

Sincerely,

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Title)

\_\_\_\_\_ Check here if you do not have a copy of the contingency plan for this SK facility.

---

(Date)

**HAND DELIVERED**

Boynton Beach Police Department  
135 NE 1<sup>st</sup> Avenue  
Boynton Beach, FL 33435

RE: Safety-Kleen Systems, Inc., 5610 Alpha Drive, Boynton Beach, FL 33426

Dear Sir/Madam:

Under terms of Environmental Protection Agency (EPA) regulations 40 CFR 264, Subpart D, Safety-Kleen Systems, Inc. (SK) must provide local police, fire departments, hospitals, and state or local emergency response teams with a copy of the contingency plan for the above-referenced facility, and any revisions to the plan. A copy of the updated contingency plan is enclosed for your files. Please review this updated contingency plan. Also, enclosed are Material Safety Data Sheets (MSDSs) for materials handled at the facility.

EPA regulations 40 CFR 264, Subpart C, require that SK attempt to make arrangements for the provision of emergency assistance. Emergency assistance for this facility may be needed from the police and fire departments, state emergency response teams, and hospitals. The completion and return of the enclosed form will acknowledge receipt of this update to the contingency plan and provides your agreement to be available for emergency assistance.

Thank you for your cooperation in this matter. Should you have any questions or desire to visit our facility, please contact me at (561) 736-1339.

Sincerely,

Branch Manager  
Safety-Kleen – Boynton Beach

Enclosures

\_\_\_\_\_  
(Date)

Boynton Beach Police Department  
135 NE 1<sup>st</sup> Avenue  
Boynton Beach, FL 33426

Branch Manager  
Safety-Kleen Systems, Inc.  
5610 Alpha Drive  
Boynton Beach, FL 33426

RE: Safety-Kleen Systems, Inc., 5610 Alpha Drive, Boynton Beach, FL 33426

Dear Branch Manager:

This is to acknowledge that the Boynton Beach Police Department has been made aware of the potential need for emergency assistance associated with the operation of the Safety-Kleen Systems, Inc. (SK) facility at 5610 Alpha Drive, Boynton Beach, FL 33426. The Boynton Beach Police Department understands that the emergency coordinator is available to provide additional information on the nature of assistance that may potentially be required, type of physical and chemical hazards that may potentially be encountered, and the type of injury or illness that may potentially occur.

This is to acknowledge receipt of the updated contingency plan information for the Boynton Beach, Florida facility.

The Boynton Beach Police Department \_\_\_\_\_ (agrees/declines) to be available to provide emergency assistance for the Safety-Kleen Systems, Inc. facility at 5610 Alpha Drive, Boynton Beach, FL 33426.

Sincerely,

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Title)

\_\_\_\_\_ Check here if you do not have a copy of the contingency plan for this SK facility.



---

(Date)

**HAND DELIVERED**

Hospital Administrator  
Bethesda Memorial Hospital  
2815 S. Seacrest Blvd.  
Boynton Beach, FL 33435

RE: Safety-Kleen Systems, Inc., 5610 Alpha Drive, Boynton Beach, FL 33426

Dear Sir/Madam:

Under terms of Environmental Protection Agency (EPA) regulations 40 CFR 264, Subpart D, Safety-Kleen Systems, Inc. (SK) must provide local police, fire departments, hospitals, and state or local emergency response teams with a copy of the contingency plan for the above-referenced facility, and any revisions to the plan. A copy of the updated contingency plan is enclosed for your files. Please review this updated contingency plan. Also enclosed are Material Safety Data Sheets (MSDSs) for materials handled at the facility.

EPA regulations 40 CFR 264, subpart C, require that SK attempt to make arrangements for the provision of emergency assistance. Emergency assistance for this facility may be needed from the police, fire departments, state emergency response teams, and hospitals. The completion and return of the enclosed form will acknowledge receipt of this update to the contingency plan and provides your agreement to be available for emergency assistance.

Thank you for your cooperation in this matter. Should you have any questions or desire to visit our facility, please contact me at (561) 736-1339.

Sincerely,

Branch Manager  
Safety-Kleen – Boynton Beach

Enclosures

\_\_\_\_\_  
(Date)

Hospital Administrator  
Bethesda Memorial Hospital  
2815 S. Seacrest Blvd.  
Boynton Beach, FL 33435

Branch Manager  
Safety-Kleen Systems, Inc.  
5610 Alpha Drive  
Boynton Beach, FL 33426

RE: Safety-Kleen Systems, Inc., 5610 Alpha Drive, Boynton Beach, FL 33426

Dear Branch Manager:

This is to acknowledge that the Hospital Administrator, Bethesda Memorial Hospital, has been made aware of the potential need for emergency assistance associated with the operation of the Safety-Kleen Systems, Inc. (SK) facility at 5610 Alpha Drive, Boynton Beach, FL 33426. The Hospital Administrator, Bethesda Memorial Hospital understands that the emergency coordinator is available to provide additional information on the nature of assistance that may potentially be required, type of physical and chemical hazards that may potentially be encountered, and the type of injury or illness that may potentially occur.

This is to acknowledge receipt of the updated contingency plan information for the Boynton Beach, Florida facility.

The Hospital Administrator, Bethesda Memorial Hospital \_\_\_\_\_ (agrees/declines) to be available to provide emergency assistance for the Safety-Kleen Systems, Inc. facility at 5610 Alpha Drive, Boynton Beach, FL 33426.

Sincerely,

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Title)

\_\_\_\_\_ Check here if you do not have a copy of the contingency plan for this SK facility.

FIGURE 5.1-1  
FACILITY LAYOUT AND ACCESS CONTROL FEATURES  
SAFETY-KLEEN SYSTEMS, INC. FACILITY  
BOYNTON BEACH, FLORIDA

REVISION 0 - 05/23/12

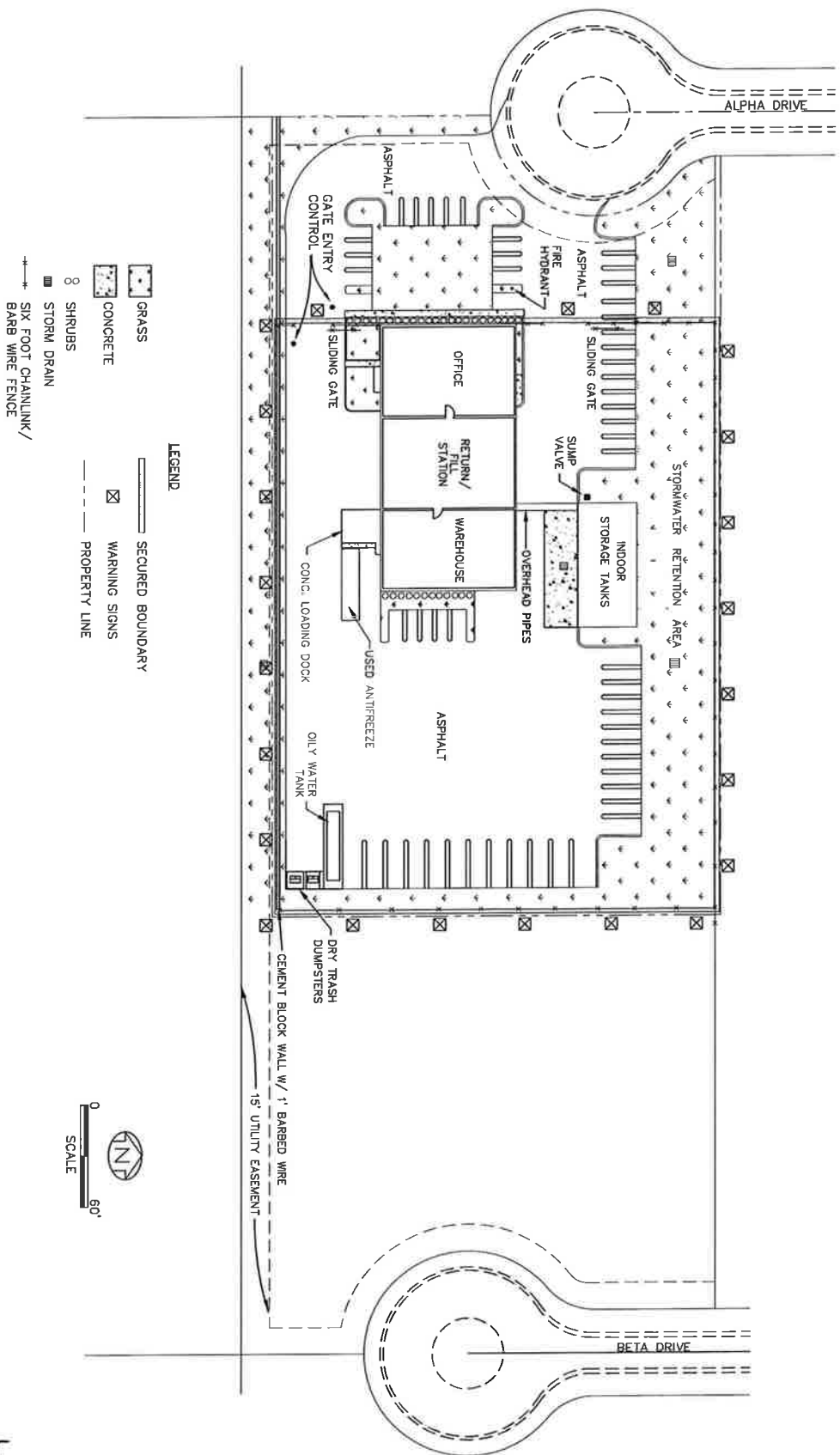


FIGURE 5.1-2  
TRUCK TRAFFIC PATTERNS AND LOADING/UNLOADING AREAS OF HAZARDOUS WASTE  
SAFETY-KLEEN SYSTEMS, INC. FACILITY  
BOYNTON BEACH, FLORIDA

REVISION 0 - 05/23/12

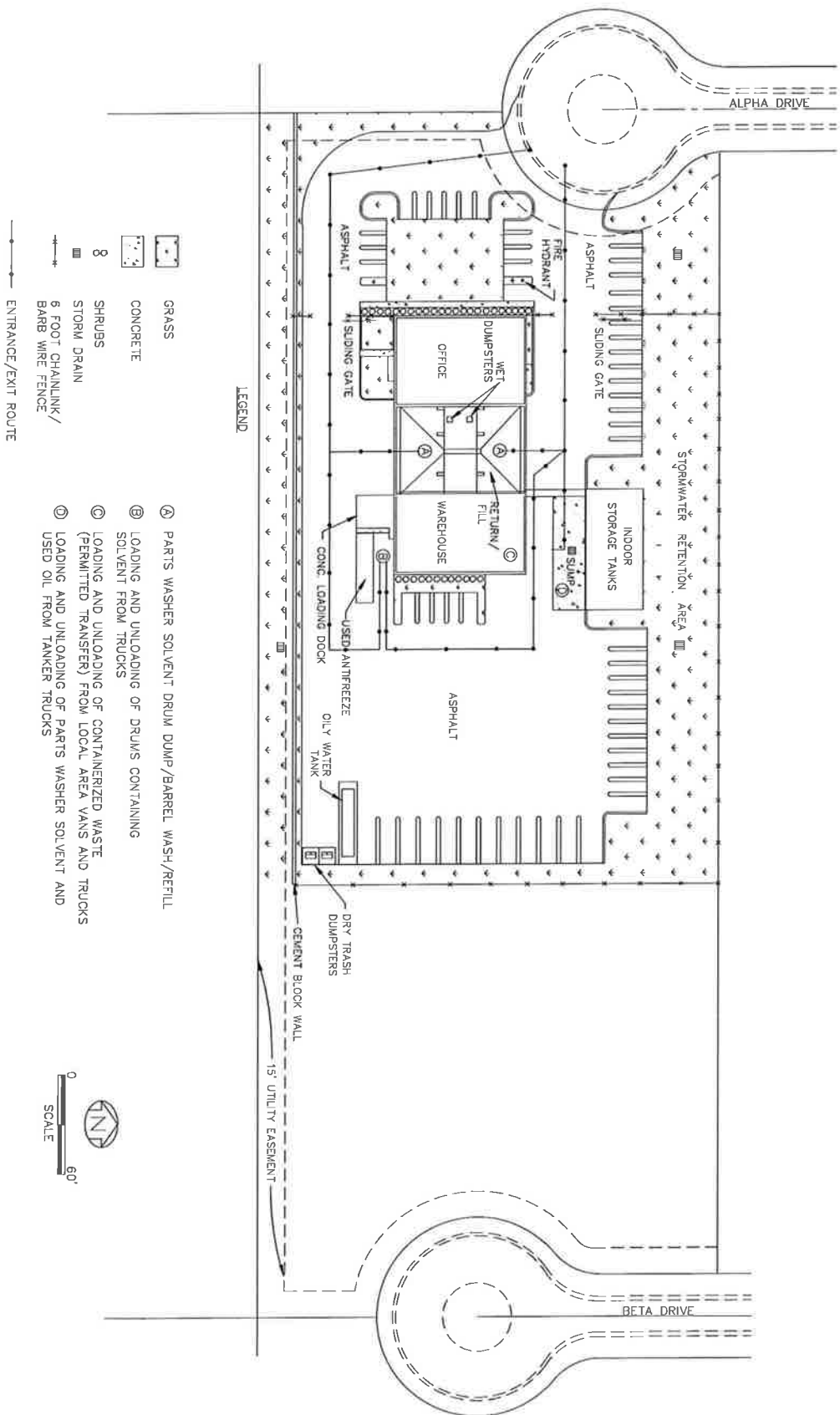


FIGURE 5.1-3  
EVACUATION ROUTES  
SAFETY-KLEEN SYSTEMS, INC. FACILITY  
BOYNTON BEACH, FLORIDA

REVISION 0 - 05/23/12

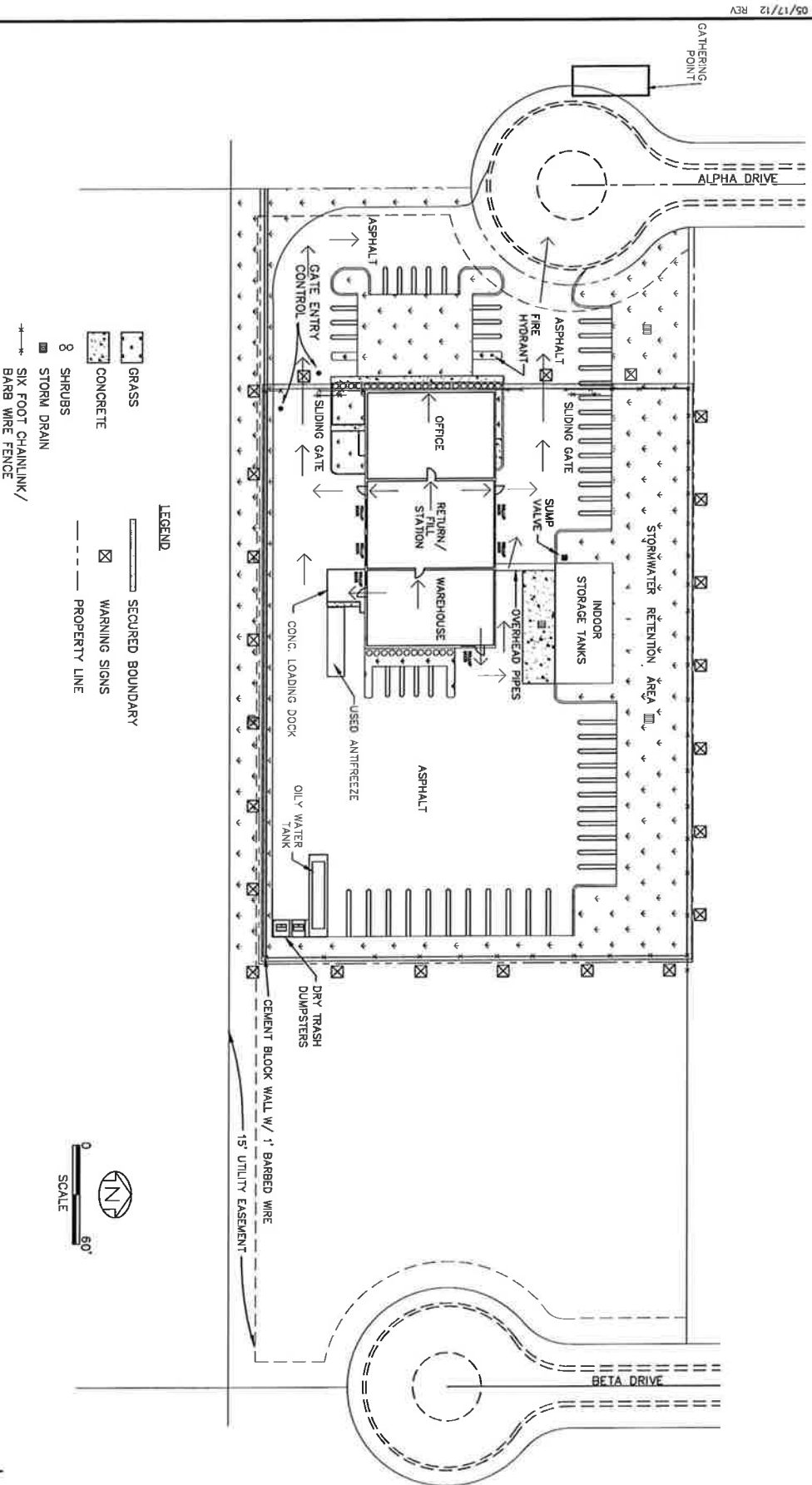


Figure 5.2-1

## Safety-Kleen Boynton Beach, Florida – Weekly Inspection of Safety &amp; Emergency Equipment

Inspectors Name/Title:

Monday	Tuesday	Wednesday	Thursday	Friday

DATE (MM/DD/YY)

TIME

**SAFETY & EMERGENCY EQUIPMENT****Fire Extinguishers:**

A N

If "N" circle appropriate problem: Overdue inspection, inadequately charged, inaccessible, other: \_\_\_\_\_

**Eyewash and Shower:**

A N

If "N" circle appropriate problem: disconnected or malfunctioning valves, inadequate pressure, inaccessible, malfunctioning drain, leaking, other: \_\_\_\_\_

**First Aid Kit:**

A N

If "N" circle appropriate problem: inadequate inventory, other: \_\_\_\_\_

**Spill Cleanup Equipment:**

A N

If "N" circle appropriate problem: inadequate supply of sorbent, towels and/or clay, inadequate supply of shovels, Mops, empty drums, wet/dry vacuum, other: \_\_\_\_\_

**Personal Protective Equipment:**

A N

If "N" circle appropriate problem: inadequate supply of aprons, gloves, glasses, respirators, other: \_\_\_\_\_

**Communication Devices:**

A N

If "N" circle appropriate problem: inadequate supply of telephones, malfunctioning telephone(s), malfunctioning Intercom, emergency alarm does not work, telephones are not located where needed, other: \_\_\_\_\_

**SECURITY DEVICES****Gates and Locks**

A N

If "N" circle appropriate problem: sticking, corrosion, lack or warning signs, fit, other: \_\_\_\_\_

**Fence**

A N

If "N" circle appropriate problem: broken ties, corrosion, holes, distortion, other: \_\_\_\_\_

**MISCELLANEOUS EQUIPMENT****Dry Dumpster:**

A N

If "N" circle appropriate problem: rust, corrosion, split seams, distorting, deterioration, excess debris, liquids in unit, Other: \_\_\_\_\_

Observations, comments, date and specific nature of repairs or any items indicated as "NOT ACCEPTABLE"

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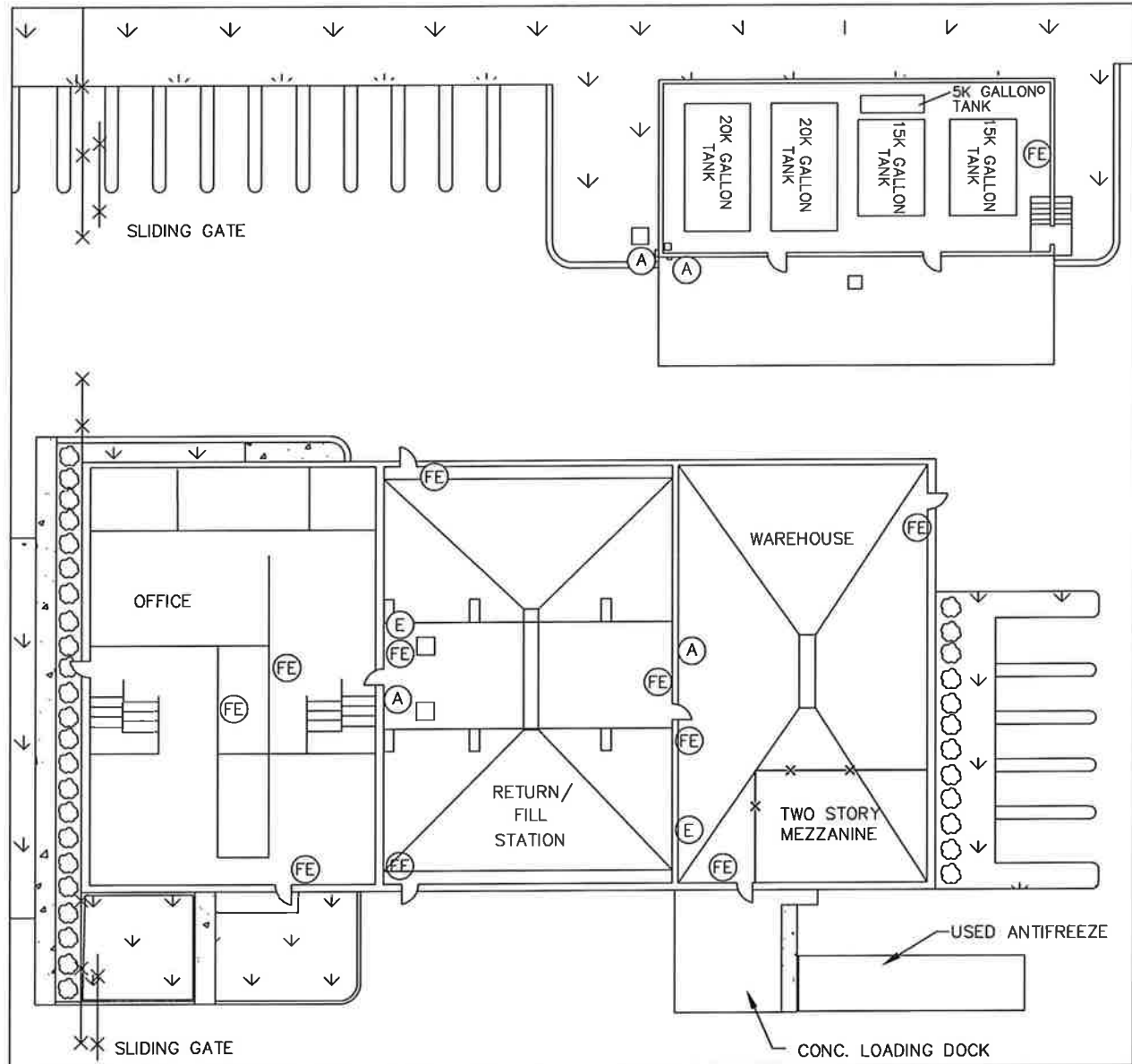


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A = Acceptable N = Not Acceptable: Circle appropriate item for each line above and note specific problem until issue is fixed.

**FIGURE 5.6-1  
LOCATIONS OF EMERGENCY EQUIPMENT  
SAFETY-KLEEN SYSTEMS, INC. FACILITY  
BOYNTON BEACH, FLORIDA**

REVISION 0 - 05/23/12



**LEGEND**

- (FE) FIRE EXTINGUISHER
- (E) EYE WASH/SHOWER
- (A) ALARM

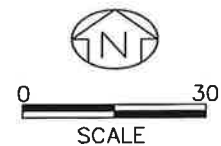


FIGURE 5.6-2

SAFETY-KLEEN CORP. - U.S. SERVICE CENTERS AND DCs/ACs/OCs  
INCIDENT REPORT FORM  
Report all environmental incidents to 3E, 1-800-468-1760 immediately  
(including fires, releases, etc.).

1. Facility Number: \_\_\_\_\_ Facility Location: \_\_\_\_\_
2. Incident Date: \_\_\_\_\_ Approx. Time Began: \_\_\_\_\_ Discovered: \_\_\_\_\_ Ended: \_\_\_\_\_
3. Reported By: \_\_\_\_\_
4. Incident Location: (a) If a S-K site, specify area of facility: \_\_\_\_\_  
(b) If not at S-K site, specify location, contact, and phone#: \_\_\_\_\_

IF A RELEASE, COMPLETE THIS SECTION:

5. Describe incident in detail (if applicable include materials, volume released, and person/property involved): \_\_\_\_\_  
\_\_\_\_\_
6. Materials involved: (common name, chemical name) \_\_\_\_\_
7. Cause of incident: \_\_\_\_\_
8. Injuries or property damage: \_\_\_\_\_
9. Describe response action and material not recovered: \_\_\_\_\_
10. Cleanup residue volume: \_\_\_\_\_ Spill Kit Restocked? \_\_\_\_\_ Yes \_\_\_\_\_ No
11. Emergency response contractor (specify name and phone #): \_\_\_\_\_
12. Emergency agencies at scene (names and phone #s): \_\_\_\_\_
13. Potential public exposure? \_\_\_\_\_ Yes \_\_\_\_\_ No Comments: \_\_\_\_\_
14. Describe actions taken to prevent recurrence: \_\_\_\_\_
15. Spill residue shipping papers (check): \_\_\_\_\_ Bill of Lading \_\_\_\_\_ Manifest \_\_\_\_\_ Not Applicable
16. Emergency EPA ED# (offsite releases): \_\_\_\_\_

17. IF NOT A RELEASE, DESCRIBE INCIDENT: \_\_\_\_\_  
\_\_\_\_\_

18. Follow-up action: \_\_\_\_\_  
\_\_\_\_\_

19. Notification:

	3E 1-800-468-1760	State (SERC, EPA)	Nat'l Response Center 1-800-424-8802	Local (LEPC, other)
Required?	<input checked="" type="checkbox"/> yes	____ yes ____ no	____ yes ____ no	____ yes ____ no
Date/Time:	_____	_____	_____	_____
Contact name:	_____	_____	_____	_____
Report #:	_____	_____	_____	_____
Comments rec'd:	_____	_____	_____	_____

20. Written Reports:

Required? ☒ no \_\_\_\_\_ yes \_\_\_\_ no \_\_\_\_\_ yes \_\_\_\_ no \_\_\_\_\_ yes \_\_\_\_ no

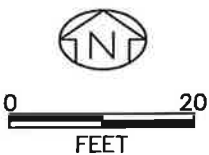
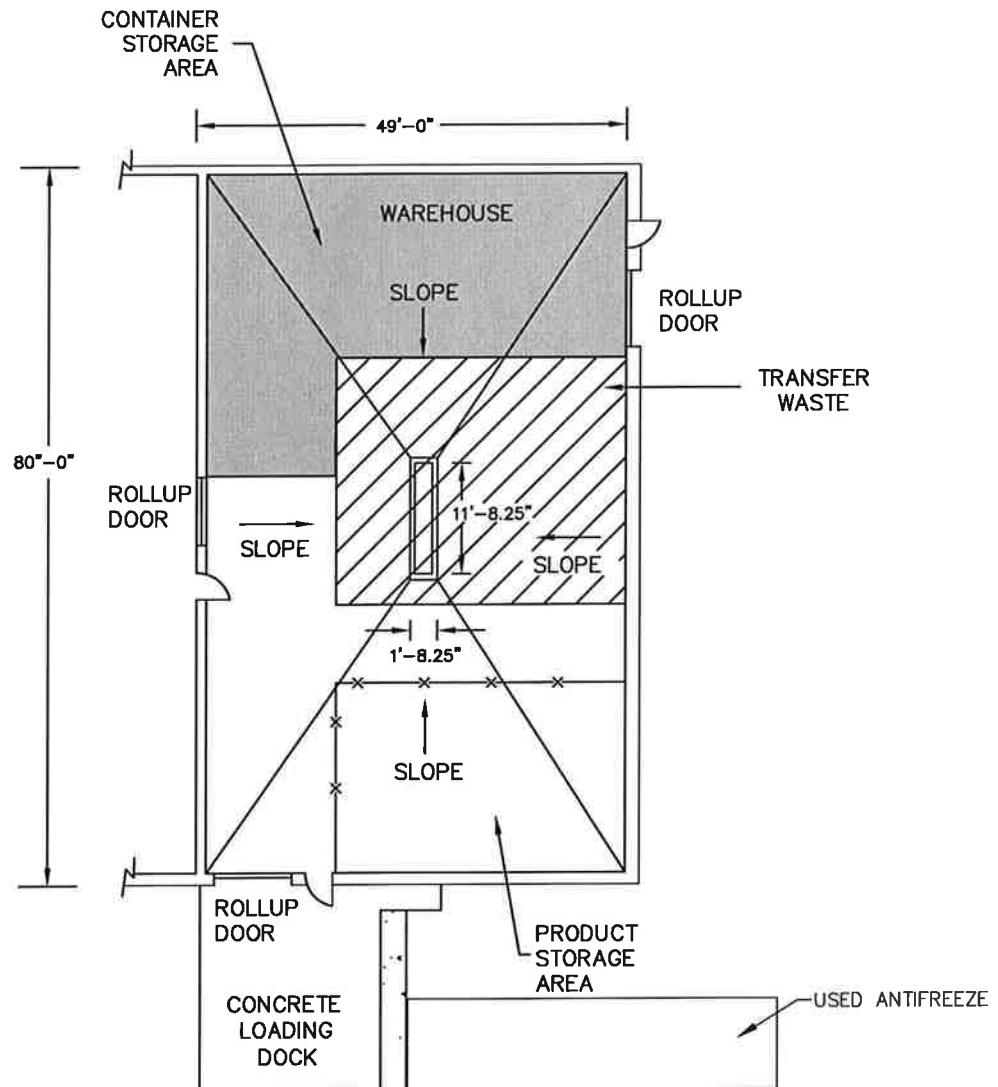
Name of preparer (print): \_\_\_\_\_

Distribution: (1) immediately deliver/fax to facility Environmental Engineer; (2) within 24 hours fax to Environmental Affairs Manager;  
(3) file original in Facility Incident Report File (EHS 1430). (NO MAIL DISTRIBUTION REQUIRED.)



FIGURE 5.6-3  
CONTAINER STORAGE AREA  
SAFETY-KLEEN SYSTEMS, INC. FACILITY  
BOYNTON BEACH, FLORIDA

REVISION 0 - 05/23/12



LEGEND  
-X-X- CHAIN LINK FENCE



FIGURE 5.6-4  
RETURN/FILL STATION  
SAFETY-KLEEN SYSTEMS, INC. FACILITY  
BOYNTON BEACH, FLORIDA

REVISION 0 - 05/23/12

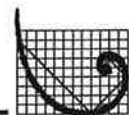
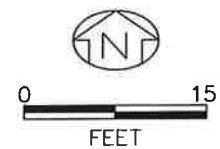
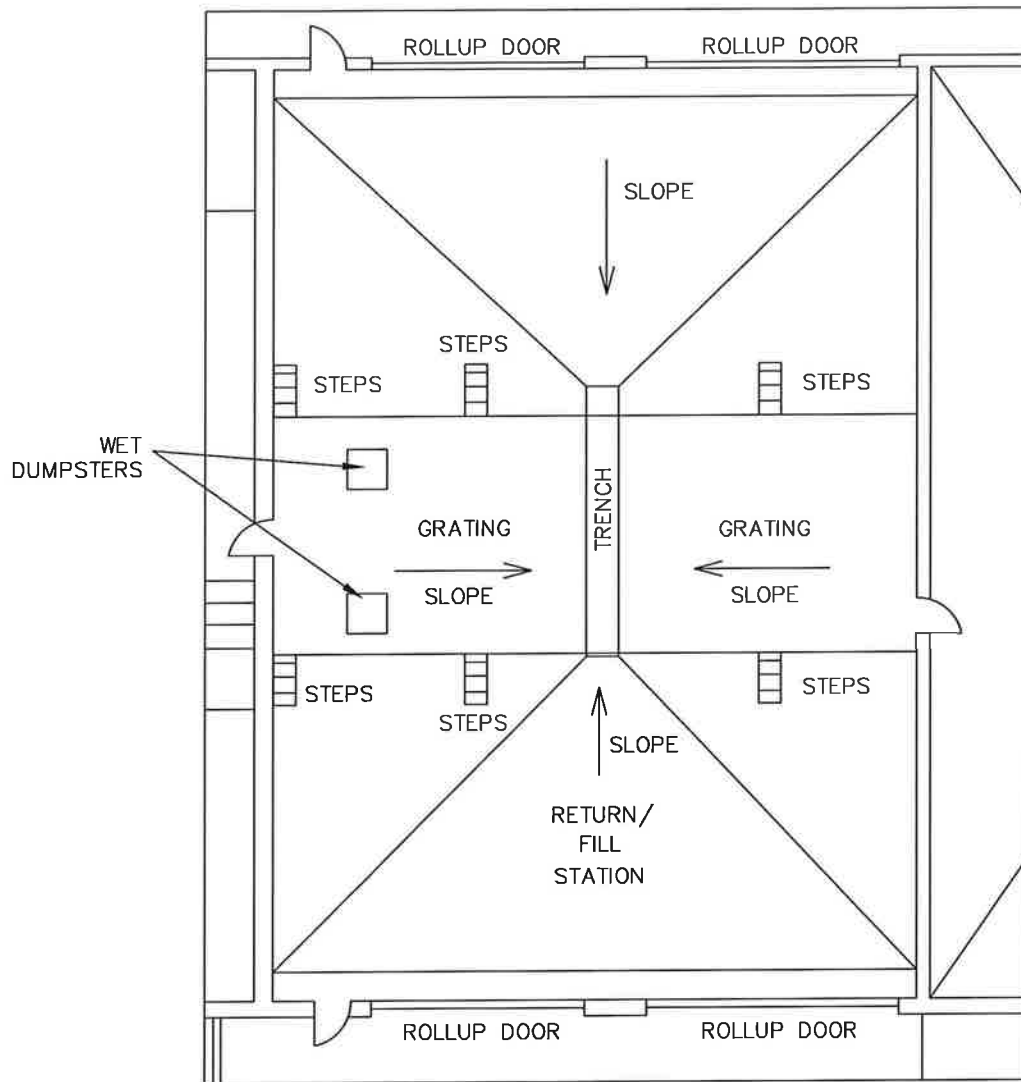
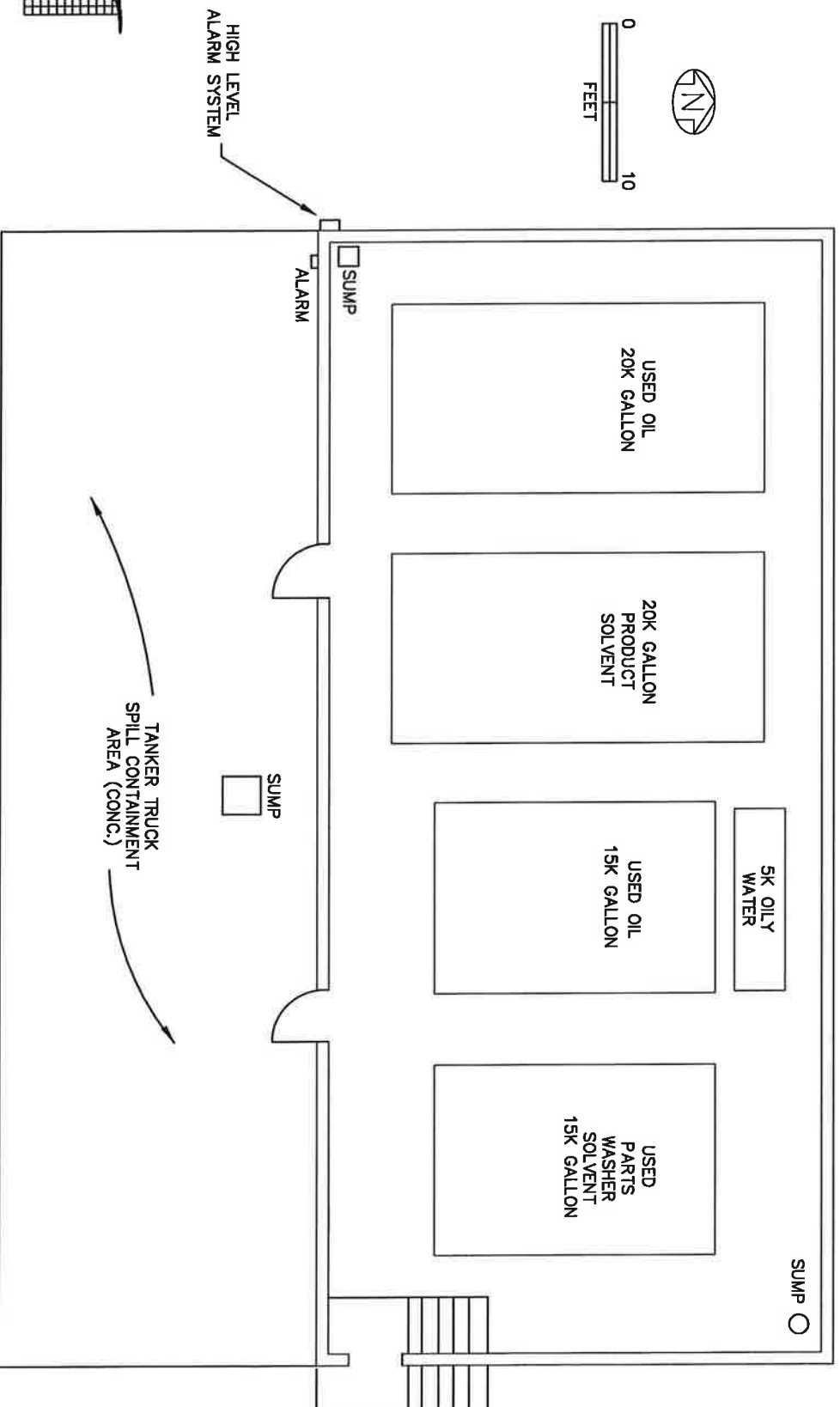


FIGURE 5.6-5  
TANK STORAGE AREA  
SAFETY-KLEEN SYSTEMS, INC. FACILITY  
BOYNTON BEACH, FLORIDA



NOTE: AN ADDITIONAL TANKER IS USED FOR OILY WATER STORAGE. THIS TANKER IS LOCATED WITHIN A SPILL CONTAINMENT BERM IN THE SOUTHEAST CORNER OF THE FACILITY YARD AREA (SEE FIGURE 2.1-1 OR 5.1-1).

**TABLE 5.1-1  
PERMITTED AND TRANSFER WASTES**

Waste Type	Process Code(s)	Estimated Annual Amounts (Tons)	Waste Codes
Spent Parts Washer Solvent	S01* S02**	848	D001 and D-codes listed in note below
Branch-Generated Liquids/Solids (Debris)	S01*	17	D001 and D-codes listed in note below; F001, F002, F003, F004, F005
Dumpster Sediment	S01*	Included above	D001 and D-codes listed in note below
Tank Bottoms	S01*	Included above	D001 and D-codes listed in note below
Used Immersion cleaner (IC 699)	S01*	28	D-codes listed in note below
Dry Cleaning Waste (Perchloroethylene)	S01*	290	F002 and D-codes listed in note below
Dry Cleaning Waste (Non-perchloroethylene)	S01*	Included above	D-codes listed in note below
Paint Wastes	S01*	46	D001, F003, F005 and D-codes listed in note below
Fluid Recovery Service (FRS)	S01**	220	Transfer wastes-waste codes assigned by generator
Mercury-Containing Lamps/Devices	N/A***	Less than 2.2	N/A-handled as non-hazardous transfer wastes

**NOTES:**

D-Codes: D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D023, D024, D025, D026, D027, D028, D029, D030, D032, D033, D034, D035, D036, D037, D038, D039, D040, D041, D042, D043

\* This waste will be stored in containers in the container storage area. The maximum capacity in the container storage area for hazardous waste and product is 29,400 gallons, with 6,912 gallons being waste.

