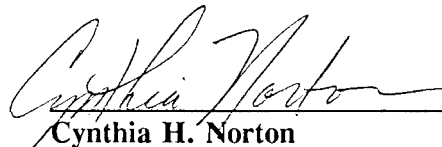


Hazardous Waste Facility Operating Permit Application

*Safety-Kleen Corp. 3-079-02
4426 Entrepot Boulevard
Airport Industrial Park
Tallahassee, Florida
FLD 982133159*

September 15, 1994



Cynthia H. Norton
Project Manager

Prepared for:

Safety-Kleen Corp.
1000 North Randall Road
Elgin, Illinois 60123-7857

ERM-South, Inc.
9501 Princess Palm Avenue, Suite 100
Tampa, Florida 33619
(813) 622-8727

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Part I

General Facility Information

APPLICATION FOR A HAZARDOUS WASTE FACILITY PERMIT
PART I - GENERAL
TO BE COMPLETED BY ALL APPLICANTS

Please Type or Print

A. General Information

1. Type of facility:

Disposal	[]		
landfill	[]	landfill treatment	[]
surface impoundment	[]	miscellaneous units	[]
Storage	[X]		
containers	[X]	tanks	[X]
piles	[]	surface impoundment	[]
miscellaneous units	[]		
Treatment	[]		
tanks	[]	piles	[]
incineration	[]	surface impoundment	[]
miscellaneous units	[]		

2. Type of application: [] TOP [] construction [X] operation [] closure [] RD&D

3. Application submittal: [X] new [] revised [X] renewal

4. Date current operation began (or is expected to begin): January 1, 1990

5. Facility name: Safety-Kleen Corporation (3-079-02)

6. EPA/DER I.D. No.: FLD982133159

7. Facility location or street address: 4426 Entrepot Blvd., Tallahassee, FL 32310

8. Facility mailing address: P.O. Box 20008 Tallahassee Florida 32316-0008
Street or P.O. Box City State Zip

9. Contact person: Della Ridley Telephone: (404) 434-1572

Title: Southeast Region Environmental Manager

Mailing Address: Two Paces West, Suite 1660, 2727 Paces Ferry Road Atlanta GA 30339
Street or P.O. Box City State Zip

10. Operator's name: Safety-Kleen Corp. Telephone: (708) 697-8460

11. Operator's address: 1000 North Randall Road Elgin Illinois 60123
Street or P.O. Box City State Zip

12. Facility owner's name: Safety-Kleen Corp. Telephone: (708) 697-8460

13. Facility owner's address: 1000 North Randall Road Elgin Illinois 60123
Street or P.O. Box City State Zip

14. Legal structure: Corporation Non-profit Corporation Partnership
 Individual Local Government State Government
 Federal Government Other

15. If an individual, partnership, or business is operating under an assumed name, specify the county and state where the name is registered.

County: _____ State: _____

16. If the legal structure is a corporation, indicate the state of incorporation.

State of incorporation: Wisconsin

17. If the legal structure is an individual or partnership, list the owners.

Name: _____

Address: _____
Street or P.O. Box City State Zip

Name: _____

Address: _____
Street or P.O. Box City State Zip

Name: _____

Address: _____
Street or P.O. Box City State Zip

18. 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: N/A

Land owner's address: _____
Street or P.O. Box City State Zip

19. Name of engineer: Robert W. Fox Registration No.: 40980

Address: 9501 Princess Palm Ave., Suite 100 Tampa Florida 33619
Street or P.O. Box City State Zip

Associated with: ERM-South, Inc.

20. Facility located on Indian land: [] yes [X] no

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

Name of Permit	Agency	Permit Number	Date Issued	Expiration
Part A	U.S. EPA	FLD000776773		
Hazardous Waste Storage	U.S. EPA and FDEP	H037-171747	04/19/90	02/01/95

B. Site Information

1. Facility Location County: Leon Nearest Community: Tallahassee

Latitude: 30° 23' 58" North Longitude: 84° 19' 36" West

2. Area of facility site (acres): 2.3 1

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.

See attachment I.B.3.

4. Attach topographic map which shows all the features indicated in the instruction sheet for this part.

See attachment I.B.4.

5. Is the site located in a 100-year flood plain? [] yes [X] no

C. Land Use Information

- 1. Present zoning of the site M-2
- 2. If a zoning change is needed, what should the new zoning be? N/A
- 3. Present land use of site General industry

D. Operating Information

- 1. Is waste generated onsite? yes no

List the SIC codes (4-digit)

 7389 5172 5084 5013 _____

- 2. Attach a brief description of the facility operation, nature of the business, and activities that generate, treat, store, or dispose of hazardous waste.

See attachment I.D.2

- 3. Using the following table and codes provided, specify, (1) each process used for treating, storing, or disposing of hazardous waste (including design capabilities) at the facility, and (2) the hazardous waste (or wastes) listed or designated in 40 CFR Part 261, including the annual quantities to be treated, stored, or disposed of by each process at the facility. (See the instructions for the list of process codes and units).

See attachment I.D.3.

Process Code	Process Design Capacity and Units of Measure	Hazardous Waste Code	Annual Quantity of Hazardous Waste and Units of Measure

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

Facility Name: Tallahassee Florida Operation Application EPA ID# FLD 982133159

1. 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 and regulations of the Department of Environmental Regulation. It is understood that the permit is only transferrable in accordance with Section 17-730, FAC, and, if granted a permit, the Department of Environmental Regulation will be notified prior to the sale or legal transfer of the permitted facility.

Scott E. Fore

Signature of the Operator or Authorized Representative*

Scott E. Fore, Senior Vice President-Environment, Health & Safety
Name and Title (Please type or print)

Date: 9/14/94 Telephone: (708) 468-2480

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 close 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 and regulations of the Department of Environmental Regulation.

Scott E. Fore

Signature of the Facility Owner or Authorized Representative*

Scott E. Fore, Senior Vice President-Environment, Health & Safety
Name and Title (Please type or print)

Date: 9/14/94 Telephone: (708) 468-2480

*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 to construct, operate, or close a hazardous waste management facility on the property as described. For hazardous waste disposal facilities, 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 17-730, FAC.

Scott E. Fore, Senior Vice President-Environment, Health & Safety
Signature of the Land Owner or Authorized Representative*

Scott E. Fore
Name and Title (Please type or print)

Date: 9/14/94 Telephone: (708) 468-2480

*Attach a letter of authorization

4. Professional Engineer Registered in Florida [Complete when required by Chapter 471, F.S. or not exempted by Rule 17-730.220(5), F.A.C.]

This is to certify that the engineering features of this hazardous waste management facility have been designed/examined by me and found to conform to engineering principles applicable to such facilities. In my professional judgment, 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 Regulation.

Robert W. Fox
Signature

Robert W. Fox, P.E.
Name (please type)

Florida Registration Number: 40980

Mailing Address: 9501 Princess Palm Avenue, Suite 100
Street or P.O. Box

Tampa Florida 33619
City State Zip

Date: 9/15/94 Telephone: (813) 622-8727

[PLEASE AFFIX SEAL]




94-382

Attachment I.A.21

Permit Information

SEP 16 1994

Please print or type with ELITE type (12 characters per inch) in the unshaded areas only

For EPA Regional Use Only	 United States Environmental Protection Agency Washington, DC 20460 <h1 style="margin: 0;">Hazardous Waste Permit Application</h1> <h2 style="margin: 0;">Part A</h2> <p><i>(Read the Instructions before starting)</i></p>	For State Use Only
Date Received: _____ Month _____ Day _____ Year _____		

RECEIVED

I. ID Number(s)

A. EPA ID Number	B. Secondary ID Number, (if applicable)
F L D 9 8 2 1 3 3 1 5 9	

II. Name of Facility

S A F E T Y - K L E E N C O R P .

III. Facility Location (Physical address not P.O. Box or Route Number)

A. Street

4 4 2 6 E N T R E P O T B L V D .

Street (continued)

A I R P O R T I N D U S T R I A L P A R K

City or Town	State	ZIP Code
L L A H A S S E E	FL	3 2 3 1 0 -

County Code (if known)	County Name
	L E O N

B. Land Type **C. Geographic Location** **D. Facility Existence Date**

(enter code)	LATITUDE (degrees, minutes, seconds)	LONGITUDE (degrees, minutes, seconds)	Month	Day	Year
P	3 0 2 5 5 8 N	0 8 4 1 9 3 6 W	0 1	0 1	1 9 9 0

IV. Facility Mailing Address

Street or P.O. Box

1 0 0 0 N O R T H R A N D A L L R O A D

City or Town	State	ZIP Code
E L G I N	IL	6 0 1 2 3 - 7 8 5 7

V. Facility Contact (Person to be contacted regarding waste activities at facility)

Name (last)	(first)
S A N A G U S T I N	V I C T O R

Job Title	Phone Number (area code and number)
R E G I O N E N V . M G R .	8 1 3 - 6 8 2 - 8 0 9 4

VI. Facility Contact Address (See Instructions)

A. Contact Address Location Mailing **B. Street or P.O. Box**

X	1 0 0 0 N O R T H R A N D A L L R O A D
---	---

City or Town	State	ZIP Code
E L G I N	IL	6 0 1 2 3 - 7 8 5 7

EPA ID Number (enter from page 1): **F L D 9 8 2 1 3 3 1 5 9** Secondary ID Number (enter from page 1):

VII. Operator Information (see instructions)

Name of Operator:

S A F E T Y - K L E E N C O R P .

Street or P.O. Box:

1 0 0 0 N O R T H R A N D A L L R O A D

City or Town:

E L G I N State: **I L** ZIP Code: **6 0 1 2 3 - 7 8 5 7**

Phone Number (area code and number):

7 0 8 - 6 9 7 - 8 4 6 0 B. Operator Type: **P** C. Change of Operator Indicator: **No** **Yes** Date Changed: Month: Day: Year:

VIII. Facility Owner (see instructions)

A. Name of Facility's Legal Owner:

S A F E T Y - K L E E N C O R P .

Street or P.O. Box:

1 0 0 0 N O R T H R A N D A L L R O A D

City or Town:

E L G I N State: **I L** ZIP Code: **6 0 1 2 3 - 7 8 5 7**

Phone Number (area code and number):

7 0 8 - 6 9 7 - 8 4 6 0 B. Owner Type: **P** C. Change of Owner Indicator: **No** **Yes** Date Changed: Month: Day: Year:

X. SIC Codes (A digit in order of significance)

Primary: Secondary:

7 3 8 9 (de description) **BUSINESS SERVICES, N.E.C.** **5 1 7 2** (de description) **PETROLEUM PRODUCT WHOLESAL**

Secondary: Secondary:

5 0 8 4 (de description) **INDUSTRIAL MACHINERY & EQUIPMENT** **5 0 1 3** (de description) **AUTOMOTIVE PARTS & SUPPLIES**

XI. Other Environmental Permits (see instructions)

A. Permit type (enter code):

B. Permit Number:

C. Description:

R **H 0 3 7 - 1 7 1 7 4 7**

EPA ID Number (enter from page 1) Secondary ID Number (enter from page 1)

F L D 9 8 2 1 3 3 1 5 0

Nature of Business (provide a brief description)

THIS FACILITY INCLUDES A LOCAL SALES/SERVICE OFFICE AND ACCUMULATION/DISTRIBUTION WAREHOUSE AND TANKS FOR SPENT SOLVENTS AND ANTIFREEZE (WHICH ARE RECLAIMED BY SAFETY-KLEEN AT A DIFFERENT LOCATION) AND PRODUCTS (WHICH INCLUDE SMALL PARTS CLEANING EQUIPMENT, SOLVENTS, ANTIFREEZE, HAND CLEANER, FLOOR SOAP AND OTHER ALLIED PRODUCTS). SAFETY-KLEEN COLLECTS THE SPENT SOLVENT AND ANTIFREEZE FROM ITS CUSTOMERS ON A PERIODIC BASIS AND ACCUMULATES IT, EITHER IN A STORAGE TANK OR IN A CONTAINER STORAGE AREA. THE MAJORITY OF SAFETY-KLEEN'S CUSTOMERS ARE CONDITIONALLY EXEMPT SMALL QUANTITY GENERATORS. ONCE A SUFFICIENT QUANTITY OF SPENT MATERIAL IS COLLECTED A TANKER TRUCK OR BOX TRAILER TRUCK IS DISPATCHED FROM A SAFETY-KLEEN RECLAMATION FACILITY TO COLLECT THE WASTE AND BRING IT TO THE RECLAMATION FACILITY FOR ITS MANAGEMENT.