\*\* The spent parts washer solvent storage tank has a capacity of 15,000 gallons and may be filled up to 14,250 gallons.

\*\*\* This waste will be held for transfer in containers in the transfer area.

**TABLE 5.2-1**  
**INSPECTION SCHEDULE**

Area/Equipment	Specific Item	Types of Problems	Frequency of Inspection
Safety Equipment	Fire Extinguishers	Overdue inspection Inadequate charge Inaccessible	Weekly
	Eyewash	Disconnected/malfunctioning valves Pressure Inaccessible	Weekly
	First-Aid Kit	Inadequate inventory	Weekly
	Spill Cleanup Equip PPE	Inadequate supply Inadequate supply	Weekly Weekly
Security Equipment	Gates and Locks	Sticking, corrosion, lack of warning signs	Weekly
	Fence	Broken ties, corrosion, holes	Weekly
Storage Tanks	Volume in Tank	Never more than 95% full	Daily
	Tank Exterior	Rusty, loose anchoring, grounding, wet spots, leaks, discoloration	Daily
	High Level Alarms Volume Gauges	Malfunctioning siren/light Disconnected/ sticking, condensation	Daily Daily
Secondary Containment	Bottom and Walls	Cracks, debris, ponding, wet spots, stains, deterioration, displacement, leaks	Daily
	Rigid Piping and Supports	Distortion, corrosion, paint failures, leaks	Daily
Transfer Pumps and Hoses	Pump Seals	Leaks	Daily
	Motors	Overheating	Daily
	Fittings	Leaks	Daily
	Valves	Leaks, sticking	Daily
	Hose Connections and Fittings	Cracks, loose, leaks	Daily
	Hose Body	Crushed, cracked, thin spots, leaks	Leaks

**TABLE 5.2-1**  
**INSPECTION SCHEDULE**

Area/Equipment	Specific Item	Types of Problems	Frequency of Inspection
Return/Fill Station	Wet Dumpster	Excess sediment build-up, leaks, rust, split seams, distortion, deterioration, excess debris	Daily
Container Storage Area	Total Volume in Storage Condition of Drums	Exceeds permitted limit Missing or loose lids, labels missing, incomplete or incorrect, rust, leaks, distortion	Daily Daily
	Stacking/Placement/Aisle Space	Containers not on pallets, unstable stacks, inadequate aisle space	Daily
Secondary Containment	Curbing, Floor and Sump	Ponding/wet spots, deterioration, displacement, leaks, other	Daily

**TABLE 5.6-1**  
**EMERGENCY RESPONSE EQUIPMENT**

<b>Description</b>	<b>Type/Capacity</b>	<b>Location</b>	<b>Quantity</b>
Fire Extinguisher	ABC (10 lb)	Warehouse	3
		Drum Return/Fill Area	4
		Office (1 <sup>st</sup> Floor)	3
Eyewash	Fountain	Warehouse	1
		Drum Return/Fill Area	1
First-Aid	OSHA Compliant	Warehouse	1
Telephones	Standard	Managers Office	1
Telephones	Standard	Secretary's Desk	1
Telephones	Standard	Warehouse	1
Intercom	Explosion Proof	All Buildings	N/A
Gloves	Rubber	Emergency Equip Area	Min. 3
Boots (Optional)	Rubber	Emergency Equip Area	Min. 3
Protective Clothing	Apron	Emergency Equip Area	Min. 3
Eye Protection	Goggles/Safety Glasses	Emergency Equip Area	Min. 3
Sorbent Material	Oil Absorbing	Emergency Equip Area	Min. 1 bale
Shovel	Standard	Emergency Equip Area	Min. 1
Mop and Bucket	Standard	Emergency Equip Area	Min. 1
Respirator	Air Purifiers	Emergency Equip Area	Min. 3
Pump	Hand-held, Electric	Emergency Equip Area	Min. 1
Wet/Dry Vacuum	Portable, Electric	Emergency Equip Area	1
Water	Fire fighting Sprinkler	All Buildings	N/A
Mercury Decontaminant	HgX	Emergency Equip Area	Min. 1

TABLE 5.8-1

## DESCRIPTION AND USES OF EMERGENCY EQUIPMENT

Item	Location	Use/Description
Gloves	Locker Room/Emergency Equipment Area	The rubber or plastisol gloves sold by Safety-Kleen are to be used when handling the solvents.
Safety Glasses or Face Mask	Locker Room/Emergency Equipment Area	To be worn when loading or unloading solvent.
Plastic Aprons	Locker Room/Emergency Equipment Area	For situations where a solvent may get on the workers clothing.
Eyewash Stank	Container storage area and return/fill station	The workers should operate the stand and Become familiar with its operation
Showers	Office to return/fill dock exit	These are used for emergency and routine cleaning of employees
Fire Extinguisher	Points where solvent is transferred	An ABC extinguisher is a universal system used on paper, wood, and electrical, as well as solvent fires. The extinguishers must be full and carry an inspection tag.
Absorbent Material	Loading/Unloading Area/Warehouse	An adequate supply will be on hand to handle small spills. A 50 lb bag will also be kept in the warehouse to remediate and prevent spread of large spills
Air Purifying Respirator	Employee Lockers	Worn by any person entering an area or performing work where potentially harmful fumes are present or suspected to be present but not considered to be immediately dangerous to life and health
Portable Pumps Wet/Dry Vac	Warehouse	For use in picking up liquid spills in the container containment area, or other paved areas, and transfer materials associated with spills
Recovery Containers	Warehouse	Emergency storage of spilled product, cleaning fluids, or other materials associated with spills
Plastic	Warehouse	Used for containment of decontamination zones
Duct Tape	Warehouse	Taping of protective clothing, plastic, and other uses
First-aid	Locker Room	Minor first-aid needs and health problems
Shovels/Mops	Warehouse	Used to collect spills and residue
Communication Equip	Facility Wide	Phones with intercom systems in office/warehouse for internal and external communications
Decon. Equip.	Warehouse	2 brushes, box of detergent, rags, available for decon of clean up equip.
Mercury Decontaminant HgX	Emergency Equip. Area	Used to cleanup releases from mercury-containing lamps and devices



***PERSONNEL TRAINING***

This section of the permit application describes Safety-Kleen's training program. All position descriptions referenced may not be present at this facility. Training plan outlines, job descriptions, training content, frequency and techniques are described as well as the implementation of the training program. The information presented in this section is a representative example of employee training at Safety-Kleen. Variations in individual training may occur.

The purpose of Safety-Kleen's training program is to familiarize employees with environmental regulations, records, and emergency procedures so they will perform their activities in the safest and most efficient manner possible.

***DESCRIPTION OF TRAINING PROGRAM***

Each employee is trained to operate and maintain the service center safely, and to understand hazards unique to job assignments. New managers must complete a formal introductory training program before starting their jobs, with annual review and update thereafter. New Sales and Service Representatives and all other hazardous waste employees must undergo a combination of classroom and on-the-job training prior to working with hazardous waste. Personnel involved in direct handling of hazardous waste do not work unsupervised until they have completed the entire initial hazardous waste training course.

***Outline of Training Program***

An outline of the training program given initially to employees who manage or handle Hazardous at the Branch is presented in Table 6.1-1.

***Job Title/Job Description***

Job descriptions for employees who would be expected to manage or handle hazardous Wastes are provided in Tables 6.1-2 through 6.1-11.

***Training Content, Frequency, and Techniques***

Employee training is accomplished using classroom, online, videotape, written, and on-the-job methods. All new employees whose responsibilities require 24-Hour Hazardous Waste Operations and Emergency Response (Hazwoper) training will receive at least five days of instruction at the Safety-Kleen Training Center. This training program provides a consistent and quality hazardous waste operations training program.

The training that a new operations employee will receive is divided into two parts.

- The new employee will receive hazardous waste operations training (HAZWOPER), hazardous materials transportation skills (HMTS), and depending on their position either driver training essentials or branch technical training.
- The second part of new employee training is site specific training. When the new employee returns to the Branch, qualified individuals delegated by Branch management will complete facility specific training. This will include such things as permit requirements, emergency contingency plan training, location of emergency equipment, etc.

The job tasks a person performs will dictate the type of instruction required. Courses taught at the Safety-Kleen Training Center will include 24-hour Hazwoper training, Hazardous Materials Transportation Skill (HMTS) training, Driver Training Essentials. Sales personnel will attend Branch Technical Training.

The following presents the specific training requirements for new Safety-Kleen employees who will manage or handle hazardous waste.

Training of New Branch General Managers: New Branch Managers are trained for several weeks before they begin their new positions. This training is given on-the-job. During this training, the new manager reviews environmental records and learns the recordkeeping requirements. These records include: manifests, personnel records, training records, service center inspection records, and spill reports. At least eight hours of this initial training consists of an introduction to environmental regulations, and a review of the hazardous waste permit, including the Waste Analysis Plan, Preparedness and Prevention Plan, Contingency Plan, Training Plan, and Closure Plan.

Training of New Customer Service Manager: The Customer Service Manager is responsible for administrative operations at the Branch. Training is on location in the form of periodic training topics. This training includes an introduction to environmental regulations (including the Resource Conservation and Recovery Act), health and safety issues, emergency response and inventory (including waste) reconciliation methods. Additional time is spent reviewing past environmental compliance at the facility. Also, while being trained at the Branch where they will be stationed, a new Customer Service Manager will review environmental records and learn the recordkeeping and inspection requirements. These records include: manifests, personnel records, training records, service center inspection records, and spill reports.

Training of New Secretaries: Secretaries are trained in the proper recordkeeping procedures as soon as they begin working for Safety-Kleen. While they are not usually responsible for preparing the documentation, they must check it for accuracy and completeness and then process or file it as required. Additional training is overseen by Branch Manager and is done within six months of starting. This training is often presented in periodic training topics on emergency response, shipping documents (including manifests), drum labels, and other safety and environmental compliance issues.

Training of New Sales and Service Representatives, Market Sales Specialists: These personnel are trained on-the-job for two weeks during which they are introduced to manifests, service center inspection records, and training records. Additional training is in the form of periodic training topics and a review of the Contingency Plan.

Training of New Material Handlers: A Material Handler is trained to maintain the service center and assist the other Branch employees in their tasks. The Material Handler may be a designee to perform Branch inspections and must be trained by the Branch Manager.

Annual Training: On an annual basis, employees are trained using the programs prepared and updated annually by the EHS and Training Departments which contain the topics in Table 6.1-12. This training also includes updates on environmental regulations, review of the Contingency Plan and a review of RCRA inspection criteria. This review is in the form of classroom instruction, videotapes, and a review and discussion of the storage service center permit/application. In addition, periodic sessions on changes in environmental regulations are issued by the EHS Department and must be attended by all Branch personnel.

### ***Training Director***

The training is directed by Safety-Kleen's Training and Development and EHS Departments, which operate out of the Corporate Office in Plano, Texas. Each Environmental Health and Safety Manager who works in this department is responsible for compliance of the service centers in a given geographic area of the country. The EHS Department, in coordination with the facility, must:

- Provide a training program which addresses the requirements of environmental regulations and corporate policy.

- Notify the proper authorities, oversee remedial actions, and submit a written report to the state after an emergency situation has occurred;
- Assure that environmental permits are submitted and updated as required;
- Manage any environmental compliance issues which exceed the resources available at the service center level; and
- Participate in training new Branch employees and conducting Annual Refresher Training.

Qualifications for individual staff members of the EHS Department who conduct training at the Branch are available upon request.

#### ***Relevance of Training to Job Position***

Each employee is trained to operate and maintain the service center safely and to understand hazards unique to their job assignment. Safety-Kleen's training programs are designed to give employees appropriate instruction regarding the hazardous waste management procedures they will encounter in performing their respective duties. Since the handling of hazardous materials is a large part of the operations of the service center, all employees are given training in environmental regulations, transportation regulations, the Preparedness and Prevention Plan, and the Contingency Plan.

#### ***Training for Hazardous Waste Management***

As described previously, all employees are trained in the aspects of hazardous waste management which are relevant to their position. This includes job-specific hazards and necessary precautions, emergency response, and proper recordkeeping. This training is given initially and updated annually.

TABLE 6.1-1

## OUTLINE OF TRAINING TOPICS

Day	Topic	SK Course Name
Monday	Welcome / Introductions/Ground Rules	Driver Training Essentials
	Driver Qualifications	
	Driver Wellness	
	Whistleblower Protection	
	Hours of Service Regulations	
	Exempt Log Training	
	Pre & Post Trip Inspections	
	Load Securement	
	Vehicle Cone Program	
Tuesday	Welcome / Introductions/Ground Rules	HAZWOPER
	Regulatory Compliance	
	Hazard Recognition	
	Hazard Communication	
	Respiratory Protection	
Wednesday	Walking & Working Surfaces	HAZWOPER
	Patriot Act For Employees	
	Personal Protective Equipment	
	Decontamination	
	Toxicology	
	Medical Surveillance	
	Hearing Protection	
Thursday	Ergonomics	HAZWOPER
	Fire Prevention & Protection	
	Lockout/Tagout Awareness	
	Electrical Safety	
	Confined Space Awareness	
	Container Handling	
Friday	Introduction	Hazardous Materials Transportation Skills (HMTS)
	Definitions	
	D.O.T. Regulations	
	Hazard Classes	
	Hazardous Materials Table	
	Shipping Papers	
	Marking	
	Labeling	
	Placarding	
	Hazardous Materials Segregation	
	Packaging	
	Incidents	

<b>Day</b>	<b>Topic</b>	<b>SK Course Name</b>
Friday (cont'd)	Load Securement	HMTS (cont'd)
Saturday	RCRA Regulations	Branch Technical Training
	Waste Material Profiling	
	Sampling Hazardous Materials	
	Shipping HazMat Samples via ground	

**Safety-Kleen Systems, Inc.****Job Description**

**Job Title:** Branch General Manager  
**Department:** Branch Sales & Service  
**Reports To:** District Manager  
**FLSA Status:** Exempt  
**Approved By:** SVP HR  
**Approved Date:** 01/29/07

**Summary:** The Branch General Manager is responsible for financial and operational management including: financial performance against quota or budget (P & L), EH&S compliance through the Environmental Management System (EMS), and operational management of the facilities and of the human resources.

**Essential Duties and Responsibilities** include but are not limited to the following.

- Manage the branch operations including hiring, training, and supervision of the staff.
- Manage sales and service staff in achieving customer retention, on-time service performance, and accounts receivable goals by: observing corporate operating guidelines, training and reinforcing critical service skills, and working to prevent and resolve customer service issues.
- Conduct inspections and ride-alongs with sales and service staff to ensure timely and effective servicing of customers' equipment.
- Profit or loss of the facility(ies) by focusing on building new business relationships and maintaining existing customer bases and satisfaction.
- Prepare branch sales/service forecast and budget.
- Ensure compliance with all applicable environmental, health, and safety (EHS) requirements by working with corporate EHS resources to keep all training and record keeping up to date, and by monitoring daily operations to assure performance is within regulatory guidelines.
- Maintenance of branch fleet to company standards, assistance with branch incident alert and spill response systems, and control of branch inventory.
- Maximize collection of money at the time of service, collect on overdue accounts, and determine when to pull an account.
- Ensure that all branch customer service practices are conducted consistent with high ethical standards.

**Supervisory Responsibility:**

The Branch General Manager recommends hiring, training, scheduling, performance appraisal, promoting, compensation, corrective action and termination.

**Qualifications:** To perform this job successfully, an individual must be able to perform each essential duty satisfactorily. The requirements listed below are representative of the knowledge, skill, and/or ability required. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

**Education and/Or Experience:** Minimum of High School diploma or (GED). Bachelor's degree preferred. At least 5 years experience in a sales and service organization.

**Certificates, Licenses, Registrations:** Class B CDL, Haz Mat, Air Brakes and Tankers endorsement.

**Physical Demands:** While performing the duties of this job, the employee must frequently sit for long periods of time, use the computer, as well as occasionally lift up to 25 pounds. There will also be some occasional need for bending, kneeling, or reaching.

**Work Environment:** While performing the duties of this job, the employee has some exposure to warehouse as well as outside weather conditions. The employee is occasionally exposed to wet and/or humid conditions; extreme cold; extreme heat.



**Safety-Kleen Systems, Inc.****Job Description**

**Job Title:** Customer Service Manager  
**Department:** Branch Services  
**Reports To:** Branch General Manager  
**FLSA Status:** Exempt  
**Approved By:** SVP HR  
**Approved Date:** 01/29/07

**Summary:** The Customer Service Manager is responsible for ensuring optimum customer service leading to retention and expansion of the branch business. Key responsibilities include supervising customer service staff, ensuring services are completed in a timely manner, and managing customer relationships.

**Essential Duties and Responsibilities** include but are not limited to the following.

- Manage the branch customer service functions including hiring, training and supervision of the sales and service representatives (SSR).
- Manage sales and service staff in achieving customer retention, on-time service performance, and accounts receivable goals by: observing corporate operating guidelines, training and reinforcing critical service skills, and working to prevent and resolve customer service issues.
- Conduct inspections and ride-alongs with sales and service staff to ensure timely and effective servicing of customers' equipment.
- Direct branch service scheduling and logistics to ensure on-time performance for all customers by aligning territories, defining routes, and managing associated paperwork.
- Ensure SSR compliance with all applicable environmental, health, and safety (EHS) requirements by working with corporate EHS resources to keep all training and record keeping up to date, and by monitoring daily operations to assure performance is within regulatory guidelines.
- Work with Branch General Manager (BGM) to ensure effective operation of the branch including maintenance and operation of branch fleet to company standards, assistance with branch incident alert and spill response systems, and control of branch inventory.
- Administer branch accounts receivable program to maximize collection of money at the time of service, collect on overdue accounts, and determine when to pull an account.
- Ensure that all branch customer service practices are conducted consistent with high ethical standards.

**Supervisory Responsibility:**

The Customer Service Manager recommends hiring, training, scheduling, performance appraisal, promoting, compensation, and termination.

**Qualifications:** To perform this job successfully, an individual must be able to perform each essential duty satisfactorily. The requirements listed below are representative of the knowledge, skill, and/or ability required.

**Education and/or Experience:** High school diploma or (GED). 3-5 years experience and/or related training.

**Certificates, Licenses, Registrations:** Class B CDL, Haz Mat, Air Brakes and Tankers endorsement.

**Physical Demands:** While performing the duties of this job, the employee must frequently stand, walk, bend, use the computer, reach, squat, stoop and twist. The employee must frequently carry, lift, pull or push up to 50 pounds. The employee will occasionally drive a large truck.

**Work Environment:** While performing the duties of this job, the employee is frequently exposed to warehouse and outside weather conditions. The employee is occasionally exposed to wet and/or humid conditions; extreme cold; extreme heat.

**Safety-Kleen Systems, Inc.****Job Description**

**Job Title:** MSS  
**Department:** Sales  
**Reports To:** District Sales Manager  
**FLSA Status:** Exempt  
**Approved By:** SVP HR  
**Approved Date:** 01/29/07

**Summary:** The MSS will continually manage an account base outside of the ordinary service schedule. This position will also grow business internally and externally. The MSS will act as the primary point of contact for customers with questions / concerns / new business. This should be a motivated person who possesses consultative selling abilities and who is skilled at building long-term business relationships within the assigned sales territory.

**Essential Duties and Responsibilities** include but are not limited to the following.

- Completion of necessary paperwork (waste profiling, quotations etc).
- Communication with service, office, and warehouse staff.
- Build relationships with key buyers in territory.
- Assess current/potential business in existing accounts and create strategy to grow business.
- Analyze customer needs and design sales, customer service and account management processes to acquire and retain accounts.
- Prepare and deliver customer quotes and identify new solutions for customers
- Provide technical and sales assistance to customers.
- Serve as interface between customers and company by ensuring that customer needs are met and by handling customer complaints.
- Prepare sales plans and future period forecast's.
- Monitor and track sales plan to ensure sales quota is met; prepare regular status reports.
- Keep abreast of products, market conditions and competitive activities.

**Qualifications:** To perform this job successfully, an individual must be able to perform each essential duty satisfactorily. The requirements listed below are representative of the knowledge, skill, and/or ability required.

**Education and/or Experience:** Two years of college or specialized training (business or environmental) is required plus 1-3 years experience. Bachelor's degree plus coursework and certification is preferred. Alternative combinations of education and experience may be accepted in lieu of degree.

**Competencies and Skills:** Analytical, prioritization, organization, computer and leadership skills. Must be proficient working with spreadsheets as well as CRM software tools.

**Physical Demands:** While performing the duties of this job, the employee must frequently drive a car.

**Safety-Kleen Systems, Inc.****Job Description**

**Job Title:** Branch Administrator  
**Department:** Branch Services  
**Reports To:** Branch General Manager  
**FLSA Status:** Exempt  
**Approved By:** SVP HR  
**Approved Date:** 03/26/07

**Summary:** The Branch Administrator is an administrative position responsible for maintaining detailed and accurate company, branch, and customer files.

**Essential Duties and Responsibilities** include but are not limited to the following.

- Assembles packages of documents for Sales Representatives.
- Check Sales or Hazardous Waste documents turned in by Sales Representatives.
- Ensure proper completion of paperwork including manifests, and alert manager of errors.
- Provide customer service functions by responding to customer inquiries and/or complaints, handling or routing service questions, and solving problem accounts.
- Prepare Manual Forms, Manifests and LDR forms, as required.
- Distribute copies of service documents and manifests to customers, various Safety-Kleen locations, and to governmental agencies, as required.
- Contact customers delinquent in payment and coordinates pick-up of payments.
- Log wastes, adjusts service scheduling, prepares reports, completes MMVR reports and checks manifests for assigned territories.
- Provide other clerical support duties as requested.

**Qualifications:** To perform this job successfully, an individual must be able to perform each essential duty satisfactorily. The requirements listed below are representative of the knowledge, skill, and/or ability required.

**Education and/Or Experience:** High school diploma and six months+ related experience, and/or training.

**Competencies and Skills:** Customer Service, Attention to Detail, Recognize the importance of Safety, Time Management, Product Knowledge, Sense of Direction, and Organization skills.

**Physical Demands:** While performing the duties of this job, the employee must frequently sit at a work station using the computer.

**Safety-Kleen Systems, Inc.****Job Description**

**Job Title:** Material Handler  
**Department:** Branch Services  
**Reports To:** Branch General Manager  
**FLSA Status:** Exempt  
**Approved By:** SVP HR  
**Approved Date:** 03/26/07

**Summary:** The Material Handler works in the warehouse handling hazardous waste material using a forklift or other equipment.

**Essential Duties and Responsibilities** include but are not limited to the following.

- Loads finished product bulk shipments, and completes paperwork.
- Samples inbound bulk shipments and completes paperwork.
- Inventory and maintain loading and unloading areas.
- Prepares bulk wastes for shipment to other Safety-Kleen locations.
- Empties bulk into holding vessel.
- Washes "RCRA Empty" drums in drum washer and fills clean drums with solvent.
- Shrink wraps containerized wastes, arranging the waste on the pallet so all labels are showing, and prepares the shipment for transportation to other Safety-Kleen locations.
- Checks all trucks for proper strapping of drums and that cargo doors are closed.
- Disassembles returned parts washing machines and prepares them for shipment to the DC.
- Completes daily/weekly facility inspection required by Part B Permit or by Safety-Kleen, as assigned by the Branch Manager.
- Monitors waste quantity and storage limits and notifies the Branch Manager if limits will be exceeded within 24-48 hours so action can be taken.
- Oversees retained sample program.
- Ensure dock, warehouse and return & fill areas are cleaned and organized at all times.

**Qualifications:** To perform this job successfully, an individual must be able to perform each essential duty satisfactorily. The requirements listed below are representative of the knowledge, skill, and/or ability required.

**Education and/Or Experience:** High school diploma and six months+ related experience, and/or training. Familiar with H.S.E. and M.S.D.S. for all product used and stored at the facility. Certified forklift operator. Certified in hazardous waste operations and emergency response.

**Competencies and Skills:** Customer Service, Attention to Detail, Recognize the importance of Safety, Time Management, Product Knowledge, Sense of Direction, and Organization skills.

**Physical Demands:** Exert up to 50 pounds of force occasionally, and/or up to 20 pounds of force frequently, and/or up to 10 pounds of force constantly to move objects. Stands and/or walks more than 4 hours a day. Hand Tools & Small Power Tools; Hand Truck/Dolly; Large Power Tools & Equipment, Forklift, Truck, Wench; Personal Protective Equipment.

**Safety-Kleen Systems, Inc.****Job Description**

**Job Title:** Sales & Service Associate  
**Department:** Branch Services  
**Reports To:** Branch General Manager  
**FLSA Status:** Exempt  
**Approved By:** SVP HR  
**Approved Date:** 01/29/07

**Summary:** The SSA is an entry level position responsible for learning how to service our parts cleaning machines and selling related products to customers on route.

**Essential Duties and Responsibilities** include but are not limited to the following.

- Receive manifests, labels, route schedule from office staff.
- Select, pull, and load needed inventory (empty drums, pig products, new machines, etc) for the day's customer visits as per route schedule.
- Perform daily truck check & complete truck check list form.
- Perform routine route.
- Properly label, scan, and document waste picked up from customer site.
- Present receipt to customer, as well as address any customer service issues or sales opportunities.
- Complete end of day paperwork.
- Perform equipment repair activities as needed.

**Qualifications:** To perform this job successfully, an individual must be able to perform each essential duty satisfactorily. The requirements listed below are representative of the knowledge, skill, and/or ability required.

**Education and/Or Experience:** High school diploma or (GED) and six months+ related experience, and/or training.

**Certificates, Licenses, Registrations:** Class C CDL and Haz Mat endorsement (or the ability to obtain)

**Competencies and Skills:** Mechanically Inclined, Customer Service, Attention to Detail, Recognize the importance of Safety, Time Management, Product Knowledge, Sense of Direction, Knowledge of Hazardous Waste, and Organization skills.

**Physical Demands:** While performing the duties of this job, the employee must frequently stand or walk and occasionally drive a large truck. The employee must frequently carry, lift, pull or push up to 50 pounds. The employee is occasionally required to reach, bend, kneel, squat, climb, stoop or twist; and talk or hear.

**Work Environment:** While performing the duties of this job, the employee is frequently exposed to moving mechanical parts and outside weather conditions. The employee is occasionally exposed to wet and/or humid conditions; high, precarious places; fumes or airborne particles; extreme cold; extreme heat; and risk of electrical shock.

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Job Description

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**Job Title:** Sales and Service Representative  
**Department:** Branch Services  
**Reports To:** Branch Service Manager  
**FLSA Status:** Exempt  
**Approved By:** SVP HR  
**Approved Date:** 01/29/07

**Summary:** Services SK machines at customer sites, sells new products to existing customers, removes waste from customer sites and provides on-site customer service.

**Essential Duties and Responsibilities** include but are not limited to the following.

- Receive manifests, labels, route schedule from office staff.
- Select, pull, and load needed inventory (empty drums, pig products, new machines, etc) per route schedule.
- Perform daily truck check & complete truck check list form.
- Perform routine route
- Properly label, scan, and document waste picked up from customer site.
- Present receipt to customer as well as address any customer service issues or sales opportunities.
- Complete end of day paperwork.

**Qualifications:** To perform this job successfully, an individual must be able to perform each essential duty satisfactorily. The requirements listed below are representative of the knowledge, skill, and/or ability required.

**Education and/Or Experience:** High school diploma or (GED) and six months+ related experience, and/or training.

**Certificates, Licenses, Registrations:** Class C CDL and hazmat certifications.

**Competencies and Skills:** Customer Service, Attention to Detail, Recognize the importance of Safety, Time Management, Product Knowledge, Sense of Direction, Knowledge of Hazardous Waste, and Organization skills.

**Physical Demands:** While performing the duties of this job, the employee must frequently sit, walk, stand, crawl or drive a truck. The employee must frequently carry, lift, pull or push 50 pounds or more. The employee is constantly required to reach, bend, kneel, squat, climb, stoop or twist; and talk or hear. The employee must constantly drive a large truck and/or move heavy equipment.

**Work Environment:** While performing the duties of this job, the employee is frequently exposed to moving mechanical parts and outside weather conditions. The employee is occasionally exposed to wet and/or humid conditions; high, precarious places; fumes or airborne particles; extreme cold; extreme heat; and risk of electrical shock.

**Safety-Kleen Systems, Inc.****Job Description**

**Job Title:** Oil Sales and Service Representative  
**Department:** Branch Services  
**Reports To:** Branch General Manager  
**FLSA Status:** Exempt/Non-Exempt  
**Approved By:** SVP HR  
**Approved Date:** 01/29/07

**Summary:** The OSSR is responsible for safely and efficiently removing, transporting and delivering waste oil from customer facilities to Safety-Kleen oil recycling and refining centers.

**Essential Duties and Responsibilities** include but are not limited to the following.

- Receive manifests, labels & route schedule from office staff
- Perform Pre & Post Trip Inspection Report
- Perform routine route.
- Properly label, scan and document waste oil removed from customer site into handheld. Present receipt to customer, obtain authorized signature, as well as address any customer service issues and sales opportunities.
- Complete end of day paperwork (any manifests, orders etc. that were not already in the handheld). Dock handheld for overnight upload.
- Ensure environmental compliance and operate vehicles in accordance with DOT, local, state and federal requirements

**Qualifications:** To perform this job successfully, an individual must be able to perform each essential duty satisfactorily. The requirements listed below are representative of the knowledge, skill, and/or ability required.

**Education and/Or Experience:** High school diploma or (GED) and six months+ related experience, and/or training.

**Certificates, Licenses, Registrations:** Class C CDL and Haz Mat endorsement and Tanker.

**Competencies and Skills:** Customer Service, Attention to Detail, Recognize the importance of, and adherence to, Safety regulations and policies, Time Management, Product Knowledge, Sense of Direction, Knowledge of Hazardous Waste, and Organization skills.

**Physical Demands:** While performing the duties of this job, the employee must frequently sit, walk, stand, crawl or drive a truck with reasonable accommodations. The employee must frequently carry, lift, pull or push 50 pounds or more. The employee is constantly required to reach, bend, kneel, squat, climb, stoop or twist; and talk or hear. The employee must constantly drive a large truck.

**Work Environment:** While performing the duties of this job, the employee is frequently exposed to moving mechanical parts and outside weather conditions. The employee is occasionally exposed to wet and/or humid conditions; high, precarious places; fumes or airborne particles; extreme cold; extreme heat; and risk of electrical shock.

**Safety-Kleen Systems, Inc.****Job Description**

**Job Title:** OIL/VAC Sales and Service Rep.  
**Department:** Branch Sales & Service  
**Reports To:** Branch General Manager  
**FLSA Status:** Exempt  
**Approved By:** SVP HR  
**Approved Date:** 10/2/06

**Summary:** This position combines the Oil & Vac routes and depending on the service will require the employee to remove waste fluid our customers (VSSR Route). This involves using vacuum equipment to pump waste materials and liquid from oil-water separator pits, as well as transporting & delivering the waste material to Safety-Kleen disposal sites. Or, it will require the employee to remove, transport and deliver waste oil from customer facilities to Safety-Kleen oil recycling and refining centers (Oil Route). Reports to CSM or BGM.

**Essential Duties and Responsibilities** include the following. Other duties may be assigned.

- Receive manifests, labels & route schedule from office staff
- Perform Pre & Post Trip Inspection Report
- Perform route: (drive to customer location, ensure each service meets the used oil or vac waste qualifications, take sample of each oil or vac service & place in retain sample storage area, pump waste oil or waste materials & liquid from oil-water separator pits from customer facilities to Safety-Kleen oil recycling & refining centers or Safety-Kleen disposal site).
- Properly label, scan and document waste oil (oil service) or waste materials & liquids (vac service) removed from customer site into handheld. Present receipt to customer, obtain authorized signature, as well as answer any customer service issues.
- Complete end of day paperwork (any manifests, orders etc. that were not already in the handheld). Dock handheld for overnight upload.
- Ensure environmental compliance and operate vehicles in accordance with DOT, local, state and federal requirements

**Sales Responsibilities:**

Focus is all customer types within a particular region or territory for new and existing accounts.

**Qualifications:** To perform this job successfully, an individual must be able to perform each essential duty satisfactorily. The requirements listed below are representative of the knowledge, skill, and/or ability required. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

**Education and/Or Experience:** High school diploma or (GED). No experience necessary.

**Certificates, Licenses, Registrations:** CDL and Haz Mat endorsement and Tanker.

**Competencies and Skills:** Customer Service, Attention to Detail, Recognize the importance of, and adherence to, Safety regulations and policies, Time Management, Product Knowledge, Sense of Direction, Knowledge of Hazardous Waste, and Organization skills.

**Physical Demands:** While performing the duties of this job, the employee must frequently kneel and stoop and constantly bend, climb, reach and twist. The employee must constantly carry, lift and pull up to 50 pounds. The employee must constantly drive a large truck and occasionally move equipment. Job will use right and left hands for repetitive movement such as Simple Grasping and Pushing/Pulling. Job will use right hand for repetitive movement such as Fine Manipulation. Job will use feet for repetitive movement such as foot controls.

**Work Environment:** While performing the duties of this job, the employee is frequently exposed to moving mechanical parts and outside weather conditions. The employee is occasionally exposed to wet and/or humid conditions; high, precarious places; fumes or airborne particles; extreme cold; extreme heat; and risk of electrical shock.



**Safety-Kleen Systems, Inc.****Job Description**

**Job Title:** Vacuum Sales and Service Representative  
**Department:** Branch Services  
**Reports To:** Branch General Manager  
**FLSA Status:** Exempt/Non-Exempt  
**Approved By:** SVP HR  
**Approved Date:** 01/29/07

**Summary:** The VSSR provides waste fluid removal services to our customers. This involves using vacuum equipment to pump waste materials and liquid from oil-water separator pits, as well as transporting & delivering the waste material to Safety-Kleen disposal sites.

**Essential Duties and Responsibilities** include but are not limited to the following.

- Receive manifests, labels & route schedule from office staff
- Perform Pre & Post Trip Inspection Report
- Perform routine route and associated daily activities.
- Properly label, scan and document waste materials & liquids removed from customer site.
- Present receipt to customer, obtain authorized signature, as well as answer any customer service issues.
- Complete end of day paperwork.
- Ensure environmental compliance and operate vehicles in accordance with DOT, local, state and federal requirements.
- Ensure strict compliance to Branch SOP's.

**Qualifications:** To perform this job successfully, an individual must be able to perform each essential duty satisfactorily. The requirements listed below are representative of the knowledge, skill, and/or ability required.

**Education and/Or Experience:** High school diploma or (GED) and six months+ related experience, and/or training.

**Certificates, Licenses, Registrations:** Class C CDL and Haz Mat endorsement and Tanker.

**Competencies and Skills:** Customer Service, Attention to Detail, Recognize the importance of, and adherence to, Safety regulations and policies, Time Management, Product Knowledge, Sense of Direction, Knowledge of Hazardous Waste, and Organization skills.

**Physical Demands:** While performing the duties of this job, the employee must frequently sit, walk, stand, crawl or drive a truck with reasonable accommodations. The employee must frequently carry, lift, pull or push 50 pounds or more. The employee is constantly required to reach, bend, kneel, squat, climb, stoop or twist; and talk or hear. The employee must constantly drive a large truck.

**Work Environment:** While performing the duties of this job, the employee is frequently exposed to moving mechanical parts and outside weather conditions. The employee is occasionally exposed to wet and/or humid conditions; high, precarious places; fumes or airborne particles; extreme cold; extreme heat; and risk of electrical shock.

**TABLE 6.1-12**

**CONTINUING TRAINING TOPICS FOR BRANCH EMPLOYEES**

- Hazard Communication Safety Training
- Hazard Communication regarding MSDSs
- Preventing Injury and Illness
- Hazardous Materials Regulations
- Waste Analysis Plan
- Preparedness, Prevention, and Contingency Plan
- Respirator Fit Testing, and Training
- Generator Requirements
- Hazardous Waste Paperwork – Manifests, BOL, Labeling, etc.
- RCRA Refresher

**Part II**

**A. General**

**5. WASTE INFORMATION**

**WASTE ANALYSIS AND WASTE CODES**

In accordance with EPA's hazardous waste regulations, the following types of hazardous waste have been identified at the Branch:

- Used parts washer solvent, dumpster mud, and tank bottom sludge;
- Used immersion cleaner #699;
- Dry cleaning wastes;
- Paint wastes;
- Fluid Recovery Service (FRS) wastes;
- Used aqueous brake cleaner;
- Used aqueous parts washer solvent;
- Mercury-containing lamps and devices; and
- Branch generated liquids and solids (debris).

The typical composition and chemical/physical analysis for each of the waste streams listed above (except FRS) is shown in the chemical analyses reports in Appendix B. This information is based on existing data generated from similar processes within Safety-Kleen's current and/or potential customer base.

**USED PARTS WASHER SOLVENT**

The clean parts washer solvents are labeled under trade names. Flash points of the petroleum-based parts washer solvents range from 142°F to 212°F. Chemically, the solvent primarily consists of petroleum hydrocarbon fractions with boiling points between 310°F and 400°F. Impurities, such as light aromatic hydrocarbons(LAHC) and chlorinated hydrocarbons, usually constitute less than one percent of the total volume.

The used petroleum-based parts washer solvent consists primarily of parts washer solvent, solids, oil, and grease picked up in the various degreasing operations. In most instances, no water is associated with the used solvent; however at times, the water content may range from one percent to as much as 50 percent. The oily bottom solids may range from 2 percent to 10 percent, by volume, in the used solvent mixture. The substances that comprise the used parts washer solvent are compatible and are suitable for bulking.

Chemically, the composition of the solvent fraction in the used parts washer solvent is essentially the same as the clean solvent, as shown in analyses.

Containers of parts washer solvent that are returned from customers are poured into a drum washer (wet dumpster) at the return/fill station, which is piped into the hazardous waste solvent 15,000-gallon aboveground storage tank located in the tank farm. Safety-Kleen has converted to 150 Premium Solvent for distribution to our customers for parts washer units and has discontinued the 105 solvent in the State of Florida. The mixture within the 15,000-gallon storage tank, therefore, may not exhibit the characteristic of ignitability, though it is currently being managed as such. The used parts washer solvents also may be considered characteristic waste by toxicity characteristic leaching procedure (TCLP) and may carry the waste codes referred to in Table 7.1-1.

#### ***USED IMMERSION CLEANER***

Safety-Kleen leases units containing “Immersion Cleaner and Carburetor and Cold Parts Cleaner #699”. This product is a heavy aromatic naphtha, N-methyl-2-pyrrolidinone, dipropylene glycol methyl ether, monoethanolamine and oleic acid, and may contain a maximum of 1 percent chlorinated compounds.

The used immersion cleaner #699 is returned from customers in separate containers and remains in these containers for shipment to a permitted Safety-Kleen TSDF . The used

immersion cleaner is basically unchanged from its clean state, except oil, grease, and other solids may be picked up during the various degreasing operations. This spent solvent is not an ignitable waste. It is regarded as characteristic hazardous waste because of the presence of various metals and organic constituents. The waste codes that the used immersion cleaner may carry are listed in Table 7.1-1.

#### ***USED PARTS WASHER SOLVENT BOTTOM SLUDGE***

Tank bottom sludge settles from used parts washer solvent in the aboveground tank. The sludge may contain soils, oil, grease, and water picked up in degreasing operations, together with a small amount of mineral spirits. Analyses have shown that the sludge may be considered characteristically hazardous with respect to TCLP standards. The sludge is removed from the aboveground storage tank periodically and shipped to a permitted Safety-Kleen TSDF for reclamation/disposal.

Dumpster mud is accumulated in the wet dumpsters when emptying the used parts washer solvent from the containers. Filters from parts washers utilizing parts washer solvents also may be present along with small metal parts. The nature of this waste is similar to the used parts washer solvent tank bottom sludge, except with some small metal parts and less mineral spirits. It is regarded as characteristic for contaminants using TCLP standards.

The mud in the dumpsters is cleaned out frequently. The waste is containerized and stored as a Branch-generated waste in the permitted waste storage area for later shipment to a permitted Safety-Kleen TSDF for reclamation or disposal.

Parts washer solvent dumpster mud accumulated in the solvent return receptacles (wet dumpsters) is considered to be characteristic waste by TCLP and may carry the waste codes referred to in Table 7.1-1. Parts washer tank bottoms may be considered

characteristically hazardous with respect to TCLP and may carry the waste codes referred to in Table 7.1-1.

### ***DRY CLEANING WASTES***

Solvent used in dry cleaning of clothing is commonly tetrachloroethylene (perchloroethylene), mineral spirits, or trichlorotrifluoroethane. Hence, wastes generated are:

1. Filter Cartridges: In addition to the construction materials consisting of steel, paper, clay, and carbon, the used cartridge retains solvent, oil and grease, and undissolved elements such as lint and soil. Solvent retained in the filter cartridge generally amounts to less than 50 percent of the total cartridge weight.
2. Muck: At some dry cleaning facilities, a mixture of powdered materials is used as the filter medium for the dry cleaning solvent, in lieu of the cartridge filter. This filter medium normally consists of diatomaceous earth and carbon. In addition to lint, soil, and grease retained by this medium, between 40 and 50 percent by weight of the “muck” is absorbed solvent.
3. Still Residue: After filtration, the dry cleaning solvent is distilled by the dry cleaning machine to remove the dissolved materials from the used solvent. The dissolved materials (still residues) are in liquid form and consist of primarily detergent, oil and grease, vinyl acetate (a sizing compound), and 20 to 30 percent of solvent.

Approximately 80 percent of the dry cleaning solvent used is perchloroethylene (F002) and characteristic waste by TCLP that may carry the waste codes referred to in Table 7.1-1. Approximately 17 percent of the dry cleaning solvent is mineral spirits (naptha), and the remaining 3 percent of the dry cleaning solvent is trichlorotrifluoroethane. Analyses have shown these dry cleaning wastes may be characteristically hazardous by TCLP and may carry the waste codes referred to in Table 7.1-1.

### ***PAINT WASTES***

Paint wastes consist of various lacquer thinners and paints. The waste is collected in containers at the customer's place of business. Upon receipt at the Branch, the manifest is terminated, and the waste paint containers are stored in Safety-Kleen's permitted container storage area. The paint wastes are then re-manifested and periodically sent to a permitted Safety-Kleen TSDF. Paint wastes include such constituents as acetone, isopropyl alcohol, methyl ethyl ketone, methyl isobutyl ketone, toluene, xylenes, and acetate compounds. This waste stream may be an ignitable waste (D001) and characteristic for other contaminants by TCLP. Because of the solvent constituents, it also may be considered a listed waste (F003, F005) and may carry the waste codes referred to in Table 7.1-1.

### ***FLUID RECOVERY SERVICE WASTES***

Fluid Recovery Services (FRS) is a program managed by the Safety-Kleen Branch. These wastes are handled as transfer wastes at the Branch. Examples of the types of wastes that may be received from FRS customers include:

- Spent hydrocarbon distillates, such as waste fuel, oil, petroleum, and naptha, etc.
- Lubricating oils, hydraulic oils, synthetic oils, and machine oils.
- Industrial halogenated solvents such as 1,1,1-trichloroethane, tetrachloroethylene, Freon, and trichloroethane.
- Photographic and x-ray related wastes.
- Paint, lacquer thinners, and paint wastes.
- Other hazardous and non-hazardous halogenated and non-halogenated wastes.

Due to the great variability in the composition of FRS wastes, their application or use, and the source industry, Safety-Kleen characterizes each waste stream from each generator separately.

### ***USED ANTIFREEZE***

The spent antifreeze (ethylene glycol) is collected from automobile service stations. All antifreeze collected and managed by Safety-Kleen within Florida is recycled. At the customer's location, Safety-Kleen pumps waste ethylene glycol (antifreeze) into a Safety-Kleen used oil tanker truck. This truck transports the used antifreeze/used oil mixture to the branch for off-loading into a tank for storage. The comingled material is sent to the SK East Chicago re- refinery where the glycol is separated by distillation. The glycol is then sent to a recycler for processing into a pure product which is then sold on the open market. This procedure is in accordance with FDEP's *Best Management Practices for Managing Used Antifreeze at Vehicle Repair Facilities*, dated April, 2011. The Florida Department of Environmental Protection (FDEP) has determined this waste stream can be handled as non-hazardous as long as it is destined for recycling.

### ***AQUEOUS BRAKE CLEANER***

The Aqueous Brake Cleaner (ABC) is primarily an aqueous solution with approximately 10% nonorganic additives and detergents. The spent ABC is transported from the customers in containers. Spent ABC from customer's parts washers is managed as a 10-day transfer waste and is stored in the non-flammable container storage area. The used aqueous parts washer solvent may be considered characteristic waste by TCLP and may carry the waste codes referred to in Table 7.1-1.

### ***AQUEOUS PARTS WASHER SOLVENT***

The aqueous parts washer solvent is primarily an aqueous solution with a small amount of organic additives (alcohols). The spent aqueous parts washer solvent is transported customers in containers and will be accumulated in the 15,000-gallon used solvent storage tank via the return/fill station. The used aqueous parts washer solvent may, or



may not be considered characteristic waste by TCLP and may carry the waste codes referred to in Table 7.1-1.

#### ***MERCURY-CONTAINING LAMPS AND DEVICES***

Mercury-containing lamps and devices are another type of waste handled by the Branch. These wastes are handled as non-regulated transfer wastes, and as such carry no waste codes. As part of its protocol for handling mercury-containing lamps and devices, the Branch provides customers with four-foot and eight-foot boxes which hold up to 39 lamps. Other types of DOT approved containers are used for mercury devices. The boxes are picked up at customer locations and are stored at the Branch in a designated area within the containerized waste storage area (Figure 8.1-1). These containers are labeled in accordance with 62-737.400(5)(b)., Florida Administrative Code (FAC). The boxes are periodically shipped to a permitted mercury recovery or reclamation facility.

#### ***BRANCH GENERATED LIQUIDS AND SOLIDS (DEBRIS)***

In the course of conducting day-to-day business operations, the Branch may generate waste associated with sampling customers' wastes and branch activities. Such wastes may include wipes, gloves, etc. In addition, liquid wastes may be generated as a result of the decontamination of sampling equipment. The liquid and solid wastes are contained in drums which can be stored in the permitted container storage area. The waste codes associated with this waste stream will vary according to the type of waste being sampled. Branch debris (dumpster mud) is also generated when cleaning out the wet dumpsters. This material is made up of filters from parts washers, small metal parts, grease, sludge, etc. It is regarded as characteristic for contaminants using TCLP standards. Branch-generated liquid and solids (debris) may carry the waste codes listed in Table 7.1-1.

***Part II. General***

**6. WASTE ANALYSIS PLAN**

***General Waste Handling Procedures***

Safety-Kleen provides solvent distribution, collection, and reclamation services to companies that are primarily engaged in automobile repair, industrial maintenance, and dry cleaning. Safety-Kleen operates a “closed loop” waste recovery service for the parts cleaning machines used by customers at their facilities. When the cleaning fluids become dirty and can no longer be used effectively, Safety-Kleen picks up the dirty fluids and replaces them with clean fluids. The dirty fluids are returned to Safety-Kleen where they are recycled and subsequently reused by customers. Approximately two-thirds of the cleaning fluids provided as product by Safety-Kleen have been use before and subsequently reclaimed. Safety-Kleen’s customers typically are small quantity generators who operate businesses which generate only a few hazardous waste streams. These factors help insure that Safety-Kleen will receive a highly predictable and homogeneous waste stream.

Spent Solvents are the primary feedstocks for the generation of Safety-Kleen solvent products. As a result, quality control of the spent solvents is necessary to ensure that reclamation occurs in the safest and most efficient manner possible. Furthermore, the materials collected at the Branch are usually collected from a company with a single process. The composition and quality of these materials are known and Safety-Kleen’s operating experiences have shown that the collected materials rarely deviate from company specifications. As an additional safeguard, Safety-Kleen personnel are instructed to inspect certain materials before returning them to the Branch. This mode of operation has been proven to safeguard the recycling process and maintain a quality product.

It is Safety-Kleen's practice that suspected nonconforming material must not be accepted until a full analysis by a certified outside laboratory has been done or the material must be rejected. Procedures to verify waste characteristics occur at several check points in the management of the solvent, as described below.

Safety-Kleen controls the use and management of its solvents by:

- Limiting the solvents stored to those compatible with one another and their containers;
- Determining the customer's type of business (i.e., his/her SIC code may be recorded) and the purpose for which the machine will be used;
- Training customers to use the machines properly;
- Training employees to inspect spent solvent and determine whether it is acceptable;
- Marking each container with the customer's name, address, and EPA ID number (if required). This information remains on containerized waste until it is accepted at the Branch;
- Keeping a record of each incoming and outgoing shipment in the operating log at each facility;
- Demonstrating the chemical and physical homogeneity of the wastes by sampling and analyzing a representative portion of generator waste streams on an ongoing annual basis at the national level; and
- Routine analysis of the wastes received at the recycle centers.

Safety-Kleen's customers sign a service document containing the following information:

- Name, address, and EPA ID number of the facility to which the waste is being shipped;
- The customer's name, address, and EPA ID number (if required); and
- The description and amount of Safety-Kleen solvent waste generated.

Each incoming and outgoing shipment is recorded in the facility's operating log. In addition, each sales representative reviews acceptance criteria each time a waste is picked up. In accordance with Safety-Kleen's pre-printed documents, all generators sign a statement with each shipment that there has been no material added to the closed-loop products supplied by Safety-Kleen since the last shipment. Finally, selected environmental reviews, such as periodic inspections of customer solvent containers by the Environmental manager and Branch management, may be utilized to guard against the addition of other wastes into the generator's wastes.

If a waste is rejected at the time of service based on the volume or consistency discrepancies, the customer will be given a choice as to whether they will dispose of the waste or will require Safety-Kleen's assistance. If a customer requests Safety-Kleen's assistance, a sample will be drawn using a Coliwasa® tube, and it will be analyzed for flash point, volatile organic compounds, and other parameters to adequately define the constituents (e.g., for halogenated organic compounds, PCB's, flash point, etc.). If the waste is within the acceptable range for wastes permitted for storage, it will be relabeled and manifested, and then managed with the other wastes. If it is not acceptable, it will either be: (a) managed on a 10-day transfer basis and manifested to a properly permitted reclamation or disposal facility, or (b) manifested and shipped directly to a properly permitted reclamation or disposal facility.

### *Qualitative Waste Analyses*

#### *General Inspection Procedures*

Prior to acceptance, Safety-Kleen visually inspects each container of waste parts washer solvent at the customer's location. This inspection includes an evaluation of the waste volume, appearance, and consistency. Safety-Kleen's personnel are familiar with the characteristics of all wastes described and managed at their facilities based on known characteristics. These criteria, described below, are used by Safety-

Kleen personnel to aid in their visual inspections. These acceptance criteria enable Safety-Kleen to help ensure that the waste being picked up is an acceptable waste and does not contain unacceptable contaminants.

If a particular container of waste does not meet the established acceptance criteria, the Safety-Kleen service representative will reject the container at the customer's place of business. At the customer's request, a sample may be collected and analyzed by a local certified Laboratory to determine whether it can be managed by Safety-Kleen. Depending on the source, the waste will be analyzed for parameters related to the suspected source of the waste. Alternately, the customer may choose to dispose of the material by using another (non-Safety-Kleen) facility.

If the waste is sampled for further analysis, the service representative will take a sample of the waste and then seal the container and label it as hazardous waste. The container is left with the customer pending the results of the laboratory tests. The laboratory testing involves analyzing the suspect waste for compounds related to the suspected source of the waste (e.g., volatile organics, halogenated organics, PCBs, etc.).

If the laboratory analysis reveals that the sampled waste is not contaminated, Safety-Kleen will accept the waste from the customer. If the laboratory confirms that the waste is contaminated, the customer will be given a choice as to whether they will dispose of the waste or will require Safety-Kleen's assistance.

#### ***Waste-Specific Criteria***

The following is a description of the specific acceptance criteria for each waste stream.

##### ***Spent Parts Washer Solvent***

Volume and color are the acceptance criteria for determining by visual inspection whether spent parts washer solvent has been contaminated, most significantly volume. Safety-Kleen places clean parts washer solvent in 16, and 30-gallon containers with the customer which, if no additional material has been added to the container, should not hold more than the 16, and 30 gallons of waste, respectively, at the time of waste pick-up since those volumes were equal to the respective virgin product amounts in the containers. If the volume of waste in a given container exceeds the specified level, the Safety-Kleen service representative may sample the waste for laboratory testing as described above, or he/she will reject the waste.

Some larger Safety-Kleen parts washers and some customer-owned machines will require manual pumping of the solvent out of the unit. In these cases, solvent volumes in drums may exceed the values presented above. Volume screening of solvent from these units will be conducted according to the total volume of liquid removed from the unit. If the quantity removed is larger than the quantity provided, the Safety-Kleen service representative may sample the waste for laboratory testing as described above, or he/she will reject the waste.

The spent parts washer solvent is also visually inspected for its color. Unused parts washer solvent (150 Premium Solvent) has a greenish tint or is clear. The aqueous parts cleaner is also clear. As the solvent is used, it changes color. The specific color which the solvent turns is dependent upon the type of equipment being cleaned. For example, solvent used at automotive shops changes to brown or black, while solvent used by silk screeners will change to the color of the inks (red, blue, pink, green, etc.). If the spent solvent color does not appear to be consistent with the type of equipment being cleaned, the service representative may sample the waste for possible contamination as described above, or he/she will reject the waste.

### *Immersion Cleaner*

The criteria for the inspection of spent immersion cleaner are volume, color, and physical state. Clean immersion cleaner is delivered to the customer in containers. These containers each contain six gallons of immersion cleaner. Spent immersion cleaner is picked up from the customer in the same containers. If no additional material has been added to the spent immersion cleaner, the containers should contain no more than six gallons. If a container contains more than six gallons of waste, a sample may be collected and analyzed for contamination following the procedures described above or waste will be rejected. Unused immersion cleaner is amber in color. As the solvent is used, it turns brown in color. The more it is used, the darker it becomes, until it is almost black. Therefore, if the spent immersion cleaner does not appear to be amber, brown, or black, the service representative may sample the waste for possible contamination as described above, or he/she will reject the container of waste.

### *Dry Cleaner Wastes*

Dry cleaner wastes consist of spent filter cartridges, powder residue, and still bottoms, each of which is discussed below.

#### *Spent Filter Cartridges*

Spent filter cartridges are placed in containers which hold one to three cartridges. It is readily apparent to the trained service representative whether the items in the containers are filter cartridges. The containers may also contain approximately one inch of liquid which should be either clear or light brownish tint. If the amount of the liquid is greater than approximately one inch or if the liquid is a color other than light brown, the service representative may sample the waste for contamination in accordance with the procedures described above, or he/she will reject the waste.

#### *Powder Residue*

The criteria for the acceptance of powder residue are consistency and color, the former

being the more significant criterion of the two. A container of powder residue should not contain more than one inch of liquid. The waste should be slightly wet, with a paste-like consistency. If there is too much liquid in the container, the waste may be sampled for contamination in accordance with the procedures described above, or the waste will be rejected. The powder residue is also inspected for color and should appear to be grayish-black. If the residue is not grayish-black in color, the service representative may sample the waste for contamination in accordance with the procedures described above, or he/she will reject the waste.

*Still Bottoms*

The criteria for the acceptance of dry cleaning still bottoms are consistency and color. The waste should have a highly viscous, tar-like consistency. If the consistency of the waste is too thin, the waste may be sampled for contamination in accordance with the procedures described above, or it will be rejected. In addition to the consistency, the still bottom waste is inspected for color. The waste should appear dark brown or black in color. If the waste is a different color, a service representative may sample the waste for contamination in accordance with the procedures described above, or he/she will reject waste.

*Paint Wastes*

Safety-Kleen handles both lacquer thinner waste generated from the paint gun cleaning process and paint waste, each of which is described below.

*Lacquer Thinner Waste*

The significant criteria for determining whether lacquer thinner waste will be accepted is volume. The solvent is provided to customers in 5-gallon containers. The paint gun cleaning machine operates as a closed system consisting of a 5-gallon container for fresh lacquer thinner and a 5-gallon container for spent lacquer thinner. The closed system is designed such that there should never be a combined volume of more than 7.5 gallons of solvent in the two 5-gallon containers. The fresh solvent container starts with 5 gallons



of clean solvent and the spent solvent starts with 2.5 gallons of clean solvent. As the machine is used to spray guns, the fresh solvent is pumped from a tube in the fresh solvent container through the machine and into the spent solvent container. This cleaning/degreasing process will continue until the volume of solvent in the fresh container reaches the 2.5-gallon mark. A tube in the fresh solvent extends half way down the container (i.e., to the 2.5-gallon mark). Any solvent above 2.5 gallons in the fresh solvent container at the time of servicing will be pumped through the machine into the spent solvent container by the Safety-Kleen service representative. Therefore, when the machine is serviced, the spent solvent container will always contain 5 gallons of solvent. If a service representative discovers more than a total of 7.5 gallons of solvent in the two containers or there is an overfill from the spent solvent container, the waste may be sampled for contamination in accordance with the procedures described above, or the waste will be rejected.

#### *Paint Waste*

The significant criterion for the inspection of paint waste is consistency. The waste should contain no more than 30 percent solids. The material should be a “free flowing” liquid, but should not contain a significant amount of water.

#### *Mercury-Containing Lamps and Devices*

As part of its protocol for handling mercury-containing lamps and devices destined for recycling, the Branch provides customers with 4-foot and 8-foot boxes which hold up to 39 lamps. Boxes are inspected prior to transport from the customer to the Branch. Boxes containing broken lamps are accepted only if the box is completely sealed and then sealed again with plastic shrink wrap. Surfaces that have come into contact with pieces from a broken lamp will be decontaminated using HgX (sodium thiosulfate and ethylene diaminetetraacetic acid), in accordance with manufacturer’s specifications.

### ***Waste Analyses at the Recycle Facility***

Analyses performed at the Safety-Kleen recycle facilities are undertaken to safeguard the recycling process and to assure the product quality. In addition, each waste material is sampled and analyzed upon receipt of each waste load as required by the permit and associated waste analysis plan for the receiving recycle center. In order to properly and safely process waste generated by the Branch, the recycle center samples and analyzes each waste load as it is received from the branch. The following tables summarize a typical waste analysis plan at the recycle center facility related to the hazardous materials returned from the Branch:

- Table 7.2-1 Parameters and Rationale for Hazardous Waste Identification
- Table 7.2-2 Parameters and Test Methods
- Table 7.2-3 Methods Use to Sample Hazardous Wastes
- Table 7.2-4 Frequency of Analysis

In addition to the aforementioned analyses, TCLP analyses for all compounds, except pesticides, will be conducted every year on all characteristic hazardous waste streams (example: used parts washer solvent and immersion cleaner #699).

## **7. REQUIRED RECORDS AND REPORTING**

### ***Waste Manifests***

Appropriate shipping papers/manifests are used, based on the monthly quantity of hazardous waste generated by the customer. Safety-Kleen services all three categories of generators in Florida – Conditionally Exempt Small Quantity Generators (CESQGs), SQGs, and LQGs. CESQGs' spent solvent is removed via a service document and no manifest or Land Disposal Restrictions (LDR) form is required. Appropriate records are kept at the Branch as to the date of waste pick-up, quantity, and other data on the service

Section 264.74 requires that all records, including plans, must be furnished upon request to duly designated representative of the Regional Administrator, and this requirement will be honored. A copy of all records of waste disposal locations and quantities will be submitted to the Regional Administrator and/or FDEP upon closure of the facility, if applicable.

As a registered transporter and storage facility for mercury-containing lamps and devices destined for recycling, the Branch complies with the record keeping requirements of FAC 62-737.

***Land Ban Notification/Certification Forms***

In accordance with 40 CFR 268.7, Safety-Kleen will provide notification/certification for wastes banned from landfills as follows:

1. Special forms for each regularly handled wastes types (e.g., parts washer solvent, immersion cleaner, and percholoroethylene); or
2. A general form that must be completed for unique or nonstandard waste streams.

The notice is required paperwork for the streams handled by Safety-Kleen. When a shipment with the notice is received, the notice is kept in the files of the receiving facility with the manifest or with the pre-print if a manifest is not used.

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The Federal laws found in 40 CFR Part 270.3 do apply to Safety-Kleen although they do not appear to be applicable at this time.

document. SQGs' spent solvent is shipped under a tolling agreement in Florida, which means that a manifest is not used. An LDR form is completed for each SQG. LQGs' spent solvent is always manifested (if hazardous) and an LDR form completed.

Spent solvent (from each Safety-Kleen customer, regardless of generator status) is brought back to the Branch and dumped in the return/fill station and pumped to the waste solvent tank. This tank contains the spent solvent of many customers and is hazardous. The contents are regularly sent via tanker truck to the recycle center in Lexington, SC. These loads are always manifested and accompanied by a LDR form. Shipments of parts washer solvent dumpster mud are also manifested accordingly. Required records are kept at the Branch and the recycle center in accordance with regulatory timeframes.

In accordance with 40 CFR 264.71 through 77, Safety-Kleen will ensure that:

1. Customers who are required to provide a manifest do so;
2. The manifests are prepared and signed properly; and
3. Copies are distributed and kept on file, as required.

In addition, discrepancies must be remediated in accordance with 40 CFR 264.72 and unmanifested wastes will be reported as described under 40 CFR 264.76.

### ***Required Notices***

If Safety-Kleen arranges to receive hazardous waste from a foreign source, the Regional Administrator must be notified in writing at least four weeks in advance of the date the waste is expected to arrive at the facility. Notice of subsequent shipments of the same waste from the same foreign source is not required. Safety-Kleen informs its customers in writing (i.e., on each service document) that the facility has the appropriate permit(s) for, and will accept the waste the generator is shipping. Safety-Kleen keeps a copy of this written notice as part of the operating record.

Before transferring ownership or operation of this facility during its operating life, Safety-Kleen will notify the new owner or operator in writing of the requirements of Part 264 and Part 270 of Chapter 40 in the Code of Federal Regulations.

Biennial reports required by Chapter 62-730.180(4) FAC, will be prepared and submitted by Safety-Kleen, and these records will also be available at the facility for review. The biennial report will be submitted to the Regional Administrator and/or FDEP by March 1 during each even year (1990 being the first year) on EPA form 8700-13B. The report will cover facility activities during the previous calendar years and will include:

- The EPA identification number, and address of the facility;
- The calendar years covered by the report;
- The method of treatment, storage, and disposal for each hazardous waste; and
- A certification signed by the owner or operator of the facility or the authorized representative.

### ***Operating Record***

An operating record which contains the information required under 40 CFR 264.73 is maintained and all records and logs are available at the facility, in accordance with 40 CRR 264.74.

The following information will be maintained in writing in the operation record for the facility:

- A description and quantity of each hazardous waste received;
- The date and storage method for such hazardous waste;
- The location of each hazardous waste stored within the facility;
- Records and results of waste analyses performed;
- Summary reports and details of all incidents that require implementation of the contingency plan;

- Monitoring, testing, or analytical data, and corrective action where required by Subpart F and other applicable sections of 40 CFR 264;
- All closure cost estimates under 40 CFR 264.142 and all contingent post-closure cost estimates under 40 CFR 264.144;
- Records of quantities and date of placement for each shipment of hazardous waste placed in land disposal units under an extension to the effective date of any land disposal restriction granted; and
- For any restricted waste generated that can be land disposed without further treatment, and is sent to a land disposal facility, a notice and certification will be sent to the treatment, storage, or land disposal facility with the waste. The notice will state that the waste meets the applicable treatment standards set forth in Subpart D of 40 CFR 268 and applicable prohibitions set forth in 40 CFR 268.32 or RCRA section 3004(d). The notice will include the following information:
  1. EPA Hazardous Waste Number; and
  2. The corresponding treatment standards and all applicable prohibitions set forth in 40 CFR 268.32 or RCRA Section 3004(d).

Further, the LDR certification will be signed by an authorized representative and will state the following:

*I certify under penalty of law that I personally have examined and am familiar with the waste through analysis and testing or through knowledge of the waste to support this certification that the waste complies with the treatment standards specified in 40 CFR Part 268 Subpart D and all applicable prohibitions set forth in 40 CFR 268.32 or RCRA Section 3004(d). I believe that the information I submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting a false certification, including the possibility of a fine and imprisonment.*

**TABLE 7.1-1  
PERMITTED AND TRANSFER WASTES**

<b>Waste Type</b>	<b>Process Code(s)</b>	<b>Estimated Annual Amounts (Tons)</b>	<b>Waste Codes</b>
Spent Parts Washer Solvent	S01* S02**	848	D001 and D-codes listed in Note below
Branch-Generated Liquids Solids (Debris)	S01*	17	D001 and D-codes listed in Note below; F001, F002, F003, F004, F005
Dumpster Sediment	S01*	Included above	D001 and D-codes listed in note below
Tank Bottoms	S01*	Included above	D001 and D-codes listed in note below
Used Immersion Cleaner (IC 699)	S01*	28	D-codes listed in note below
Dry Cleaning Waste (Perchloroethylene)	S01*	290	F002 and D-codes listed in note below
Dry Cleaning Waste (Non-perchloroethylene)	S01*	Included above	D-codes listed in note below
Paint Wastes	S01*	46	D001, F003, F005 and D-codes listed in note below
Fluid Recovery Service (FRS)	S01**	220	Transfer wastes-waste codes assigned by generator
Mercury-Containing Lamps/Devices	N/A***	Less than 2.2	N/A-handled as non-hazardous transfer wastes

**NOTES:**

D-Codes: D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D023, D024, D025, D026, D027, D028, D029, D030, D032, D033, D034, D035, D036, D037, D038, D039, D040, D041, D042, D043

- \* This waste will be stored in containers in the building container storage area. The maximum capacity in the container storage area for hazardous waste and product is 29,400 gallons, with 6,912 gallons being waste
- \* The spent parts washer solvent storage tank has a capacity of 15,000 gallons and may be filled to 14,250 gallons
- This waste will be held for transfer in containers in the transfer area

**TABLE 7.2-1**  
**PARAMETERS AND RATIONALE**  
**FOR HAZARDOUS WASTE IDENTIFICATION**

<b>Hazardous Waste</b>	<b>Parameter*</b>	<b>Rationale</b>
1. Used Parts Washer Solvent	Flash Point TCLP	May exhibit ignitable characteristics (D001) may contain TCLP compounds
2. Parts Washer Solvent Tank Bottom Sludge and Free Water	TCLP Flash Point	The sludge and free water may contain TCLP compounds
3. Parts Washer Solvent Dumpster Mud	TCLP Flash Point	The mud and free water may contain TCLP compounds and the sludge has a flash point of 105° F (D001)
4. Used Immersion Cleaner (IC699)	TCLP	May contain TCLP compounds.
5. Dry Cleaning Wastes (Perchloroethylene)	Perchloroethylene TCLP	Contains ingredients of F002 and may contain TCLP compounds
6. Dry Cleaning Wastes (Naptha)	TCLP	May contain TCLP compounds
7. Paint Wastes	Acetone Isopropyl Alcohol Methyl Ethyl Ketone Toluene, Xylenes Acetate Compounds Flash point, TCLP	Contains ingredients of F003 and F005 wastes, and may contain TCLP compounds. May exhibit ignitable characteristics (D001)
8. Aqueous Brake Cleaner	TCLP	May contain TCLP compounds



**TABLE 7.2-2**  
**PARAMETERS AND TEST METHODS**

Parameter	Test Method	Reference
pH	pH Meter	ASTM Standard D1293-65
Flash Point	Tag closed cup tester	ASTM Standard D56-79
TCLP	Toxicity Characteristic Leaching Procedure	40 CFR 261, Appendix II
Hydrocarbons and Volatile Organics	Gas Chromatography (GC)	Methods Based on "Test Methods for Evaluation of Solid Waste, Physical/ Chemical Methods," SW-846, USEPA and ASTM Standards. In particular 8240 and 8270.

**TABLE 7.2-3**  
**METHODS USED TO SAMPLE HAZARDOUS WASTES**

<b>Hazardous Waste</b>	<b>Reference for Sampling</b>	<b>Sampler</b>	<b>Description of Sampling Method</b>
1. Used Parts Washer Solvent	Sampling a tank "Samplers And Sampling Procedures For Hazardous Waste Streams," EPA/600/2-80/018	Test Methods for the Evaluation of Solid Waste Physical/ Chemical Methods, Sw-846, USEPA	For tanks-Bomb sampler (similar to Weighted bottle sampler)
2. Parts Washer Solvent, Tank Bottom Sludge, And Free Water	Same as 1	Same as 1	Same as 1
3. Parts Washer Solvent Dumpster Mud	Sampling a drum "Samplers And Sampling Procedures For Hazardous Waste Streams," EPA/600/2-80/018	Same as 1	Representative composite Sample using drum sampler
4. Used Immersion Cleaner IC699	Same as 3	Same as 1	Same as 3
5. Dry Cleaning Wastes	Same as 3	Same as 1	Same as 3
6. Paint Wastes	Same as 3	Same as 1	Same as 3
7. Aqueous Brake Cleaner	Same as 3	Same as 1	Same as 3

**TABLE 7.2-4**  
**FREQUENCY OF ANALYSIS OF HAZARDOUS WASTES**

<b>Hazardous Waste</b>	<b>Frequency*</b>
1. Used Parts Washer Solvent	Gas chromatograph annually, Flash point annually, TCLP annually
2. Parts Washer Solvent, Tank	Gas chromatograph annually, TCLP annually
3. Parts Washer Solvent Dumpster Mud	Gas chromatograph annually, TCLP annually
4. Used Immersion Cleaner 699	Gas chromatograph annually, TCLP annually
5. Dry Cleaning Wastes	Gas chromatograph annually, TCLP annually
6. Paint Wastes	Gas chromatograph annually, TCLP annually
7. Aqueous Brake Cleaner	Gas chromatograph annually, TCLP annually

**NOTES:**

- In accordance with 40 CFR 264.13(a), Safety-Kleen will also perform physical and chemical analysis of a waste stream when it is notified or has reason to believe that the process or operation generating the waste has changed, or when the result of inspection indicates that the waste to be collected does not match the waste designated.

***Part II General***

***B. CONTAINERS***

***CONTAINMENT SYSTEM***

The container storage areas shown in Figure 8.1-1 occupies a portion of the building area which has a sloped concrete floor and a collection trench to form spill containment system. The system is maintained free of cracks. Spills are removed by a hand-held portable electric pump (the coms pump), wet-dry vacuum cleaner, or sorbent materials. The capacities of the containment system are designed to be greater than 10 percent of the total liquid storage capacity in each drum storage area. Since the characteristics of the stored wastes are known, no analyses are performed for the materials collected from the containment area. All collected materials are sent to a permitted recycling or reclamation facility.

Only in the event that a spill were to exceed the containment capacity would spilled wastes be able to extend beyond the containment area. Only six openings (doorways) exist in the container storage area. Four of these lead to other containment area (i.e., the return/fill station and the enclosed concrete dock (Figure 8.1-1)). The other two doorways are located on the east side of the container storage area behind a locked chain link fence. Due to the volume of containment available and the configuration of the container containment area, it is highly unlikely that any spill would extend beyond this area.

The containment volume is composed of the sloped concrete floor and the collection trench. The total containment volume is 2,972 gallons. Therefore, the maximum storage capacity is 29,720 gallons. The types and number of each container may vary; however, total volume of product and waste stored will not exceed the maximum volume of 29,720 gallons. The estimated maximum storage volume of waste is 6,912 gallons. Containment calculations are included with a container storage area integrity assessment provided in Appendix C.

The containment areas have been coated with Sikagard® 62 or equivalent. Other coatings may be used in the future and will be evaluated by Safety-Kleen to ensure, when properly applied, they are capable of withstanding the products handled by Safety-Kleen. Inspections of the sealant in the containment areas will be conducted as part of the daily facility inspection plan. Inspections of the sealant in the containment areas will be conducted as described in Section 8.4. If the sealant is found to be worn or deteriorated such that repairs are warranted, the sealant will be repaired in accordance with the manufacturer's specifications.

#### ***Container Movement***

In the container storage area, containers are handled with a hand-truck or forklift that is free of sharp points. Every time a drum is moved, a chance exists that it will be tipped over, dropped, or punctured. To minimize the possibility of spillage, containers are tightly covered and kept in an upright position. A small portable electric pump is available to quickly transfer the liquid from any leaking container into another safe container. Each route truck is equipped with a lift-gate or an electric hoist. These devices are used in the loading/unloading operation to minimize chances for spillage and/or employee injury. Drummed waste containers are loaded for transport to a Safety-Kleen TSDF at the vicinity of the garage door on the south side of the building. Incoming drummed waste containers are unloaded at the garage door on the south side of the building and at the return/fill bay docks. Parts washer solvent drummed waste is unloaded at the return/fill bay docks. Parts washer drums are then dumped into the return/fill dumpster and other waste containers are moved via hand truck/forklift to the container storage area within 24 hours of arrival at the facility.

All containers are transported, moved, and stored carefully in an upright position. Containers are palletized whenever possible to facilitate shipping and storage. Pallets may be stacked up to seven feet, or two high (whichever is higher), while in storage. This will prevent the containers from contacting standing liquid while they are in storage. Pallets may be shipped up to three high during transportation. The containers will be arranged so that a two-foot aisle space exists between all rows of pallets such that all containers can be readily visible for inspection and handling.

### ***INCOMPATIBLE, IGNITABLE, AND REACTIVE WASTE MANAGEMENT***

All materials are managed in accordance with the local fire protection code and fire department recommendations. All ignitable wastes are stored at least 50 feet from the property line.

The facility does not routinely manage unwashed containers that may previously have held materials that would be incompatible with wastes stored at the facility. Also, the used parts washer solvents and used aqueous parts washer solvents consist of materials that are compatible and suitable for bulking.

### ***Procedure for Managing Waste Types***

The solvents stored at this facility are typically compatible with each other and with other materials handled at this facility. In some isolated instances, special waste segregation procedures may be necessary at this facility. Wastes are stored primarily in polyethylene and steel containers. Immersion cleaner, dry cleaning, paint waste, and FRS waste containers are never opened at the Branch. Overpack containers are used for the management of containers whose integrity has been compromised. For ease of inventory control and product integrity, separation and grouping of both used and unused solvents is a standard practice at the Branch. All containers are designed and constructed to be compatible with the stored material and to minimize the possibility of breakage and

leaking, in accordance with DOT shipping container specifications.

### ***Potential Fire Sources***

The following is a list of fire prevention and minimization measures:

1. *All wastes and products are kept away from ignitable sources* – Personnel must confine smoking and open flames to the Branch designated area which is located outside the front door of the office area. No other smoking areas are designated. The parts washer solvent handling area and the aboveground storage tanks are separate from the warehouse area to minimize the potential for a fire to spread or injury to personnel to occur.
2. *Ignitable wastes are handled so that they do not:*
  - become subject to extreme heat or pressure, fire, explosion, or a violent reaction – The parts washer solvent waste is stored in a tank or in containers, none of which are near sources of extreme heat, fire, potential explosion sources, or subject to violent reactions. The tanks are vented and the containers kept at room temperature to minimize the potential for pressure build-up.
  - produce uncontrolled toxic mists, fumes, dusts or gases in quantities sufficient to threaten human health – The vapor pressure of petroleum-based parts washer solvent is low (2 mm Hg) and it is reactive with strong oxidizers only. Toxic mists, fumes, dusts, or gases will not form in quantities sufficient to threaten human health since strong oxidizers are carefully segregated at this facility and the solvent vaporization will be minimal under normal working conditions.
  - produce uncontrolled fires or gases in quantities sufficient to pose a risk of fire or explosion – See above and below.
  - damage the structural integrity of the Safety-Kleen facility – The solvents stored at this facility will not cause deterioration of the tank, containers, or other structural components of the facility.

3. *Adequate aisle space is maintained* to allow the unobstructed movement of personnel, fire protection equipment, and decontamination equipment to any area of the facility operation in an emergency.
4. *“NO SMOKING” signs are posted* in areas where solvents are handled or stored.
5. *Fire extinguishers are checked weekly* by Branch personnel.

### ***External Factors***

The design of the facility is such that a harmful spill is highly unlikely to occur from most external factors. The storage tanks are inaccessible to non-Safety-Kleen personnel and the pump switches are located inside. Also, the container storage area is in a building which is inaccessible to unauthorized personnel.

1. *Vandalism* – Only extreme vandalism would result in a solvent spill or fire.  
Responses to spills and fires are described in the Contingency Plan
2. *Strikes* – A strike would not result in a solvent spill or fire.
3. *Power Failure* – A power failure would not result in a spill or fire. Should a power failure occur, all activities requiring electricity will cease.
4. *Flooding* – The site elevation is above the projected 100-year floodplain.
5. *Storms or Cold Weather* – The solvent return/fill station is covered to eliminate the possibility of rain or snow entering the dumpsters. No opportunity is foreseen to affect the facility with snow, cold weather, or storm weather.
6. *Hurricanes* – Facility will follow the procedures within the contingency plan.

## ***CONTAINER MANAGEMENT***

### ***General Protocols***

Container management is of paramount importance to Safety-Kleen. All containers are routinely inspected to ensure that the containers are in good condition. If rusting or



structural defects are visible, or if the container begins to leak, the contents of the container are immediately transferred to a new sound container. Over-pack containers are commonly used for the management of containers whose integrity has been compromised.

Hazardous waste containers are always kept closed during storage except when adding or removing waste. Containers are not handled or stored in a manner that could potentially cause a rupture or leak.

### *Specific Waste Stream Containers*

Parts washer solvent is collected in containers and generally emptied into the wet dumpster at the return/fill station (which is piped to the tank farm). The containers are designed and constructed to be compatible with the stored material and to minimize the possibility of breakage and leaking, in accordance with DOT shipping container specifications.

The immersion cleaner is always contained in partially filled covered containers before, during, and after its use. Until received at the recycle center, the immersion cleaner is never transferred to another container. The containers of used immersion cleaner are returned to the facility and stored in the designated container storage area before shipment to a permitted Safety-Kleen TSDF.

Dry cleaning waste is stored in steel or polyethylene containers and consists of perchloroethylene-based waste and naptha-based waste. The contents of the dry cleaning waste containers are not removed or processed at the Boynton Beach Branch. It is stored as permitted waste prior to shipment to a permitted TSDF.

Paint wastes consist of various lacquer thinner and paints. The waste is collected in containers at the customer's location and the containers are then stored in the container storage area of the warehouse. The paint wastes are managed as permitted wastes.

FRS wastes are stored in steel or polyethylene containers that are compatible with the material in them. FRS wastes are managed as transfer wastes.

As part of its protocol for handling mercury-containing lamps and devices destined for recycling, the Branch provides customers with four-foot and eight-foot boxes which hold up to 39 lamps. Other DOT approved containers are used for mercury devices. Boxes are inspected prior to transport from the customer to the Branch. Boxes containing broken lamps are not accepted by Safety-Kleen. If the lamps are broken while in the custody of Safety-Kleen, the entire contents of the box are sealed in plastic shrink wrap or transferred to another container and closed. The boxes are picked up at customer locations and are stored at the Branch in a designated area within the container storage area (Figure 8.1-1). The boxes used to store mercury-containing lamps and devices are labeled in accordance with Florida Administrative Code (FAC) 62-737.400(5)(b). The boxes are periodically shipped to a permitted mercury recovery or reclamation facility.

### ***CONTAINER INSPECTION***

The purpose of the container inspection plan is to establish a procedure and schedule for the systematic monitoring and inspection of hazardous waste management and other material management facilities to ensure proper operation, maintain compliance, and prevent the release of hazardous wastes to the environment. The Branch Manager or designee is responsible for carrying out the inspections of all hazardous waste management facilities in accordance with the following procedure and schedule.