III. Process Codes and Design Capacities

- A. **PROCESS CODE** - Enter the code from the list of process codes below that best describes each process to be used at the facility. Twelve lines are provided for entering codes. If more lines are needed, attach a separate sheet of paper with the additional information. If a process will be used that is not included in the list of codes below, then describe the process (including its design capacity) in the space provided in item VIII.
- B. **PROCESS DESIGN CAPACITY** - For each code entered in column A, enter the capacity of the process.
- C. **AMOUNT** - Enter the amount. In a case where design capacity is not applicable (such as in a closure/post-closure or enforcement action) enter the total amount of waste for that process unit.
- D. **UNIT OF MEASURE** - For each amount entered in column B(1), enter the code from the list of unit measure codes below that describes the unit of measure used. Only the units of measure that are listed below should be used.
- E. **PROCESS TOTAL NUMBER OF UNITS** - Enter the total number of units used with the corresponding process code.

PROCESS CODE	PROCESS	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY	UNIT OF MEASURE	UNIT OF MEASURE CODE
DISPOSAL:				
D79	INJECTION WELL	GALLONS; LITERS; GALLONS PER DAY; OR LITERS PER DAY	GALLONS	G
D80	LANDFILL	ACRE-FEET OR HECTARE-METER	GALLONS PER HOUR	E
D81	LAND APPLICATION	ACRES OR HECTARES	GALLONS PER DAY	U
D92	OCEAN DISPOSAL	GALLONS PER DAY OR LITERS PER DAY	LITERS	L
D83	SURFACE IMPOUNDMENT	GALLONS OR LITERS	LITERS PER HOUR	H
STORAGE:				
S01	CONTAINER (barrel, drum, etc.)	GALLONS OR LITERS	LITERS PER DAY	V
S02	TANK	GALLONS OR LITERS	SHORT TONS PER HOUR	D
S03	WASTE PILE	CUBIC YARDS OR CUBIC METERS	METRIC TONS PER HOUR	W
S04	SURFACE IMPOUNDMENT	GALLONS OR LITERS	SHORT TONS PER DAY	N
TREATMENT:				
T01	TANK	GALLONS PER DAY OR LITERS PER DAY	METRIC TONS PER DAY	S
T02	SURFACE IMPOUNDMENT	GALLONS PER DAY OR LITERS PER DAY	POUNDS PER HOUR	J
T03	INCINERATOR	SHORT TONS PER HOUR; METRIC TONS PER HOUR; GALLONS PER HOUR; LITERS PER HOUR; OR BTU'S PER HOUR	KILOGRAMS PER HOUR	R
			CUBIC YARDS	Y
T04	OTHER TREATMENT	GALLONS PER DAY; LITERS PER DAY; POUNDS PER HOUR; SHORT TONS PER HOUR; KILOGRAMS PER HOUR; METRIC TONS PER DAY; METRIC TONS PER HOUR; OR SHORT TONS PER DAY	CUBIC METERS	C
			ACRES	B
			ACRE-FEET	A
			HECTARES	Q
			HECTARE-METER	F
			BTU'S PER HOUR	K

Use for physical, chemical, thermal, or biological treatment processes not occurring in tanks, surface impoundment or incinerators. Describe the processes in the space provided in item VIII.

EPA ID Number (enter from page 1) Secondary ID Number (enter from page 1)

F I D O S 1 2 3 4 5 6

IV. Description of Hazardous Wastes

A. EPA HAZARDOUS WASTE NUMBER - Enter the four-digit number from 40 CFR, Part 261 Subpart D of each listed hazardous waste you will handle. For hazardous wastes which are not listed in 40 CFR, Part 261 Subpart D, enter the four-digit number(s) from 40 CFR, Part 261 Subpart C that describes the characteristics and/or the toxic contaminants of those hazardous wastes.

B. ESTIMATED ANNUAL QUANTITY - For each listed waste entered in column A, estimate the quantity of that waste that will be handled on an annual basis. For each characteristic or toxic contaminant entered in column A, estimate the total annual quantity of all the non-listed waste(s) that will be handled which possess that characteristic or contaminant.

C. UNIT OF MEASURE - For each quantity entered in column B enter the unit of measure code. Units of measure which must be used and the appropriate codes are:

ENGLISH UNIT OF MEASURE	CODE	METRIC UNIT OF MEASURE	CODE
POUNDS	P	KILOGRAMS	K
TONS	T	METRIC TONS	M

If facility records use any other unit of measure for quantity, the units of measure must be converted into one of the required units of measure taking into account the appropriate density or specific gravity of the waste.

D. PROCESSES

1. PROCESS CODES

For listed hazardous waste, for each listed hazardous waste entered in column A, select the code(s) from the list of process codes contained in Item 11. On page 3, to indicate how the waste will be stored, treated, and/or disposed of at the facility, codes contained in Item 11, on page 3, to indicate how the waste will be stored, treated, and/or disposed of at the facility.

For non-listed hazardous waste, for each characteristic or toxic contaminant entered in column A, select the code(s) from the list of process codes contained in Item 11. On page 3, to indicate all the processes that will be used to store, treat, and/or dispose of all the non-listed hazardous waste, select processes that characteristic or toxic contaminant.

NOTE - THREE SPACES ARE PROVIDED FOR ENTERING PROCESS CODES. IF MORE ARE NEEDED,

- Enter the first two as described above.
- Enter "000" in the extreme right box of Item 11(D).
- Enter in the space provided on page 3, Item 11-E the line number and the additional code(s).
- Repeat step 2 for each EPA Hazardous Waste Number that can be used to describe the hazardous waste.

NOTE: HAZARDOUS WASTES DESCRIBED BY MORE THAN ONE EPA HAZARDOUS WASTE NUMBER SHALL BE DESCRIBED ON THE FORM AS FOLLOWS:

- Select one of the EPA Hazardous Waste Numbers and enter in column A. On the same line complete columns B, C, and D by estimating the total annual quantity of the waste, and put the quantity of the waste and/or disposal of the waste.
- In column A of the next line enter the other EPA Hazardous Waste Number that can be used to describe the waste in column D (2) on that line enter included with above and make no other entries on that line.
- Repeat step 2 for each EPA Hazardous Waste Number that can be used to describe the hazardous waste.

EXAMPLE FOR COMPLETING ITEM 11 (shown in line numbers 1-12, C, and X - below) - A facility will treat and dispose of an estimated 500 pounds per year of chrome shavings from leather tanning and rinsing operation. In addition, the facility will treat and dispose of three non-listed wastes. Two wastes are corrosive only and there will be an estimated 200 pounds per year of each waste. The other waste is corrosive and ignitable and there will be an estimated 100 pounds per year of that waste. Treatment will be in an incinerator and disposal will be in a landfill.

Line Number	EPA Hazardous Waste No. (enter code)	Estimated Annual Quantity of Waste (enter code)	Unit of Measure (enter code)	(1) Process Codes (enter)	(2) Process Description (If a code is not entered in D (1))
X	1	500	P	1	
X	2	200	P	1	
X	3	100	P	1	
X	4	200	P	1	
X	5	100	P	1	

EPA ID Number (enter from page 1) Secondary ID Number (enter from page 1)

F I D 9 8 2 1 3 3 1 5 9

XIV Description of Hazardous Wastes (continued)

Line Number	A-EPA HAZARDOUS WASTE NO. (enter code)				B-ESTIMATED ANNUAL QUANTITY OF WASTE	C-CONTROL MEASURE (enter code)	D-PROCESSES										
							(1) PROCESS CODES (enter)					(2) PROCESS DESCRIPTION (if codes not entered in (1))					
	D	0	0	1	575	T	S	0	1	S	0	2					
	D	0	0	4	5000	T	S	0	1	S	0	2	INCLUDED WITH ABOVE				
	D	0	0	5									INCLUDED WITH ABOVE				
	D	0	0	6									INCLUDED WITH ABOVE				
	D	0	0	7									INCLUDED WITH ABOVE				
	D	0	0	8									INCLUDED WITH ABOVE				
	D	0	0	9									INCLUDED WITH ABOVE				
	D	0	1	0									INCLUDED WITH ABOVE				
	D	0	1	1									INCLUDED WITH ABOVE				
	D	0	1	8									INCLUDED WITH ABOVE				
	D	0	1	9									INCLUDED WITH ABOVE				
	D	0	2	1									INCLUDED WITH ABOVE				
	D	0	2	2									INCLUDED WITH ABOVE				
	D	0	2	3									INCLUDED WITH ABOVE				
	D	0	2	4									INCLUDED WITH ABOVE				
	D	0	2	5									INCLUDED WITH ABOVE				
	D	0	2	6									INCLUDED WITH ABOVE				
	D	0	2	7									INCLUDED WITH ABOVE				
	D	0	2	8									INCLUDED WITH ABOVE				
	D	0	2	9									INCLUDED WITH ABOVE				
	D	0	3	0									INCLUDED WITH ABOVE				
	D	0	3	2									INCLUDED WITH ABOVE				
	D	0	3	3									INCLUDED WITH ABOVE				
	D	0	3	4									INCLUDED WITH ABOVE				
	D	0	3	5									INCLUDED WITH ABOVE				
	D	0	3	6									INCLUDED WITH ABOVE				
	D	0	3	7									INCLUDED WITH ABOVE				
	D	0	3	8									INCLUDED WITH ABOVE				
	D	0	3	9									INCLUDED WITH ABOVE				
	D	0	4	0									INCLUDED WITH ABOVE				
	D	0	4	1									INCLUDED WITH ABOVE				
	D	0	4	2									INCLUDED WITH ABOVE				
	D	0	4	3									INCLUDED WITH ABOVE				

EPA ID Number (enter from page 1): **F L D 9 8 2 1 3 3 1 5 9** Secondary ID Number (enter from page 1):

XIV Description of Hazardous Wastes (continued)

Line Number	A-EPA HAZARDOUS WASTE NG (enter code)	B-ESTIMATED ANNUAL QUANTITY OF WASTE	C-UNIT OF MEASURE (enter code)	D-PROCESSES																	
				(1) PROCESS CODES (enter)										(2) PROCESS DESCRIPTION (if a code is not entered in D(1))							
	F 0 0 2	50	T	S	0	1															
	F 0 0 3	50	T	S	0	1															
	F 0 0 5																				INCLUDED WITH ABOVE
	F 0 0 2	20	T	S	0	1															
	F 0 0 4																				INCLUDED WITH ABOVE
	F 0 0 1	150	T																		INCLUDED WITH ABOVE
	F 0 0 2																				INCLUDED WITH ABOVE
	F 0 0 3																				INCLUDED WITH ABOVE
	F 0 0 4																				INCLUDED WITH ABOVE
	F 0 0 5																				INCLUDED WITH ABOVE
	F 0 0 6																				INCLUDED WITH ABOVE
	F 0 1 9																				INCLUDED WITH ABOVE
	F 0 2 4																				INCLUDED WITH ABOVE
	F 0 3 9																				INCLUDED WITH ABOVE
	K 0 0 2																				INCLUDED WITH ABOVE
	K 0 0 3																				INCLUDED WITH ABOVE
	K 0 0 4																				INCLUDED WITH ABOVE
	K 0 0 5																				INCLUDED WITH ABOVE
	K 0 0 6																				INCLUDED WITH ABOVE
	K 0 0 9																				INCLUDED WITH ABOVE
	K 0 1 0																				INCLUDED WITH ABOVE
	K 0 1 1																				INCLUDED WITH ABOVE
	K 0 1 3																				INCLUDED WITH ABOVE
	K 0 1 4																				INCLUDED WITH ABOVE
	K 0 1 5																				INCLUDED WITH ABOVE
	K 0 1 6																				INCLUDED WITH ABOVE
	K 0 1 9																				INCLUDED WITH ABOVE
	K 0 2 2																				INCLUDED WITH ABOVE
	K 0 2 9																				INCLUDED WITH ABOVE
	K 0 3 0																				INCLUDED WITH ABOVE
	K 0 3 1																				INCLUDED WITH ABOVE
	K 0 4 8																				INCLUDED WITH ABOVE
	K 0 4 0																				INCLUDED WITH ABOVE

EPA ID Number (enter from page 1)										Secondary ID Number (enter from page 1)													
F	L	D	9	8	2	1	3	3	1	5	9												
XIV. Description of Hazardous Wastes (continued)																							
Line Number	A. EPA HAZARDOUS WASTE NO. (enter code)				B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (enter code)	D. PROCESSES																
	(1) PROCESS CODES (enter)										(2) PROCESS DESCRIPTION (if 2 codes not entered in D(1))												
1	K	0	5	0																		INCLUDED WITH ABOVE	
2	K	0	5	1																		INCLUDED WITH ABOVE	
3	K	0	5	2																		INCLUDED WITH ABOVE	
4	K	0	8	5																		INCLUDED WITH ABOVE	
5	K	0	8	5																		INCLUDED WITH ABOVE	
6	K	0	9	5																		INCLUDED WITH ABOVE	
7	K	0	9	6																		INCLUDED WITH ABOVE	
8	U	0	0	1																		INCLUDED WITH ABOVE	
9	U	0	0	2																		INCLUDED WITH ABOVE	
10	U	0	0	3																		INCLUDED WITH ABOVE	
11	U	0	0	9																		INCLUDED WITH ABOVE	
12	U	0	1	9																		INCLUDED WITH ABOVE	
13	U	0	3	1																		INCLUDED WITH ABOVE	
14	U	0	3	7																		INCLUDED WITH ABOVE	
15	U	0	3	3																		INCLUDED WITH ABOVE	
16	U	0	4	4																		INCLUDED WITH ABOVE	
17	U	0	5	1																		INCLUDED WITH ABOVE	
18	U	0	5	2																		INCLUDED WITH ABOVE	
19	U	0	5	5																		INCLUDED WITH ABOVE	
20	U	0	5	6																		INCLUDED WITH ABOVE	
21	U	0	5	7																		INCLUDED WITH ABOVE	
22	U	0	6	8																		INCLUDED WITH ABOVE	
23	U	0	6	9																		INCLUDED WITH ABOVE	
24	U	0	7	0																		INCLUDED WITH ABOVE	
25	U	0	7	1																		INCLUDED WITH ABOVE	
26	U	0	7	2																		INCLUDED WITH ABOVE	
27	U	0	7	5																		INCLUDED WITH ABOVE	
28	U	0	7	7																		INCLUDED WITH ABOVE	
29	U	0	7	8																		INCLUDED WITH ABOVE	
30	U	0	7	9																		INCLUDED WITH ABOVE	
31	U	0	8	0																		INCLUDED WITH ABOVE	
32	U	0	8	3																		INCLUDED WITH ABOVE	
33	U	0	8	1																		INCLUDED WITH ABOVE	

EPA ID Number (enter from page 1)										Secondary ID Number (enter from page 1)													
F	L	D	9	8	2	1	3	3	1	5	9												

XIV. Description of Hazardous Wastes (continued)

Line Number	A. EPA HAZARDOUS WASTE NO. (enter code)				B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (enter code)	D. PROCESSES																
	(1) PROCESS CODES (enter)	(2) PROCESS DESCRIPTION (if code is not entered in D(1))																					
	U	1	0	7																			INCLUDED WITH ABOVE
	U	1	0	8																			INCLUDED WITH ABOVE
	U	1	1	0																			INCLUDED WITH ABOVE
	U	1	1	2																			INCLUDED WITH ABOVE
	U	1	1	3																			INCLUDED WITH ABOVE
	U	1	1	7																			INCLUDED WITH ABOVE
	U	1	1	8																			INCLUDED WITH ABOVE
	U	1	2	1																			INCLUDED WITH ABOVE
	U	1	2	5																			INCLUDED WITH ABOVE
	U	1	4	0																			INCLUDED WITH ABOVE
	U	1	5	4																			INCLUDED WITH ABOVE
	U	1	5	9																			INCLUDED WITH ABOVE
	U	1	6	1																			INCLUDED WITH ABOVE
	U	1	6	2																			INCLUDED WITH ABOVE
	U	1	6	5																			INCLUDED WITH ABOVE
	U	1	6	9																			INCLUDED WITH ABOVE
	U	1	7	1																			INCLUDED WITH ABOVE
	U	1	8	8																			INCLUDED WITH ABOVE
	U	1	9	1																			INCLUDED WITH ABOVE
	U	1	9	6																			INCLUDED WITH ABOVE
	U	2	1	0																			INCLUDED WITH ABOVE
	U	2	1	1																			INCLUDED WITH ABOVE
	U	2	1	3																			INCLUDED WITH ABOVE
	U	2	2	0																			INCLUDED WITH ABOVE
	U	2	2	6																			INCLUDED WITH ABOVE
	U	2	2	7																			INCLUDED WITH ABOVE
	U	2	2	8																			INCLUDED WITH ABOVE
	U	2	3	9																			INCLUDED WITH ABOVE
	U	3	5	9																			INCLUDED WITH ABOVE

EPA I.D. Number (enter from page 1)													Secondary ID Number (enter from page 1)											
E	L	D	9	3	2	1	3	3	1	5	9													

XIV. Description of Hazardous Waste (continued)

E. USE THIS SPACE TO LIST ADDITIONAL PROCESS CODES FROM ITEM D(1) ON PAGE 6.

Line Number	Additional Process Codes (enter)												

XV. Map
 Attach to this application a topographic map of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers and other surface water bodies in this map area. See instructions for precise requirements.

XVI. Facility Drawing
 All existing facilities must include a scale drawing of the facility (see instructions for more detail).

XVII. Photographs
 All existing facilities must include photographs (aerial or ground-level) that clearly delineate all existing structures; existing storage, treatment and disposal areas; and sites of future storage, treatment or disposal areas (see instructions for more detail).

XVIII. Certification(s)
 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.

Owner Signature: SCOTT E. FORE Date Signed: 6/21/93

Name and Official Title (type or print):
 SCOTT E. FORE - SENIOR V.P., ENVIRONMENT, HEALTH & SAFETY

Operator Signature: SCOTT E. FORE Date Signed: 6/21/93

Name and Official Title (type or print):
 SCOTT E. FORE - SENIOR V.P., ENVIRONMENT, HEALTH & SAFETY

XIX. Comments
 THE "F", "K" AND "U" WASTE STREAMS ON LINES 1, 2, 4 AND 6 OF PAGE 2 OF 4 OF SECTION XIV ARE ALSO TOXIC CHARACTERISTICS. THE WASTE CODES LISTED ON LINES 2 THROUGH AND INCLUDING 33 ON PAGE 1 OF 4 OF SECTION XIV ALSO APPLY TO THESE WASTES.

Note: Mail completed form to the appropriate EPA Regional or State Office. (refer to instructions for more information)

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION
NOTICE OF PERMIT

CERTIFIED

In the matter of an
Application for Permit
By:

DER File No. 171747
Leon County

Safety Kleen Corporation /

Enclosed is Permit Number H037-171747 to operate a hazardous waste container and tank storage facility, issued pursuant to Section 403, Florida Statutes.

Any party to this Order (permit) has the right to seek judicial review of the permit pursuant to Section 120.68, Florida Statutes, by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date this Notice is filed with the Clerk of the Department.

Executed in Pensacola, Florida.

State of Florida Department
of Environmental Regulation



ROBERT V. KRIEGEL
Deputy Assistant Secretary

160 Governmental Center
Pensacola, Florida 32501-5794
(904) 436-8300

CERTIFICATE OF SERVICE

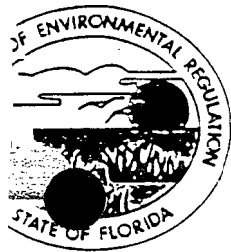
This is to certify that this NOTICE OF PERMIT and all copies were mailed before the close of business on April 19, 1990 to the listed persons.

Filing and Acknowledgement filed, on this date, pursuant to §120.52(9), Florida Statutes, with the designated Department clerk, receipt of which is hereby acknowledged.

Vickie Antonio April 19, 1990
Clerk Date

Copies furnished to:

Leon County Board of County Commissioner
James Scarborough, U.S. E.P.A. Region IV
Satish Kastury, FDER
Gary Early, FDER



Florida Department of Environmental Regulation

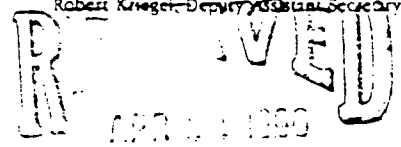
Northwest District • 160 Governmental Center • Pensacola, Florida 32501-5794 • 904-436-8300

Bob Martinez, Governor

Dale Twachtmann, Secretary

John Shearer, Assistant Secretary

Robert Krieger, Deputy Assistant Secretary



Permitting
SAFETY KLEEN CORP.

PERMITTEE:

Safety Kleen Corporation

I.D. Number: 1037P119016 (FLD982133159)

Permit/Certification Number: HO37-171747

Date of Issue: APR 19 1990

Expiration Date: February 1, 1995

County: Leon

Latitude/Longitude: 30°23'58"N/84°19'30"W

Section/Township/Range:

Project: Container & Tank Storage Facility

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rule 17-730. The above named applicant, hereinafter called Permittee, is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents attached hereto or on file with the Department and made a part hereof and specifically described as follows:

1. To operate a Hazardous Waste Container Storage Facility consisting of a container storage area with a maximum capacity of 6,912 gallons.