An example of the Daily Inspection Log for the container storage area and associated loading/unloading areas is presented in Figure 8.4-1. This Daily Inspection Log, or equivalent, will be used during daily inspections. Daily container storage area inspections include the following:

- Verify that total volume is within permitted limits.
- Physically examine the condition of containers to verify that leaks have not occurred since the last inspection;
- Verify that all container identification, dates, and hazardous waste labels are attached and current;
- inspect container placement and stacking such as aisle space, height, and stability of stacks; and
- Examine containment areas to detect signs of deterioration and failure of the containment system such as cracks, breakage, settlement, and spillage.

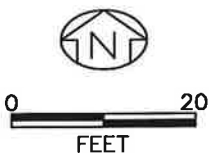
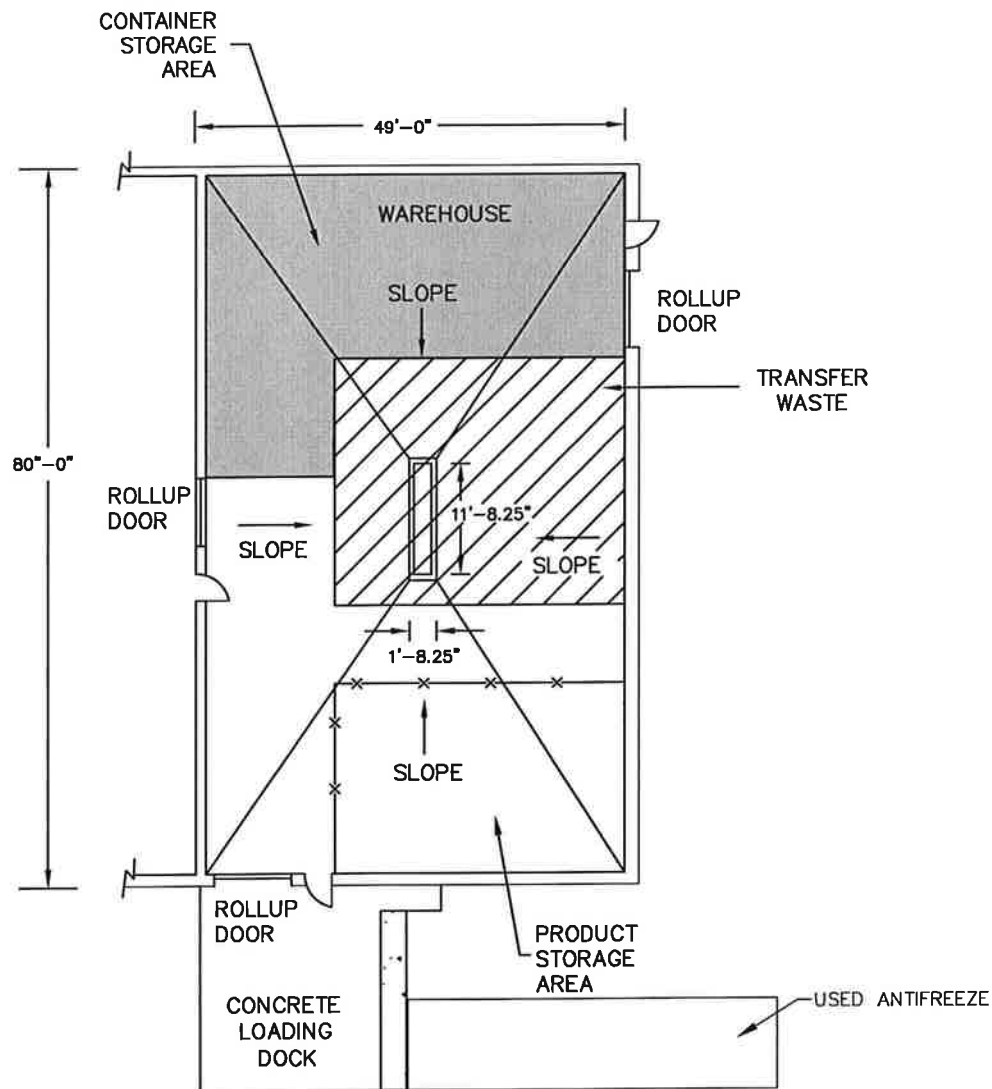
As deficiencies are detected, the Branch Manager will ensure that they are remedied promptly. Any deficiencies which could create an environmental or human health hazard will be rectified immediately.

Other inspections at the facility include those performed on a weekly basis for the security systems. These inspections are described in the contingency plan.

#### ***CONTAINER STORAGE AREA CLOSURE PLAN***

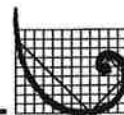
The container storage area closure plan and closure cost estimates are provided as part of the overall closure plan for the facility in Part II K.

FIGURE 8.1-1  
CONTAINER STORAGE AREA  
SAFETY-KLEEN SYSTEMS, INC. FACILITY  
BOYNTON BEACH, FLORIDA



LEGEND

—X—X— CHAIN LINK FENCE



**Figure 8.4-1 (page #1)**  
**Safety-Kleen Boynton Beach, Florida**

**Daily Inspection of Warehouse Container Storage Area – Maximum Permitted Volume 6,912 gallons**

**Inspectors Name/Title:**

Monday	Tuesday	Wednesday	Thursday	Friday

DATE (MM/DD/YY)

TIME

Volume in containers	Monday	Tuesday	Wednesday	Thursday	Friday
Branch Generated – 30 gallon (sludge and debris)					
Branch Generated – 55 gallon (sludge and debris)					
Immersion Cleaner					
Lacquer Thinner – 5 gallon					
Paint Waste – 16 gallon					
Paint Waste – 30 gallon					
Paint Waste – 55 gallon					
Dry Clean – 16 gallon					
Dry Clean – 30 gallon					
Dry Clean Filters – 16 gallon					
Dry Clean Filters – 30 gallon					
Oil Filters – 16 gallon					
Overpack – 85 gallon					
Oil Filters – 30 gallon					
Oil Filters – 55 gallon					
Aqueous Brake Cleaner – 5 gal.					
FRS – 5 gallon					
FRS – 16 gallon					
FRS – 30 gallon					
FRS – 55 gallon					
FRS – 85 gallon					
FRS Totes – 350 gallon					
<b>TOTAL VOLUME (GALLONS)</b>					
Batteries – 5 gallon					
Batteries – 16 gallon					
Fluorescent bulbs – 4 ft.					
Fluorescent bulbs – 8 ft.					
Mercury Devices					

Figure 8.4-1 (page #2)

Waste Volume:           A   N                   A   N                   A   N                   A   N                   A   N

If “N”, what is the reason: \_\_\_\_\_

Condition of Containers: A   N                   A   N                   A   N                   A   N                   A   N

If “N” circle appropriate problem: missing or loose lids, incorrect or incomplete labels, rust, leaks, distortion, other: \_\_\_\_\_

Stacking/Placement/Aisle Space:

                  A   N                   A   N                   A   N                   A   N                   A   N

If “N” circle appropriate problem: different from Part B floor plan, containers not on pallets, unstable, broken or damaged pallets, or other: \_\_\_\_\_

Containment:           A   N                   A   N                   A   N                   A   N                   A   N

Curbing, floor and sumps:

(Any material which accumulates in the secondary containment must be completely removed within 24 hours of being discovered) If “N” circle appropriate problem: ponding/wet spots, deterioration (cracks, gaps, etc.) displacement, leaks inadequate sealant, or other: \_\_\_\_\_

Loading/Unloading Areas:

                  A   N                   A   N                   A   N                   A   N                   A   N

If “N” circle appropriate problem: cracks, deterioration, ponding/wet spots, other: \_\_\_\_\_

Observations, comments, date and specific nature of repairs of any items indicated as “Not Acceptable” (N): \_\_\_\_\_

A = Acceptable   N = Not Acceptable

***Part II***

***C. TANK SYSTEM***

***ASSESSMENT OF TANK SYSTEM***

Assessments of the hazardous waste tank system were conducted in November, 2001, and on May 21, 2012. The assessment report from 2001 is provided in Appendix E. The May, 2012 report will be forwarded to the Department when finalized by the inspector.

***TANK SYSTEM SPECIFICATIONS***

The facility includes five aboveground steel tanks (Figure 9.2-1). Used parts washer solvent is returned from Safety-Kleen's customers in containers and the solvent is transferred via the wet dumpsters into a 15,000-gallon tank, prior to bulk shipment to a permitted Safety-Kleen TSDF. The other four tanks, include a 20,000-gallon fresh solvent tank, a 20,000-gallon and 15,000-gallon used oil tank, and a 5,000-gallon oily water tank. These four tanks are not considered RCRA tanks.

***Material Compatibility***

Waste stored in the RCRA tank at this facility is used parts washer solvent. The parts washer solvent is compatible with the mild steel tank structure. As with all petroleum storage vessels, water will accumulate over time due to condensation and the addition of aqueous parts washer solvent and aqueous brake cleaner. The aqueous parts washer solvent and aqueous brake cleaner have a specific gravity less than water and the water will accumulate in the bottom of the tank.

***Tank Operation Procedures and Design***

Used solvent is returned from customers via containers and poured into the wet dumpsters which have barrel washers enclosed within them. The container is then placed on roller brushes within the barrel washer. As the machine is turned on, the container rotates on the brush and the outside of the container is cleaned. A nozzle in the barrel washer sprays a stream of solvent into the bottom of the container to flush the inside of

the container. The machine is then turned off and the container is removed. This process takes several seconds per container. The container is then refilled with clean solvent using a pump and nozzle assembly similar to a gasoline dispenser. The waste is transferred to the tank via piping and a pump. The used solvent is fed to a sump in the bottom of the wet dumpster and automatically pumped to the used parts washer solvent storage tank. A basket within the sump collects sludge from the cleaning operations. Periodically, this basket is removed and sludge is removed and placed into a sludge drum for disposal. The wet dumpsters are located in the return/fill station, which is underlain by a secondary containment structure.

The used solvent storage tank is designed and constructed to be compatible with the materials stored. The tank is vented in accordance with National Fire Protection Association (NFPA) standards, and is equipped with a high-level alarm. The tank seams are lapped with full fillet welds. The weld was performed with an E70 electrode and can withstand a 4-psi air pressure test (which is performed by the manufacturer). The used solvent tank was installed new in 1991.

### ***Controls and Spill Prevention***

The tank farm dike and the return/fill station have been sealed with a chemical resistant coating. Level gauges are used to measure liquid levels in tanks. Float switch-activated automatic high level alarms (which consist of a strobe light and siren) signal the tank's being 95% full. This alarm allows an operator more than two minutes to stop operations and avoid overfilling the tank. The gauges of the tank are read before filling the tank with additional material. Tank level readings are also taken prior to the filling of a tanker truck to prevent overfilling of the truck or tank. A tanker truck provided with a suction pump is used to withdraw used parts washer solvent from the tank. No other equipment or standby equipment is used in the operation of the above-ground tanks. The tank should be operated at a maximum volume of 14,250 gallons (95% of capacity). The secondary containment under the tanks and return/fill station is cleaned within 24 hours



of a spill, or in as timely a manner as possible, to prevent harm to human health and the environment.

### ***TANK SYSTEM SECONDARY CONAINMENT***

#### ***Tank Containment***

All tanks are aboveground, underlain by a 71' x 32'4" x 6 concrete slab, surrounded by a 36" concrete dike and are in an enclosed building. No surface run-on or precipitation will contact the wastes stored in the tank, and no run-off collection and management system is required. The layout of the tank farm is shown in Figure 9.2-1. Containment calculations are provided in Appendix C.

The containment system in the tank farm has been coated with Sikagard® 62 or its' equivalent, and is free of cracks and is sufficiently impervious to prevent seepage into and through the concrete. Concrete is fully compatible with the waste stored. If the sealant is found to be worn or deteriorated such that repairs are warranted, the sealant will be repaired in accordance with the manufacturers' specifications.

#### ***Return/Fill Containment***

The return/fill station is located between the inside the center portion of the main building. The floor is sloped to a containment trench located in the center of the return/fill station. The entire area is coated with a chemical resistant coating. The barrel washers are on a raised grating which measures 54' x 78' (Figure 9.3-1). These dumpsters are not intended for storage but can hold a maximum of 550 gallons (275 gallons per dumpster).

The area is designed such that the route trucks can be backed into the building and the garage doors shut so that no precipitation can get into the return/fill station containment.

The containment capacity for the return/fill area is 3,626 gallons, which exceeds the storage capacity of the two dumpsters (275 gallons per dumpster. Containment calculations are presented in Appendix C.

### ***TANK SYSTEM INSPECTIONS***

The purpose of the inspection plan is to establish a procedure and schedule for the systematic monitoring and inspection of hazardous waste management and other material management facilities to ensure proper operation and maintain compliance. The Branch Manager or that person's designee is responsible for carrying out the inspections of all hazardous waste management facilities in accordance with the following procedure and schedule.

Figure 9.4-1 is an example Daily Inspection Log for the tank system. This Daily Inspection Log, or equivalent, will be used during daily inspections. Daily inspections of the tank and dumpsters will consist of the following:

- Note volume in tank.
- Observe tank exterior for loose anchoring, wet spots, leaks.
- Check the automatic high level alarm. In addition, measure the depth of used solvent in the tank to confirm the proper functioning of the automatic alarm system and to determine unexpected deviations in tank measuring data, or a sudden drop in liquid level, which may indicate leakage.
- Inspect secondary containment walls and piping.
- Inspect transfer pumps for leaking seals and overheated motors.
- Inspect the solvent dispensing hose, fittings, and valve for any leaks, damage, or wear that could cause a leak to develop.
- Inspect the valves for evidence of leaking. Stem leaks from worn glands and warped valve bodies should be repaired. If the valve cannot be repaired, replace the unit.

Also, the tanks will be visually inspected and tested periodically. The period of time between tank inspections, including shell thickness testing, will not exceed ten years. This time frame for tank inspection is adequate based on Safety-Kleen's experience at its other facilities in Florida.

Daily inspection of the solvent return receptacle (wet dumpster) will consist of an inspection for leaks and excess dumpster mud build-up.

#### ***TANK SYSTEM CLOSURE AND CONTINGENT POST-CLOSURE PLAN***

The tank system closure plan is provided as part of the overall closure plan for the facility in Part II K. As discussed below, a contingent post-closure plan for the tanks is not required.

#### ***TANK SYSTEM CONTINGENT POST-CLOSURE PLAN***

The tank system at the Boynton Beach facility meets the secondary containment requirements of 40 CFR 264.193, and is, therefore, not required to have a contingent post-closure plan under 40 CFR 264.197(c). In addition, Safety-Kleen intends to remove or decontaminate all tank system components, associated containment systems, and contaminated soils (if any) at the time of closure. However, should future conditions indicate that all contaminated soils and tank system components cannot practicably be decontaminated or removed, then a plan to perform post-closure care in accordance with the post-closure care requirements that apply to landfill (40 CFR 264.310) will be prepared for implementation upon FDEP approval.

#### ***RESPONSE TO LEAKS AND DISPOSITION OF UNFIT-FOR-USE TANK SYSTEMS***

In the event that a leak or spill were to occur from a tank system or secondary

containment system, the actions identified herein will be undertaken.

***Immediate Response***

All waste flow to the tank system in question will be ceased immediately. An inspection will be undertaken to identify the cause of the release. Waste flow to the tank system will not resume until the tank system has been inspected, repaired, and declared fit for use. In order to prevent further release, or to allow inspection and a repair of the system, it may be necessary to remove the waste from the tank system. This waste removal will occur within 24 hours after detection of the leak, or at the earliest practicable time. All material released to the secondary containment area will be removed within 24 hours, or in as timely a manner as possible, to prevent harm to human health and the environment. Every reasonable effort will be made to prevent migration of the release to soils or surface water. If necessary, visible contamination of surface water and soil will be removed and properly disposed of.

***Notifications***

If a spill is less than one pound and is immediately contained and cleaned up, no notifications are required. All other releases require notification as described in the Contingency Plan.

***Subsequent Reporting***

Within 30 days of detection of a release to the environment, a report must be submitted to the Regional Administrator and FDEP. The report must contain the following information:

1. Likely route of migration of the release.
2. Characteristics of the surrounding soil (soil composition, geology, hydrogeology, climate).
3. Results of any monitoring or sampling conducted in connection with the release.  
If sampling has occurred and sampling results are not available within 30 days, the results must be submitted as soon as available.
4. Proximity to downgradient drinking water, surface water, and populated areas.
5. Description of response actions taken or planned.

***Repair or Closure***

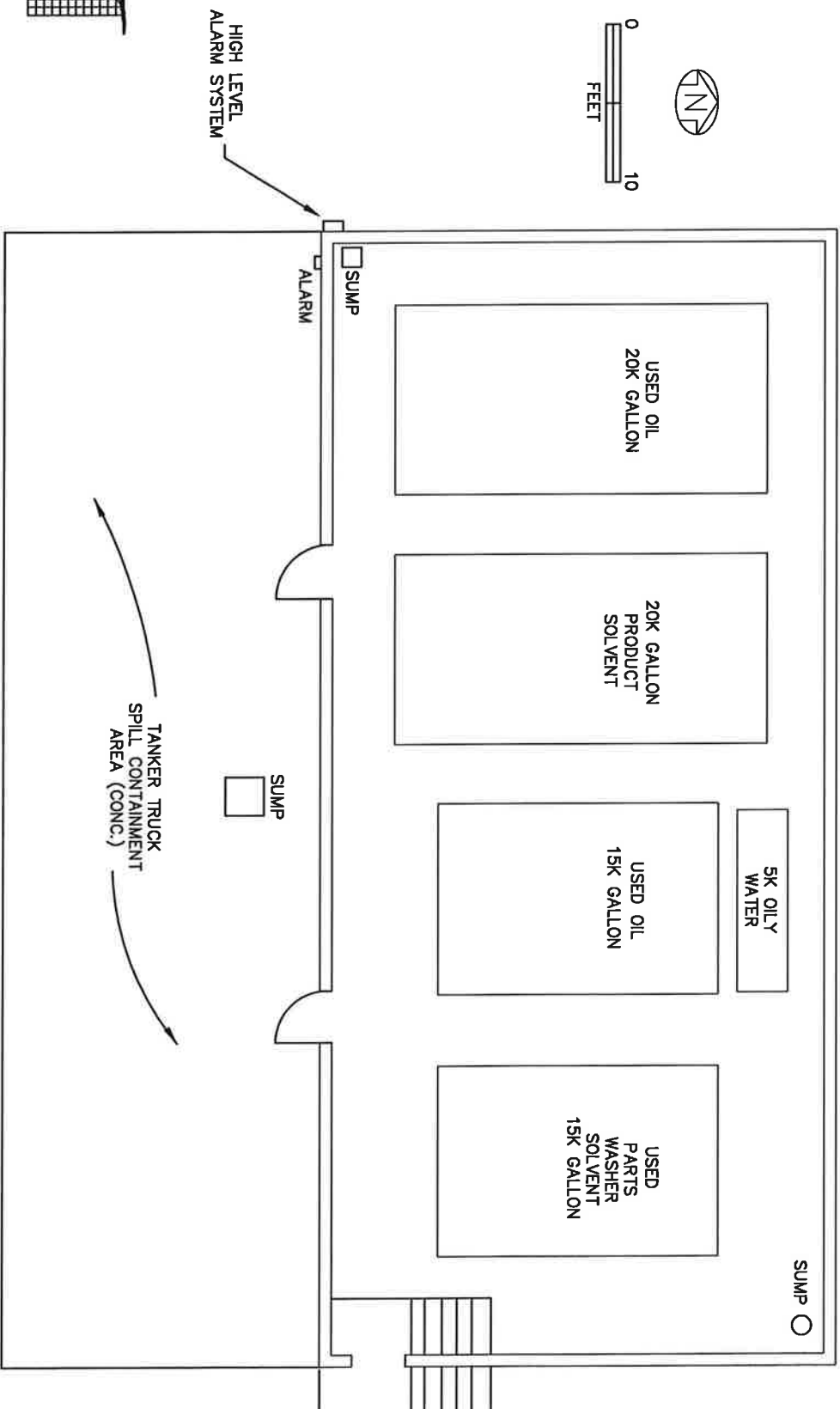
If the integrity of the containment system has not been damaged, the system may be returned to service as soon as the released waste is removed and repairs, if necessary, are made. If the tank was the source of the release, the tank must be repaired prior to returning the tank system to service. If the release was from a tank system component which did not have secondary containment, then secondary containment must be provided for this component before the system can be returned to service. The exception to this is if the component can be visually inspected. In this instance, the component may be repaired and returned to service. If a component is replaced, the component must satisfy the requirements for new tank systems and components.

All major repairs must be certified by an independent, registered, professional engineer in accordance with 40 CFR 270.11(d). The engineer must certify that the repaired system is capable of handling hazardous wastes without release for the intended life of the system. This report must be filed with the Agency within seven days after returning the tank system to use.

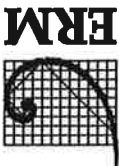
If repairs that meet these requirements cannot be performed, the tank system must be closed in accordance with the closure plan.

FIGURE 9.2-1  
TANK STORAGE AREA  
SAFETY-KLEEN SYSTEMS, INC. FACILITY  
BOYNTON BEACH, FLORIDA

REVISION 0 - 05/23/12

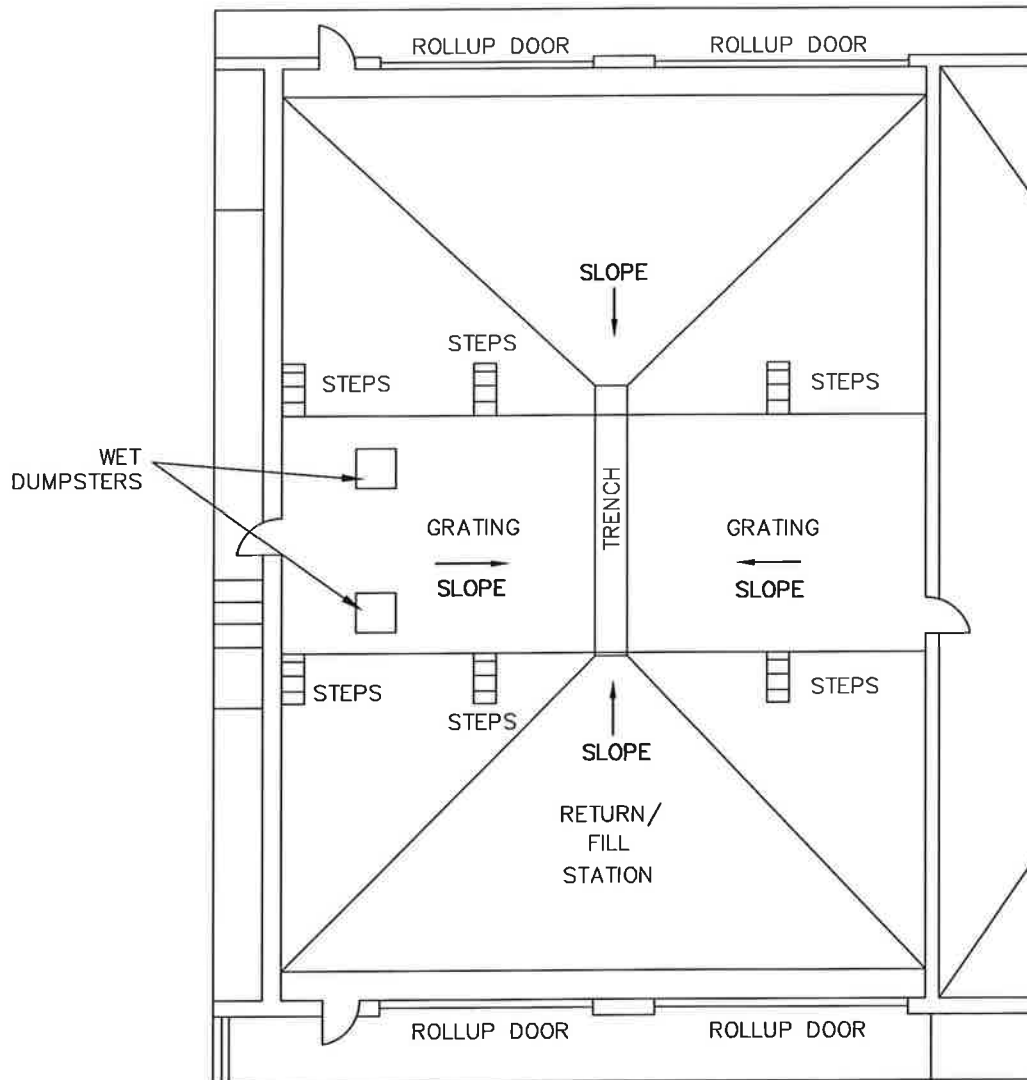


NOTE: AN ADDITIONAL TANKER IS USED FOR OILY WATER STORAGE. THIS TANKER IS LOCATED WITHIN A SPILL CONTAINMENT BERM IN THE SOUTHEAST CORNER OF THE FACILITY YARD AREA (SEE FIGURE 2.1-1 OR 5.1-1).



**FIGURE 9.3-1  
RETURN/FILL STATION  
SAFETY-KLEEN SYSTEMS, INC. FACILITY  
BOYNTON BEACH, FLORIDA**

REVISION 0 - 05/23/12



**ERM.**

**Figure 9.4-1 (page #1)**  
**Safety-Kleen Boynton Beach, Florida – Storage Tank System Inspection**

Inspectors Name/Title:

Date:

Inspectors Signature:

Monday	Tuesday	Wednesday	Thursday	Friday
Date:	Date:	Date:	Date:	Date:
Time:	Time:	Time:	Time:	Time:

STORAGE TANKS: (Tanks must never be more than 95% full)

Tank	Monday	Tuesday	Wednesday	Thursday	Friday
Clean Solvent (in/gal.)					
Waste Solvent (in/gal.)					
Used oil (in/gal.)					
Used oil (in/gal.)					
Oily Water (in/gal.)					

Item	Monday	Tuesday	Wednesday	Thursday	Friday
Tank Exterior	A N	A N	A N	A N	A N
If "N" circle appropriate problem: rusty or loose anchoring, lack of grounding, wet spots, discoloration, leaks, distortion, other:					
High Level Alarms	A N	A N	A N	A N	A N
If "N" circle appropriate problem: malfunctioning "Power On" light, malfunctioning siren/strobe light, other:					
Volume gauges	A N	A N	A N	A N	A N
If "N" circle appropriate problem: disconnected, sticking, condensation, other:					

**Containment Area (Tank Dike)**

Item	Monday	Tuesday	Wednesday	Thursday	Friday
Bottom and walls	A N	A N	A N	A N	A N
If "N" circle appropriate problem: cracks, debris in dike, open drums in dike, ponding/wet spots, stains, sealant is pitted, cracked or chipped, deterioration, leaks, other:					
Rigid piping and supporters	A N	A N	A N	A N	A N
If "N" circle appropriate problem: distortion, corrosion, paint failure, leaks, other:					

Observations, comments, date and nature of repairs of any items indicated as "Not Acceptable": \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

A = Acceptable N = Not Acceptable



**Figure 9.4-1 (page #2)**  
**Storage Tank System Inspection**

Inspectors Name/Title:

Inspectors Signature				
Monday	Tuesday	Wednesday	Thursday	Friday

DATE (MM/DD/YY)

TIME

	Monday	Tuesday	Wednesday	Thursday	Friday
<b>Transfer pumps &amp; hoses</b>					
<b>Pump Seals:</b>	A N	A N	A N	A N	A N
If "N" circle appropriate problem: leaks, other:					
<b>Motors:</b>	A N	A N	A N	A N	A N
If "N" circle appropriate problem: overheating, other:					
<b>Fittings:</b>	A N	A N	A N	A N	A N
If "N" circle appropriate problem: leaks, other:					
<b>Valves:</b>	A N	A N	A N	A N	A N
If "N" circle appropriate problem: leaks, other:					
<b>Hose Connections &amp; Fittings:</b>	A N	A N	A N	A N	A N
If "N" circle appropriate problem: leaks, other:					
<b>Hose Body:</b>	A N	A N	A N	A N	A N
If "N" circle appropriate problem: leaks, other:					
<b>Return/Fill Station</b>					
<b>Drum Washer:</b>	A N	A N	A N	A N	A N
If "N" circle appropriate problem: leaks, other:					
<b>Secondary Containment:</b>	A N	A N	A N	A N	A N
If "N" circle appropriate problem: leaks, other:					
<b>Loading/Unloading Area:</b>	A N	A N	A N	A N	A N

**Observations, comments, date and specific nature of any items indicated as "Not Acceptable":** \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**A = Acceptable    N = Not Acceptable**

**Part II**

**J. FACILITY DATA**

**1. Waste Management Facility Descriptions**

- a. Aboveground Storage Tank: The tank is a 15,000-gallon steel tank used for the storage of used parts washer solvent. This tank is located within a containment system consisting of a 71' x 32'4" x 6 concrete slab with 36" concrete dike and are in an enclosed building.
- b. Solvent Return/Fill Station: The station is 45' x 44' structure. It contains two wet dumpsters. The two active dumpsters are used to receive returned solvent from containers and pump it to the used parts washer solvent tank. These dumpsters are not intended for storage but can hold a maximum of 550 gallons (275 gallons each).
- c. Container Storage Area: The container storage area is 48' x 78' with a sloped floor and trench with a total containment volume of 2,972 gallons. The maximum storage capacity is 29,720 gallons with 6,912 gallons anticipated to be parts washer solvent waste, dumpster mud containers, dry cleaning wastes, spent immersion cleaner, paint wastes, and Fluid Recovery Services (FRS) wastes.

**Maximum Inventory of Wastes**

- a. Used Parts Washer Solvent: 15,000 gallons
- b. Wet Dumpsters: 550 gallons
- c. Containerized Waste: 6,912 gallons . Note: This includes any combination of 5, 16, 30, 55, 85-gallon containers, and 350-gallon totes used for various management purposes). All wastes will be disposed of offsite in accordance with appropriate hazardous waste regulations.

## **CONTAINERS**

The hazardous waste container storage areas consist of one area found in (Figure 8.1-1).

### **CONTAINMENT SYSTEM**

The container storage area shown in Figure 8.1-1 occupies a portion of the building area which has a sloped concrete floor and a collection trench to form a spill containment system. The system is maintained free of cracks. Spills from containers are removed by a hand-held, portable electric pump (the COMS pump), wet-dry vacuum, or sorbent materials. Since the characteristics of the stored wastes are known, no analyses are performed for the materials collected from the containment area. All collected materials are sent to a RCRA permitted recycling/reclamation facility.

Only in the event that a spill were to exceed the containment capacity would spilled wastes be able to extend beyond the containment area. Only six openings (doorways) exist in the container storage area. Four of these lead to other containment areas (i.e., the return/fill station and the enclosed concrete dock (Figure 8.1-1)). The other two doorways are located on the east side of the container storage area behind a locked chain link fence. Due to the volume of containment available and the configuration of the container containment area, it is highly unlikely that any spill would extend beyond this area.

The containment volume is composed of the sloped concrete floor and the collection trench. The total containment volume is 2,972 gallons. Therefore, the maximum storage capacity is 29,720 gallons. The types and number of each container may vary; however, total volume of product and waste stored will not exceed the maximum volume of 29,720 gallons. The estimated maximum storage of waste is 6,912 gallons. Containment calculations are included in Appendix C. The containment areas have been coated with Sikagard® 62 or equivalent. If the sealant is found to be worn or deteriorated such that repairs are warranted, the sealant will be repaired in accordance with manufacturers' specifications.

### ***External Factors***

The design of the facility is such that a harmful spill is highly unlikely to occur from most external factors. The storage tanks are inaccessible to non-Safety-Kleen personnel and the pump switches are located inside. Also, the container storage area is in a building which is inaccessible to unauthorized personnel.

1. *Vandalism* – Only extreme vandalism would result in a solvent spill or fire.  
Responses to spills and fires are described in the Contingency Plan
2. *Strikes* – A strike would not result in a solvent spill or fire.
3. *Power Failure* – A power failure would not result in a spill or fire. Should a power failure occur, all activities requiring electricity will cease.
4. *Flooding* – The site elevation is above the projected 100-year floodplain.
5. *Storms or Cold Weather* – The solvent return/fill station is covered to eliminate the possibility of rain or snow entering the dumpsters. No opportunity is foreseen to affect the facility with snow, cold weather, or storm weather.
6. *Hurricanes* – Facility will follow the procedures within the contingency plan.

### ***Containment Building Closure Plan***

The closure plan, closure activities, cost estimates for closure are found in Part II K.

## ***INSPECTION PROCEDURES***

### ***Inspection of Safety Equipment***

The purpose of the inspection plan is to establish a procedure and schedule for the systematic monitoring and inspection of emergency and spill control equipment to ensure proper operation, and to maintain compliance. Table 5.2-1 is an Inspection Schedule. The Branch Manager or designee is responsible for carrying out the inspection in accordance with the following procedure and schedule.

- A weekly inspection of fire extinguishers must be performed to ensure that the tag date has not expired and the units are properly charged and accessible.
- A weekly inspection of eyewash stands must be performed to assure accessibility; check for proper operation of this equipment on a monthly basis. Inventory of the first-aid kits must be checked on a weekly basis.
- A weekly check of the supply of spill control equipment (absorbent material) must be performed
- A weekly check of the conditions and inventory of other emergency equipment will be made. This includes gloves, aprons, safety glasses, and other personal protective equipment.

#### ***Inspection of Security Equipment***

The Branch Manager or designee, using the Weekly Inspection Log (Figure 5.2-1 or similar), inspects the security features of the facility weekly (e.g., gates and locks), looking for any evidence of sticking, corrosion, or unusual activity. The facility fence will be checked weekly for deterioration, gaps, and broken wire ties.

#### ***Inspection of Waste Management Facilities***

The purpose of the inspection plan is to establish a procedure and schedule for the systematic monitoring and inspection of hazardous waste management and other material management facilities to ensure proper operation and maintain compliance. Table 5.2-1 provides an Inspection Schedule.

The Branch Manager or designee is responsible for carrying out the inspections of all hazardous waste management facilities in accordance with the following procedure and schedule.

Daily inspections of aboveground tanks will include the following:

- Note volume in tank.
- Observe tank exterior for loose anchoring, wet stops, leaks.
- Check the automatic high level alarm. In addition, measure the depth of used solvent in the tanks to confirm the proper functioning of the automatic alarm system and to determine unexpected deviations in tank measuring data, or a sudden drop on liquid level, which may indicate leakage.
- Inspect secondary containment walls and piping.
- Inspect transfer pump for leaking seals and overhead motors.
- Inspect the solvent dispensing hose, fittings, and valve for any leaks, damage, or wear that could cause a leak to develop.
- Inspect the valves for proper seal. Stem leaks from worn glands and warped valve bodies should be repaired. If the valve cannot be repaired, replace the unit.

Also, the tanks will be visually inspected and tested periodically. Daily inspection of the solvent return receptacle (wet dumpster) will consist of an inspection for leaks and excess dumpster mud build-up.

Daily inspections of the container storage area include the following:

- Verify that total volume is within permitted limits.
- Physically examine the condition of containers to verify that leaks have not occurred since the last inspection.
- Verify that all container identification, dates, and hazardous waste labels are attached and current.
- Inspect container placement and stacking such as aisle space, height, and stability of stacks.
- Examine containment areas to detect signs of deterioration and failure of the containment system such as cracks, breakage, settlement, and spillage.

***FACILITY DATA***

1. Waste Management Facility Descriptions

- a. Aboveground Storage Tank: The tank is a 15,000-gallon steel tank. This tank is located within a containment system consisting of a 71' x 32'4" x 6" foundation slab, surrounded by a 36" concrete dike.
- b. Solvent Return/Fill Station: The station is a 45' x 44' structure. It contains two wet dumpsters, which are used to receive returned solvent from containers and pump it to the used parts washer solvent tank. These dumpsters are not intended for storage but can hold a max. of 550 gallons (275 gallons each).
- c. Container Storage Area: The container storage area is a 48' x 78' ft. area with a sloped floor and collection sump. The maximum storage capacity is 29,720 gallons with 6,912 gallons anticipated to be waste parts washer solvent, dumpster mud containers, dry cleaning wastes, spent immersion cleaner, paint wastes, and/or Fluid Recovery Service (FRS) wastes.

2. Maximum Inventory of Wastes

- a. Used Parts Washer Solvent: 15,000 gallons
- b. Wet Dumpsters: 550 gallons
- c. Containerized Waste: 6,912 gallons.. (Note: This includes any combination of 5, 16, 30, 55, 85-gallon containers used for various management purposes).

All wastes will be disposed offsite in accordance with appropriate hazardous waste regulations.