Container storage will be limited to the following:

<u>EPA Number</u>	<u>Waste Description</u>
F002, F004	Spent Immersion Cleaner
F002	Dry Cleaner Waste
F003, F005, D001	Paint Waste
D006, D007, D008	

2. To operate a Hazardous Waste Tank Storage Facility in accordance with the tank storage plan in Section I.E.3.b. of the application. The maximum amount of waste mineral spirits (D001, D006, D008) which may be stored in the tank is 15,000 gallons.

Operation of the facility will be in accordance with the application dated October 7, 1987 and the additional information received on November 6, 1989.

PERMITTEE:

Safety Kleen Corporation

I.D. Number: 1037P119016 (FLD982133159)

Permit/Certification Number: H037-171747

Date of Issue: APR 19 1990

Expiration Date: February 1, 1995

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "permit conditions" and are binding and enforceable pursuant to the authority of Sections 403.141, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is hereby placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Nor does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit does not constitute a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.
4. This permit conveys no title to land or water, does not constitute state recognition or acknowledgement of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the state. Only the Trustees of the Internal Improvement Trust Fund may express state opinion as to title.
5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.
6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed and used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

PERMITTEE:

Safety Kleen Corporation

I.D. Number: 1037P119016 (FLD982133159)

Permit/Certification Number: H037-171747

Date of Issue:

APR 19 1990

Expiration Date: February 1, 1995

GENERAL CONDITIONS:

7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law, access to the premises, at reasonable times, where the permitted activity is located or conducted for the purpose of:

- a. Having access to and copying any records that must be kept under the conditions of this permit;
- b. Inspecting the facility, equipment, practices, or operations regulated or required under this permit; and,
- c. Sampling or monitoring any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:

- a. A description of and cause of non-compliance; and
- b. The period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

PERMITTEE:

Safety Kleen Corporation

I.D. Number: 1037P119016 (FLD982133159)
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Date of Issue: APR 19 1990
Expiration Date: February 1, 1995

GENERAL CONDITIONS:

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 17-4.12 and 17-730.300, as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

12. This permit is required to be kept at the work site of the permitted activity during the entire period of construction or operation.

13. The permittee shall comply with the following:

- a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
- b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report or application unless otherwise specified by Department rule.
- c. Records of monitoring information shall include:
 - the date, exact place, and time of sampling or measurement;
 - the person responsible for performing the sampling or measurement;
 - the date(s) analyses were performed;
 - the person responsible for performing the analyses;
 - the analytical techniques or methods used; and
 - the results of such analyses.

PERMITTEE:

Safety Kleen Corporation

I.D. Number: 1037P119016 (FLD982133159)
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GENERAL CONDITIONS:

14. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

15. The following conditions also shall apply to a hazardous waste facility permit.

a. The following reports shall be submitted to the Department:

- (1) Manifest discrepancy report: If a significant discrepancy in a manifest is discovered, the permittee shall attempt to rectify the discrepancy. If not resolved within 15 days after the waste is received, the permittee shall immediately submit a letter report, including a copy of the manifest, to the Department.
- (2) Unmanifested waste report: Permittee shall submit an unmanifested waste report to the Department within 15 days of receipt of unmanifested waste.
- (3) Annual report: An annual report covering facility activities during the previous calendar year shall be submitted pursuant to Florida Administrative Code Rule 17-30.

b. Notification of any noncompliance which may endanger health or the environment, including the release of any hazardous waste that may endanger public drinking water supplies, or the occurrence of a fire or explosion from the facility which could threaten the environment or human health outside the facility, shall be reported verbally to the Department within 24 hours and a written report shall be provided within 5 days. The verbal report shall include the name, address, I.D. number and telephone number of the facility, its owner or operator, the name and quantity of materials involved, the extent of injuries, an assessment of actual or potential hazards, and the estimated quantity and disposition of recovered material. The written submission shall contain:

PERMITTEE:

Safety Kleen Corporation

I.D. Number: 1037P119016 (FLD982133159)
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GENERAL CONDITIONS:

- (1) A description and cause of noncompliance.
 - (2) If not corrected, the expected time of correction, and the steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.
- c. Reports of compliance or noncompliance with, or any progress reports on, requirements contained in any compliance schedule shall be submitted no later than 14 days after each schedule date.
- d. All reports or information required by the Department by a hazardous waste permittee shall be signed by a person authorized to sign a permit application.

SPECIFIC CONDITIONS:

16. The permittee shall, in order to satisfy the requirements of 40 CFR 264.12, notify the Department in writing four weeks prior to receipt of hazardous waste from a foreign source.
17. The permit allows the permittee to store only those wastes specified in Attachment I.D.2. of the application at the facility. Prior to acceptance of new hazardous wastes, the permittee shall submit to the Department, for approval, waste analysis of the proposed new waste stream. This analysis must also be incorporated in the general waste analysis plan and retained on-site. 40 CFR 264.13
18. The permittee shall, in order to satisfy 40 CFR 264.15, inspect the facility operating, emergency and safety equipment in accordance with the scheduled approved in Attachment I.E.4. of the application. Changes, additions or deletions to the schedule must be approved in writing by the Department. The schedule must be maintained as part of the operating record at the facility.
19. Facility personnel must successfully complete the approved training program specified in Attachment I.E.5. of the application within six (6) months of employment or assignment to a facility or a new position at the facility. Verification of this training must be kept with the personnel training records and maintained on-site. Personnel shall not work unsupervised until training has been completed. 40 CFR 264.16
20. The contingency plan must be amended and distributed to the appropriate agencies if:

PERMITTEE:

Safety Kleen Corporation

I.D. Number: 1037P119016 (FLD982133159)
Permit/Certification Number: H037-171747
Date of Issue: APR 19 1990

Expiration Date: February 1, 1995

SPECIFIC CONDITIONS:

- A. The facility permit is revised.
 - B. The plan fails in an emergency.
 - C. The facility changes in its design, construction, operation, maintenance or other circumstances in a way that increases the potential for fires, explosions or release of hazardous waste or hazardous waste constituents, or changes the response necessary in an emergency.
 - D. The list of emergency coordinators changes.
 - E. The list of emergency equipment changes. (40 CFR 264.54)
21. The permittee shall follow the emergency procedures specified in 40 CFR 264.56 and approved in Attachment I.E.2. of the application. The permittee shall give proper notification if an emergency situation arises and within 15 days must submit to the Department a written report which includes all information required in 40 CFR 264.56(j).
22. The permittee shall comply with the manifest requirements indicated in 40 CFR 264.71.
23. The permittee, to comply with the requirements of 40 CFR 264.73, shall keep a written operating record at the facility which includes:
- A. The description and quantity of each hazardous waste received.
 - B. The location of each hazardous waste within the facility and the quantity of waste at each location.
 - C. The results of the waste analysis.
 - D. The date on which wastes were transported off-site.
 - E. A summary report and details of incidents that require implementation of the contingency plan.
 - F. The required copies of manifests.
 - G. Copy of all reclamation agreements with 100-1000 kg/mo generators.
 - H. The results of inspections (for three years).
 - I. Closure plan and cost estimates.
 - J. Annual certification of waste minimization.

PERMITTEE:

Safety Kleen Corporation

I.D. Number: 1037P119016 (FLD982133159)
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SPECIFIC CONDITIONS:

These records must be maintained at the facility until completion and certification of closure. 40 CFR 264.73

24. The permittee shall apply for a closure permit at least 180 days prior to beginning closure at the facility. FAC Rule 17-30.260

25. Storage containers must conform to DOT specifications as shown in Exhibits I.E.3-1 through I.E.3-46 of the application, and be managed in accordance with the approved operational plan. Containers shall be kept closed except when adding or removing waste and be handled in a manner that will not allow the containers to rupture or leak. If a container holding hazardous waste is not in good condition, or begins to leak, the waste shall be transferred to another container in good condition. 40 CFR 264.171, 40 CFR 264.173

26. The permittee shall inspect the container storage area in accordance with the schedule and procedures approved in Attachment I.E.4. of the application. 40 CFR 264.174

27. Spilled or leaked waste and accumulated precipitation must be removed from the collection area, analyzed and disposed of in accordance with Attachment I.E.2. of the application. 40 CFR 264.175

28. Incompatible waste shall not be stored in containers or placed in unwashed containers that have previously held an incompatible waste. 40 CFR 264.177

29. The permittee must maintain aisle space to allow the unobstructed movement of personnel, fire protection equipment and spill control equipment in the container storage area. 40 CFR 264.35

30. The permittee shall, as part of the general operating requirements of 40 CFR 264.194:

A. Not place hazardous wastes in a tank system if the probability exists that this may cause the tank system to fail,

B. Use appropriate controls and practices to prevent spills and overflows, and

C. Comply with the requirements of 40 CFR 264.196 if a leak or spill occurs.

31. The permittee shall inspect the tank system as required by 40 CFR 264.195. These requirements include:

PERMITTEE:

Safety Kleen Corporation

I.D. Number: 1037P119016 (FLD982133159)

Permit/Certification Number: HO37-171747

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SPECIFIC CONDITIONS:

A. Developing and following a schedule and procedure for inspecting overfilling controls,

B. Inspecting at least once each operating day the above ground portions of the tank system, data from leak detection or monitoring equipment, the construction materials and area immediately surrounding the tank, and

C. The results of the inspections in A and B of this condition shall be maintained in the operating record of the facility.

32. The permittee shall satisfy the requirements of 40 CFR 264.196 when a tank system or secondary containment system produces a leak or spill, or is determined to be unfit for use. These requirements include, as they are made applicable by 40 CFR 264.196:

- A. Cessation of use; prevent flow or addition of waste.
- B. Removal of waste from tank system or secondary containment system.
- C. Containment of identifiable releases to the environment.
- D. Notifications, reports.
- E. Provision of secondary containment, repair or closure.
- F. Certification of major repairs.

33. The permittee shall comply with the protective distance requirements of the tank placement as set forth in Tables 2-1 through 2-6 of the National Fire Protection Association's "Flammable and Combustible Liquids Code" (1977 or 1981) as required by 40 CFR 264.198(b).

34. The permittee shall handle incompatible wastes in accordance with the requirements of 40 CFR 264.199 by not introducing hazardous waste into unwashed tank systems which previously held the incompatible waste or material.

35. The permittee shall be required to certify no later than March 1st annually that the permittee has a program in place to reduce the volume and toxicity of hazardous waste that he generates to the degree determined by the permittee to be economically practicable and the proposed method of treatment, storage or disposal is that practicable method currently available to the permittee which minimizes the present and future threat to human health and the environment. 40 CFR 264.73

36. Upon a written request by the permittee, the Department may make modifications to the permit. FAC Rule 17-730.290(1)

PERMITTEE:

Safety Kleen Corporation

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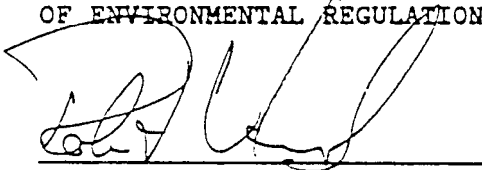
SPECIFIC CONDITIONS:

37. The Department may modify the conditions in this permit in accordance with the provisions of FAC Rule 17-730.290(1).
38. The permanent Department identification number (GMS No.) for this facility is 1037P119016. Please cite this number on all reports and correspondence concerning this facility. In addition, the EPA I.D. No. FLD982133159 should also be cited.
39. The permittee shall maintain compliance with 40 CFR Part 264 Subpart H, Financial Requirements.
40. Prior to 90 days before expiration of this permit, the permittee shall apply for permit renewal in accordance with the provisions of FAC Rule 17-730.300(1).
41. The Department telephone number for reporting problems, malfunctions or exceedances under this permit is (904) 436-8300, day or night, and for emergencies involving a significant threat to human health or the environment is (904) 488-1320. For routine business, telephone (904) 436-8320 during normal working hours.