**TABLE 5.2-1**  
**INSPECTION SCHEDULE**

Area/Equipment	Specific Item	Types of Problems	Frequency of Inspection
Safety Equipment	Fire Extinguishers	Overdue inspection Inadequate charge Inaccessible	Weekly
	Eyewash	Disconnected/malfunctioning valves Pressure Inaccessible	Weekly
	First-Aid Kit	Inadequate inventory	Weekly
	Spill Cleanup Equip PPE	Inadequate supply Inadequate supply	Weekly Weekly
Security Equipment	Gates and Locks	Sticking, corrosion, lack of warning signs	Weekly
	Fence	Broken ties, corrosion, holes	Weekly
Storage Tanks	Volume in Tank Tank Exterior	Never more than 95% full Rusty, loose anchoring, grounding, wet spots, leaks, discoloration	Daily Daily
	High Level Alarms Volume Gauges	Malfunctioning siren/light Disconnected/ sticking, condensation	Daily Daily
Secondary Containment	Bottom and Walls	Cracks, debris, ponding, wet spots, stains, deterioration, displacement, leaks	Daily
	Rigid Piping and Supports	Distortion, corrosion, paint failures, leaks	Daily
Transfer Pumps and Hoses	Pump Seals	Leaks	Daily
	Motors	Overheating	Daily
	Fittings	Leaks	Daily
	Valves	Leaks, sticking	Daily
	Hose Connections and Fittings	Cracks, loose, leaks	Daily
	Hose Body	Crushed, cracked, thin spots, leaks	Leaks



**TABLE 5.2-1**  
**INSPECTION SCHEDULE**

Area/Equipment	Specific Item	Types of Problems	Frequency of Inspection
Return/Fill Station	Wet Dumpster	Excess sediment build-up, leaks, rust, split seams, distortion, deterioration, excess debris	Daily
Container Storage Area	Total Volume in Storage Condition of Drums	Exceeds permitted limit Missing or loose lids, labels missing, incomplete or incorrect, rust, leaks, distortion	Daily Daily
	Stacking/Placement/Aisle Space	Containers not on pallets, unstable stacks, inadequate aisle space	Daily
Secondary Containment	Curbing, Floor and Sump	Ponding/wet spots, deterioration, displacement, leaks, other	Daily

Figure 5.2-1

## Safety-Kleen Boynton Beach, Florida – Weekly Inspection of Safety &amp; Emergency Equipment

Inspectors Name/Title:

Monday	Tuesday	Wednesday	Thursday	Friday

DATE (MM/DD/YY)

TIME

**SAFETY & EMERGENCY EQUIPMENT****Fire Extinguishers:**

A N

If "N" circle appropriate problem: Overdue inspection, inadequately charged, inaccessible, other: \_\_\_\_\_

**Eyewash and Shower:**

A N

If "N" circle appropriate problem: disconnected or malfunctioning valves, inadequate pressure, inaccessible, malfunctioning drain, leaking, other: \_\_\_\_\_

**First Aid Kit:**

A N

If "N" circle appropriate problem: inadequate inventory, other: \_\_\_\_\_

**Spill Cleanup Equipment:**

A N

If "N" circle appropriate problem: inadequate supply of sorbent, towels and/or clay, inadequate supply of shovels, Mops, empty drums, wet/dry vacuum, other: \_\_\_\_\_

**Personal Protective Equipment:**

A N

If "N" circle appropriate problem: inadequate supply of aprons, gloves, glasses, respirators, other: \_\_\_\_\_

**Communication Devices:**

A N

If "N" circle appropriate problem: inadequate supply of telephones, malfunctioning telephone(s), malfunctioning Intercom, emergency alarm does not work, telephones are not located where needed, other: \_\_\_\_\_

**SECURITY DEVICES****Gates and Locks**

A N

If "N" circle appropriate problem: sticking, corrosion, lack or warning signs, fit, other: \_\_\_\_\_

**Fence**

A N

If "N" circle appropriate problem: broken ties, corrosion, holes, distortion, other: \_\_\_\_\_

**MISCELLANEOUS EQUIPMENT****Dry Dumpster:**

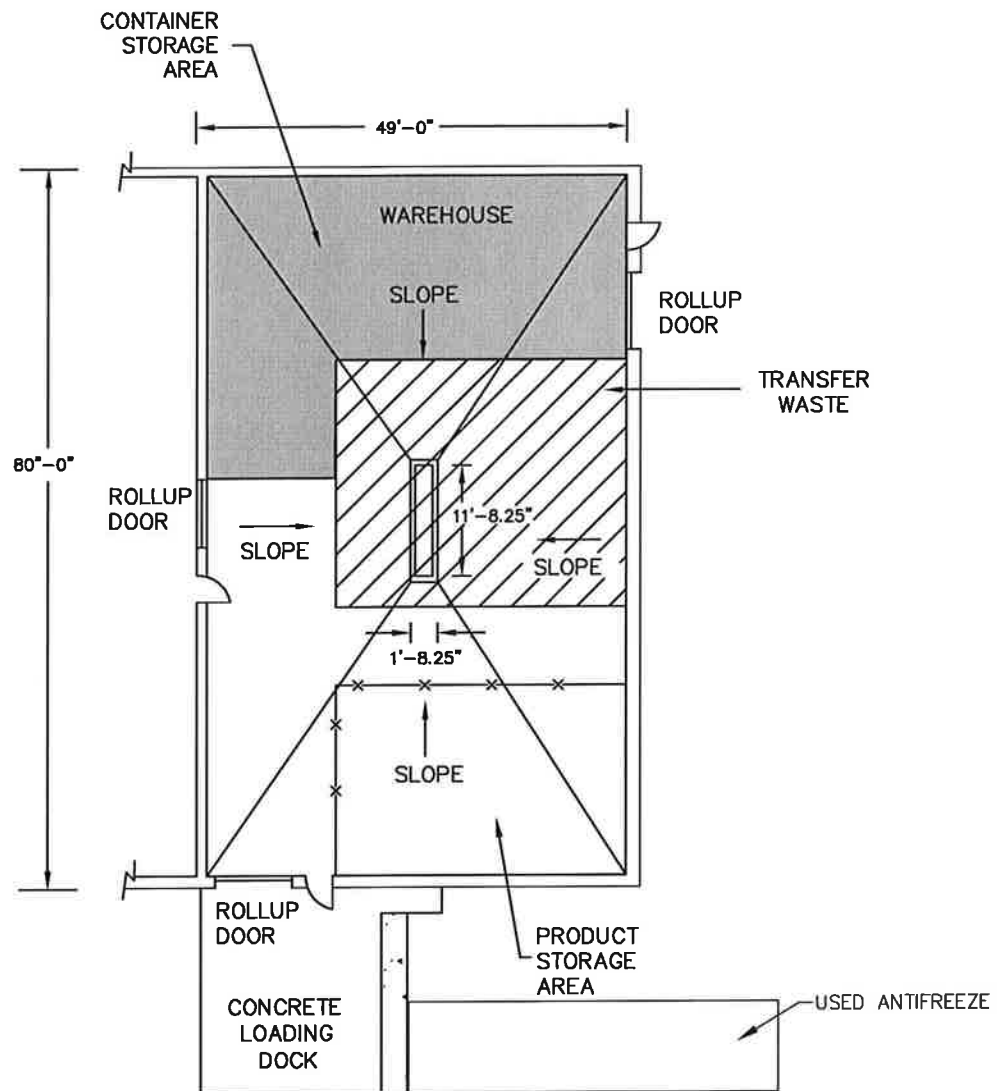
A N

If "N" circle appropriate problem: rust, corrosion, split seams, distorting, deterioration, excess debris, liquids in unit, Other: \_\_\_\_\_

Observations, comments, date and specific nature of repairs or any items indicated as "NOT ACCEPTABLE"

A = Acceptable N = Not Acceptable: Circle appropriate item for each line above and note specific problem until issue is fixed.

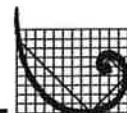
FIGURE 8.1-1  
CONTAINER STORAGE AREA  
SAFETY-KLEEN SYSTEMS, INC. FACILITY  
BOYNTON BEACH, FLORIDA



0 20  
FEET

LEGEND

—X—X— CHAIN LINK FENCE



ERM.

***Corrective Action***

Any discrepancies or deficiencies found during routine inspections will be recorded in the inspection log and brought to the attention of a supervisor. At this time an evaluation of seriousness of the problem will be noted and a decision made if the situation requires immediate action or the problem can be handled as routine maintenance. The evaluation of the seriousness of the problem will be recorded in the facility's inspection log. If the problem poses a threat to human health of the environment, action will be taken immediately. The Branch Manager has the overall responsibility for resolving any discrepancies found during the routine inspection.

***Part II***

***K. CLOSURE PLAN***

Safety-Kleen constructed the Boynton Beach Branch with the intent that it will be a long-term facility for the distribution of Safety-Kleen products. No on site disposal activity occurs at the facility and, hence no disposal capacity will be exhausted that will necessitate closure of the facility. Based on current business and facility conditions, the Boynton Beach facility is expected to remain in operation at least until the year 2035.

In the event that some presently unforeseen circumstance(s) would result in the discontinuance of operations and permanent closure or sale of the facility, this closure plan identifies the steps necessary to close the facility at any point during its intended life. This plan should be applied to the tanks system, container storage areas, and equipment used by the facility for hazardous waste management to accomplish the closure performance standard of 40 CFR 264.111. It is intended that all closures will be complete and final with removal of waste and decontamination of the facility and associated equipment. This will eliminate the need for maintenance after closure and the possibility of escape of hazardous waste constituents into the environment.

## ***CLOSURE PROCEDURES***

### ***Container Storage Areas***

- At closure, all containers present at the facility will be sent to a Safety-Kleen recycle center, or third party facility where the contents in the containers will be reclaimed and the containers cleaned for reuse. The containers will be removed and transported with proper packaging, labeling, and manifesting.
- The concrete floor, spill containment area, and walls will be scrubbed with a detergent solution and rinsed with clean water to remove waste residuals from the surface. Final rinsate samples will be collected and analyzed to determine the effectiveness of decontamination. Unless otherwise designated in the formal closure plan, rinsate samples will be collected from the north container storage area, south nonflammable container storage area, and south flammable container storage area (for a total of three rinsate samples). The rinsate sample will be analyzed by EPA method 6010 for the eight RCRA metals and nickel, and for volatile and semivolatile organics by EPA methods 8015, 8260, and 8270. The area will continue to be scrubbed and rinsed until concentrations meet Ground Water Cleanup Target Levels (GWCTLs) established in Chapter 62-777, Florida Administrative Code (FAC). Decontamination of the mercury-containing lamps and devices storage area will be conducted at the time of closure as part of the overall decontamination of the container storage areas. No additional, special decontamination of the mercury-containing lamps and devices storage area will be conducted at the time of closure, because any decontamination associated with releases from mercury-containing lamps and devices will be conducted at the time of release.

- Decontamination (i.e., detergent wash and clean rinse) fluids will be collected and contained for proper management. One representative sample of the contained fluids will be collected to determine whether the water is hazardous. This determination will be made by laboratory analysis of the sample for the metals and organics (excluding pesticides/herbicides) on the TCLP list. (Note: This wash water will be from all areas undergoing decontamination, not just from the container storage areas.)
- If the wash water or other wastes generated in the closure process are determined to be hazardous, they will be disposed of properly as a hazardous waste. Otherwise, the material will be disposed of as an industrial waste. Assumptions of wash water generation are based on Safety-Kleen's past experience from other facility closures. The generated wash water is expected to be non-hazardous based on Safety-Kleen's experience from other facility closures.
- Equipment to be used to clean this area includes mops, pails, scrub brushes, a wet/dry vacuum, and containers. The mops, pails, and scrub brushes will be containerized and disposed of as hazardous waste. The wet/dry vacuum and containers used will be washed with a detergent solution and rinsed to decontaminate them.

***Solvent Return/Fill Station***

- At closure, any sludge in the wet dumpsters ("dumpster mud") will be cleaned out and containerized, labeled, and manifested for proper disposal.
- The metal superstructure components of the station (i.e., the wet dumpsters, and the dock grating) will be cleaned by appropriate means to remove visible contamination. Safety-Kleen intends to recycle these components as scrap metal in accordance with 40 CFR 261.6(a)(3)(ii), or to reuse them at another Safety-Kleen facility. Accordingly, decontamination of the components is required only to the extent necessary for safe demolition, storage, and transportation of the scrap.

- The concrete floor in the return/fill station will be scrubbed with a detergent solution and rinsed with clean water to remove waste residuals from the surface. A final rinsate sample will be collected and analyzed to determine the effectiveness of decontamination. Unless otherwise designated in the formal closure plan, the rinsate sample will be analyzed for the same constituents as the container storage area rinsate sample. The area will continue to be scrubbed and rinsed until rinsate concentrations meet GWTLs established in Chapter 62-777, FAC.

***Aboveground Storage Tank System***

***Note: The product solvent & used oil tanks will be closed in accordance with Chapter 62-762, FAC.***

***Metal Components of the Tank Storage System***

- At closure, the contents of the tank will be removed to a tanker truck using existing unloading equipment and subsequently transported to a Safety-Kleen recycle center, or 3<sup>rd</sup> party facility.
- Once the contents have been drained, the tank will be opened by removing the manways and vented by supplying fresh air to the interior space of the tank. Any residual wastes will be removed via vacuum for recycling with the previously drained wastes.
- The interior of the tank as well as all associated piping and appurtenant equipment will then be cleaned by appropriate means to remove visible contamination. Safety-Kleen intends to recycle the tank, piping, and appurtenant equipment as scrap metal in accordance with 40 CFR 261.6(a)(3)(ii), or to reuse them at another Safety-Kleen facility. Accordingly, decontamination of the metal components is required only to the extent necessary for the safe demolition, storage, and transportation of the scrap.

*Concrete Containment System*

- Final disposition of the concrete containment system within which the waste tank is located will depend in part upon the presence or absence of underlying soil contamination. To make that determination, the upper six inches of soil immediately below the concrete slab will be sampled at the locations, as follows:
  1. Under the waste tank;
  2. At the containment system sumps.
  3. Beneath the most prominent of any cracks observed in the slab.
  4. Under the tanker connections.
- These sample locations may be adjusted as actual field conditions warrant, but a minimum of three samples will be retrieved. These samples will be analyzed by EPA Method 6010 for the eight RCRA metals and nickel, and for volatile and semivolatile organics by EPA Methods 8015, 8260, and 8270.
- The perimeter walls and foundation slab of the secondary containment area will be scrubbed with a detergent solution and rinsed with clean water to remove waste residuals from the surface. A final rinsate sample will be collected and analyzed to determine the effectiveness of decontamination. Unless otherwise designated in the formal closure plan, the rinsate sample will be analyzed for the same constituents as the container storage area rinsate sample. The area will continue to be scrubbed, rinsed, and resampled until rinsate concentrations meet GWTLs established in Chapter 62-777, FAC. Safety-Kleen anticipates that proper maintenance of the concrete containment system will allow the slab to remain in place at closure.
- Safety-Kleen will proceed with demolition of the perimeter walls. If it is determined that soil contamination exists beneath the foundation slab, Safety-Kleen will demolish the entire concrete structure and complete a further delineation of the extent of soil contamination to be removed to complete closure. Any site assessment, interim measures, or corrective action that may be required will be conducted in accordance with Chapter 62-780, F.A.C. and permit requirements.



- Prior to demolition of the perimeter walls, one representative composite sample of the construction materials will be collected and submitted for analyses (by TCLP) of metals and organics (excluding pesticides and herbicides) unless an alternate analytical protocol is required by the selected disposal facility. The representative composite sample will include biased grab samples collected from areas of staining. If no stained areas are evident, the grab sample locations will be randomly selected. If the construction materials are classified as non-hazardous using TCLP, then they will be disposed of as construction debris in an appropriately permitted disposal facility. In the event the construction materials are identified as hazardous using TCLP, the construction materials will be disposed of as a hazardous waste in accordance with RCRA regulations.
- If the foundation slab must be removed, it will be demolished and the construction materials tested using TCLP in the same manner as that described above for the walls of the secondary containment system.
- If soil removal becomes necessary, Safety-Kleen will backfill the excavated area with clean, compacted general fill material graded to match existing surfaces and to preclude ponding of water. To ensure backfill is clean (i.e., is not contaminated with constituents at concentrations above Florida soil cleanup goals or site background (whichever is higher)), one representative composite sample of the backfill sample will be analyzed by EPA Method 6010 for the eight RCRA metals and nickel, and by EPA Methods 8015, 8260, and 8270.

***FACILITY CLOSURE SCHEDULE AND CERTIFICATION***

- Safety-Kleen may amend the closure plan at any time during the active life of the facility. The active life of the facility is that period during which wastes are periodically received. Safety-Kleen will amend the plan any time changes in operating plans or facility design affect the closure plan or whenever a change occurs in the expected year of closure of the facility. The plan will be amended within 60 days of the changes.
- Safety-Kleen will notify the FDEP of its intent to close the facility in accordance with Chapter 62-730.240, F.A.C.
- Safety-Kleen will remove from the site all hazardous wastes in accordance with the approved closure plan. The Regional Administrator may approve a longer period if Safety-Kleen demonstrates that:
  1. The activities required to comply with this paragraph will, of necessity, take longer than 90 days to complete; or
  2. The following requirements are met:
    - a) The facility has the capacity to receive additional wastes;
    - b) There is a reasonable likelihood that a person other than Safety-Kleen will recommence operation of the site;
    - c) Closure of the facility would be incompatible with continued operation of the site; and
    - d) Safety-Kleen has taken and will continue to take all steps to prevent threats to human health and the environment.
- Safety-Kleen will complete closure activities in accordance with the approved closure plan within 180 days after receiving the final volume of wastes or 180 days after approval of the closure plan, whichever is later. When closure is completed, all facility equipment and structures shall have been properly disposed of, or decontaminated by removing all hazardous waste and residues.
- Within 60 days of closure completion, Safety-Kleen will submit certification by an independent registered professional engineer that the facility has been closed in accordance with the specifications in the approved closure plan.

Figure 10.3-1 presents a typical closure schedule anticipated for the Boynton Beach facility.

#### ***CONTINGENT POST-CLOSURE PLAN***

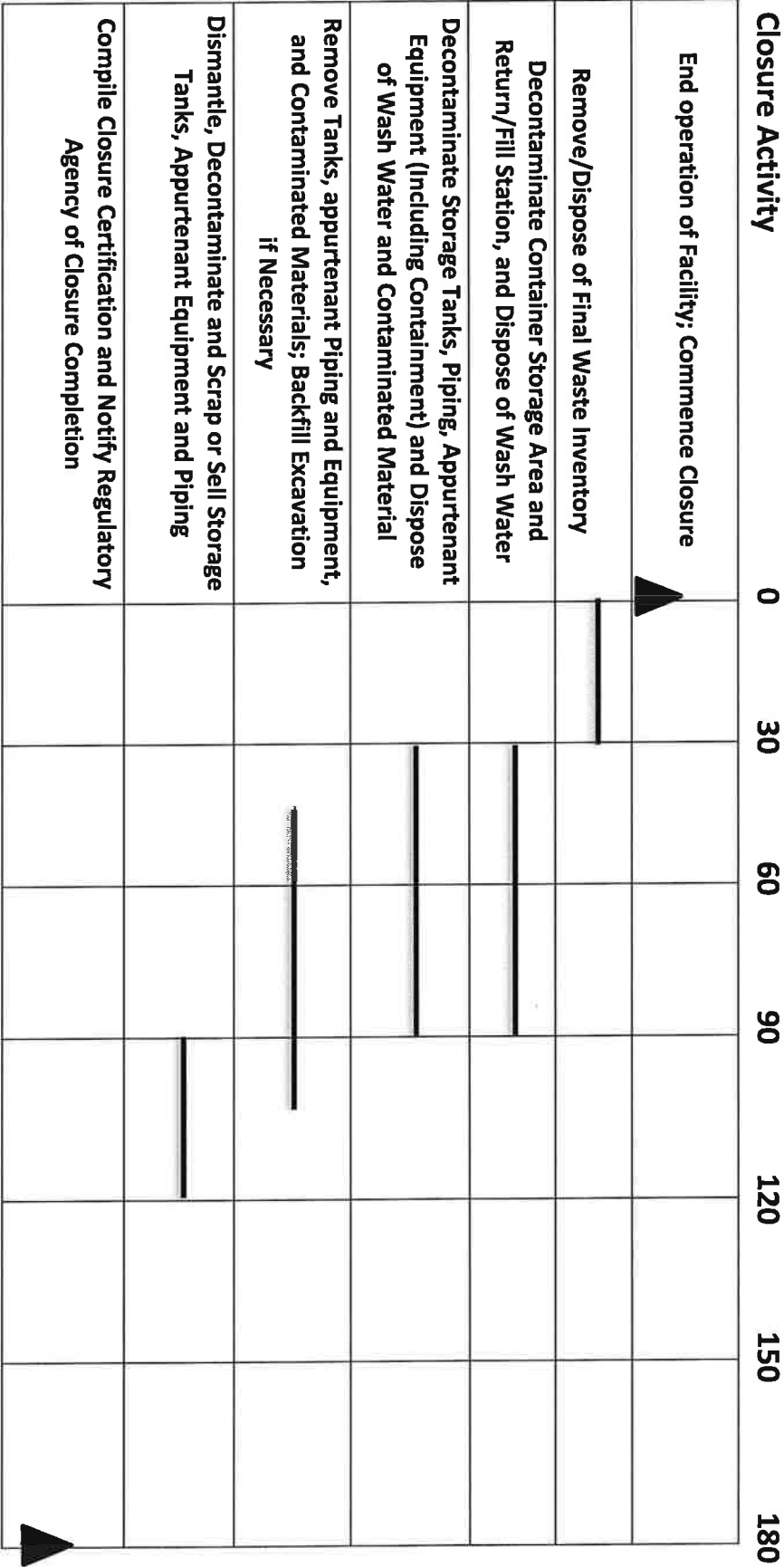
The tank system at the Boynton Beach facility meets the secondary containment requirements of 40 CFR 264.193, and is, therefore, not required to have a contingent post-closure plan under 40 CFR 264.197(c). In addition, Safety-Kleen intends to remove or decontaminate all tank system components, associated containment systems, and contaminated soils (if any) at the time of closure. However, should future conditions indicate that all contaminated soils and tank system components cannot practicably be decontaminated or removed, then a plan to perform post-closure care in accordance with the post-closure care requirements that apply to landfills (40 CFR 264.310) will be prepared for implementation upon FDEP approval.

#### ***CLOSURE COST ESTIMATE***

The cost for closure of the facility is estimated and summarized as follows:

• Project Coordination and Scheduling	\$3,860
• Mobilize to Site and Prepare for Closure	\$47,520
• Storage Tank Decontamination and Removal	\$18,565
• Decontaminate Return/Fill Station	\$19,581
• Decontaminate Container Storage Area	\$8,768
• Containerize, Stage, Transport and Dispose of Decon Wastes	\$12,239
• Closure Certification Report	\$5,157
Subtotal	\$115,689
Location Factor for RS Means Rate (Zip Code 33619)	0.84
Total Closure Cost Estimate (Adjusted for Location)	\$101,599
Current closure policy amount in place as of November 17, 2011	\$112,485
Plus 15% Contingency	\$129,358

Figure 10.3-1  
Typical Closure Schedule  
Safety-Kleen Boynton Beach





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3. On separate sheet(s) of paper, describe all data available on all prior or current releases of hazardous wastes or constituents to the environment that may have occurred in the past or may still be occurring, for each unit noted in 1. above and also for each hazardous waste unit in your Part B application [40 CFR 270.14(d)(1)].

Provide the following information for each SWMU:

- a. Date of release.
  - b. Specifications of all wastes managed at the unit, to the extent available.
  - c. Quantity or volume of waste released.
  - d. Describe the nature of the release (i.e., spill, overflow, ruptured pipe or tank, etc.)
  - e. Location of the unit on the topographic map provided under 40 CFR 270.14(b)(19).
  - f. Designate the type of unit.
  - g. General dimensions and structural description (supply any available drawings).
  - h. Dates of operation.
4. On separate sheet(s) of paper, provide for each unit all analytical data that may be available which would describe the nature and extent of the environmental contamination that exists as a result of the prior releases described in 3. above. Focus on the concentrations of hazardous wastes or constituents present in contaminated soil or groundwater [40 CFR 270.14(d)(3)].

**Part II P. #2**

The “other” SWMUs referred to on Part P #1 are those listed in Part II Q.

**Part II P. #3**

<b>Date</b>	<b>Material</b>	<b>Amount (gallons)</b>	<b>Circumstance</b>
7/30/03	Used Oil	20	Overfilled tanker onto tank farm containment pad.
3/3/05	Used Oil	1	Oil leaked out of hose onto pavement at tank farm containment pad.
6/14/05	Solvent	520	Overfilled tank into secondary containment in tank farm.
6/14/05	Photo Fixer	10	Container fell off pallet while in movement and spilled onto container storage area floor.
7/25/05	Used Oil	2	Lid came off of container and spilled onto container storage area floor.
10/20/05	Used Oil	60	Valve cap broke on pump and spilled into tank farm containment pad.
11/22/05	Lacquer Thinner	2	Container punctured by forklift and spilled onto container storage area floor
2/23/06	Used Oil	2	Oil filter drum fell off pallet during movement and spilled onto floor in the return/fill bay.
3/16/06	Used Oil	60	Atlantic Industrial tanker leaked oil onto parking lot
4/19/06	Lacquer thinner	10	Container fell off pallet during movement and spilled onto container storage area floor.
6/21/06	Used Oil	20	Hose broke while pumping oil spraying onto tank farm containment pad.
10/12/06	Used Oil	50	Valve left on while disconnecting coupling spilling oil onto tank farm containment pad, oil then migrated to the swail next to the tank farm due to the fact that it was raining heavily at the time of release.
3/22/07	Aqueous MPC	15	Material spilled out of pump hose onto container storage area floor.
11/12/07	Used Oil	40	Used oil overflowed tanker into tank farm containment pad.
10/02/08	Solvent	1	Solvent spilled out of a parts washer onto pavement at loading/unloading dock.
12/10/08	Used Oil	1	While on-loading used oil onto tanker hose stretched tight and broke seal allowing one gallon of used oil to spill into the tank farm containment pad.
1/14/09	Used Oil	2	Gasket failed on tanker truck spilling two gallons of used oil onto tank farm containment pad.

**Part II P. #3 (cont.)**

<b>Date</b>	<b>Material</b>	<b>Amount (gallons)</b>	<b>Circumstance</b>
5/20/09	Used Oil	3	Transfer driver left cap off the used oil line at the tank farm and oil back flowed onto tank farm containment pad.
6/25/09	Oily Water	1	Oil filter drum had accumulated rain water inside of it and blew over spilling material onto parking lot.
7/23/09	Used Oil	15	3 <sup>rd</sup> party oil transporter spilled used oil into tank farm containment dike inside tank farm.
10/27/09	Solvent	2	Solvent leaked out of parts washer onto the container storage area floor.
2/23/10	Non-hazardous liquid	30	While moving pallet of containers with forklift the pallet gave way and one drum fell to the floor causing the rim to bend and material to be released to the container storage area floor.
4/29/10	Oily Water	10	Vacuum truck hose began leaking while off-loading spilling material to the tank farm containment pad.
9/27/10	Acid	1	Drum seal was compromised and began leaking material onto container storage area floor. (transfer waste storage area).
6/6/11	Oily Water	80	Hose on 3 <sup>rd</sup> party transporter came free while on-loading oily water causing material to spill onto the tank farm containment pad.
2/29/12	Oily Water	5	Camlock on hose was not connected properly allowing material to be spilled onto tank farm containment pad.



**Part II**

**Q. INFORMATION REQUIREMENTS FOR SOLID WASTE MANAGEMENT UNITS**

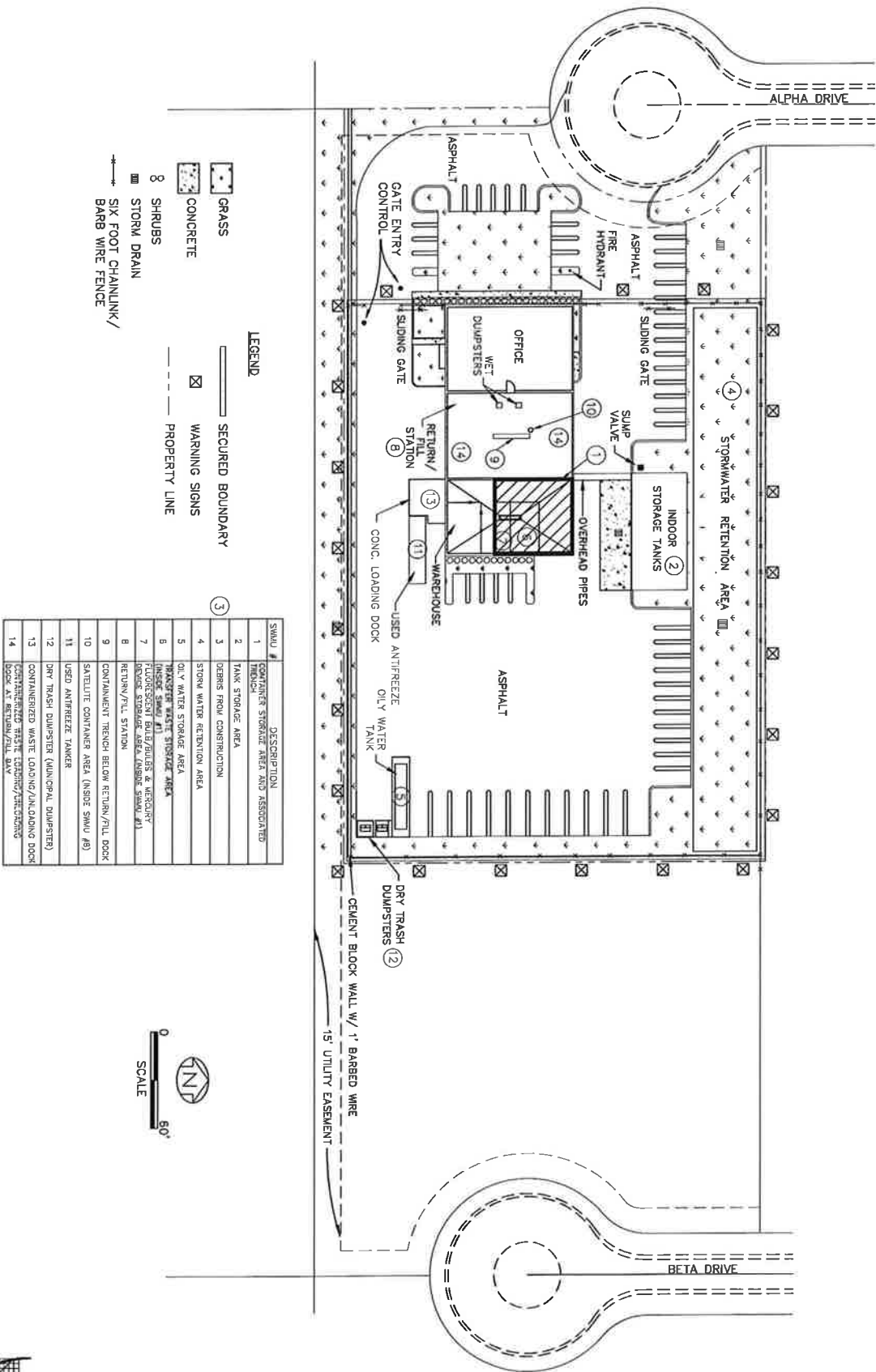
Part II.Q. of the Florida Department of Environmental Protection's (FDEP's) Application for a Hazardous Waste Permit outlines the information requirements for solid waste management units (SWMU's) at the facility. This section provides the required information.

On October 29, 1991, the facility received a HSWA permit exemption from Region 4 of the USEPA. The HSWA permit (Permit No. FLD984167791) expired on October 29, 2001 and all HSWA corrective action conditions were incorporated into the state permit issued on June 24, 2002. The USEPA conducted a RCRA Facility Assessment (RFA) at Boynton Beach facility and identified 4 SWMU's at the facility. The four SWMU's are listed below along with SWMU's identified at the time of this permit renewal. USEPA determined that no further action was required at the 4 SWMU's identified at the time of the RFA. Safety-Kleen, in a letter to USEPA Region 4 (dated June 11, 2001), identified a potential SWMU that was not listed in the HSWA permit. This potential SWMU is a municipal trash dumpster at the southeast corner of the facility property. It was likely that the dumpster was not present at the facility when the HSWA permit was issued. It is now listed below as SMWU #12.

The June 11, 2001 letter from Safety-Kleen, and Appendix A from the USEPA's RFA, are provided in Appendix E.

FIGURE PART II - Q  
 LOCATIONS OF SOLID WASTE MANAGEMENT UNITS (SWMU)  
 SAFETY-KLEEN SYSTEMS, INC. FACILITY  
 BOYNTON BEACH, FLORIDA

REVISION 0 - 05/23/12



<b>SWMU NUMBER</b>	<b>DESCRIPTION</b>
1	Container storage area and associated trench
2	Tank storage area
3	Debris from construction
4	Storm water retention area
5	Oily water storage area
6	Transfer waste storage area (inside SWMU #1)
7	Fluorescent bulb/bulbs & mercury device storage area (inside SWMU #1)
8	Return/Fill Station
9	Containment trench below return/fill dock
10	Satellite container area (inside SWMU #8)
11	Used antifreeze tanker
12	Dry trash dumpster (municipal dumpster)
13	Containerized waste loading/unloading dock
14	Containerized waste loading/unloading dock at return/fill bay

## ***Part II***

### ***S. AIR EMISSION STANDARDS***

#### ***AIR EMISSION STANDARDS FOR EQUIPMENT LEAKS***

The requirements of 40 CFR 264 Subpart BB – Air Emission Standards for Equipment Leaks apply to certain equipment associated with the used parts washer solvent storage tanks system. Figure 2.1-2 plots the facility layout with the location of the hazardous waste management units that utilize equipment subject to Subpart BB. Equipment subject to Subpart BB requirements is included in the “tank storage waste management area” area shown in Figure 2.1-2. This equipment contains or contacts hazardous wastes with VOC concentrations > 10% by weight. The Subpart BB requirements apply to pumps, valves, flanges, etc., which are part of the used parts washer solvent storage tank system. Figure 11.1-1 shows the specific equipment items, which are considered to be in “heavy liquid service” for the purposes of Subpart BB. Compliance with the applicable sections of 40 CFR 264.1052 thru 1063 has been achieved by the implementation of the procedures outlined in Appendix D and other procedures detailed below.

***Implementation Schedule***

All facilities subject to these regulations were required to be in compliance by the date specified in the final rule. This facility has been in compliance since that date (see Appendix D).

***Schedule and Procedures For Inspections***

Pursuant to Subpart BB of 40 CFR Part 264 and 40 CFR 270.25, Safety-Kleen inspects all regulated units for leaks each business day. An inspection checklist (example shown in Figure 11.1-2) is utilized for his purpose. All valves, pumps, and flanges are visually inspected. The inspection items have been properly tagged in accordance with 40 CFR 264.1050(d) and are inventoried on the environmental piping schematic diagrams included in Figure 11.1-1. In the event that a leak is detected, repairs will be implemented in accordance with the applicable provisions of Subpart BB (first attempt at repair within 5 days; repair completed or equipment placed “out of service” within 15 days. For such repairs, a “Leak Detection and Repair Record” will be completed (see Figure 11.1-3 for an example.

Due to the inherent properties of the waste parts washer solvent stored in the tank, the use of a screening device such as a photoionization detector (PID) is impractical. The liquids are heavy and have low vapor pressures, therefore a release would be visible in a liquid phase rather than a vapor. The parts washer solvent has a maximum of 2,000 ppm concentration in the vapor phase.

***Alternate Control Devices***

No alternate control devices are in use at this facility.

***Documentation Of Compliance***

***Pumps in Light Liquid Service (40 CFR 264.1052)***

Safety-Kleen manages parts washer solvent (mineral spirits) that has vapor pressure less than 0.3 kilopascals at 20 degrees C. Therefore pursuant to 40 CFR 264.1030, these materials are classified as heavy liquids.

The existing pumps that manage hazardous wastes at the Boynton Beach facility are identified and listed for use in heavy liquid service. Therefore, the Boynton Beach facility does not have any pumps that are in light liquid service subject to the requirements of 40 CFR 264.1052.

***Compressors (40 CFR 264.1053)***

The facility does not have any compressors that are in contact with organic chemicals. Therefore, 40 CFR 264.1053 is not applicable.

***Pressure Relief in Gas/Vapor Service (40 CFR 264.1054)***

The facility does not have any pressure relief subject to the requirements of 40 CFR 264.1054.

***Sampling Connecting Systems (40 CFR 264.1055)***

The facility does not have any sampling connecting systems or in situ sampling systems.

***Open-Ended Valves or Lines (40 CFR 264.1056)***

Safety-Kleen has identified the location of each open-ended valve and line and included it in the inspection record. The open-ended valves and lines that are subject to the

requirements of 40 CFR 264.1056 are identified in the facility's environmental piping schematic drawing (Figure 11.1-1). This equipment is either equipped with caps, second valves, or double block and bleed system. A cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring hazardous waste stream flow through the open-ended valve or line. Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the hazardous waste stream end is closed before the second valve is closed. When a double block and bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves.

***Valves in Gas/Vapor Service or in Light Liquid Service (264.1057)***

All existing valves that come in contact with hazardous wastes are in heavy liquid service. Therefore, they are not subject to the requirements of 40 CFR 264.1057. If their use is changed to light liquid service, the valves will be monitored for leaks using a portable organic vapor analyzer in accordance with Method 21.

***Pumps and Valves in Heavy Liquid Service, Pressure Relief Devices in Light Liquid or Heavy Liquid Service, and Flanges and Other Connectors (40 CFR 264.1058)***

At the present time, the pumps, valves, flanges, and other connectors at the Boynton Beach facility are used for heavy liquid service. As defined in 40 CFR 264.1031, the mineral spirits solvents managed at the facility are considered to be heavy liquid because the solvents have a vapor pressure less than 0.3 kilopascals at 20° C. Furthermore, no single contaminant is present in the wastes that has vapor pressure greater than 0.3 kilopascals in concentrations in excess of 20% by weight.

In addition, the wastes presently managed in the equipment at the Boynton Beach facility have a maximum of 2,000 ppm concentration in the vapor phase. Therefore, a portable organic vapor analyzer will not detect leaks at 10,000 ppm and a leak will be observed based on a visible liquid leak rather than by a portable organic analyzer.

The first attempt at repair will be made no later than five calendar days after each leak is detected. Pursuant to the requirements of 40 CFR 264.1058, if a visual leak is observed, the affected equipment will be repaired no later than 15 days after it is detected. Whenever a leak is detected as specified in 40 CFR 264.1064 the following will apply:

- A weatherproof and readily visible identification attached to the leaking equipment shall be marked with the following information: equipment identification number, date that evidence of a potential leak was found in accordance with 264.1058(a), and date leak was detected.
- The identification on equipment, except on a valve, may be removed after it has been repaired.
- The identification on a valve may be removed after it has been monitored for two successive months as specified in 264.1057(c) and no leak has been detected during those two months.

Whenever a leak is detected as specified in 40 CFR 264.1058, the following information shall be recorded, as deemed appropriate, in an inspection log and shall be kept as part of the facility operating record:

- The instrument, operator, and equipment ID numbers.
- The date that evidence of a potential leak was found in accordance with 264.1058(a).
- The date the leak was detected and the dates of each attempt to repair the leak.
- Repair methods applied in each attempt to repair the leak.
- “Repair delayed” and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak.
- Documentation supporting the delay of repair of a valve in compliance with 264.1059(c).
- The signature of the owner or operator (or designate) whose decision it was that repair could not be effected without a hazardous waste management unit shutdown.
- The expected date of successful repair of the leak, if the leak is not repaired within 15 calendar days.

- The date of successful repair of the leak.

### ***Recordkeeping Requirements***

Pursuant to the requirements of 40 CFR 264,1064, Safety-Kleen has identified all affected equipment by number and location (Equipment Schedule) as shown in Figure 11.1-1.

The following records will be maintained at the Boynton Beach Branch and maintained as part of the facility's operating record.

- Type of equipment; valve, pump, flange, etc.
- Service; light liquid or heavy liquid.
- Percent-by-weight is not necessary for the equipment because the facility manages wastes that are nearly 100% organic by weight.
- Method of compliance; daily inspections.
- ID on the equipment, if they are found leaking, will be implemented.
- Leak monitoring results and any repairs conducted at the facility.

### ***Closed-Vent Systems and Control Devices (40 CFR 264.1060)***

Since neither a closed vent system nor a control device is required for, or as part of, the equipment ancillary to the facility's hazardous waste storage tank (equipment subject to Subpart BB), demonstrations of compliance with applicable design, operation and maintenance specifications are not required. The Boynton Beach facility will maintain records as part of the facility's operating record that indicate the name and ID of each equipment (i.e., pumps, valves, flanges, open-ended valves, etc.) at the facility. The record will include the type of chemicals managed in each equipment (i.e., light liquid, heavy liquid, etc.) and the state of the chemicals (i.e., gas, vapor, liquid, etc.) and any leaks detected (i.e., visual, >10,000 ppm, etc.) and the date and type of repair performed to repair the leaking equipment.

Since Safety-Kleen manages organic chemicals that are nearly 100% by weight organic,



it is not required to maintain in the records the concentration of organic chemicals in the waste stream (40 CFR 264.1064(b)(1)(iv)).

***AIR EMISSION STANDARDS FOR TANKS, AND CONTAINERS***

Safety-Kleen's Boynton Beach facility manages wastes that range in Volatile Organic concentrations up to 100%. Therefore, all wastes managed in containers and in storage tanks are handled as being subject to 40 CFR 264 Subpart CC requirements based on the knowledge of the wastes managed at the facility. Therefore, no analytical waste determination is required.

***Subpart CC Tank Standards (40 CFR 265.1084)***

The Safety-Kleen Boynton Beach facility manages hazardous wastes in a tank system that consists of one 15,000-gallon storage tank. The tank in this system is subject to Subpart CC requirements as a Level 1 Tank based on tank dimensions and maximum vapor pressure of volatile organic materials managed in this tank (see following table). A list of tank, tank dimensions and maximum vapor pressure of volatile organics managed in tanks subject to Level 1 Tank controls is provided in the following table.

**Applicability of Standards Level 1 Tanks**

Tank Capacity	Maximum Vapor Pressure
> 151 cubic meters (39800 gallons)	< 5.2 kPa (0.76 psia)
> 19800 gallons < 39800 gallons	27.6 kPa (4.05 psia)
< 19800 gallons	76.6 kPa (11.26 psia)

Tanks that meet the above size and vapor pressure limits and that are not heated to a

temperature that would increase the vapor pressure of the materials above these limits are required to meet Level 1 Tank Standards. See Table 11.2-1 for a summary of the tank at the Boynton Beach facility subject to the requirements of Subpart CC, and the applicable controls.