Expiration date:
February 1, 1995

Issued this 19th day of April,
1990

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION


ROBERT V. KRIEGEL
Deputy Assistant Secretary

Attachment I.B.3

Facility Layout and Photographs

ATTACHMENT I.B.3

FACILITY LAYOUT AND PHOTOGRAPHS

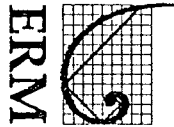
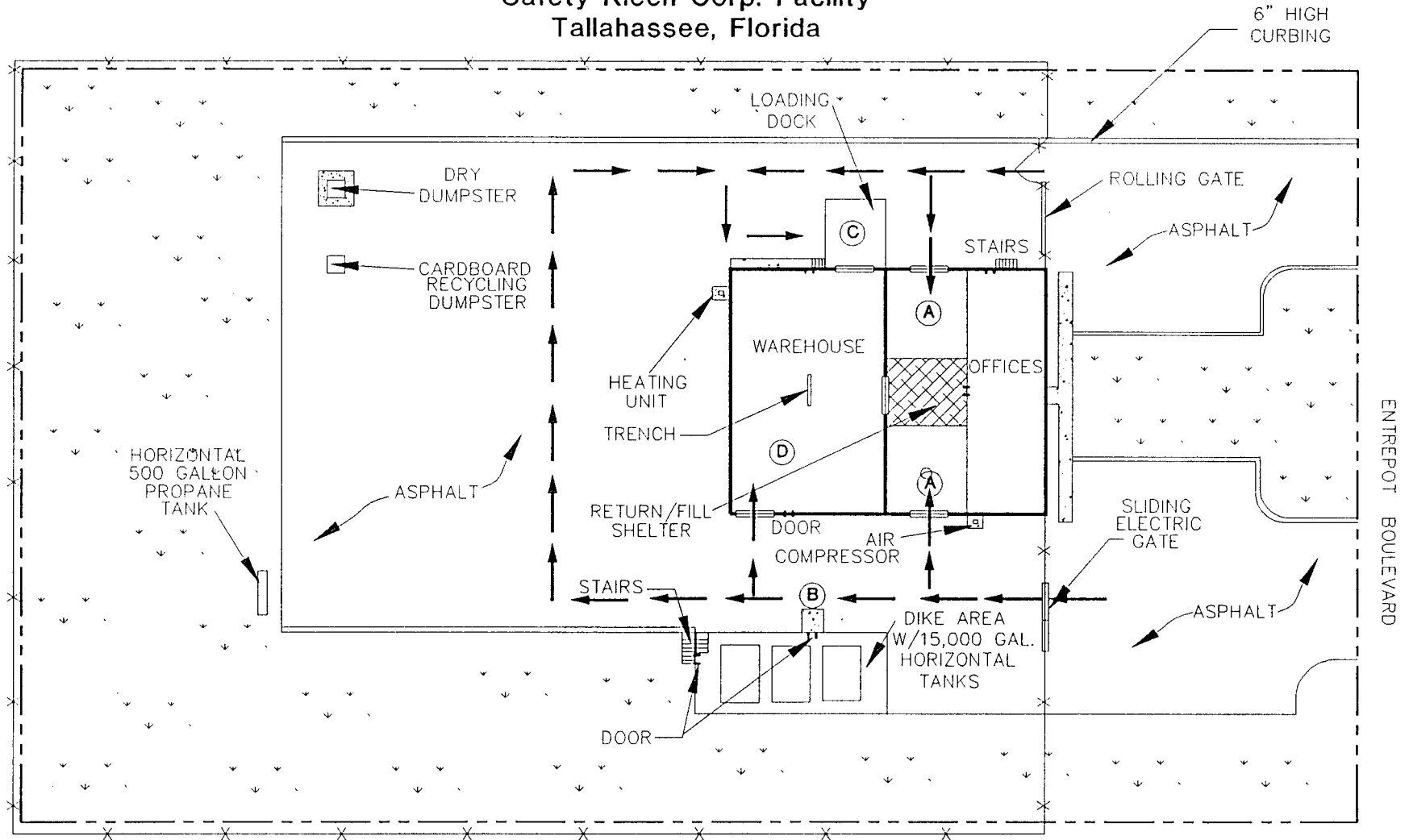
The service center (i.e., facility) layout and traffic patterns are illustrated in Figure I.B.3-1.

The non-building areas of the facility are covered with asphalt, concrete, gravel, or vegetation as noted on the site plan (Figure I.B.3-1). The majority of the vehicular traffic and loading/unloading operations occurs at and near the return and fill (Area A) which is paved with asphalt and concrete (Figure I.B.3-1). Approximately once per week a tractor trailer brings fresh containerized solvents and removes used, containerized solvents for transfer to a recycle facility. This truck backs up to the concrete dock, located on the north side of the facility in Area C, to load and unload containers. Areas A and D are used for the loading/unloading of transfer wastes, and containerized permitted wastes from local area vans and trucks.

Capital Circle 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 that travel the routes daily between the service center and Safety-Kleen customers use the two-lane road, Entrepot Boulevard. The trucks dispatched from the recycle center to deliver fresh parts washer solvent and pick up used parts washer solvent will perform these activities at the aboveground tank Area B approximately once per week. Traffic from this facility does not have a major effect on local traffic conditions.

Photographs which depict the hazardous waste management units, security features, and general layout of the facility are provided.

Figure I.B.3-1 Truck Traffic Patterns and Loading/Unloading Areas of Hazardous Waste Safety-Kleen Corp. Facility Tallahassee, Florida



LEGEND

- FENCE
- PROPERTY BOUNDARY
- CONCRETE
- GRATING
- VEGETATION
- ROLL UP DOOR
- TRUCK TRAFFIC PATTERN

- (A)** LOADING AND UNLOADING OF CONTAINERS WITH SOLVENTS FROM VANS
- (B)** LOADING AND UNLOADING OF PARTS WASHER SOLVENT FROM TANKER TRUCKS
- (C)** LOADING AND UNLOADING OF CONTAINERIZED WASTE AND PRODUCT
- (D)** LOADING AND UNLOADING OF CONTAINERIZED WASTES FROM LOCAL AREA VANS



APPROXIMATE SCALE IN FEET

Safety-Kleen Corp.
Tallahassee, Florida



Photograph 1: Facility entrance (view to the west)

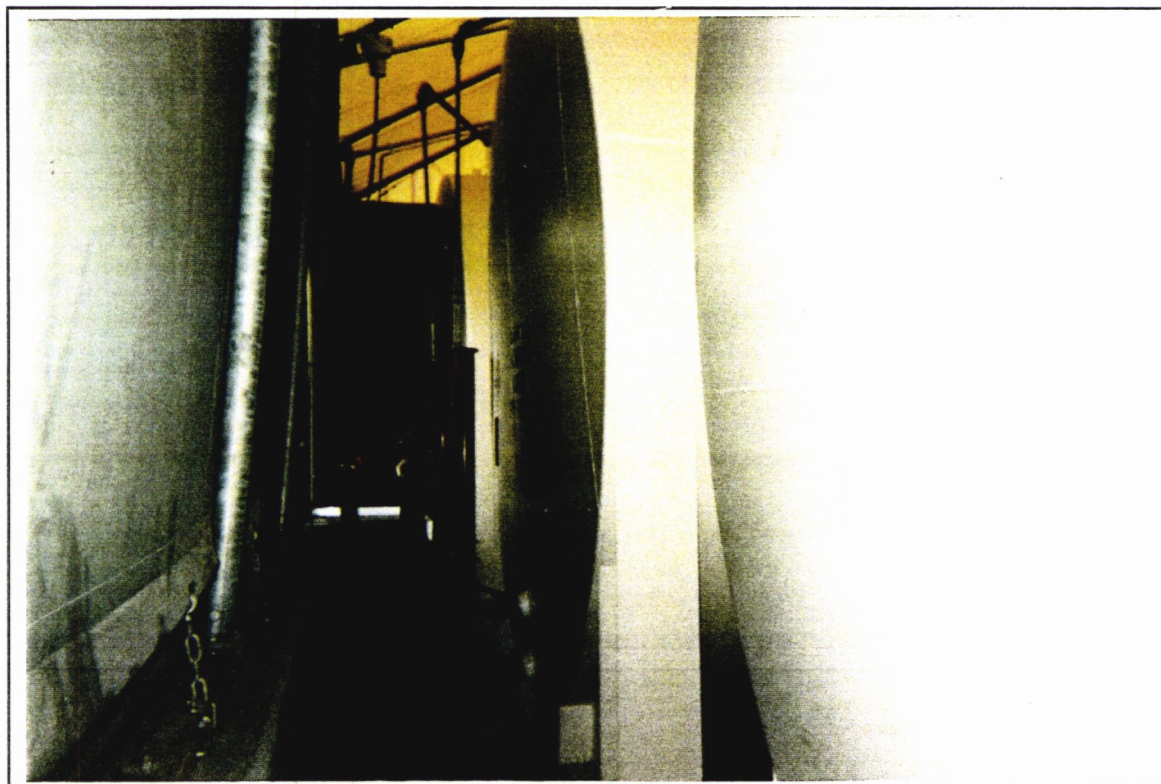


Photograph 2: Facility entrance and tank farm (view to the west)

Safety-Kleen Corp.
Tallahassee, Florida



Photograph 3: Tank farm (view to the southeast)



Photograph 4: Inside the tank farm (view to the east)

**Safety-Kleen Corp.
Tallahassee, Florida**



Photograph 5: Return/fill shelter (view to the south)



Photograph 6: Container storage area (view to the south)

Attachment I.B.4

Topographic Map of the Site

ATTACHMENT I.B.4

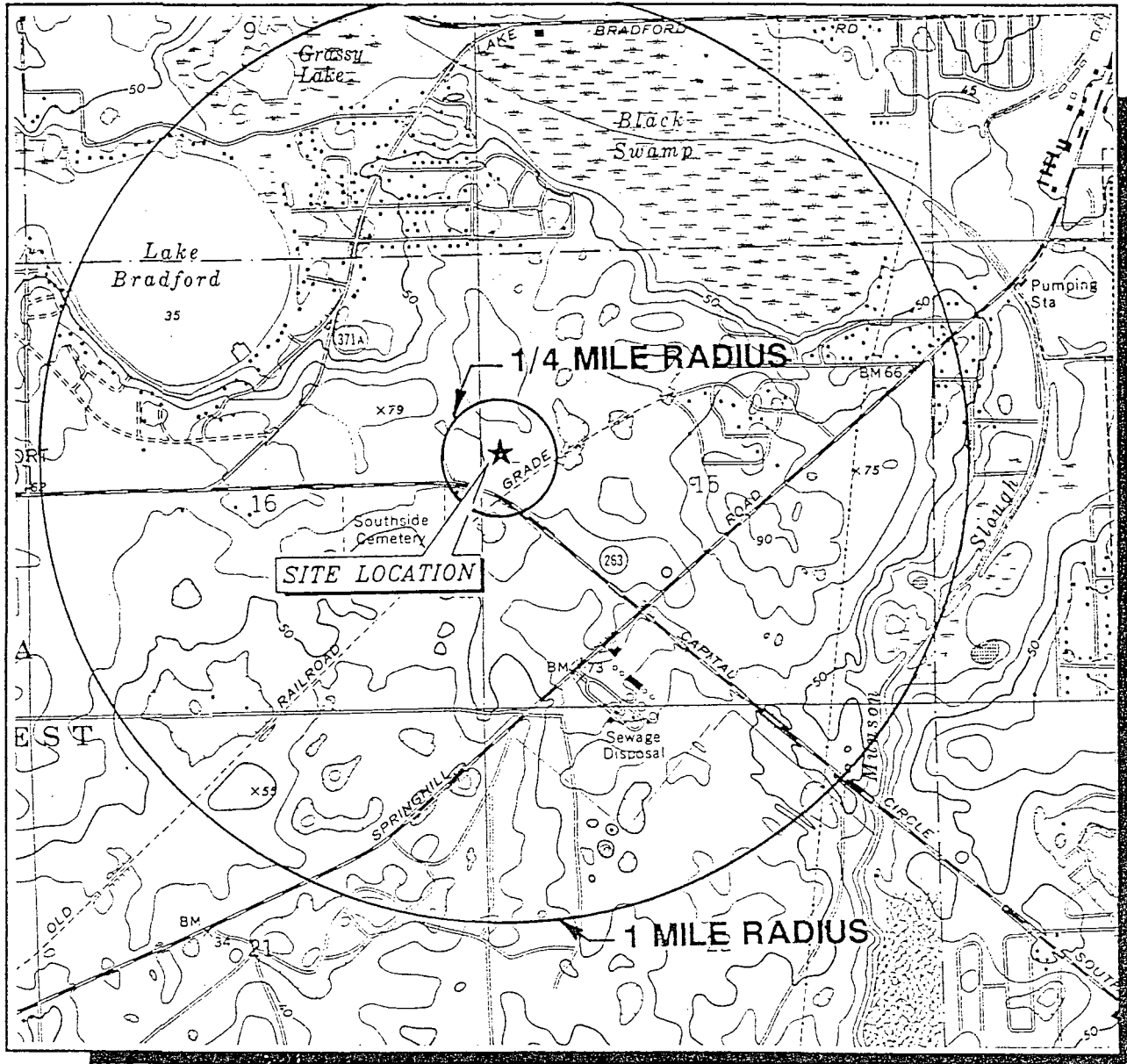
TOPOGRAPHIC MAP OF THE SITE

A USGS topographic map is supplied in this section to provide information requested (Figure I.B.4-1). However, due to the small size of the site, all of the information requested under I.B.4 of the application form cannot be placed on one map. Therefore, additional maps are referenced that provide information requested.

1. Map scale and dates:
Supplied on all maps.
2. 100-year floodplain area:
Based upon a review of the Federal Emergency Management Agency Flood Insurance Rate Map of Leon County (Figure I.B.4-2), this facility does not lie within the 100-year flood plain.
3. Orientation of map:
Supplied on all maps.
4. Surface water bodies within one-quarter mile of the facility property boundary (e.g., intermittent streams and springs):
There are no known surface water bodies within one-quarter mile of the facility.
5. Surrounding land uses:
See Figure I.B.4-3.
6. Legal boundaries of the facility:
Figure I.B.4-4 shows the property boundaries.
7. Injection wells:
No injection wells are used by the facility.
8. Drinking water wells listed in public records or otherwise known to the applicant within one-quarter mile of the facility property boundary:
This information is presented in Table I.B.4-1. The Northwest Florida Water Management District provided information on all wells located in Section/Township/Ranges which are within one-quarter mile of the facility.
9. Intake and discharge structures within one mile:
Four facilities which are permitted to either intake or discharge into Florida waters, were identified by the EPA Region IV. These facilities are located within one mile of the Tallahassee Safety-Kleen facility. This information is provided in Table I.B.4-2.
10. Run-off control system:
The facility has no formal run-off control system. Surface water run-off flows to the east.

Figure I.B.4-1
 Topographic Map
 Safety-Kleen Corp. Facility
 Tallahassee, Florida

TALLAHASSEE QUADRANGLE
 FLORIDA-LEON CO.
 7.5 MINUTE SERIES (TOPOGRAPHIC)
 PHOTOREVISED 1976



T. 1 S.

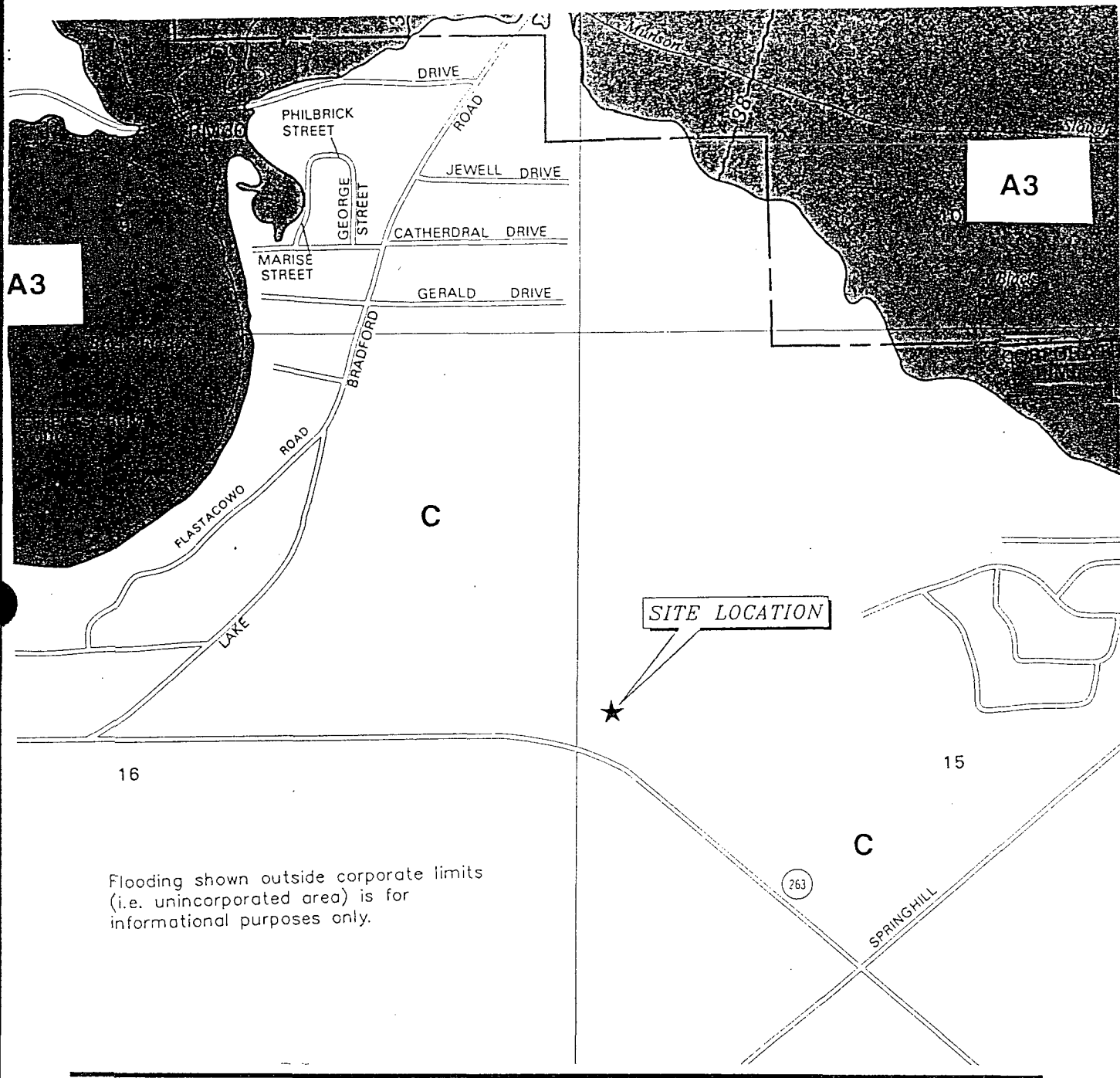
R. 1 W.



QUADRANGLE LOCATION



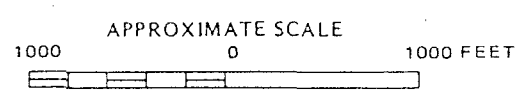
Figure I.B.4-2
 Floodplain Map
 Safety-Kleen Corp.
 Tallahassee, Florida



Flooding shown outside corporate limits (i.e. unincorporated area) is for informational purposes only.

LEGEND

- C AREAS OF MINIMAL FLOODING (NO SHADING)
- A1 - A30 AREAS OF 100-YEAR FLOOD; BASE FLOOD ELEVATIONS AND FLOOD HAZARD FACTORS DETERMINED



OBTAINED FROM FEMA FLOOD INSURANCE RATE MAP, TALLAHASSEE, FLORIDA. PANEL NUMBER 12014400300, DATED AUGUST 5, 1986.

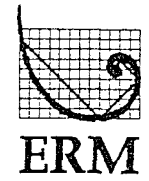
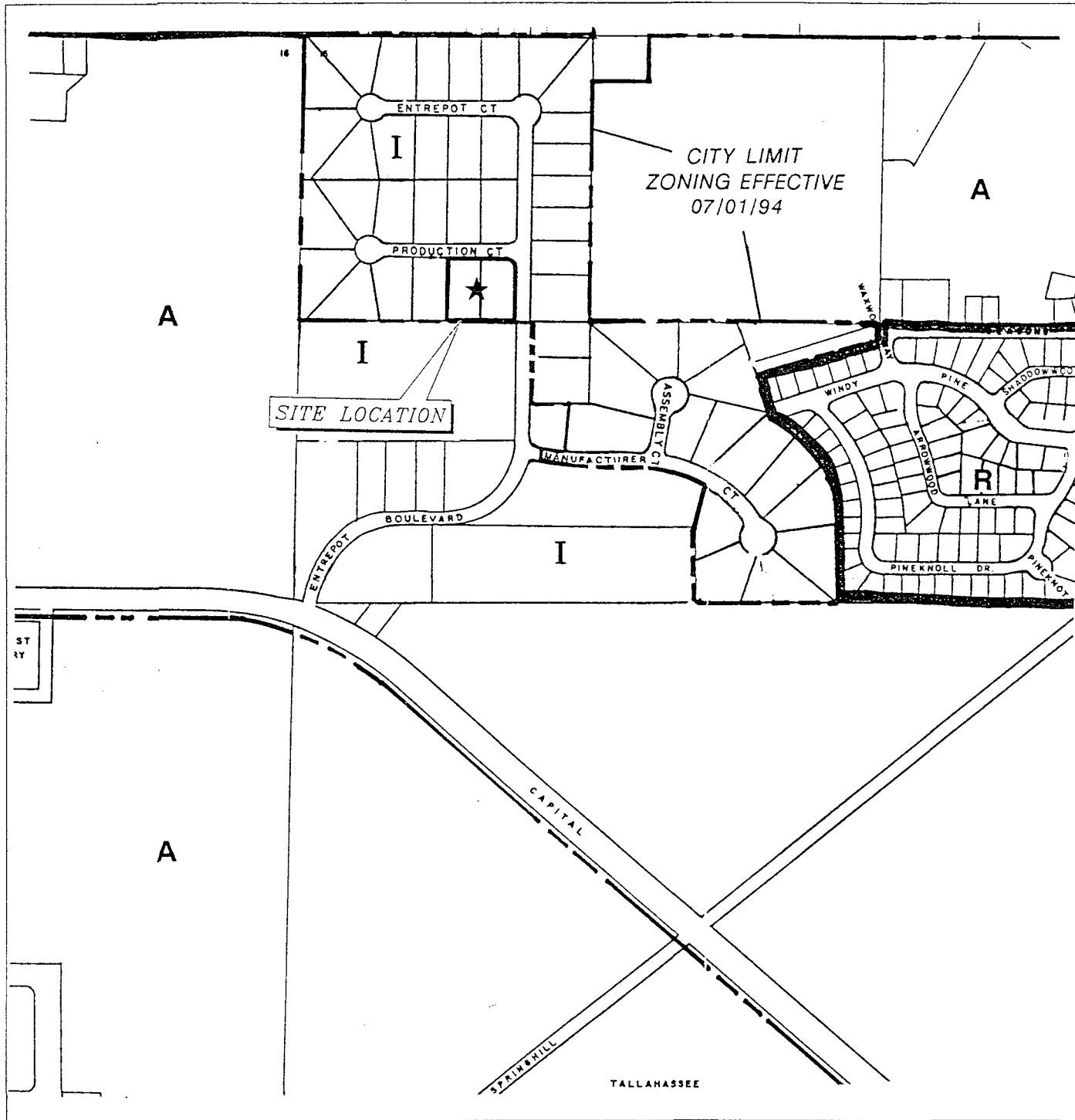