***Level 1 Tank Requirements (40 CFR 264.1084(c))***

Safety-Kleen spent parts washer solvent has a vapor pressure of less than 0.3 kilopascals at 20° C. The tank used for storing this waste has a capacity of 15,000 gallons. A complete description of the tank system is found in Part II C. Waste materials stored in these tanks are spent Safety-Kleen Premium Gold 150 Solvent. The storage tanks meeting Level 1 requirements are equipped with fixed roofs with the following specifications:

- The fixed roof and its closure devices form a continuous barrier over the entire surface area of the hazardous waste in the tank.
- There are no visible cracks, holes, gaps, or other open spaces between roof section and the tank wall.
- Each opening in the fixed roof is equipped with a closure device designed to operate such that when the closure device is secured in closed position, there are no visible cracks, holes, gap, or other open spaces in the closure device or between the perimeter of the opening and the closure device or connected to a control device (control is not required for Level 1 Tanks).

Inspection Requirements for Level 1 Tanks are as follows:

The fixed roof and its closure devices are visually inspected to check for defects that could result in air emissions. Defects include, but are not limited to, visible cracks, holes or gaps in the roof sections; broken, cracked, or damaged seals or gaskets on closure devices; broken or missing hatches, access covers, caps, or other closure devices. A description of inspections and example log for tanks can be found in Part II C.

The most recent tank assessment was completed on May 21, 2012 and will be forwarded to the Department upon receipt. This should be no longer than 2 weeks from the submission date of this permit application.

***Level 2 Tanks (40 CFR 265.1084(d))***

There are no level 2 tanks at this facility.

***Subpart CC Container Standards (40 CFR 264.1086)***

This section is applicable to containers that are greater than 26 gallons that are used to manage hazardous wastes with greater than 500 ppm volatile organic contents. Hazardous waste containers that are filled (generated) at the facility as well as hazardous waste containers that are received from off site are subject to this rule. Table 11.2-2 provides a summary of the areas, and types of containers managed, at the Boynton Beach facility for which Subpart CC is applicable.

***Level 1 Containers (40 CFR 265.1086(c))***

Containers greater than 26 gallons but less than 119 gallons and containers greater than 119 gallons used in heavy material service ( $<0.038$  psia) are to be-controlled in accordance with one of the following Level 1 container standards as follows:

- Containers that meet DOT standards are in compliance with Subpart CC Level 1 container design standards. Safety-Kleen drums meet DOT's standards; or
- A container equipped with cover and closure devices that form a continuous barrier over the container openings such that when the cover and closure devices are secured in the closed position there are no visible holes, gaps, or other open spaces into the interior of the container. The cover may be a separate cover installed on the container such as a lid on a drum or a tarp on a roll-off box; or

- An open-top container in which an organic-vapor-suppressing barrier is placed on or over the hazardous waste in the container such that no hazardous waste is exposed to the atmosphere.

***Level 1 Container Operating Requirements (40 CFR 264.1086(c)(3))***

Whenever a hazardous waste is in a container using Level 1 controls, the covers shall be maintained in closed position except as follows:

- Adding hazardous waste or other materials to the container if the container is filled in one continuous operation, the container is closed upon conclusion of the filling operation. In the case of discrete or batch filling the container is to be closed:
  - a) upon filling the container to the intended final level;
  - b) the completion of a batch loading after which no additional waste will be added within 15 minutes;
  - c) the person performing the loading operation leaving the immediate vicinity of the container; or
  - d) the shutdown of the process generating waste being added to the container.
- Removing hazardous waste from the container:

When discrete quantities of hazardous waste are removed from the container, covers shall be promptly secured upon completion of a batch removal after which no additional material will be removed from the container within 15 minutes or the person performing the unloading operation leaves the immediate vicinity of the container. RCRA empty containers may be open to the atmosphere at any time.

- Sampling wastes, measuring depth or quantity of wastes:

Containers may be opened when sampling and/or measuring hazardous wastes, as well as adding or removing hazardous wastes from them. Covers must be replaced and secured on containers once such activities are completed.

### ***Level 1 Container Inspection Requirements***

All Level 1 Containers that are not emptied upon receipt at the facility, are inspected upon arrival and each day thereafter until the container is transferred to a recycle center. Each Level 1 Container and its cover and closure devices are inspected for visible cracks, holes, gaps, or other open spaces. No container remains at the facility over 1 year.

If a defect is detected for a container, cover, or closure devices, a repair shall be attempted within 24 hours after detection, and repair shall be completed as soon as possible, but no later than 5 calendar days. The container will be overpacked in a DOT approved container as a means of repair. A description of the types of inspections and example logs for containers can be found in Part II B.

### ***Level 2 Containers (265.1086(d))***

Hazardous waste containers with design capacity greater than 119 gallons and that are in light material service are subject to Level 2 container standards. These include totes, roll-off boxes that are greater than 119 gallons in capacity, and bulk tankers and rail car tankers. Level 2 containers are not stored at this facility, therefore 40 CFR 265.1087(d) does not apply at this location. However, these types of containers may undergo 10-day transfer at the facility, but since they will be considered “still in the course of transportation” Subpart CC will not be applicable.

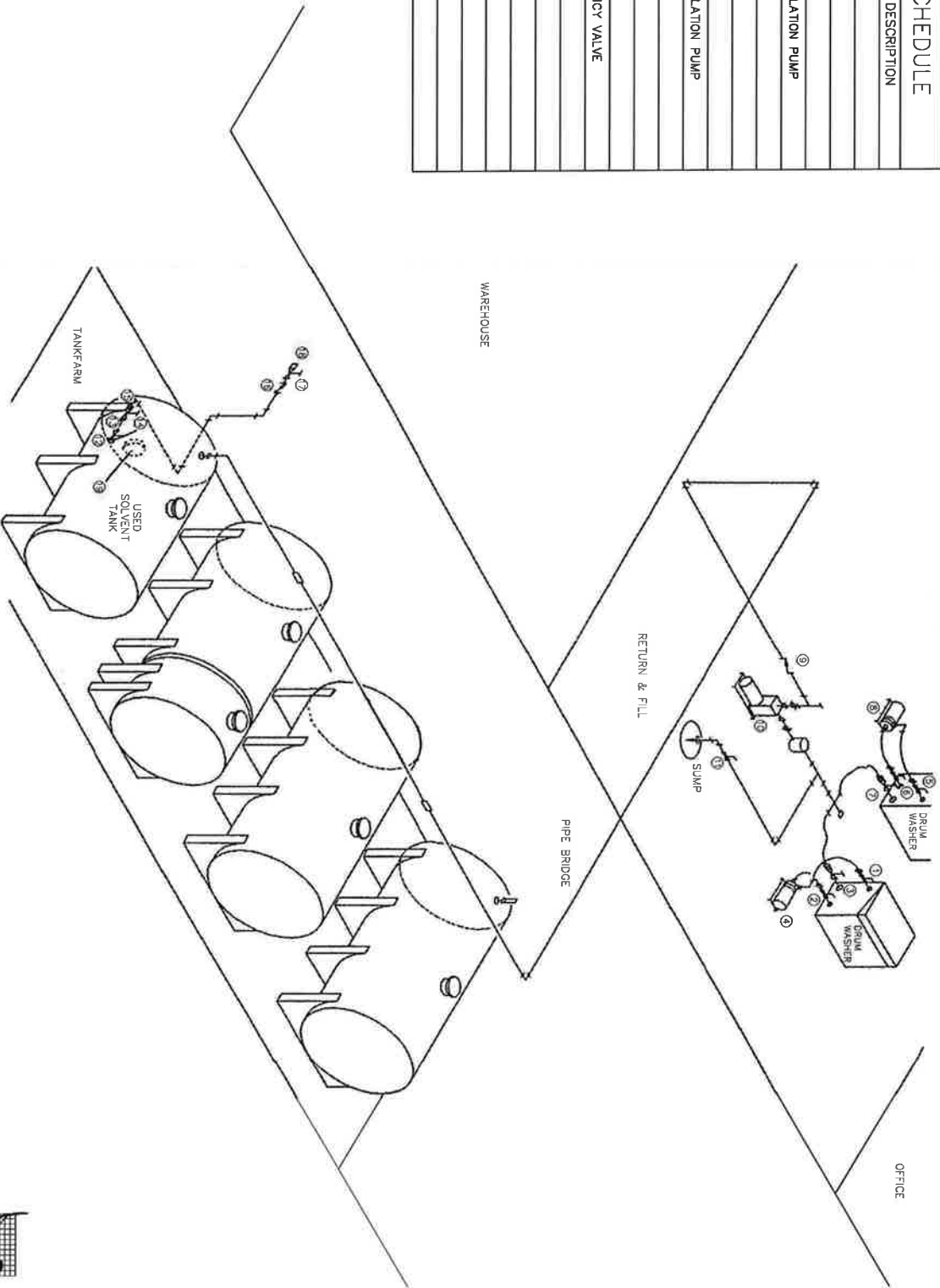
***Documentation Of Compliance***

Safety-Kleen prepared a written compliance plan for those units subject to Subpart CC, and instituted the plan on December 6, 1996. A copy of Subpart CC Compliance Plan is included in Appendix D.

FIGURE 11.1-1  
ENVIRONMENTAL PIPING ISOMETRIC  
SAFETY-KLEEN SYSTEMS, INC. FACILITY  
BOYNTON BEACH, FLORIDA

REVISION 0 - 05/23/12

WASTE M.S. SCHEDULE	
MARK	EQUIPMENT DESCRIPTION
(1)	1 1/4" THREADED BALL VALVE
(2)	1 1/2" THREADED BALL VALVE
(3)	2" THREADED GATE VALVE
(4)	WASTE MINERAL SPIRITS RECIRCULATION PUMP
(5)	1 1/4" THREADED BALL VALVE
(6)	2" THREADED GATE VALVE
(7)	1 1/2" THREADED BALL VALVE
(8)	WASTE MINERAL SPIRITS RECIRCULATION PUMP
(9)	2" THREADED GATE VALVE
(10)	WASTE MINERAL SPIRITS PUMP
(11)	2" THREADED GATE VALVE
(12)	3" THREADED INTERNAL EMERGENCY VALVE
(13)	3" FLANGED CONNECTION
(14)	3" FLANGED GATE VALVE
(15)	3" FLANGED CONNECTION
(16)	3" THREADED CHECK VALVE
(17)	3" THREADED GATE VALVE
(18)	CAMLOCK FITTING
(19)	MANWAY FLANGE



**Figure 11.1-2**  
**Safety-Kleen Boynton Beach, Florida**  
**Daily Inspection of Tank Equipment**

INSPECTORS NAME/TITLE:

INSPECTORS SIGNATURE				
MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY

DATE (MM/DD/YY)

TIME

Pump, Flange, or Valve Number	MON	TUES	WED	THURS	FRI
1. 1 ½" Threaded Ball Valve	A N	A N	A N	A N	A N
2. 1 ½" Threaded Ball Valve	A N	A N	A N	A N	A N
3. 2" Threaded Gate Valve	A N	A N	A N	A N	A N
4. Waste Mineral Spirits Rec. Pump	A N	A N	A N	A N	A N
5. 1 ¼" Threaded Ball Valve	A N	A N	A N	A N	A N
6. 2" Threaded Gate Valve	A N	A N	A N	A N	A N
7. 1 ½" Threaded Ball Valve	A N	A N	A N	A N	A N
8. Waste Mineral Spirits Rec. Pump	A N	A N	A N	A N	A N
9. 2" Threaded Check Valve	A N	A N	A N	A N	A N
10. Waste Mineral Spirits Pump	A N	A N	A N	A N	A N
11. 2" Threaded Ball Valve	A N	A N	A N	A N	A N
12. 3" Threaded Internal Emer. Valve	A N	A N	A N	A N	A N
13. 3" Flanged Connection	A N	A N	A N	A N	A N
14. 3" Flanged Gate Valve	A N	A N	A N	A N	A N
15. 3" Flanged Connection	A N	A N	A N	A N	A N
16. 3" Threaded Check Valve	A N	A N	A N	A N	A N
17. 3" Threaded Gate Valve	A N	A N	A N	A N	A N
18. Camlock Fitting	A N	A N	A N	A N	A N
19. Manway Flange	A N	A N	A N	A N	A N

If "N" enter pump or valve #\_\_\_\_\_ and circle appropriate problem: potential leak, active leak, sticking, wear, does not operate smoothly, or other: \_\_\_\_\_

For all leaks and potential leaks, the Leak Detection and Repair Record (Figure 11.1-3) must be completed.

A = Acceptable N = Not Acceptable



**Figure 11.1-3**  
**Leak Detection and Repair Record (Example)**  
**Safety-Kleen Boynton Beach, Florida**

Equipment ID #: \_\_\_\_\_  
 Description: \_\_\_\_\_ Other: \_\_\_\_\_  
 Date \_\_\_\_\_ Inspectors Signature \_\_\_\_\_

How was potential or actual leak detected?

\_\_\_\_\_  
 \_\_\_\_\_

Describe the potential or actual leak:

\_\_\_\_\_  
 \_\_\_\_\_

**(1.) Instrument Monitoring within 5 days**

Results: \_\_\_\_\_

**(2.) Repair Attempt**

Method: \_\_\_\_\_

Results: \_\_\_\_\_

**(3.) Repair Attempt**

Method: \_\_\_\_\_

Results: \_\_\_\_\_

**(4.) Date of Successful Repair (Must be completed within 15 days)**

Method: \_\_\_\_\_

Results: \_\_\_\_\_

Follow up Monthly Valve Monitoring

**(5.) Results:** \_\_\_\_\_

**(6.) Results:** \_\_\_\_\_

**Monitoring Summary** **(Reference Number – See above)**

	(1)	(2)	(3)	(4)	(5)	(6)
Instrument # / Operator	_____	_____	_____	_____	_____	_____
Calibration	_____	_____	_____	_____	_____	_____
Background Reading	_____	_____	_____	_____	_____	_____
Reading at Equipment	_____	_____	_____	_____	_____	_____
Leak Detected	_____	_____	_____	_____	_____	_____

Attach any documentation prepared by consultant(s).

**TABLE 11.2-1**  
**SUMMARY OF TANK MANAGEMENT UNITS SUBJECTED TO SUBPART CC**  
**SAFETY-KLEEN SYSTEMS, INC. BOYNTON BEACH, FL**  
**EPA ID NUMBER: FLD 984 167 791**

<b>Hazardous Waste Management Unit</b>	<b>Location of Hazardous Waste Management Unit</b>	<b>EPA Hazardous Waste Codes Managed</b>	<b>Brief Waste Description</b>	<b>Average Volatile Organic Concentration of Hazardous Waste</b>	<b>Subpart CC Status</b>	<b>Control Option (See Table 11.2-3)</b>
Waste Parts Washer Solvent Tank (15,000 g)	See Figure 2.1-2	D001, and codes listed in Note 1 below	Waste Parts Washer Solvent (Petroleum Naptha)	> 500	Level 1 Control	1

**NOTE: D018, D039, D040**

**TABLE 11.2-2**  
**SUMMARY OF CONTAINER MANAGEMENT UNITS SUBJECTED TO SUBPART CC**  
**SAFETY-KLEEN SYSTEMS, INC. BOYNTON BEACH, FL**  
**EPA ID NUMBER: FLD 984 167 791**

<b>Hazardous Waste Management Unit</b>	<b>Location of Hazardous Waste Unit</b>	<b>EPA Hazardous Waste Codes Managed</b>	<b>Brief Waste Description</b>	<b>Average Volatile Organic Concentration of Hazardous Waste</b>	<b>Container Type</b>	<b>Subpart CC Status</b>	<b>Control Option (See Table 11.2-3)</b>
Container Storage Area	See Figure 2.1-2	D001, F001, F002, F003, F005 and codes listed in Note 1 below	Waste Parts Washer Solvent (Petroleum Naptha), Dry Cleaner Wastes	> 500	Type A	Container Level 1 Controls per 264.1086(c)	11
Return and Fill Area	See Figure 2.1-2	D001 and codes listed in Note below	Waste Parts Washer Solvent (Petroleum Naptha)	> 500	Type A	Container Level 1 Controls per 264.1086(c)	!!

*Note: D004 thru D011, D018, D019, D021 thru D030, and D032 thru D043*

**Appendix A**  
**Site Photographs**



SK Boynton Beach Front Building 05-10-12



SK Boynton Beach Return-Fill Dock Wet Dumpsters 05-10-12



SK Boynton Beach Return-Fill Station Bays 05-10-12





SK Boynton Beach Container Storage Area 05-10-12





SK Boynton Beach CSA Transfer Waste Storage Area 05-10-17



SK Boynton Beach Tank Farm 05-10-12



SK Boynton Beach Loading-Unloading Dock UA Tanker 05-10-12

**Appendix B**  
**Chemical Analysis Reports**  
**Annual Re-Characterization**

# 2012 Final Annual Recharacterization Waste Code Assignments - National

WASTE STREAMS			WASTE CODE CHANGES - NATIONAL		
2011 NATIONAL Profile/SKDOT	General Description	2011 National Waste Codes	2012 National Waste Codes	Changes from 2011 to 2012	2012 NATIONAL Profile/SKDOT
150100 / 839	Aqueous Brake Cleaner	D039	None	Remove D039	150100 / 626
150693 / 16001 (Solid & Liq Mix), 150701 / 16012 (Solid - no D001), 150695 / 16003 (Liq)	Branch Contaminated Debris	F002, F003, F005, D001, D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D023, D024, D025, D026, D027, D028, D029, D030, D032, D033, D034, D035, D036, D037, D038, D039, D040, D041, D042, D043	F002, F003, F005, D001, D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D023, D024, D025, D026, D027, D028, D029, D030, D032, D033, D034, D035, D036, D037, D038, D039, D040, D041, D042, D043	No Change	150693 / 7032011 (Solid & Liq Mix), 150701 / 16012 (Solid - no D001), 150695 / 7032011 (Liq)
150629 / 950	Immersion Cleaner (IC 699)	D006, D008, D018, D027, D039, D040	D006, D008, D018, D027, D039, D040	No Change	150629 / 950
150045 / 7008607, 150085 / 7008611(RQ)	Parts Washer Solvent 105 Virgin	D001, D039	D001, D039	No Change	150045 / 7008607, 150085 / 7008611(RQ)
150379 / 11657 (Bulk)	Parts Washer Solvents (Bulked) / Combination of 105 and 150 (Aqueous, where applicable)	D001, D018, D039, D040	D001, D018, D039, D040	No Change	150379 / 11657 (Bulk)
150378 / 11656	Parts Washer Solvent Sludge/Dumpster Mud	D001, D039	D001, D039	No Change	150378 / 11656
150633 / 6994701	Parts Washer Solvent Tank Bottoms (bulk)**	D018, D039, D040	D039	Remove D018, D040	150633 / 7020180
150055 / 717	Parts Washer Solvent 150	D039	D039	No Change	150055 / 717
150055 / 717	PRF and PDF Mil Spec. Solvent	D039	D039	No Change	150055 / 717
150380 / 11658, 150425 / 12606(RQ)	Paint Gun Cleaner (SK)	F003, F005, D001, D018, D035, D039, D040	F003, F005, D001, D018, D035, D039, D040	No Change	150380 / 11658, 150425 / 12606(RQ)
150426 / 12607, 150427 / 12608(RQ)	Clear Choice Paint Gun Cleaner	F003, D001, D018, D035, D039, D040	F003, D001, D018, D035, D039, D040	No Change	150426 / 12607, 150427 / 12608(RQ)
150375 / 11653(ANY), 150376 / 11654(30), 150377 / 11655(55)	Paint Waste Other ***	F003, F005, D001, D018, D035, D039, D040	F003, F005, D001, D018, D035, D039, D040	No Change	150375 / 11653(ANY), 150376 / 11654(30), 150377 / 11655(55)
150589 / 14627	Dry Cleaner (Perc) Bottoms	F002, D007, D029, D039, D040	F002, D007, D029, D039, D040	No Change	150589 / 14627
150621 / 14906	Dry Cleaner (Perc) Filters	F002, D007, D029, D039, D040	F002, D007, D029, D039, D040	No Change	150621 / 14906
150591 / 14631	Dry Cleaner (Perc) Separator Water	F002, D029, D039, D040	F002, D029, D039, D040	No Change	150591 / 14631
150422 / 12565	Dry Cleaning Naphtha Bottoms	D001, D007, D039, D040	D001, D007, D039, D040	No Change	150422 / 12565
150424 / 12569	Dry Cleaning Naphtha Filters	D001, D007, D039, D040	D001, D007, D039, D040	No Change	150424 / 12569
150423 / 12566	Dry Cleaning Naphtha Separator Water	D001, D039, D040	D001, D039, D040	No Change	150423 / 12566
150696 / 16004	Aqueous Parts Washer Tank Bottoms	D039, D040	D039, D040	No Change	150696 / 16004
150626 / 14949	Aqueous Parts Washer Dumpster Sludge	NONE	NONE	No Change	150626 / 14949
** Parts washer solvent tank bottoms are SK-generated wastes from the cleanout of solvent storage tanks.					
Safety-Kleen does not accept this waste stream from non-SK generators.					
*** SKDOT 11653 is acceptable to use for any size container of paint waste.					
For those states that require 30-gal paint waste to be listed separately, use SK DOT 11654;					
for states that require 55-gal paint waste to be listed separately, use SK DOT 11655.					

# Statistical Analysis of Annual Waste Characterization Data

Prepared by  
Robert D. Gibbons Ph.D.

for

Safety Kleen  
July 23, 1998

## 1 Introduction

Since 1990, Safety-Kleen has undertaken a major analytical study each year to document the contaminants in some of its most common waste streams to determine which TCLP waste codes should appear on the manifest for that waste. This Annual Waste Recharacterization Program is both expensive and extensive. Upon review, it appeared that regulatory agency instructions for how to interpret the data might not have been in line with current policy, as reflected in SW846. The general approach is based on development of an upper 90% confidence limit<sup>1</sup> for the true concentration of each constituent, which can in turn be directly compared to regulatory standards to determine if the waste code should or should not be added to a particular waste stream (e.g., Premium Gold Parts Washer Solvent 150). The regulatory basis for this type of comparison stems from U.S. EPA SW846 Chapter 9 (September 1986) guidance on determining if a waste stream is hazardous.<sup>2</sup> The primary complicating feature is the presence of large numbers of nondetects which raises serious question regarding the use of the parametric approach. In light of this concern, nonparametric methods are used throughout.<sup>3</sup> Specifically, following U.S. EPA SW846, we construct a nonparametric 90% upper confidence limit (UCL) for the 50<sup>th</sup> percentile of the distribution (i.e., median), which is equivalent to the 90% UCL for the mean in the case of a symmetric distribution such as the normal distribution.

---

<sup>1</sup>"Consequently, the CI employed to evaluate solid wastes is, for all practical purposes, a 90% interval." U.S. EPA SW846 (1986) chapter 9 page 6.

<sup>2</sup>"The upper limit of the CI for  $\mu$  is compared with the applicable regulatory threshold (RT) to determine if a solid waste contains the variable (chemical contaminant) of concern at a hazardous level. The contaminant of concern is not considered to be present in the waste at a hazardous level if the upper limit of the CI is less than the applicable RT. Otherwise the opposite conclusion is reached. "U.S. EPA SW846 (1986) chapter 9 page 3

<sup>3</sup>"If the data do not adequately follow the normal distribution even after logarithm transformation, a nonparametric confidence interval can be constructed. This interval is for the median concentration (which equals the mean if the distribution is symmetric)." U.S. EPA Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities, April 1989, page 6-8



## 2 Method

Following Chapter 9 of SW846, the 90% UCL for the mean concentration obtained from a series of  $n$  representative samples is to be compared to the appropriate regulatory standard to determine if the waste stream is hazardous. If the UCL exceeds the standard, the waste stream is considered hazardous. The applicant must compute the UCL that is appropriate for the specific distributional form of the data. Given the large number of nondetects for many of the constituents, it is difficult if not impossible to clearly identify the underlying distributional form of the data. In this case, the U.S. EPA guidance indicates that a nonparametric alternative should be used.<sup>4</sup>

Nonparametric confidence limits are derived as follows. Given an unknown  $P \times 100$ th percentile of interest (e.g. the 50th percentile or median),<sup>5</sup> where  $P$  is between 0 and 1, and  $n$  concentration measurements, the probability that any randomly selected concentration measurements being less than the  $P \times 100$ th percentile is simply  $P$  and the probability of exceeding the  $P \times 100$ th percentile is  $1 - P$ . In light of this, the number of sample values falling below the  $P \times 100$ th percentile out of a set of  $n$  measurements follows a Binomial distribution with parameters  $n$  and  $P$ .

The connection with the Binomial distribution can be used to determine an interval formed by a given pair of order statistics (i.e. ranked values) that will contain the percentile of interest, in this case the 50th percentile. Similarly, the Binomial distribution can also be used in constructing an upper limit (i.e. one-sided) for the percentile (e.g. a 90% upper confidence limit for the 50th percentile of the distribution). The computational formula for the cumulative binomial distribution  $B(x;n,p)$ , representing the probability of getting  $x$  or fewer successes in  $n$  trials with success probability  $p$  is given by

$$Bin(x;n,p) \equiv \sum_{i=0}^x \binom{n}{i} p^i (1-p)^{n-i}$$

To draw inference regarding the  $P = 50$ th percentile, we set  $p = .5$  in the previous equation. For a one-sided UCL we compute

$$1 - \alpha = 1 - Bin(U - 1; n, .5)$$

beginning from the sample median. We then increase  $U$  by one until in this case  $1 - \alpha$  is equal to at least .90. The smallest value of  $U$  that provides  $1 - \alpha \geq .9$  is then the order statistic (i.e., ranked value) that is the nonparametric 90% UCL for the 50th percentile of the distribution.

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<sup>4</sup> "If the data do not adequately follow the normal distribution even after logarithm transformation, a nonparametric confidence interval can be constructed." U.S. EPA, 1989

<sup>5</sup> "This interval is for the median concentration (which equals the mean if the distribution is symmetric)." U.S. EPA (1989), page 6-8

### 3 Illustration

Consider the following most recent 50 data values for PCE (D039) obtained from Premium Gold Parts Washer Solvent-150.

Table 1  
Premium Gold Parts Washer Solvent - 150  
50 most recent samples in order of increasing concentration  
in ppm

<50.000	<1.000	<0.100	<0.100	<0.100
<0.100	<0.100	<0.100	<0.100	<0.100
<0.100	0.110	0.200	0.200	0.220
0.230	0.260	0.510	0.870	0.880
1.000	1.300	1.500	1.800	2.000
2.700	2.700	3.300	5.400	7.000
<b>7.100</b>	12.000	12.300	17.200	19.700
20.000	20.000	21.200	23.600	32.300
51.100	52.500	136.000	211.000	286.000
508.000	635.000	771.000	940.000	2810.000

For  $n=50$ ,  $p=.5$  and  $1 - \alpha = .9$ , we find that  $U = 31$  is the smallest order statistic that provides 90% confidence or more ( $1 - \alpha = .941$ ). As such, we select the 31st largest value in Table 1 which is 7.1 ppm as our UCL. Since 7.1 ppm is larger than the standard of 0.7 ppm, then the D039 waste code is required for this waste stream.

### 4 Conclusion

The data in the following package have been interpreted using the methodology described. The waste codes for each stream were determined as those parameters for which the 90% UCL for the median concentration was above the regulatory limit, based on review of the last two years of samples or the most recent 50 samples, whichever yielded the larger number of samples to consider.



**Appendix C**  
**Containment Calculations**

# WISHMEIER & ASSOCIATES

ARCHITECTS • ENGINEERS

119 N. TAYLOR STREET • SOUTH BEND, INDIANA 46601  
(219) 234-3433

April 9, 1991

Mr. Rick Peoples  
Safety-Kleen Corporation  
777 Big Timber Rd.  
Elgin, IL 60123

Re: Container Storage Area  
Service Center Warehouse  
Boynton Beach, Florida  
Federal Regulation 40 CFR 264.175,  
Subpart I-Use and Management of Containers  
Structural Integrity Evaluation of the Base

*Charles Keith Wishmeier*  
4-9-91

Dear Mr. Peoples:

Wishmeier and Associates, Consulting Engineers, has been contracted by Safety-Kleen Corporation to certify that the installation of the Container Storage Area in Safety-Kleen Corporation's Service Center Warehouse at Boynton Beach, Florida is in full compliance with Federal Regulation 40 CFR 264.175 under Subpart I-Use and Management of Containers, and the Structural Integrity Evaluation of the Base as required under Chapter 7 of the Permit Application.

This letter will present those aspects of the installation of the Container Storage Area which are necessary to determine compliance with 40 CFR 264.175 and the Structural Integrity Evaluation of the Base, and which the firm has assessed and reviewed.

The following is a discussion of each item as it occurs in the regulations:

## 40 CFR 264.175 (a)

The Container Storage Area has a containment system that has been designed and will be operated in accordance with paragraphs (b) and (c) of this section.

## 40 CFR 264.175 (b)

The containment system has been designed and will be operated as follows:

- (1) The containers will rest on an impervious base slab which is free of cracks and gaps, that will contain leaks, spills and accumulated precipitation until the collected material has been detected and removed. The container area is enclosed from the outside elements and will collect minimal amounts of precipitation.

Construction consists of a 6" reinforced concrete slab designed and constructed to support all containers in a fully loaded condition stacked a maximum three containers high.

The concrete slab has been coated with two coats of Sikagard 62, manufactured by Sika Corporation of Lyndhurst, N.J. This material is resistant to physical contact with the waste liquids being stored, to climatic conditions and to traffic abrasion. This material provides an impervious surface.

- 
- (2) The concrete slab is gently sloped to a central collection sump pit. No drain is provided out of this pit. Liquids resulting from leaks or spills are, therefore, drained off and the containers, which are elevated on skids, are protected from contact with accumulated liquids.
  - (3) The containment system has sufficient capacity to contain considerably more than 10% of the total volume of the containers, 6912 gallons. 10% of this amount is 691 gallons. The central collection sump pit will contain 393 gallons. The sloped floor area will contain an additional 2579 gallons for a total of 2972 gallons. Containment calculations are included with this report.
  - (4) Run-on into the container storage area from rain water or others sources will be minimal, the storage area being inside an enclosed structure. Therefore, no additional capacity is required.
  - (5) In the event of a waste spill or rainwater accumulation, this material will be removed from the Secondary Containment area and placed in Primary Containment for future handling in a timely manner.

#### 40 CFR 264.175 (c)

---

There may be containers stored holding only wastes that do not contain free liquids. However,

- (1) The storage area is sloped permitting drainage of accumulated liquids.
- (2) The containers will be elevated on skids and are thus protected from contact with accumulated liquids.

#### - 40 CFR 264.175 (d)

---

This section is not applicable here.

## Structural Integrity Evaluation of the Base

Following is our Structural Integrity Evaluation of the Container Storage Area concrete slabs and foundation support. The soil test report furnished by Testing Lab of the Palm Beaches, Inc., dated November 2, 1989, is part of this report.

### Design Considerations

1. For foundation information we include the soil test report by Testing Lab of the Palm Beaches, Inc., dated November 2, 1989, and our comments under Item No. 4. Sufficient load bearing capacity is available.
2. The secondary containment will furnish adequate support for the full load of materials to be stored as shown in the engineering calculations that follow the written report.
3. The engineering calculations show that the concrete slabs will have sufficient strength and thickness to prevent failure from container loading. As this is an interior slab, pressure gradients and climatic conditions will not apply.
4. The following structural evaluation is for the new 6" thick concrete floor which has been constructed at the Boynton Beach Florida Service Center Warehouse Container Storage Area.

The concrete selected has a minimum compressive strength of 3000 psi and a minimum tensile strength of the reinforcing steel of 20000 psi.

The load on the concrete slab in question will be shown to be approximately 775 psf. Using a safety factor of 2.0 and the weight of the concrete itself, the load on the soil is shown to be 1625 psf. Therefore, the available soil bearing capacity of 3000 psf is more than adequate. Our engineering calculations follow this written report.

## CONCLUSION

-----

In view of the topics discussed above, it is concluded that the installation of the Container Storage Area in Safety-Kleen Corporation's Service Center Warehouse at Boynton Beach, Florida is in full compliance with Federal Regulation 40 CFR 264.175 under Subpart I-Use and Management of Containers, and the Structural Integrity Evaluation of the base as required under Chapter 7 of the Permit Application.

---

Respectfully submitted,

Wishmeier and Associates.

*Charles Keith Wishmeier*

Charles Keith Wishmeier, P.E.

Florida Professional Engineer License Number PE-0037694

CKW/mw

# WISHMEIER & ASSOCIATES

ARCHITECTS • ENGINEERS

119 N. TAYLOR STREET • SOUTH BEND, INDIANA 46601

(219) 234-3433

## LETTER OF CERTIFICATION

April 9, 1991

To Whom It May Concern:

I, Charles Keith Wishmeier, P.E., have supervised the construction of the Container Storage Area in Safety-Kleen Corporation's Service Center Warehouse at Boynton Beach, Florida. My duties were the design and inspection of the construction of this area, as required by the Resource Conservation and Recovery Act (RCRA) regulations, 40 CFR 264.175, and the Structural Integrity Evaluation of the Base as required under Chapter 7 of the Permit Application.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.



Charles Keith Wishmeier, P.E.

Principal

Title

Florida Professional Engineer PE-0037694

Registration Number

119 N. Taylor St., South Bend, IN 46601

Address

**WISHMEIER & ASSOCIATES**

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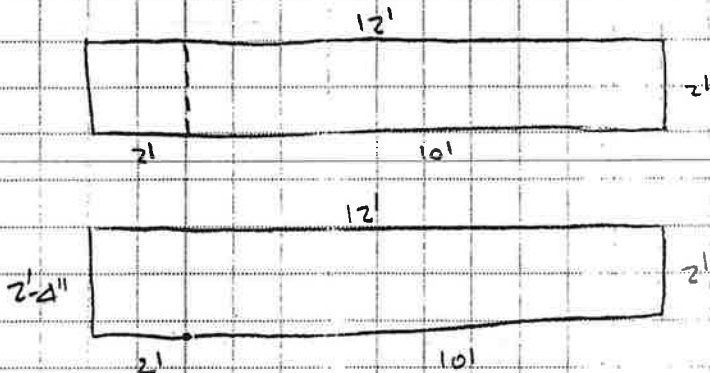
JOB SAFETY-CLEAN, BOYNTON BEACH, FLA

SHEET NO. 1 OF       

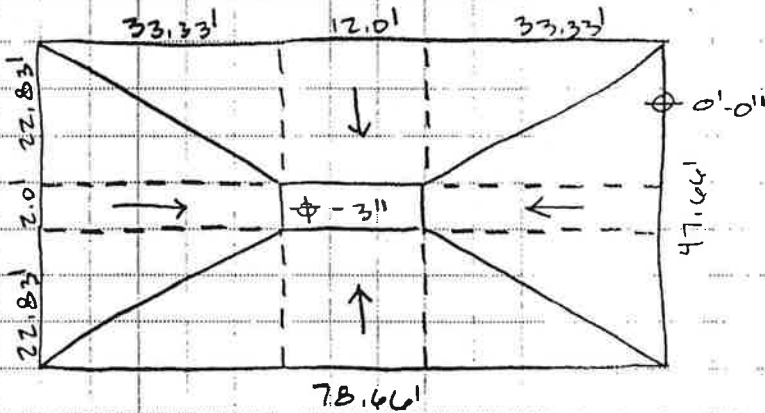
CALCULATED BY ckw DATE 4-9-91

CHECKED BY        DATE       

SCALE       

SECONDARY STORAGE CALCULATIONSCOLLECTION TRENCH

$$VOL = (2' \times 2' \times 2.33' + 10' \times 2' \times 2.16') \times 7.48 \text{ GAL/CF} = [393 \text{ GAL}]$$

SLOPED FLOOR

$$\begin{aligned} VOL &= 12' \times 2' \times 2.5' + 22.83' \times 12.0' \times 2.5' \times \frac{1}{2} \times 2 \\ &\quad + 33.33' \times 2.0' \times 2.5' \times \frac{1}{2} \times 2 + 33.33' \times 2 \times 22.83' \times 2 \times 2.5' \times \frac{1}{3} \\ &= 6.0 + 68.49 + 16.66 + 253.64 = 344.79 \text{ CF} \end{aligned}$$

$$VOL = 344.79 \text{ CF} \times 7.48 \text{ GAL/CF} = [2579 \text{ GAL}]$$

$$\text{TOTAL CONTAINMENT VOL} = 393 + 2579 = [2972 \text{ GAL}]$$

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JOB SAFETY-KLEEN, BOYNTON BEACH, FLASHEET NO. 1 OF       CALCULATED BY CLW DATE 4-9-91CHECKED BY        DATE       SCALE       WAREHOUSE SLAB LOADING CAPACITY

GIVEN: MAX ALLOW. BEARING PRESSURE CONCRETE = 750 PSI  
FOR MIN. 3000 PSI CONCRETE.  
 $P_{\text{reducer}} = 20000 \text{ PSI}$   
CONCRETE WT. = 150 PCF

A. LOAD ON CONCRETE

HEAVIEST PRODUCT STORED IS PERCHLOROETHYLENE  
WITH SPECIFIC GRAVITY = 1.6

$$\text{So WT} = 62.4 \text{ PCF} \times 1.6 = 99.84 \rightarrow 100 \text{ PCF}$$

WT. OF 55 GAL DRUM:

$$\left[ \frac{55 \text{ GAL}}{\text{DRUM}} \times \frac{1 \text{ CF}}{7.48 \text{ GAL}} \times \frac{100 \#}{\text{CF}} \right] \times 1.05 \text{ (FOR DRUM WT)}$$

$$= 772.06 \# \rightarrow \text{USE } 775 \#/\text{DRUM}$$

$$\text{WT. OF 3 DRUMS STACKED} = 775 \times 3 = 2325 \#$$

AREA OF BASE OF ONE DRUM (23 1/2" DIA.)

$$\text{AREA} = \left( \frac{23.5}{12 \times 12} \right)^2 \times \pi = 3.01 \text{ SF} \rightarrow \text{USE } 3 \text{ SF}$$

So LOAD ON SLAB FOR 3 STACKED DRUMS

$$= \frac{2325}{3} = 775 \text{ PSF}$$



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SHEET NO. 2 OF FLA.  
CALCULATED BY ckw DATE 4-9-91  
CHECKED BY \_\_\_\_\_ DATE \_\_\_\_\_  
SCALE \_\_\_\_\_

**B. CHECK CONCRETE**

$$775 \text{ PSF} \times 2.0 \text{ (FACTOR OF SAFETY)} = 1550 \text{ PSF}$$

$$1550 / (12 \times 12) = 10.76 \text{ PSI} \ll 750 \text{ PSI} \rightarrow \underline{\text{OK}}$$

**C. CHECK UNDERLYING SOIL**

$$\begin{aligned} \text{DESIGN LOAD} &= 1550 \text{ PSF} + \text{CONC. WT.} \\ \text{CONC. WT.} &= 150 \text{ PCF} \times 1 \times .5 \text{ V} = 75 \text{ PSF} \\ &\text{FOR } 6" \text{ THICK CONCRETE} \end{aligned}$$

$$\text{TOTAL LOAD} = 1550 + 75 = 1625 \text{ PSF}$$

BEARING AREA ON SOIL ON UNIFORMLY  
LOADED SLAB IS 1.0 SF ASSUMING  
NO LOAD DISTRIBUTION IN THE CONCRETE.

$$\text{SOIL PRESSURE ON SOIL} = \frac{1625 \text{ PSF}}{1} = 1625 \text{ PSF}$$

SOIL REQUIRED UNDER  
SLAB = 1625 PSF  
CAPACITY MINIMUM.

USE 3000 PSF ENGINEERED  
SOIL. SEE SOIL REPORT

6" SLAB WITH 1 LAYER  
OF 4X6, W2.9XW2.9 WWM  
(4X6, 1/4") IS ADEQUATE.  
SEE ATTACHED "CRSE"  
COMMENTARY.

### SLABS ON GROUND \*

For any slab on the ground, adequate preparation of subgrade for drainage and compaction is of prime importance. Dowelled expansion joints and weakened plane contraction joints should be carefully located, including expansion joints at all walls.