Figure I.B.4-3
 Surrounding Land Uses
 Safety-Kleen Corp. Facility
 Tallahassee, Florida



LEGEND

- A MIXED USE - LOW DENSITY
RESIDENTIAL AND MINOR COMMERCIAL ACTIVITY
- I INDUSTRIAL
- R RESIDENTIAL



Not To Scale

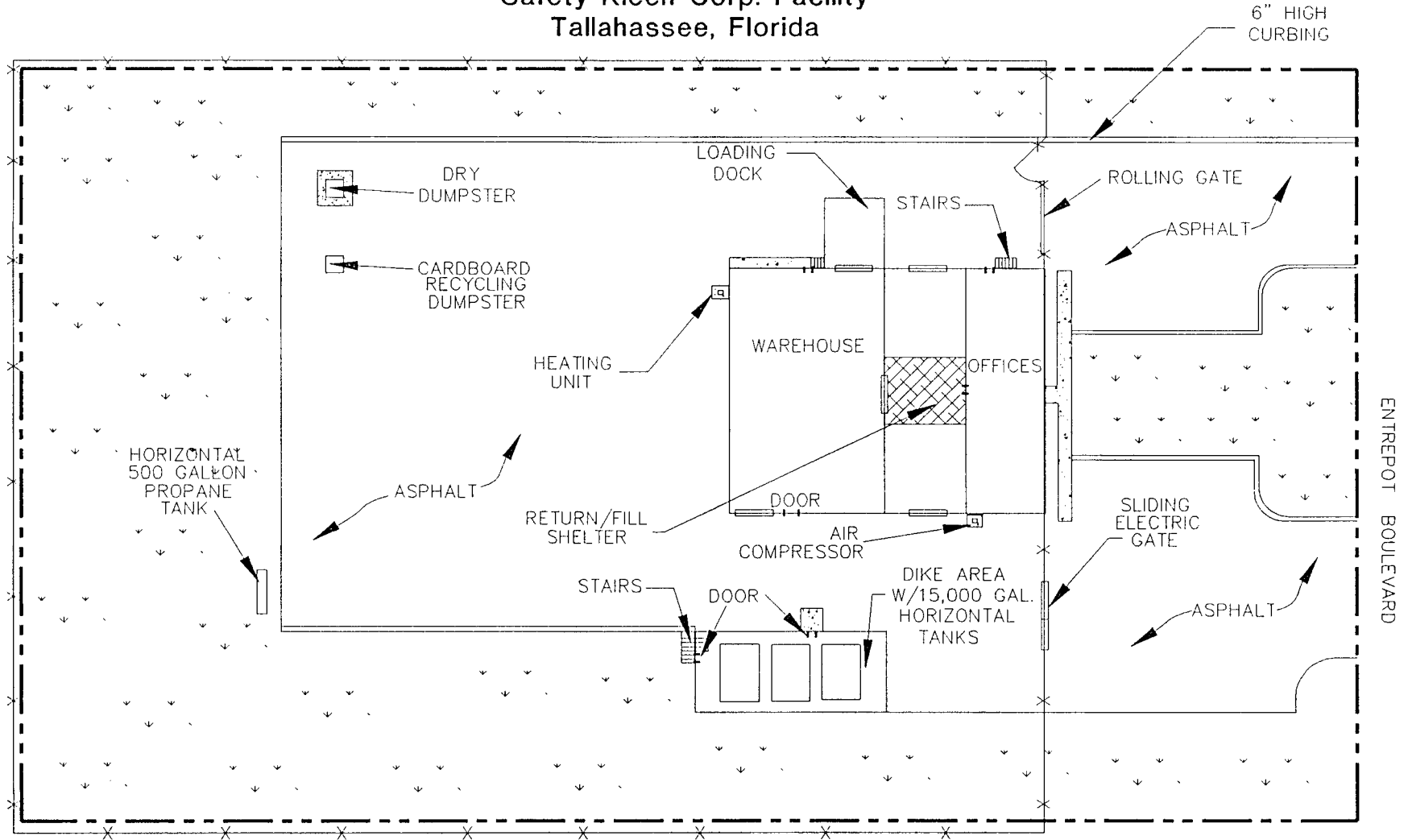
MAP OBTAINED FROM THE LEON COUNTY
 PLANNING DEPARTMENT JULY, 1994



ERM

13112.29/31129LBF/071092-5

Figure I.B.4-4 Legal Boundary of the Facility Safety-Kleen Corp. Facility Tallahassee, Florida



LEGEND

- FENCE
- LEGAL BOUNDARY
- CONCRETE
- GRATING
- VEGETATION



0 50

APPROXIMATE SCALE IN FEET

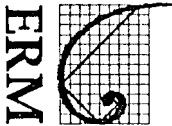


TABLE I.B.4-1

**NORTHWEST FLORIDA WATER MANAGEMENT DISTRICT
WELL CONSTRUCTION PERMITTING
SAFETY-KLEEN CORP.
TALLAHASSEE, FLORIDA**

Location S-T-R ^a	Owner(s) Name	Well Type	Well Depth (ft)	Well Diameter (in)	Case Depth (ft)	Permit No.
9D-1S-1W	Loyd Kimbro	Domestic	NA	4	NA	7600407
10-1S-1W	N. Dixon	Domestic	82	4	77	7600770
10-1S-1W	E. Brown	Domestic	68	4	48	7600785
10-1S-1W	Elisa Brundy	Domestic	75	4	55	7600796
16B-1S-1W	W. Rowan	Domestic	100	4	NA	7700113
15-1S-1W	Robert Postell	Domestic	NA	4	NA	7700152
15-1S-1W	Edwin T. Culbreth	Domestic	NA	4	NA	7700997
16A-1S-1W	Gene Brown	Domestic	160	4	106	7800052
15B-1S-1W	Sandy DeDonato	Domestic	80	4	60	7801202
15B-1S-1W	Janie Colson	Domestic	103	4	98	7900138
9D-1S-1W	Jim Johnson	Domestic	NA	4	NA	7900295
15B-1S-1W	Alice Smith	Domestic	70	4	60	7900398
9C-1S-1W	Billy Ketcham	Domestic	130	4	114	7900960
9A-1S-1W	Butch R. Callahan	Domestic	55	4	39	7900980
16A-1S-1W	H&S Construction	Domestic	NA	4	NA	8000261
16A-1S-1W	Frank Gomez	Domestic	165	4	130	8000359
10-1S-1W	J.L. Brown	Domestic	90	4	49	8000884
15-1S-1W	Godwin	Domestic	155	4	145	8100035
14-1S-1W	Barbara Woodruff	Domestic	NA	4	NA	8101328
9D-1S-1W	George Grose	Domestic	160	4	130	8200134
9D-1S-1W	Tallahassee Jr. Museum	Agriculture	105	4	90	8200590
15C-1S-1W	C.H. Powers	OPS	60	4	40	8200735
15A-1S-1W	Ronald Harris	Domestic	115	4	75	8300097
9C-1S-1W	Paul Williams	Domestic	115	4	108	8300251
9-1S-1W	R.C. Cain	Domestic	110	4	103	8300418
10B-1S-1W	Donna Arden	Domestic	60	4	30	8300707
10C-1S-1W	Steve Pogge	Domestic	70	4	52	8300868

TABLE I.B.4-1

**NORTHWEST FLORIDA WATER MANAGEMENT DISTRICT
WELL CONSTRUCTION PERMITTING
SAFETY-KLEEN CORP.
TALLAHASSEE, FLORIDA**

Location S-T-R ^a	Owner(s) Name	Well Type	Well Depth (ft)	Well Diameter (in)	Case Depth (ft)	Permit No.
15A-1S-1W	John Morgan	Domestic	73	4	72	8300887
15D-1S-1W	W.T. Goodman	Domestic	65	4	45	8301676
16D-1S-1W	Paul Tuveson	OPS	85	4	48	8400208
15A-1S-1W	Capt. Crab's Take Away	Landscape	208	4	89	8400661
15A-1S-1W	Capt. Crab's Take Away	Monitoring	34	2	34	8400751
15A-1S-1W	Capt. Crab's Take Away	Monitoring	26	2	31	8400752
16-1S-1W	Gary Sapp	Domestic	100	4	70	8402016
15-1S-1W	Joyce Blair	Domestic	70	4	40	8500169
10C-1S-1W	Faye Tyre	Domestic	120	4	100	8500666
16A-1S-1W	FSU	Public Supply	100	6	68	8502979
16B-1S-1W	FDEP	Monitoring	NA	4	NA	8601715
16C-1S-1W	FDEP	Monitoring	80	4	35	8601716
15C-1S-1W	FDEP	Monitoring	44	2	44	8601717
16B-1S-1W	FDEP	Monitoring	66	2	56	8601718
16B-1S-1W	FDEP	Monitoring	40	4	30	8601719
16D-1S-1W	FDEP	Monitoring	NA	4	NA	8601720
16D-1S-1W	FDEP	Monitoring	36	2	36	8601721
16-1S-1W	FDEP	Monitoring	65	4	40	8602197
16-1S-1W	FDEP	Monitoring	40	4	25	8602199
9A-1S-1W	Barber Equipment Co.	Monitoring	25	2	25	8605428
9A-1S-1W	Barber Equipment Co.	Monitoring	25	2	25	8605429
9A-1S-1W	Barber Equipment Co.	Monitoring	25	2	25	8605430
9A-1S-1W	Barber Equipment Co.	Monitoring	15	2	15	8605431