The design of slabs on the ground to distribute concentrated or uniform loads involves the elastic properties of the subsoil and the slab itself. An analysis can be made but is quite involved. Slabs for the very lightest occupancy should be not less than 4" thick, and slabs for other occupancies may be empirically selected, the following being about minimum and sometimes less than what is required by ACI 807 for supported slabs:—

Occupancy **	Min. Slab Thickness	Reinforcement ‡
Sub-slabs under other slabs	2"	None
Domestic or light commercial (loaded less than 100 psf)	4"	One layer 6 x 6 10/10 welded wire fabric, minimum for ideal conditions; 6 x 6 8/8 for average conditions.
Commercial—institutional—barns (loaded 100-200 psf)	5"	One layer 6 x 6 8/8 welded wire fabric or one layer 6 x 6 6/6.
Industrial (loaded not over 400-500 psf) and pavements for industrial plants, gas stations, and garages	6"	One layer 6 x 6 6/6 welded wire fabric or one layer 6 x 6 4/4.
Industrial (loaded 600-800 psf) and heavy pavements for industrial plants, gas stations, and garages	6"	Two layers 6 x 6 6/6 welded wire fabric or two layers 6 x 6 4/4
Industrial (loaded 1500 psf) †	7"	Two mats of bars (one top, one bottom), each of #4 bars @ 12" c/c, each way
Industrial (loaded 2500 psf) †	8"	Two mats of bars (one top, one bottom), each of #5 bars @ 12" c/c, each way
Industrial (loaded 3000-3500 psf) †	9"	Two mats of bars (one top, one bottom), each of #5 bars @ 8" to 12" c/c, each way

\* For further details, see "Concrete Floors on Ground," and "Concrete Airport Pavement," Portland Cement Association, 33 West Grand Avenue, Chicago, Illinois, 1952, and "Design of Concrete Floors on Ground for Warehouse Loadings," Aug. 1957 Journal, American Concrete Institute, P. O. Box 4754, Redford Sta., Detroit 19, Mich.

\*\* For loads in excess of, say, 500 psf, use at least 3000 psi quality controlled concrete, and investigate subsoil conditions with extra care. Fill material and compaction should be equivalent to ordinary highway practice. If laboratory control of compaction is available, the load capacities can be increased in the ratio of the actual compaction coefficient,  $k$ , to 100.

† For loads in excess of, say, 1500 psf the subsoil conditions should be investigated with extra care.

‡ Place first layer of reinforcement 2 in. below top of slab; second layer, 2 in. up from bottom of slab.

P.O. BOX 211  
LAKE WORTH, FLORIDA 33460

ASPHALT ... CONCRETE ... MATERIALS

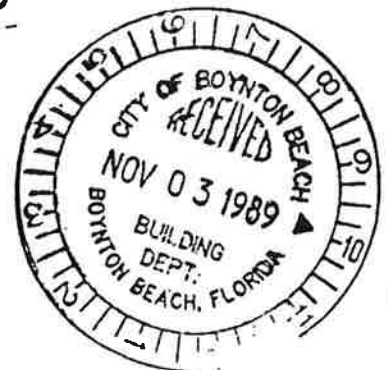
# GEOTECHNICAL EXPLORATION AND FOUNDATION RECOMMENDATIONS

FOR THE  
PROPOSED SERVICE AND TANK FARM BUILDINGS  
SAFETY KLEEN AT QUANTUM PARK  
BOYNTON BEACH, FLORIDA

*Review 3-12-90  
& hold must follow  
this report.*

TLPB REPORT NUMBER: 89/305

NOVEMBER 2, 1989



## ASPHALT ... CONCRETE ... MATERIALS

November 2, 1989

M.S.M. Design Group  
630 South Dixie Highway  
West Palm Beach, Florida 33401

Attention: Mr. Delfin F. Menendez

Re: Geotechnical Exploration and Foundation Recommendations  
Proposed Service Center and Tank Farm Buildings  
Safety Kleen at Quantum Park  
Boynton Beach, Florida  
TLPB Report Number: 89/305

Gentlemen:

In accordance with your authorization, Testing Lab of the Palm Beaches, Inc. has conducted a geotechnical exploration and foundation evaluation on the site of the above referenced project.

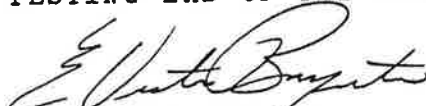
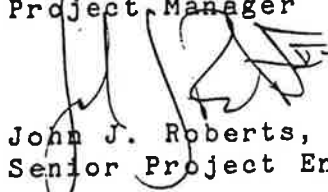
The results of this evaluation, together with our supporting data and recommendations are to be found in this report, four (4) copies of which are being transmitted herewith.

As the project plans and specifications are further developed, questions may arise with respect to the prevailing soil conditions. We welcome the opportunity to provide any further geotechnical services which may be needed.

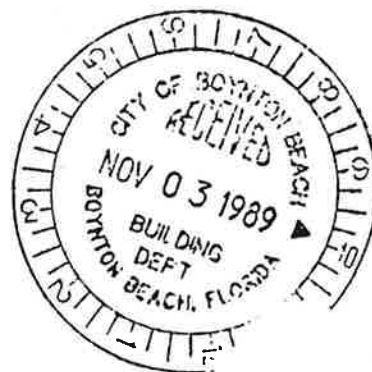
At the appropriate time we look forward to assisting you with the project's construction materials testing services. Thank you for the opportunity to have been of service and we look forward to working with you on other upcoming projects.

Respectfully submitted,

TESTING LAB OF THE PALM BEACHES, INC.

  
E. Victor Brynteson  
Project Manager  
John J. Roberts, II, P.E.  
Senior Project Engineer

EVB/JJR/mas



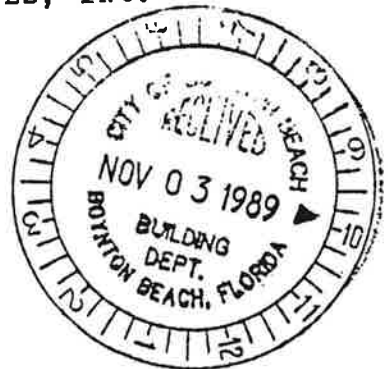
GEOTECHNICAL EXPLORATION AND  
FOUNDATION RECOMMENDATIONS  
FOR THE  
PROPOSED SERVICE CENTER AND TANK FARM BUILDINGS  
SAFETY KLEEN AT QUANTUM PARK  
BOYNTON BEACH, FLORIDA

PREPARED FOR  
M.S.M. DESIGN GROUP  
630 SOUTH DIXIE HIGHWAY .  
WEST PALM BEACH, FLORIDA 33401

BY  
TESTING LAB OF THE PALM BEACHES, INC.

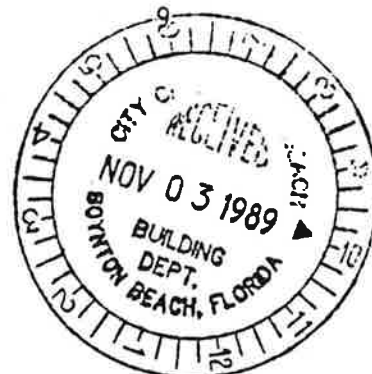
REPORT NUMBER: 89/305

NOVEMBER 2, 1989



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GEOTECHNICAL EXPLORATION  
AND  
FOUNDATION RECOMMENDATIONS

INTRODUCTION

General

The following report presents the findings of our recent subsurface exploration and evaluation, and our recommendations related to the design and construction of the foundations for the proposed project.

Authorization

Authorization to perform this exploration and provide these recommendations was in the form of a verbal agreement between Mr. Delfin F. Menendez of M.S.M. Design Group and Mr. E. Victor Brynteson of Testing Lab of the Palm Beaches, Inc. on October 27, 1989.

Purpose

The purpose of our geotechnical exploration was to evaluate the existing subsurface conditions in relationship to the proposed project development needs, and provide foundation and site preparation recommendations.

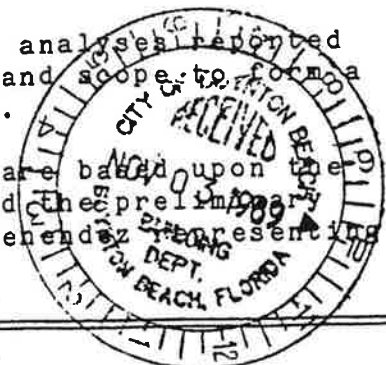
Scope

The scope of our geotechnical exploration included a review of local geological maps, a reconnaissance of the immediate site by our Drill Supervisor, a field testing program consisting of a series of soil test borings and static cone penetration tests, laboratory classifications of the obtained soil samples, an engineering analysis and evaluation of the supporting soils within the proposed building sites, and development of these recommendations.

Qualifications

Our geotechnical exploration and foundation analyses reported herein are considered sufficient in detail and scope to form a reasonable basis for the foundation designs.

The analysis and recommendations submitted are based upon the data obtained from the soil test borings and the preliminary design details furnished by Mr. Delfin F. Menendez representing M.S.M. Design Group.



In the event that any changes in the nature, design or location of the buildings are planned, the conclusions and recommendations contained in this report shall not be considered valid unless the changes are reviewed and conclusions of this report modified or verified in writing.

The nature and extent of variations between the borings may not become evident until construction has commenced. If variations then appear evident, we recommend that Testing Lab be informed and the actual site conditions observed. It may be necessary at that time to re-evaluate the recommendations of this report.

It is recommended that the soil and foundation engineer be provided the opportunity for a general review of the final foundation design and specifications. This will provide the opportunity to assure that the earthwork and foundation recommendations have been properly interpreted and implemented in the design and specifications.

The conclusions and recommendations contained herein were based upon the applicable standards of our profession at the time this report was prepared. Copies of this report are furnished only to provide the factual data which were gathered and which are summarized in this report.

This report has been prepared for the exclusive use of M.S.M. Design Group for specific application to the Proposed Service Center and Tank Farm Buildings for Safety Kleen at Quantum Park in accordance with generally accepted local soil and foundation engineering practices. No other warranty, expressed or implied, is made.

### DESCRIPTION OF SITE

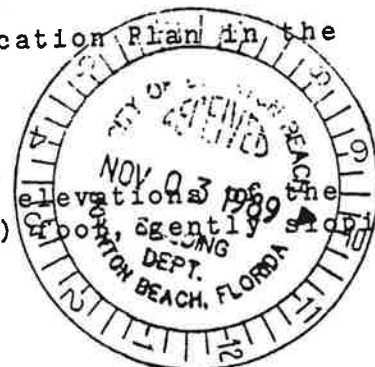
#### General Site Location

The Proposed Service Center and Tank Farm Buildings are to be located in the Quantum Industrial Park of Boynton Beach, Florida. The specific site location within the Quantum Industrial Park is located on Alpha Drive which is South of 22nd Avenue and East of Congress Avenue in Boynton Beach, Florida.

This is shown on the accompanying Boring Location Plan in the Appendix.

#### General Site Description

Within the specific building locations, the elevations of the existing ground surface varied about one (1) foot, slightly sloping to the East.





The majority of the surface within the proposed building locations is covered by sand and sparse weeds.

At the time of our exploration, surface drainage appears to be good with surface runoff flowing toward the East.

### FIELD EXPLORATION

#### Scope

To explore the subsurface conditions on this site, three (3) standard penetration test borings and four (4) static cone penetration tests were made. These were drilled to depths ranging from 15 feet to 20 feet each below the existing ground surface. The number and depth of the borings and cones were selected by Testing Lab of the Palm Beaches, Inc.

The borings and cones were drilled in the general locations of the Proposed Service Center and Tank Farm Buildings. The borings and cones were located in the field by our driller and are presumed accurate to within a few feet.

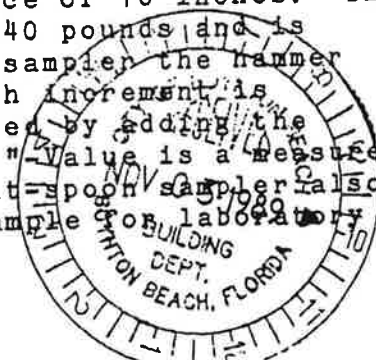
Boring and cone test locations are shown on the accompanying Boring Location Plan in the Appendix.

#### Drilling and Sampling Procedures

The soil test borings were performed using standard rotary drilling methods. At frequent intervals, standard split-spoon samples of the existing subsurface materials were obtained. The frequency and procedures used to obtain these samples were in general accordance with ASTM designation D 1586. The samples were identified according to boring number, sample number and depth, encased in plastic container, and transported to the laboratory.

#### Field Tests and Measurements

Penetration Tests - The standard penetration test is used to obtain the "N"-value of the soil. Once the drill hole has been extended to the elevation at which a sample is to be obtained, a standard split-spoon sampler is lowered into the bore hole. A split-spoon sampler is typically 18 to 24 inches long with a 1.5 inch I.D. Barrel. The sampler is driven into the undisturbed soil below the bottom of the bore hole for a distance of 18 inches. The sampler is driven using a hammer that weighs 140 pounds and is dropped 30 inches. During the driving of the sampler the number of blows needed to advance the sampler each 6-inch increment is recorded. The "N"-Value of the soil is obtained by adding the second and third incremental numbers. This "N"-Value is a measure of the relative density of the soil. The split-spoon sampler also allows for the recovery of a disturbed soil sample for laboratory testing.



Cone Penetration Tests - The cone penetration tests are used to obtain a penetration resistance and friction ratio of the encountered undisturbing soils. This data aids in the computation of in-place bearing values and further classification of the subsurface materials. The cone penetration tests were performed using truck-mounted penetrometer equipment with a friction mantle cone. The cone is pushed into the undisturbed soils and end-bearing and friction measurements are obtained. The frequency and procedures used are performed in general accordance with ASTM designation D 3441.

Water Level Measurements - Water level readings were made following the completion of the drilling and sampling at each boring location. It can be noted that these measurements are generally considered to be more reliable in pervious soils than in relatively impervious soils. Also it is important to note that recent rainfall conditions, seasonal variations, weather conditions, and other factors can greatly influence these levels at other times.

Ground Surface Elevations - The ground surface elevation at each boring location has not been determined at the writing of the report. However, it is recommended that these elevations be established prior to the start of any construction. Typical site elevations were verbally provided to Testing Lab of the Palm Beaches, Inc. by Mr. Delfin Menendez of M.S.M. Design Group.

#### LABORATORY TESTING PROGRAM

In order to determine additional pertinent engineering characteristics of the foundation materials, a supplemental laboratory testing program was conducted.

The laboratory testing program for this project consisted of and supplementary visual classification on all samples by our Project Manager using the Unified Soil Classification System.

All phases of the laboratory testing program were conducted in general accordance with applicable ASTM specifications, and the results of these tests may be found on the accompanying boring logs in the Appendix.

## SUBSURFACE CONDITIONS

### General

Copies of the boring and cone penetration logs for this project may be found in the Appendix of this report. These logs detail the visual classification of the encountered soils, the results of the standard penetration tests, the depth of the encountered groundwater levels, and other pertinent information. The stratification of the soils as shown on these logs is based upon the visual classification of the recovered soil samples by our Project Manager, the results of any laboratory testing, and our interpretation of the field boring logs.

Representative soil samples have been retained and stored in our laboratory for further analysis, if desired.

Unless notified in writing to the contrary, all soil samples will be disposed of after 90 days.

The stratification lines shown on the boring logs represent the approximate boundary between soil types; however the actual transition between individual layers may be gradual. It can be noted that the attached boring and cone log information is representative of the subsurface conditions at the specific boring location. Variations of both soil and groundwater conditions may occur between the boring locations.

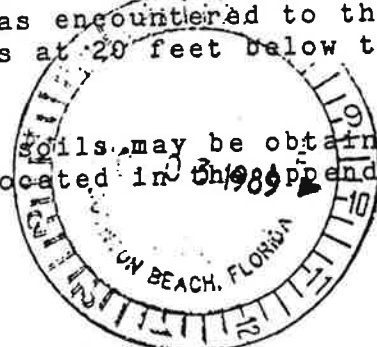
### General Subsurface Conditions

A typical soil profile, as indicated from a review of the boring and cone penetration logs, generally consists of a light brown to brown medium fine sand in a very loose to loose condition to depths ranging from 2 feet to 4 feet below the existing grade.

Beneath this layer, dark brown medium fine sand in a medium dense condition was encountered to a depth of between 4 feet to 6 feet. However, Boring Number 3 indicated a layer of concrete and/or rock and concrete was encountered from 3 to 4 feet below the top of the existing ground surface. Brownish yellow medium fine sand in a loose to medium dense was encountered beneath this layer and extended to a depth of about 16 feet.

The final stratum consisted of light brown medium fine sand in a medium dense condition. This stratum was encountered to the maximum termination depth of the borings at 20 feet below the existing ground surface.

Additional information concerning these soils may be obtained from a review of the Test Boring logs located in the Appendix of this report.



### Water Level Observations

As observed within the test boring holes, the existing water level appeared to be at a depth of about 10 feet below the existing ground surface immediately upon completion of the drilling operations. It can be noted that fluctuations in the water level on this site may occur due to variations in recent rainfall, temperature, and other factors.

### PROJECT DESCRIPTION

*Drought conditions & water rationing*  
*at present*  
*3-2-90*

### Design Information

Based upon the information provided, it is understood that the proposed Service Center will be a 1 and 2 story building with 24 foot high walls, about 80 by 155 feet in plan size. The proposed Tank Farm Building will be a 1 to 2 story building with 21 foot high walls, about 34 by 72 feet in plan size. Both buildings will be constructed of a steel superstructure with concrete block walls with interior and exterior columns.

Finish Floor Elevations have been established at 17.20 to 20.00. This will necessitate the usage of between 0 to 3 feet of compacted structural fill.

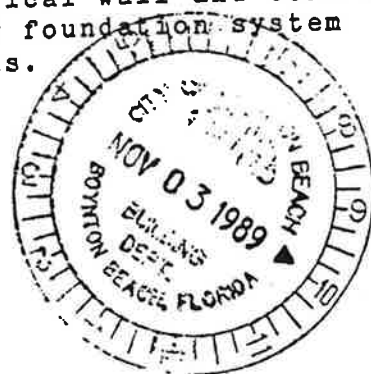
Testing Lab understands that the structural loads will be light to medium. For the purpose of our evaluation we have been given a maximum wall load of 4 kips per lineal foot, and a maximum column load of 67 kips. We have also been given a maximum floor slab load of 200 pounds per square foot.

This project information has been provided to us by Mr. Delfin F. Menendez of M.S.M. Design Group.

### FOUNDATION SYSTEM RECOMMENDATIONS

#### Foundation Discussion

The building loads consists of generally typical wall and column loads. Therefore, it appears that a shallow foundation system may be used to adequately support these loads.



### General Discussion

The amount of movement which a foundation will experience is a function of the footing size and imposed sustained pressure intensity, as well as the in-situ stress conditions of the soils within the zone influenced by the footing. Typically, settlements of a footing bearing on granular materials are predicted from empirical procedures based upon the standard penetration resistance (N-Value) as a measure of the in-situ soils' relative density. Footing design pressures given in this report are based on a total settlement in the order of one (1) inch, one-half of which could be differential.

### Foundation System Recommendations

Typical continuous wall and/or isolated column footings may be used when they are designed to bear on the compacted natural subgrade soils and/or compacted structural fill materials which must be prepared in general accordance with the site preparation recommendations detailed later in this report.

A net allowable soil bearing pressure of up to 3,000 pounds per square foot may be used in the footing designs when the footings bear at Elevation 14.00 and above.

We recommend all isolated column footings have a minimum dimension of 24 inches and the continuous wall footings have a minimum width of 18 inches.

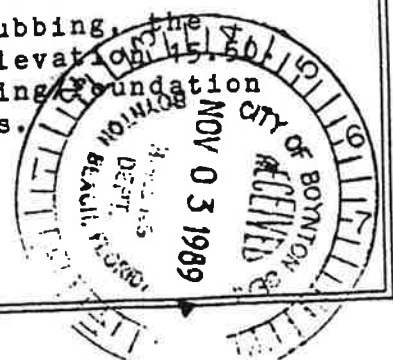
We recommend the bottom of the footing excavations be compacted and tested just prior to the reinforcing and concrete placement. This aids in densifying the granular bearing soils which may have become disturbed during the footing excavations. A minimum density of 98% of the Modified Proctor maximum dry density (ASTM D 1557) for a depth of 12 inches below the bottom of the footing should be achieved.

In order to avoid the effects of any slight differential movements that may occur due to variations in the types and/or relative density of the supporting soils, it is recommended that all continuous footings be suitably reinforced.

### SITE PREPARATION RECOMMENDATIONS

#### General

Upon completion of the standard clearing and grubbing, the proposed building sites shall be excavated to Elevation 14.50. This excavation should extend outside the building foundation lines by 5 feet at the bottom of the excavations.



yes  
Additional excavation shall be done in the area of the Southeast corner of the Proposed Service Center Building. Boring No. 3 indicated a layer of concrete and/or rock and concrete was encountered 3 to 4 feet below the existing ground surface in this area. This material shall be further investigated and removed during the excavation and densification operation. The exact limits to be excavated are not known at this time. This material shall be removed in its' entirety and an inspection shall be made prior to backfilling.

Upon completion of the excavations, compaction of the subgrade soils should commence. At that time, Testing Lab should be allowed the opportunity to inspect the bottom of the excavation during the compacting operation.

We recommend the compaction be performed with a vibratory roller which exerts a minimum dynamic load of 15 tons. Any observed soft or yielding areas should be excavated and replaced with clean, compacted backfill soils.

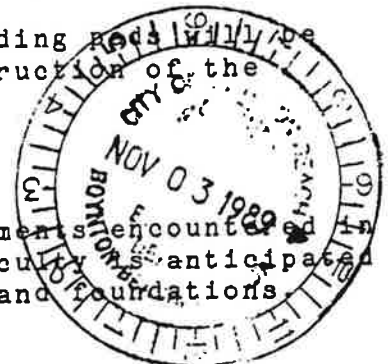
We recommend sufficient passes be made during the compacting/proof-rolling to produce dry densities not less than 98% of the Modified Proctor (ASTM D 1557) maximum value to a depth of 2 feet below the bottom of the excavation. In the area of Static Cone No. 1 (the Northeast corner of the Proposed Tank Farm Buildings), additional depth shall be checked due to the very loose material encountered to a depth of about 6 feet below the existing ground surface. In any case, the building areas shall receive not less than 8 overlapping passes, half of them in each of two perpendicular directions. The bottom of the excavation shall be inspected, tested and approved by our representative prior to the commencement of the backfilling operations.

The backfill materials required to achieve the desired finish pad elevation should be a clean granular material with a maximum of 8 percent passing the Number 200 sieve, placed in compacted lift thickness not exceeding 12 inches, and compacted uniformly to the minimum degree of density as previously specified. A sufficient number of field density tests should be taken on each lift to monitor proper compaction.

Upon completion of these operations, the building pads will be considered satisfactory to commence the construction of the proposed foundation systems.

#### Water Level Control

Due to the relatively low water level measurements encountered in the test boring locations, little to no difficulty is anticipated during the construction of the building pads and foundations.



However, since these foundation materials generally tend to soften or become "loose" when exposed to free water, the excavations should be kept dry if water is encountered. It is anticipated that a gravity drainage system, sump pumps, etc. should be sufficient for this purpose.

#### SUMMARY

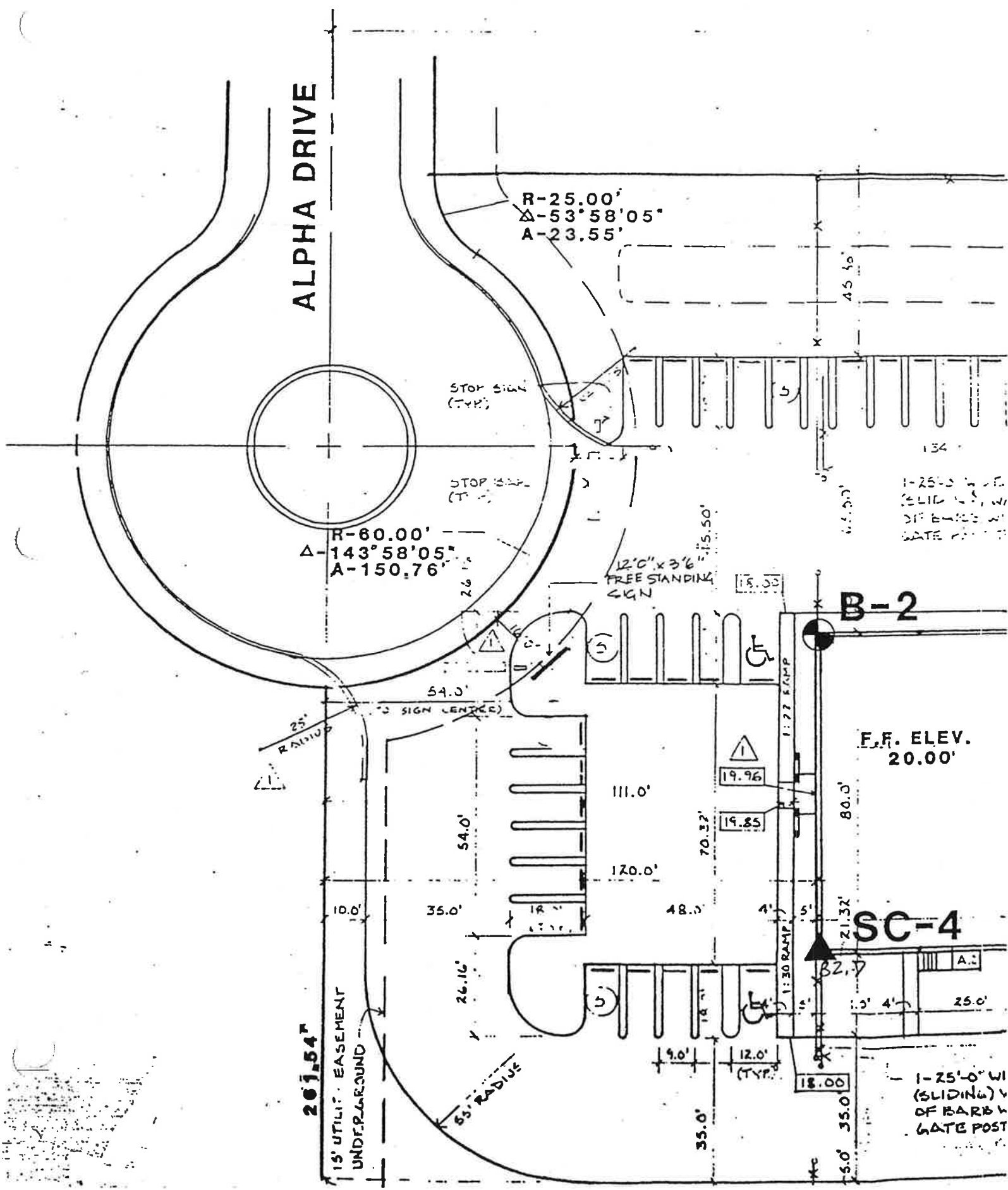
410  
It is recommended that the soil engineer be retained to provide additional geotechnical engineering and testing services, as needed, during construction of the excavation and foundation phases of the work. This is to observe compliance with the design concepts, specifications or recommendations and to allow design changes in the event that subsurface conditions differ from that anticipated prior to the start of construction.



APPENDIX







# TESTING LAB OF THE PALM BEACHES, INC.

P.O. BOX 211  
LAKE WORTH, FLORIDA

585-7515

## ASPHALT . . . CONCRETE . . . MATERIALS

TEST BORING: Proposed Tank Farm Building - Southwest corner

BORING No. B-1

ELEV. FT. MBL.	DEPTH FT.	DESCRIPTION OF MATERIAL	PENETRATION BLOWS PER FOOT										Sampler Blows	
			10	20	30	40	50	60	70	80	90	6"	8"	
	1	0'-2' Light brown											1	1
	2	medium fine sand (SP)											3	5
	3	2'-4' Dark brown medium											4	5
	4	fine sand (SP)											9	10
	5												8	8
	6												6	6
	7	4'-10' Brownish yellow medium											3	4
	8	fine sand with trace of											3	3
	9	roots (SP)											2	3
	10												3	3
	11													
	12	10'-15' Brownish yellow medium												
	13	fine sand (SP)												
	14												3	5
	15												8	11
	16													
	17	15' End of Boring												
	18													
	19													
	20													
	21													
	22													
	23													
	24													
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	40													

NOV 03 1989

CITY OF BOYNTON BEACH, FLA.

DEPT. OF PUBLIC WORKS



PROJECT LOCATION Safety Kleen - Quantum Park, Alpha Drive - Boynton Beach

CLIENT M.S.M. Design Group

JOB NO. 89/305

TECHNICIAN LL DRILL NO. 101

DATE 10/30/89

SAMPLING DATA 3 1/2" I.D. hollow stem auger

SAMPLER DATA 2' split spoon, 2" O.D. in general accordance with ASTM-D 1586

TYPE OF TERRAIN Flat SURFACE MATERIAL Sand with sparse weeds

Water table = 9'5" @ 0 hours

REMARKS: These standard penetration tests are representative of and apply only to the particular and exact location of the borings.

ASPHALT . . . CONCRETE . . . MATERIALS

TEST BORING: Proposed Service Center - Northwest corner

BORING No. B-2

ELEV. FT. MSL.	DEPTH FT.	DESCRIPTION OF MATERIAL	PENETRATION BLOWS PER FOOT										Sampler Blows			
			10	20	30	40	50	60	70	80	90	6"	8"			
	1	0'-4' Light brown medium fine sand (SP)											1	1		
	2													1	3	
	3														3	5
	4														6	9
	5	4'-6' Dark brown												6	15	
	6	medium fine sand(SP)												14	12	
	7	6'-16' Brownish yellow medium fine sand (SP)												8	8	
	8														7	6
	9														4	6
	10														6	7
	11															
	12															
	13															
	14													5	8	
	15													10	14	
	16	16'-17' Dark brown medium fine sand (SP)														
	17															
	18		17'-20' Light brown													
	19		medium fine sand (SP)												5	6
	20	20' End of Boring												8	11	
	21															
	22															
	23															
	24															
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CITY OF BOYTON  
NOV 03 1989  
BULL. DEPT.  
BOYTON BEACH



PROJECT LOCATION Safety Kleen - Quantum Park, Alpha Drive - Boynton Beach  
 CLIENT M.S.M. Design Group JOB NO. 89/305  
 TECHNICIAN LL DRILL NO. 101 DATE 10/30/89  
 CASING DATA 3 1/2" I.D. hollow stem auger  
 SAMPLER DATA 2" split spoon, 2" O.D. in general accordance with ASTM-D 1586  
 TYPE OF TERRAIN Flat SURFACE MATERIAL Sand with sparse weeds

REMARKS: Water table = 9'7" @ 0 hours  
 These standard penetration tests are representative of and apply only to the particular and exact location of the borings.

# TESTING LAB OF THE PALM BEACHES, INC.

P.O. BOX 211  
LAKE WORTH, FLORIDA

585-7515

## ASPHALT . . . CONCRETE . . . MATERIALS

TEST BORING: Proposed Service Center - Southeast corner

BORING No. B-3

ELEV. FT. MBL.	DEPTH FT.	DESCRIPTION OF MATERIAL	PENETRATION BLOWS PER FOOT										Sampler Blows		
			10	20	30	40	50	60	70	80	90	8"	6"		
	1	0'-2' Brown medium fine											1	1	
	2	sand with trace of roots (SP)											3	5	
	3	2'-3' Dark brown medium fine sand (SP)											5	6	
	4	3'-4'3" Concrete and/or rock and concrete											26	44	
	5												50	3"	
	6	4'3"-15' Brownish yellow medium fine sand (SP)											4	6	
	7												8	9	
	8												5	6	
	9												8	9	
	10														
	11														
	12														
	13														
	14												4	7	
	15												10	11	
	16	15' End of Boring													
	17														
	18														
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U.S. ARMY  
CORPS OF ENGINEERS  
BOSTON DISTRICT  
NOV 03 1989



PROJECT LOCATION Safety Kleen - Quantum Park, Alpha Drive - Boynton Beach  
 CLIENT M.S.M. Design Group JOB NO. 89/305  
 TECHNICIAN LL DRILL NO. 101 DATE 10/30/89  
 BORING DATA 3 1/2" I.D. hollow stem auger  
 SAMPLER DATA 2' split spoon, 2" O.D. in general accordance with ASTM-D 1586  
 TYPE OF TERRAIN Flat SURFACE MATERIAL Sand with sparse weeds

Water table = 9'11" @ 0 hours

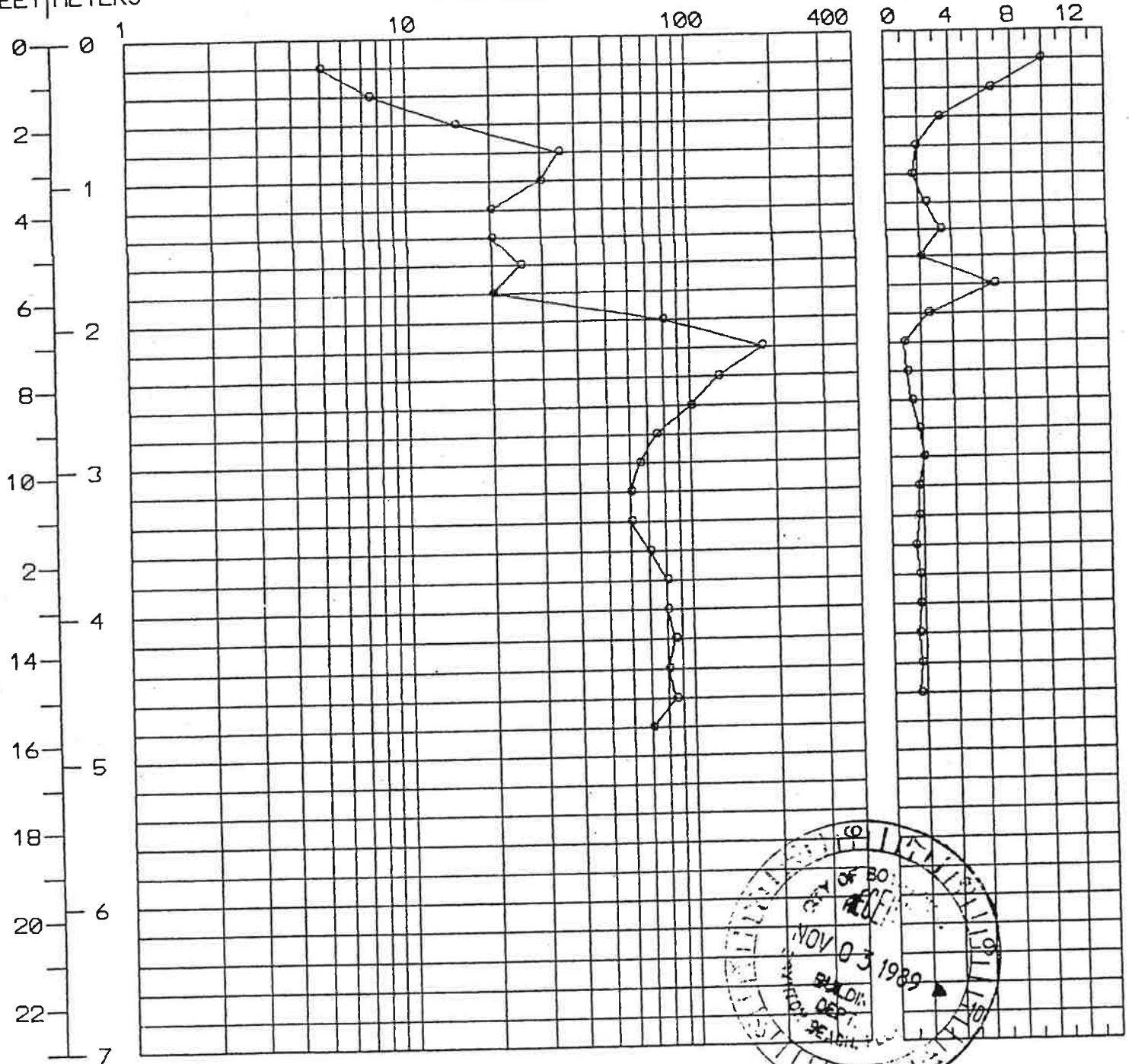
REMARKS: These standard penetration tests are representative of and apply only to the particular and exact location of the borings.

TESTING LAB OF THE PALM BEACHES, INC., Lake Worth, Florida

DUTCH CONE PENETROMETER  
CONE PENETRATION RESISTANCE  
(KG/CM<sup>2</sup>)

DEPTH  
FEET METERS

FRICTION  
RATIO %



Date: 10-30-89

Job No. 89/305

File: SAFES1.CNE

Project: SAFETY KLEEN, QUANTUM PARK, BOYNTON BEACH

Test # SC-1

Technician: LL

Remarks: NORTHEAST CORNER/TANK FARM BUILDING

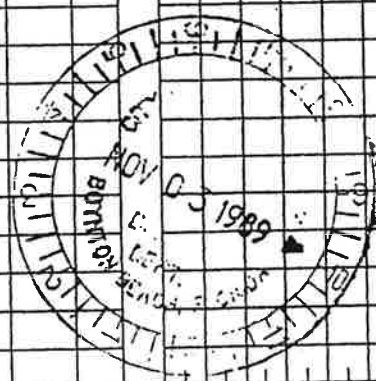
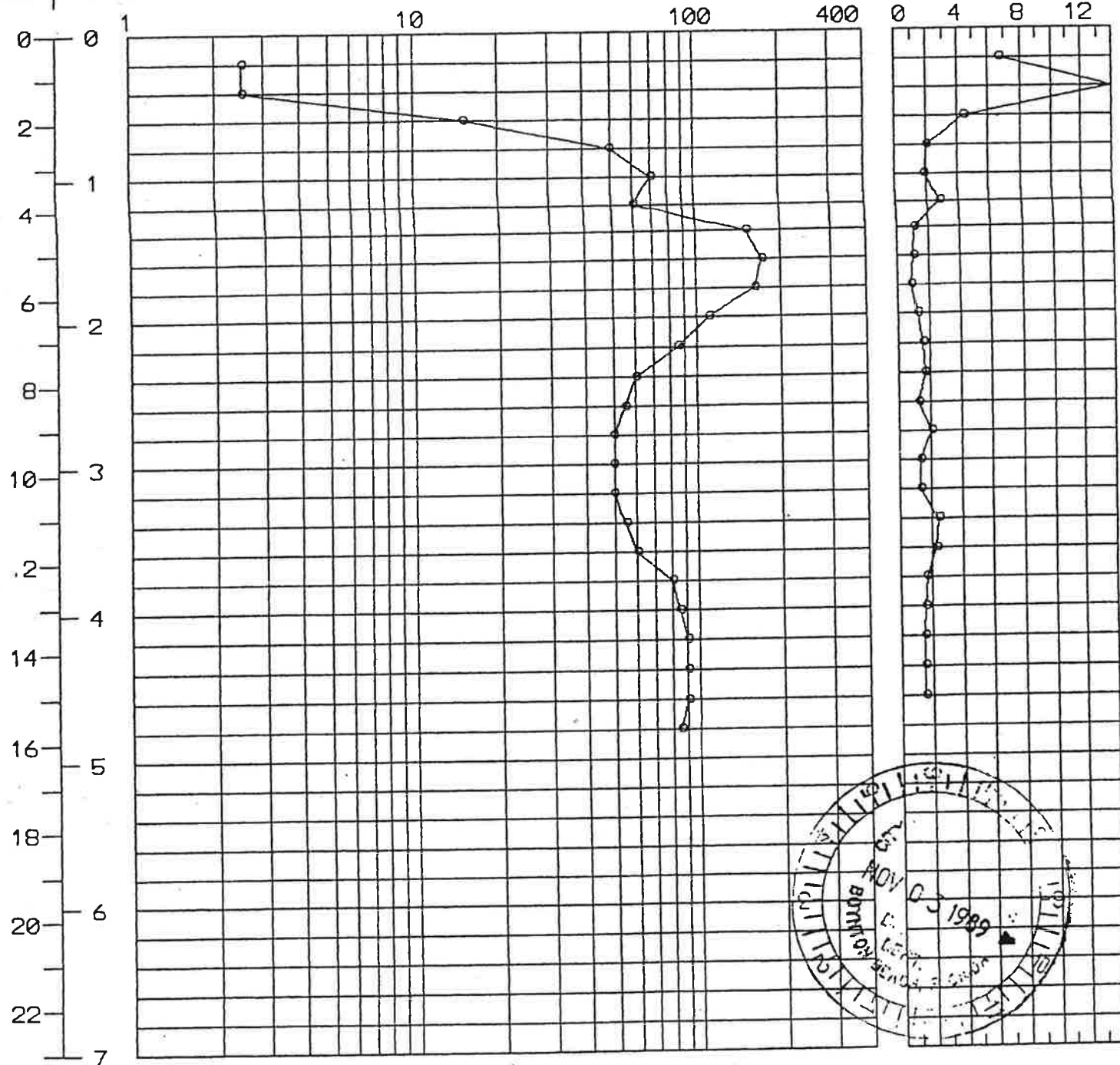
TESTING LAB OF THE PALM BEACHES, INC., Lake Worth, Florida

# DUTCH CONE PENETROMETER

CONE PENETRATION RESISTANCE  
(KG/CM<sup>2</sup>)

FRICTION  
RATIO %

DEPTH  
FEET METERS



Date: 10-30-89

Job No. 89/305

File: SAFESC2.CNE

Project: SAFETY KLEEN, QUANTUM PARK, BOYNTON BEACH

Test # SC-2

Technician: LL

Remarks: NORTHEAST CORNER/SERVICE CENTER



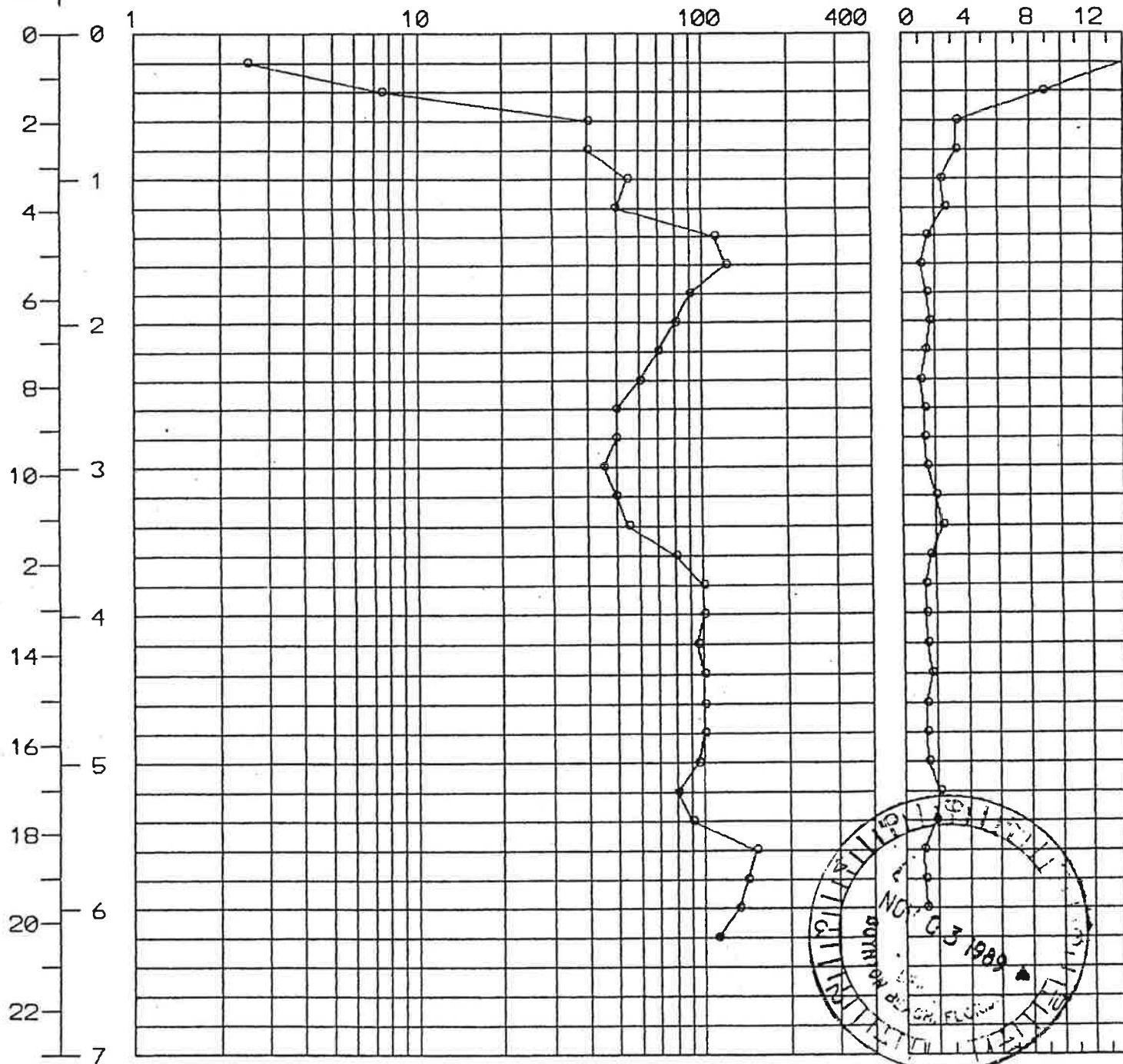
TESTING LAB OF THE PALM BEACHES, INC., Lake Worth, Florida

# DUTCH CONE PENETROMETER

DEPTH  
FEET/METERS

CONE PENETRATION RESISTANCE  
(KG/CM<sup>2</sup>)

FRICTION  
RATIO %



Date: 10-30-89

Job No. 89/305

File: SAFES3.CNE

Project: SAFETY KLEEN, QUANTUM PARK, BOYNTON BEACH

Test # SC-3

Technician: LL

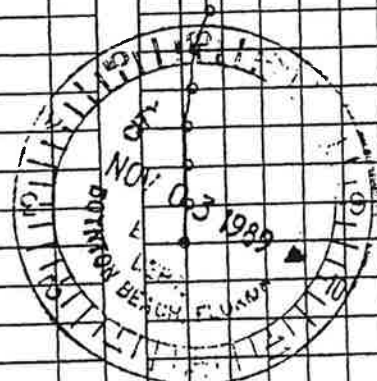
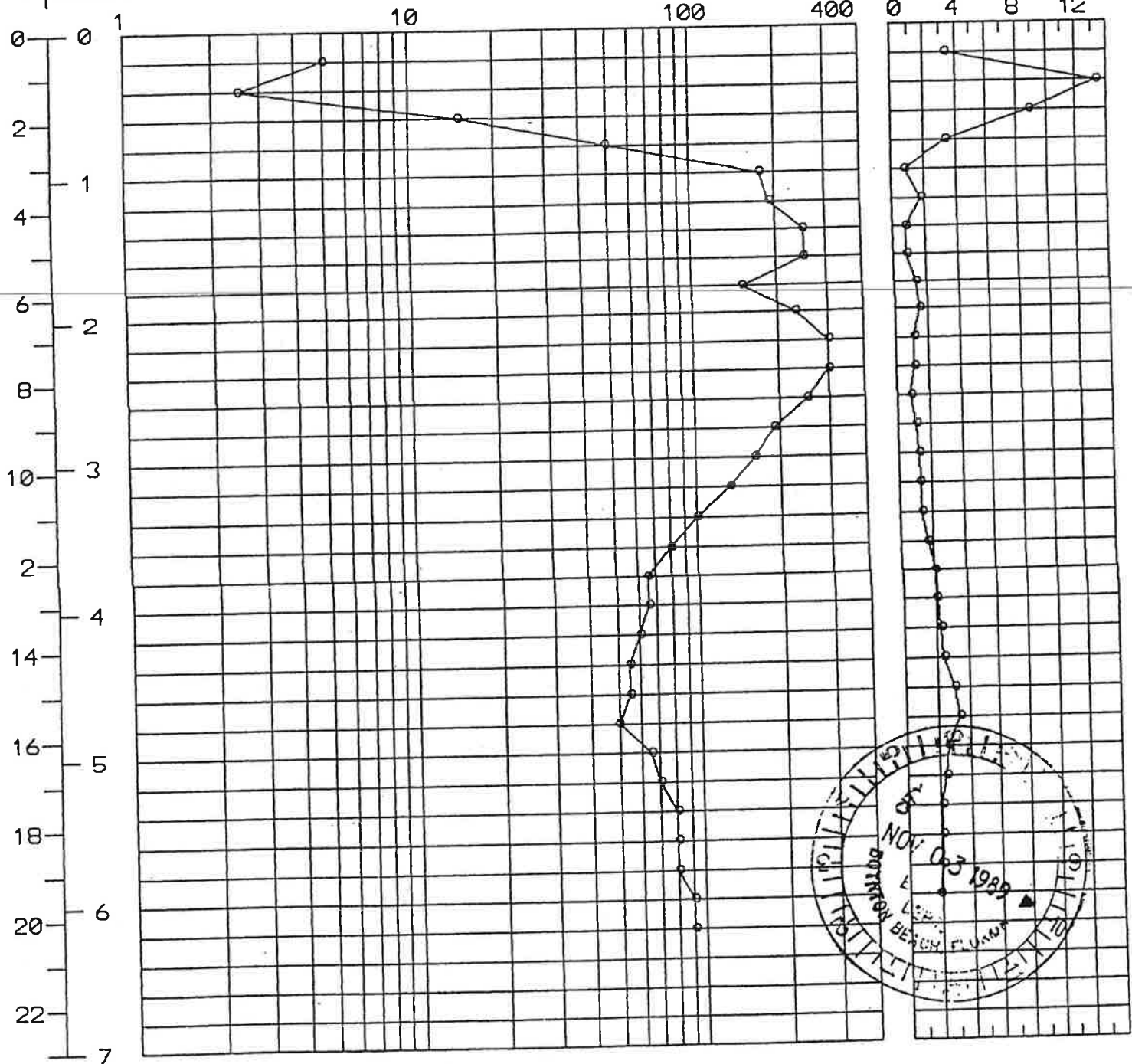
Remarks: CENTER/SERVICE CENTER

TESTING LAB OF THE PALM BEACHES, INC., Lake Worth, Florida

DUTCH CONE PENETROMETER  
CONE PENETRATION RESISTANCE  
(KG/CM<sup>2</sup>)

DEPTH  
FEET/METERS

FRICTION  
RATIO %



Date: 10-30-89

Job No. 89/305

File: SAFES4.CNE

Project: SAFETY KLEEN, QUANTUM PARK, BOYNTON BEACH

Test # SC-4

Technician: LL

Remarks: SOUTHWEST CORNER/SERVICE CENTER



**Appendix D**  
**Subpart BB/CC Information**



## Procedure for Compliance with RCRA Subparts BB and CC

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### OPERATIONS

Division/Department: Operations  
Contact: Alan Israel (847) 468-6787  
Procedure: O220-005  
Revision: 2  
Revision Date: **April 25, 2012**  
Supersedes: January 6, '05  
Issue Date: November 3, '04  
Page: 1 of 12  
Approved: Dave Eckelbarger/Bill Ross

### **Purpose:**

The purpose of this Branch Operating Guideline is to provide general guidelines for complying with the requirements for controlling emissions from equipment leaks (Subpart BB) and controlling emissions from containers, tanks, surface impoundments and miscellaneous units (Subpart CC).

### **Scope:**

This procedure applies to all U.S. Safety-Kleen Branches that are permitted Treatment, Storage, and Disposal Facilities (TSDFs).

### **Responsibilities:**

<b>Branch General Manager (BGM)</b>	Branch General Managers are responsible for following these procedures. BGMs also assist the EHS Manager in all compliance issues as they relate to the branch.
<b>Environment Health and Safety Managers (EHS Manager)</b>	EHS Managers are responsible for understanding all federal, state, and local regulatory issues pertaining to maintaining branch compliance with the control of emissions. EHS Managers conduct routine inspections and training to ensure branch compliance with Subparts BB and CC compliance.

### **Definitions:**

<b>Average Volatile Organic Concentration or average VO concentration</b>	Means the mass-weighted average volatile organic concentration of a hazardous waste as determined in accordance with the requirements of 40 CFR 265.1084.
<b>Closed-vent system</b>	A system that is not open to the atmosphere and that is composed of piping, connections, and necessary, flow-inducing devices that transport gas or vapor from a piece or pieces of equipment to a control device.

<b>Closure device</b>	Means a cap, hatch, lid, plug, seal, valve, or other type of fittings that blocks an opening in a cover such that when the device is secured in the closed position it prevents or reduces air pollutant emissions to the atmosphere (Example: a hinged access lid or hatch)
<b>Connector</b>	Any flanged, screwed, welded, or other joined fittings used to connect two pipelines or a pipeline and a piece of equipment. For the purposes of reporting and recordkeeping, connector means flanged fittings that are not covered by insulation or other materials that prevent location of the fittings.
<b>Equipment</b>	Each valve, pump, compressor, pressure relief device, sampling connection system, opened-ended valve or line, or flange, or any control devices or systems required by Subpart BB.
<b>In heavy liquid service</b>	Means that the piece of equipment is not in gas/vapor service or in light liquid service (Example: mineral spirits is a heavy liquid)
<b>In light liquid service</b>	Means that the piece of equipment contains or contacts a waste stream where the vapor pressure of one or more of the components in the stream is greater than 0.3 kilopascals (kPa) at 20°C, the total concentration of the pure components having a vapor pressure greater than 0.3 kPa at 20°C is equal to or greater than 20 percent by weight and the fluid is a liquid at operating conditions (Example: paint thinner is a light liquid)
<b>Level 1 Container</b>	≤ 122 gallons, Storage of any hazardous; no waste stabilization or >122 gallons, "Not in light material service" (See Subpart BB section of this BOG for Light Material Service definition); no waste stabilization
<b>Level 2 Container</b>	>122 gallons, "In light material service," no waste stabilization
<b>Level 3 Container</b>	>26.4 gallons, Stabilization of hazardous waste
<b>Malfunction</b>	Means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or unusual manner. <b>Note:</b> Failures that are caused in part by poor maintenance or careless operation are not malfunctions.
<b>Maximum Organic Vapor Pressure</b>	Means the sum of the individual organic constituent partial pressure exerted by the material contained in a tank, at the maximum vapor pressure-causing conditions (i.e., temperature, agitation, pH effects of combining wastes, etc.) reasonably expected to occur in the tank.
<b>Open-ended valve or line</b>	Any valve, except pressure relief valves, have one side of the valve seat in contact with the process fluid and one side open to the atmosphere, either directly or through open piping.

**Point of waste origination**

- (1) When the facility owner or operator is the generator of the hazardous waste, point of waste origination means the point where a solid waste is produced by a system, process, or waste management unit is determined to be a hazardous waste as defined by 40 CFR Part 261.
- (2) When the facility owner and operator is not the generator of the hazardous waste, point of the waste origination means the point where the owner or operator accepts delivery or takes possession of the hazardous waste.

**Related Documents:****Subpart BB Inspection Form**

Example daily Subpart BB Inspection Form

**Subpart BB Leak Detection and Repair Form**

Example Leak Detection and Repair Form

**Subpart CC Daily Inspection Form**

Example Branch Daily Inspection Form (tanks and containers)

**Subpart CC Annual Tank Inspection**

Example Subpart CC Annual Tank Inspection (including difficult Subpart BB tagged fittings at tops of tanks).

**Overview:**

Procedures for compliance with both Subparts BB and CC are covered in the BOG.

Standards have been promulgated limiting organic emissions resulting from equipment leaks at new and existing hazardous waste treatment, storage and disposal facilities (TSDFs) requiring RCRA permit under RCRA Subtitle C.

These emission standards, set forth under 40 CFR Parts 264 and 265, Subpart BB, apply to any "leaks" from valves, pumps, compressors, pressure relief devices, sampling connection systems, flanges or other pipe connectors, control devices, and open-ended valves or lines that may result in organic emissions. Controls for these sources are required at TSDFs where the equipment contains or comes in contact with hazardous waste streams with 10 percent or greater organics content (by weight).

Subpart CC regulations require owners and operators of tanks, container, surface impoundments, and miscellaneous units to limit VOC emissions from these units by providing covers and emission control devices.

**Tanks Subject to Subpart CC:** Any tank that is used to store or treat hazardous waste with a VO concentration 100 ppmw or greater.

**Containers Subject to Subpart CC:** Containers with design volume of greater than 0.1 m<sup>3</sup> (about 26 gallons) that are used to store or treat hazardous waste with a VO concentration 100 ppmw or greater.

Generators storing hazardous waste in containers and in tanks for up to 90 days are also subject to the Subpart CC regulations. Satellite accumulation drums of less than 55 gallons are not subject to Subpart CC.

### Procedures:

#### Subpart BB

- Each piece of equipment in waste service, such as pumps, valves, flanges (includes flanges located at either end of a valve), compressors, other connectors (any threaded fitting), open-ended lines, and flanged manway covers must be marked (tagged) such that they are easily distinguished from other pieces of equipment (numbered).

**Note:** Zip ties (nylock ties) are not acceptable for attaching Subpart BB ID tags to equipment. Subpart BB ID tags **must** be attached to equipment using a stainless steel wire which can be ordered from MSC (**MSC #93536928**). All Subpart BB equipment ID tags currently attached to equipment by something other than a stainless steel wire need to be replaced immediately.

- Each open-ended valve or line must be equipped with a cap, blind flange, plug, or a second valve which seals the open end at all times except when hazardous waste flows through the open-ended valve or line. **Note:** Any cover to an open-ended valve must be marked (tagged/number).
- Drawings to show location of each piece of equipment and corresponding tag/number must be current and maintained in the EHS file. **Note:** Notify EHS Manager if tags or equipment are added or removed.
- List numbers for valves (threaded fittings) that are designated as unsafe-to monitor or difficult-to-monitor. Provide an explanation of why these threaded fittings are unsafe or difficult to monitor on a daily basis and when they are inspected. (Example: Tagged equipment on top of vertical tank(s) is inspected annually in conjunction with the Subpart CC inspection. See Subpart CC section of this BOG)
- Each tagged piece of equipment must be visually inspected during daily inspections. If a leak is noticed, it must be noted on the daily inspection log for that day.
- If pieces of equipment are found to be leaking:
  - Note the leaking equipment on the daily inspection form (circle "N" and note the tag number at the bottom of the inspection sheet)
  - Tag the leaking equipment with a weatherproof tag.
  - Complete the Leak Detection and Repair form with the required information. Record the status of repairs on this form.
  - The first attempt to repair the leak must be done in 5 calendar days from the time the leak was noted on the daily inspection sheet.

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## Procedure for Compliance with RCRA Subparts BB and CC

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- The leak must be repaired with 15 calendar days of detecting a leak or the equipment must be taken out of service. **Note:** Contact BGM and EHS Manager if it appears that repairs cannot be made within the 15 days.
- If repairs are not made within 15 calendar days or taken out of service, the EHS Manager must submit a semi-annual report to the Regional Administrator describing the situation.
- Remove the weatherproof tag when repairs are finished.
- All activities to repair a leak must be recorded on a Leak Detection and Repair form.
- The actual vapor pressure must be maintained in the operating record (EHS 999 file cabinet) to show that the equipment is in heavy liquid service. **Note:** EHS Manager will make sure this information is current, in the EHS 999 file, and available for inspection.

### Subpart CC

- The facility operating record must identify all hazardous waste storage tanks for Subpart CC compliance (including 90 day tanks), drum storage areas and transfer operations, such as drum emptying and truck stations, as applicable units.

**Note:** This information can be found in Part B Permit Application, but must be in EHS 999 file and available for inspection

- Hazardous waste storage tanks must be classified as Level 1 or Level 2 tanks based on the above referenced definitions.

**Note:** Most branch storage tanks are classified as Level 1 tanks. Therefore, the following procedures address Level 1 tanks.

- Vapor pressure of the waste in the tank(s) must be available for inspection (see EHS 999 files).
- Tanks must be equipped with covers, and all cover openings are kept closed except when sampling, adding or removing waste materials.

**Note:** Due to SK policy which requires the use of 55-gallon drums for accumulation of site generated wastes, all satellite accumulation containers of return and fill/dock wastes are subject to this requirement.

**Note:** In states that consider the drum washer(s) as Level 1 tanks, the drum washer(s) lid must be closed when drum washing operations are being conducted and when not in use if materials are present in the unit (exception being when wastes are being added or removed from the equipment), and be equipped with proper seals on the lid to control emissions.

- Annual inspections must be conducted on all tanks' covers and all tank openings, such as manhole covers, pressure relief devices, conservation vents and long bolted manways.

**Note:** If visible holes or gaps are noted in the inspection: Repair documentation must indicate the first attempt at repair was performed within 5 days and repairs must be completed within 45 days of discovery unless repair cannot be conducted without emptying the tank or taking it out of service and no alternative tank capacity is available. In such instances, a tank must be repaired the next time it stops operation and the repair must be completed before placing the tank back into service (Note: see EHS Manager for additional guidance if repair cannot be completed within 45 days of detecting a leak. Some permits or other regulatory requirements may not allow the continued operation of a tank beyond 45 days after discovering a defect. Severe leaks will require immediate action and may require the tank to be removed from service immediately, and repair certified by an independent Professional Engineer).

- An inspection of the top of the tank(s) must be conducted annually. The findings must be documented.

**Branches with vertical waste tank(s):** Due to the difficult location of the Subpart BB tags for the threaded fittings at the top of these tank(s), daily inspection of these fittings is not possible. Therefore, in conjunction with the annual Subpart CC inspection, these tagged fittings will be inspected. The documentation of the Subpart CC annual tank inspection will also reference the tag numbers for the fittings located at the top of the tank and whether leaks were noted or not.

# Procedure for Compliance with RCRA Subparts BB and CC

## ATTACHEMENT A – Example Subpart BB Inspection Form

Page 3 of 3

INSPECTION LOG SHEET FOR:  
Daily Inspection of TANK EQUIPMENT

INSPECTOR'S NAME/TITLE \_\_\_\_\_

INSPECTOR'S SIGNATURE	
MONDAY	TUESDAY
WEDNESDAY	THURSDAY
FRIDAY	

DATE: (M/D/Y) \_\_\_\_\_

Pump, Flange, or Valve Number	MON.	TUES.	WED.	THURS.	FRI.
1	A N	A N	A N	A N	A N
2	A N	A N	A N	A N	A N
3	A N	A N	A N	A N	A N
4	A N	A N	A N	A N	A N
5	A N	A N	A N	A N	A N
6	A N	A N	A N	A N	A N
7	A N	A N	A N	A N	A N
8	A N	A N	A N	A N	A N
9	A N	A N	A N	A N	A N
10	A N	A N	A N	A N	A N
11	A N	A N	A N	A N	A N
12	A N	A N	A N	A N	A N
13	A N	A N	A N	A N	A N
14	A N	A N	A N	A N	A N
15	A N	A N	A N	A N	A N
16	A N	A N	A N	A N	A N
17	A N	A N	A N	A N	A N
18	A N	A N	A N	A N	A N
19	A N	A N	A N	A N	A N
20	A N	A N	A N	A N	A N
21	A N	A N	A N	A N	A N
22	A N	A N	A N	A N	A N
23	A N	A N	A N	A N	A N
24	A N	A N	A N	A N	A N
25	A N	A N	A N	A N	A N
26	A N	A N	A N	A N	A N
27	A N	A N	A N	A N	A N
28	A N	A N	A N	A N	A N
29	A N	A N	A N	A N	A N
30	A N	A N	A N	A N	A N
31	A N	A N	A N	A N	A N
32	A N	A N	A N	A N	A N
33	A N	A N	A N	A N	A N
34	A N	A N	A N	A N	A N
35	A N	A N	A N	A N	A N
36	A N	A N	A N	A N	A N
37	A N	A N	A N	A N	A N
38	A N	A N	A N	A N	A N
39	A N	A N	A N	A N	A N
40	A N	A N	A N	A N	A N

If 'N', enter pump or valve # \_\_\_\_\_ and circle appropriate problem: potential leak, active leak, sticking, wear, does not operate smoothly, other: \_\_\_\_\_

For all leaks and potential leaks, the Leak Detection and Repair Record must be completed.  
 \* Add short descriptions of unit being inspected (e.g. gate valve, dumpster flange, dumpster pump, etc.)  
 \*\* A = Acceptable      N = Not Acceptable  
 Draw a line through valve and pump I.D. numbers which do not apply.

FORM 1007-6.0



**Procedure for Compliance with RCRA Subparts BB and CC**

**ATTACHMENT B – Example Subpart BB Leak Detection and Repair Form**

**LEAK DETECTION AND REPAIR RECORD**

EQUIPMENT I.D. # \_\_\_\_\_ BRANCH# \_\_\_\_\_  
DESCRIPTION \_\_\_\_\_  
TANK SYSTEM \_\_\_\_\_

DATE \_\_\_\_\_ INSPECTOR'S SIGNATURE \_\_\_\_\_  
HOW WAS POTENTIAL OR ACTUAL LEAK DETECTED? \_\_\_\_\_

DESCRIBE THE POTENTIAL OR ACTUAL LEAK: \_\_\_\_\_

INSTRUMENT MONITORING WITHIN FIVE DAYS

(1.) RESULTS \_\_\_\_\_

REPAIR ATTEMPT METHOD \_\_\_\_\_

(2.) RESULTS \_\_\_\_\_

REPAIR ATTEMPT METHOD \_\_\_\_\_

(3.) RESULTS \_\_\_\_\_

DATE OF SUCCESSFUL REPAIR (must be completed w/in 15 days)

METHOD \_\_\_\_\_  
(4.) RESULTS \_\_\_\_\_

FOLLOWUP MONTHLY MONITORING FOR VALVES

(5.) RESULTS \_\_\_\_\_

(6.) RESULTS \_\_\_\_\_

**MONITORING SUMMARY**

	(REFERENCE NUMBER – SEE ABOVE)					
	(1)	(2)	(3)	(4)	(5)	(6)
INSTRUMENT #/OPERATOR	_____	_____	_____	_____	_____	_____
CALIBRATION	_____	_____	_____	_____	_____	_____
BACKGROUND READING	_____	_____	_____	_____	_____	_____
READING AT EQUIPMENT	_____	_____	_____	_____	_____	_____
LEAK DETECTED?	_____	_____	_____	_____	_____	_____

ATTACH ANY DOCUMENTATION PREPARED BY THE CONSULTANT



**ATTACHMENT C – Example Subpart CC Daily Inspection Form Page 2 of 3**

**BOG 0220-005**

# Procedure for Compliance with RCRA Subparts BB and CC

## ATTACHMENT C – Example Subpart CC Daily Inspection Form Page 3 of 3

INSPECTION LOG SHEET FOR  
Daily Inspection of **CONTAINER STORAGE AREA**  
(A separate log must be completed for each storage area.)

DESCRIPTION OF AREA (e.g., metal shelter, northeast corner of warehouse, etc.) \_\_\_\_\_

PERMITTED STORAGE VOLUME \_\_\_\_\_

SPECTOR'S NAME/TITLE \_\_\_\_\_

INSPECTOR'S SIGNATURE:

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY

DATE (M/D/Y) \_\_\_\_\_

TIME \_\_\_\_\_

CONTAINERS	MON.	TUES.	WED.	THURS.	FRI.
Total Volume* of _____ "waste:					
Total Volume of _____ "waste:					
Total Volume of _____ "waste:					
Total Volume of _____ "waste:					
Total Volume of _____ :					
TOTAL VOLUME (IN GALLONS):					

A \*\* N      A   N      A   N      A   N      A   N

If 'N', circle appropriate problem: Total volume exceeds the amount for which the facility is permitted,  
other: \_\_\_\_\_

Condition of Containers:      A   N      A   N      A   N      A   N      A   N

If 'N', circle appropriate problem: missing or loose lids, missing, incorrect or incomplete labels, rust, leaks, distortion,  
other: \_\_\_\_\_

Stacking/Placement/Aisle Space:      A   N      A   N      A   N      A   N      A   N

If 'N', circle appropriate problem: different from Part B Floor Plan, containers not on pallets, unstable stacks, broken or damaged  
pallets, other: \_\_\_\_\_

**CONTAINMENT**

Leaking, Floor and Sump(s):      A   N      A   N      A   N      A   N      A   N

Any material which spills, leaks or otherwise accumulates in the secondary containment must be completely removed within 24 hours  
if being discovered.)

If 'N', circle appropriate problem: ponding/wet spots, deterioration (cracks, gaps, etc.), displacement, leaks, inadequate sealant,  
other: \_\_\_\_\_

Loading/Unloading Area:      A   N      A   N      A   N      A   N      A   N

If 'N', circle appropriate problem: cracks, deterioration, ponding/wet spots, other: \_\_\_\_\_

OBSERVATIONS, COMMENTS, DATE AND NATURE OF REPAIRS OF ANY ITEMS INDICATED AS "NOT ACCEPTABLE": \_\_\_\_\_

When calculating total volumes, assume the containers are full.  
\* Enter a short description of the waste (e.g., M.S., I.C., paint, etc.)  
\*\* A - Acceptable      N - Not Acceptable  
: AN ITEM IS NOT APPLICABLE. ENTER 'N/A' AFTER IT AND DRAW A LINE THROUGH THE 'ACCEPTABLE/NOT ACCEPTABLE' ROW:



**Appendix E**  
**Tank Assessments**

# **TANK INSPECTION REPORT**

**OUT OF SERVICE**

**SAFETY KLEEN**

**BOYNTON BEACH, FLORIDA PLANT**

**WASTE PARTS WASHER SOLVENT  
STORAGE TANK**

**INSPECTION COMPLETED**

**NOVEMBER 6, 2001**

***INDUSTRIAL ENGINEERING SERVICES, LLC***

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INDUSTRIAL ENGINEERING SERVICES, LLC  
RT. 3 BOX 1066  
MADISON, FL. 32340  
850-929-2565

November 7, 2001

SAFETY KLEEN  
5610 Alpha Drive  
Boynton Beach, Florida 33426

Attn. Mr. Scott Schnieder - EHS Manager

Re: 15,000 Gallon Waste Parts Washer Solvent Storage Tank

To whom it may concern,

Dan Coleman of *Industrial Engineering Services LLC*. performed an Out-of-Service inspection on the above referenced horizontal storage tank on November 6, 2001. The purpose of the inspection was to determine the overall structural condition of the tank. The tank exterior was visually and ultrasonically inspected. The tank interior was visually inspected by a member of the American Compliance Technologies, Inc. (ACT) tank cleaning crew after they cleaned the tank. This report contains our inspection findings, recommendations, photographs and a tank drawing.

General

The tank is in overall excellent structural condition. See drawing for details.

Ultrasonic thickness readings were taken on each shell plate and both heads. All the thickness readings were consistent @ 0.250" indicating the tank retains its original 1/4" plate thickness. Visual inspection of the tank interior did not reveal any adverse interior corrosion.

The 2" pipe downcomer for the fill line was broken loose where it was welded to a reducer screwed into the 4" roof nozzle. The downcomer was removed from the tank.

The tank exterior coating is in good condition although there is some minor failure on the underside of the tank.



INDUSTRIAL ENGINEERING SERVICES, LLC  
RT. 3 BOX 1066  
MADISON, FL. 32340  
850-929-2565

Recommendations

1. Touch up paint the underside of the tank exterior.
2. Re- install the 2" downcomer to the roof fill nozzle.

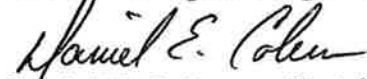
Conclusion

The tank is in overall good structural condition and meets UL-142 design standard.

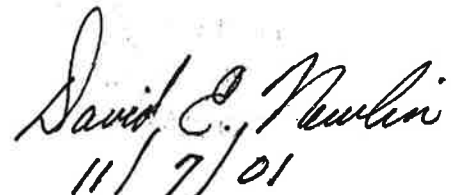
Thank you for allowing us to perform this inspection.

Sincerely,

*Industrial Engineering Services, LLC*



Daniel E. Coleman EI, API Inspector Certification #867



11/7/01

## GENERAL TANK DATA

### SAFETY KLEEN CORP. WASTE PARTS WASHER SOLVENT STORAGE TANK BOYNTON BEACH, FL. PLANT

OWNER: Safety Kleen Corp.  
TANK : Waste Parts Washer Solvent Storage Tank  
BUILT BY: Economy Tank Compay - 1991  
SERVICE: Waste Mineral Spirits Storage  
INSP. DATE: Out of Service Inspection November 2001

TANK LENGTH (FT)	L = 18'
TANK DIAMETER (FT)	D = 12'
CAPACITY	15,200 Gallon

DESIGN ~ <i>UL-142</i>	
Temperature	Ambient
Pressure	Atmospheric

#### FOUNDATION TYPE

Supported by 3 steel saddles on a concrete slab containment

#### SHELL U-T DATA

Original Thickness (in)	1/4"
U-T Thickness (in)	0.250"

No shell loss found. Tank is in excellent condition.

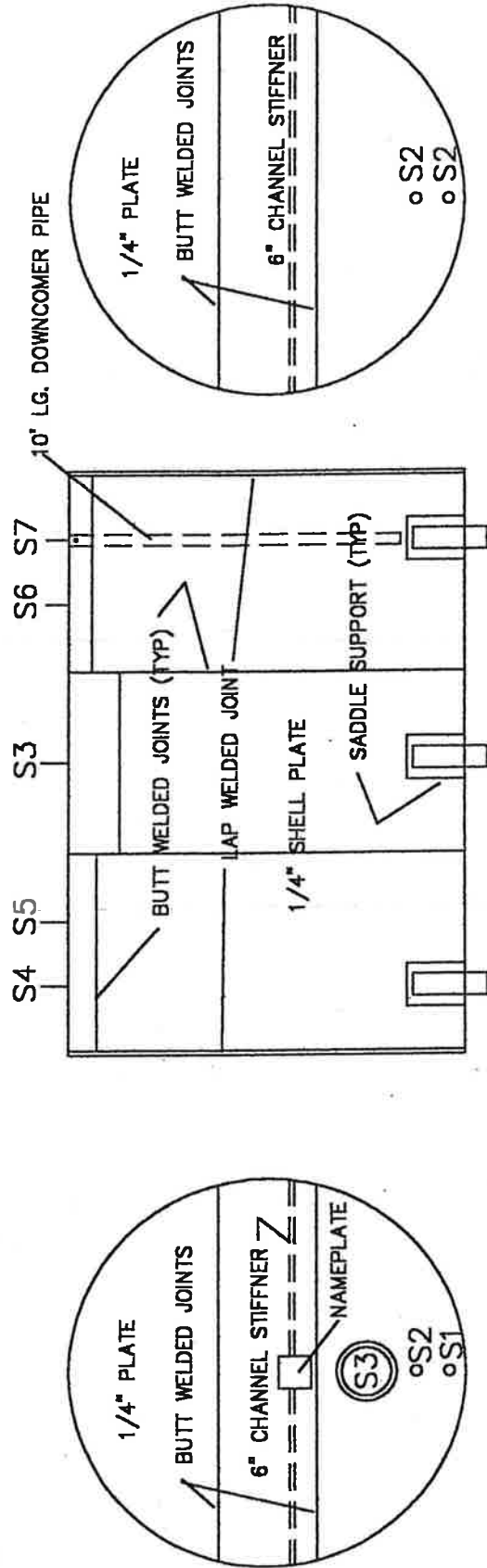
SAFETY KLEEN - BOYNTON BEACH, FL. PLANT  
15,200 GALLON HORIZONTAL STORAGE TANK

BUILT BY: ECONOMY TANK CO. 1991 - UL 142 STANDARD  
WASTE PARTS WASHER SOLVENT STORAGE

INSPECTION DATE: 11-6-01

## TANK NOZZLES

S1 - 4" COUPLING - OUTLET  
S2 - 4" COUPLING - SPARE- PLUGGED  
S3 - 18" MANWAY  
S4 - 4" COUPLING - LEVEL GAGE  
S5 - 4" COUPLING - P/V VENT  
S6 - 4" COUPLING - HIGH LEVEL ALARM  
S7 - 4" COUPLING - FILL  
S8 - 4" COUPLING - LEVEL GAGE



FLAT FLANGED HEAD

FLAT FLANGED HEAD

## NOTES

1. TANK IS IN EXCELLENT CONDITION.
2. U-T READINGS CONSISTENT @ 0.250"
3. P/V VENT - MORRISON 3" FIG. 545-202
4. 2" DOWNCOMER PIPE IS BROKEN OFF
5. NO SIGNIFICANT INTERNAL CORROSION
6. ROOF MANWAY HAS 6" LONG BOLTS FOR EMERGENCY VENTING

INDUSTRIAL ENGINEERING SERVICES, LLC  
RT. 3 BOX 1066  
MADISON, FL. 32340  
850-929-2565

**Appendix F**  
**EPA Region 4 RFA**



June 11, 2001

Sent via UPS Next Day Air  
Tracking # 1Z3X33990110021094

Ms. Jan Martin  
US EPA Region 4  
RCRA Program Branch  
Atlanta Federal Center  
61 Forsyth Street  
Atlanta, GA 30303-8960

Re: HSWA Permit Renewal Letter Application  
Safety-Kleen Systems, Inc. Boynton Beach, FL Facility  
EPA ID # FLD 984 167 791

Dear Ms. Martin:

In accordance with the instructions presented in a May 29, 2001 letter (from Mr. Narindar M. Kumar – US EPA Region 4 to Mr. Scott A. Schneider – SK), this correspondence serves as Safety-Kleen's "letter application" for the renewal of the Safety-Kleen Boynton Beach HSWA Permit.

Safety-Kleen acknowledges and agrees that all HSWA corrective action conditions of the existing permit will continue beyond the permit expiration date if a new HSWA portion of the RCRA Permit is not issued on or before the expiration date.

The following is a list of all solid waste management units (SWMU's) identified at the facility in the existing HSWA Permit. Included with the list is the corrective action status and the Agency approved supporting documentation (for corrective action status) for each SWMU.

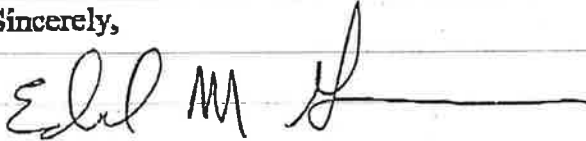
<u>SMWU #</u>	<u>Description</u>	<u>Status</u>	<u>Approved Documentation</u>
1	Container Storage Area	NFA	Existing Facility HSWA Permit
2	Tank Storage Area	NFA	Existing Facility HSWA Permit
3	Debris Field from Construction	NFA	Existing Facility HSWA Permit
4	Storm Water Retention Pond	NFA	Existing Facility HSWA Permit

In addition to the units listed above, there is a potential SWMU at the Safety-Kleen Boynton Beach facility that is not noted in the existing HSWA Permit. A municipal trash dumpster is located on pavement in the southeast corner of the facility property. The dumpster was likely not present at the Safety-Kleen Boynton Beach facility when the HSWA Permit was issued (October 29, 1991). It is believed that the municipal trash dumpster was introduced at the time that the facility began operation in mid-1992.

Ms. Jan Martin  
June 11, 2001  
Page 2 of 2

If you have any questions or need additional information, please contact Scott Schneider at 561-736-2267.

Sincerely,

A handwritten signature in dark ink, appearing to read 'Ed M. Genovese', followed by a long horizontal line.

Edward M. Genovese  
Tampa District Sales Manager  
Owner/Operator Representative

cc: Mr. Satish Kastury, FDEP -- Tallahassee  
Mr. James Ayers, FDEP -- Southeast District  
Mr. Marc Mason, Safety-Kleen  
Mr. Scott Schneider, Safety-Kleen  
Mr. Jim Childress, Safety-Kleen  
Boynton Beach 999 File 1040

## APPENDIX A-2

List of Solid Waste Management Units that require no further action at this time:

<u>SWMU No.</u>	<u>Description</u>
1	Container Storage Area
2	Tank Storage Area
3	Debris Field from Construction
4	Storm Water Retention Pond

APPENDIX A-3

There are no Solid Waste Management Units that require confirmatory sampling at this time.