TABLE I.B.4-1

**NORTHWEST FLORIDA WATER MANAGEMENT DISTRICT
WELL CONSTRUCTION PERMITTING
SAFETY-KLEEN CORP.
TALLAHASSEE, FLORIDA**

Location S-T-R*	Owner(s) Name	Well Type	Well Depth (ft)	Well Diameter (in)	Case Depth (ft)	Permit No.
15D-1S-1W	FDEP	Monitoring	70	4	60	8605693
15D-1S-1W	FDEP	Monitoring	69	4	59	8605694
15D-1S-1W	FDEP	Monitoring	71	4	61	8605695
10B-1S-1W	Chevron USA	Monitoring	63	4	30	8703560
10B-1S-1W	Chevron USA	Monitoring	40	4	32	8703561
10B-1S-1W	Chevron USA	Monitoring	41	4	33	8703562
10B-1S-1W	Chevron USA	Monitoring	39	4	31	8703563
15-1S-1W	Glenda Finigan	Domestic	71	4	58	8704064
9D-1S-1W	Besty Fuchs	Domestic	100	4	63	8704362
10D-1S-1W	Waldo E. Thomas	Domestic	58	4	42	8705118
14A-1S-1W	US Plywood	Monitoring	22	2	16	8707354
14A-1S-1W	US Plywood	Monitoring	22	2	16	8707355
14A-1S-1W	US Plywood	Monitoring	22	2	16	8707356
14A-1S-1W	US Plywood	Monitoring	22	2	16	8707357
10A-1S-1W	Marie Sawyer	Domestic	300	4	279	8803323
16-1S-1W	FSU Geology Dept.	Monitoring	15	2	10	8806403
16-1S-1W	FSU Geology Dept.	Monitoring	13	2	8	8806404
16-1S-1W	FSU Geology Dept.	Monitoring	35	2	30	8806405
16-1S-1W	FSU Geology Dept.	Monitoring	43	2	38	8806406
16-1S-1W	FSU Geology Dept.	Monitoring	25	2	20	8806407
16A-1S-1W	Bob Hines	Domestic	70	4	69	8901450
9A-1S-1W	NWFWMD	Monitoring	105	4	100	8901553
16D-1S-1W	USGS	Monitoring	56	2	52	8902995
10B-1S-1W	NWFWMD	Monitoring	78	4	58	8902999
9B-1S-1W	NWFWMD	Monitoring	59	4	59	8903006
15C-1S-1W	USGS	Monitoring	47	2	42	8903382
15C-1S-1W	USGS	Monitoring	57	2	47	8903383

TABLE I.B.4-1

**NORTHWEST FLORIDA WATER MANAGEMENT DISTRICT
WELL CONSTRUCTION PERMITTING
SAFETY-KLEEN CORP.
TALLAHASSEE, FLORIDA**

Location S-T-R ^a	Owner(s) Name	Well Type	Well Depth (ft)	Well Diameter (in)	Case Depth (ft)	Permit No.
15A-1S-1W	Reba Jones	Domestic	80	4	47	8904053
14A-1S-1W	Elmer Leeks	Domestic	52	4	42	8904509
16B-1S-1W	Fred Fletcher	Domestic	90	4	60	9102839
16A-1S-1W	City of Tallahassee	Monitoring	55	4	40	9103946
16A-1S-1W	City of Tallahassee	Monitoring	80	4	65	9103947
16D-1S-1W	Jerry L. Sealy	Monitoring	15	2	5	9105418
15C-1S-1W	City of Tallahassee	Monitoring	103	4	60	9105733
15A-1S-1W	City of Tallahassee	Industrial	148	6	80	9105734
10B-1S-1W	Suwannee Swifty	Monitoring	14	2	14	9105860
10B-1S-1W	Suwannee Swifty	Monitoring	14	2	14	9105861
16B-1S-1W	Eli Roberts Oil Co.	Monitoring	13	2	13	9106124
16B-1S-1W	Eli Roberts Oil Co.	Monitoring	13	2	13	9106125
16B-1S-1W	Eli Roberts Oil Co.	Monitoring	13	2	13	9106126
16B-1S-1W	Eli Roberts Oil Co.	Monitoring	13	2	13	9106127
16A-1S-1W	Bill Price	Domestic	65	4	63	9303425
16A-1S-1W	City of Tallahassee	Monitoring	17	2	12	9303671
16A-1S-1W	Don Filkins	Domestic	70	4	60	9401276

NOTES:

^a Section-Township-Range

ABBREVIATIONS:

ft = feet
in = inches
NA = Not applicable
FSU = Florida State University
FDEP = Florida Department of Environmental Protection
OPS = Other Public Supply
USGS = United States Geological Survey

TABLE I.B.4-2

NPDES PERMITTED FACILITIES
SAFETY-KLEEN CORP.
TALLAHASSEE, FLORIDA

NPID	Facility	Receiving Body of Water
FL0022772	Greenwood MHP-Tallahassee SOCO Enterprises Phoenixville, PA 19460	Unnamed Creek to Lake Lafayette
FL0025518	Arvah B. Hopkins Generating City Hall Tallahassee, FL 32304	Ochlockonee River
FL0038199	Florida Mining and Materials 900 West Madison Street Tallahassee, FL 32304	Lake Bradford
FL0034754	Deertree Hills MHP Wastewater Treatment Plant 5234 Blountstown Road Tallahassee, FL 32304	Gun Creek Swamp

Attachment I.D.2

Description of Facility Operation

ATTACHMENT I.D.2

DESCRIPTION OF FACILITY OPERATION

Description of the Business

Safety-Kleen Corp. of Elgin, Illinois 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 hydrocarbon and chlorinated solvents and small parts washing equipment. A unique feature of this business concept is that the solvent is produced through recycling the used solvent that is leased to the customers. Approximately two-thirds of the clean solvent leased has been previously used by the customers.

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 service centers (sales branches) located in 43 states domestically, Puerto Rico, and 6 foreign countries that warehouse the products and equipment required to service the customers in their sales areas. On a regular 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 three types of parts washer solvents: Petroleum-based solvents (Parts Cleaner 105, Premium Solvent, and Actrel®) and old and new formulations of immersion cleaner. The old formulation immersion cleaner solvent is labeled under the trade name of *Immersion Cleaner and Carburetor and Cold Parts Cleaner #609*. It is a two-phase system consisting of an upper aqueous (water) layer and lower nonaqueous (solvent) layer. The water phase consists of water and Dresinate TX (sodium soap of tall oil). The solvent phase is composed of methylene chloride, orthodichlorobenzene, cresylic acid, and an amines additive. A new formulation immersion cleaner is being marketed under the name #699 and will eventually replace the old immersion cleaner. The new solvent is composed of heavy aromatic naphtha, N-methyl-2-pyrrolidone dipropylene glycol methyl ether, monoethanolamine and oleic acid. The waste contains a maximum of one percent total chlorinated solvents.

The solvents are distributed and collected by Safety-Kleen service representatives. Containers are transported in specially-equipped, enclosed route trucks. Clean solvents are distributed from and used solvents returned to the Branch Operations where they are stored in separate bulk storage tanks for the clean parts washer solvent and used parts washer solvent (Parts Cleaner 105, Premium Solvent, and Actrel®). Used parts washer solvent 105 is manifested from the customer as hazardous waste. Used Actrel® and used Premium Solvent are manifested from the customer as hazardous waste unless a generator's hazardous waste determination indicates that it is nonhazardous, in which case the used Actrel® or Premium Solvent would only become hazardous once it is mixed in the used parts washer solvent tank. Warehouse space is

dedicated for the storage of both clean and used immersion cleaner containers. The clean Premium Solvent and Actrel® are also stored in containers in the warehouse. Safety-Kleen leases parts washing equipment, including partially filled containers, which double as the solvent reservoir of the parts washer. During servicing, the quantity of used solvent removed from each machine ranges from 5 to 20 gallons depending on the drum that services the machine.

Periodically, a company truck is dispatched from one of Safety-Kleen's nationwide solvent recycle facilities to the branch to deliver a load of clean solvent and pick up a load of used solvent. Parts washer solvent (used and fresh) is transported in bulk tank trucks between the branch and the recycle facilities. Clean Premium Solvent and Actrel® are transported in containers and may be transported in bulk tank trucks. Used parts washer solvent is transported in containers from the customer to the branch, where they are added to the used parts washer solvent tank. The Immersion Cleaner remains in the covered containers during transfer between the service centers and the recycle facilities. Immersion Cleaner #609 is managed as a transfer waste. Approximately 97 percent of the solvent handled in the parts washer business is petroleum-based, while the remainder is immersion cleaner.

Safety-Kleen's solvent cycle is essentially a closed loop, moving from the service center to the customer, from the customer to the service center, from the service center to the recycle center and then from the recycle center back to the service center for redistribution to customers. The small quantities of residue remaining in the storage tanks at the service centers and after distillation of the used solvent at Safety-Kleen's solvent recycling facilities are disposed of in accordance with applicable laws and regulations.

This closed loop supplies Safety-Kleen with most of its solvent requirements; the resultant stabilized cost benefits are passed on to its customers. Ownership of the solvent remains with Safety-Kleen; the service center managers are accountable for the quantities of clean and used solvents handled by their branch operations. The service center is basically a temporary storage and transfer facility. By FDEP definition, however, these centers are considered to be the waste generator.

Safety-Kleen also provides a dry cleaning waste reclamation service where containers of dry cleaning wastes (chlorinated) are collected and stored temporarily at the service centers before shipment to the recycle centers for reclamation and residue disposal. Non-perchloroethylene dry cleaning wastes are managed as a transfer waste.

In addition, Safety-Kleen provides a paint waste reclamation service. Wastes containing various thinners and paints are collected in containers and are stored at the service centers. These wastes are periodically shipped to a reclaimer, and the regenerated solvent is distributed to Safety-Kleen customers for use as a product.

Fluid Recovery Services (FRS) is a program managed by the Safety-Kleen Service Centers. Under this program, used products similar to the fresh products provided by Safety-Kleen are collected by the service center and processed by the recycle centers. The FRS wastes are managed as transfer wastes. The manifest will not be terminated at the service center. These products may or may not have originally been obtained

from Safety-Kleen by the industrial customer. Examples of the types of waste that may be received from FRS customers include:

1. Spent hydrocarbon distillates, such as waste fuel, oil, petroleum, naphtha, etc.
2. Lubricating, hydraulic oils, and machine oils.
3. Industrial halogenated solvents such as 1,1,1-trichloroethane, tetrachloroethylene, freon, and trichloroethane.
4. Photographic and x-ray wastes.
5. Paint and lacquer thinners and paint wastes.
6. Other hazardous and nonhazardous halogenated and nonhalogenated wastes.

In an effort to encourage waste minimization, Safety-Kleen began offering an optional filtration unit for use with its Parts Cleaner 105 and Premium Solvent equipment in 1993. The filtration unit is designed to remove large particles from the solvent, thereby extending the life of the solvent. The cartridge filters are changed at least every four weeks by a Safety-Kleen representative. The used filtration cartridges are collected at the customer's site in a small pail which is located next to the equipment. This small pail functions as a satellite accumulation pail. Once the pail is full, it is manifested as hazardous waste, transported to the branch, and managed as a transfer waste under the Fluid Recovery Service (FRS) program. From the branch, the filters are transported to a recycle center for processing. The filters from the parts washer equipment contain essentially the same constituents as those found in dumpster mud.

The Actrel® and Premium Solvent systems may be equipped with a cyclonic filtration system. Approximately once every four to eight weeks the service representative cleans the filters. The contents from the filters are placed inside a plastic tube located inside the solvent container, which is connected to the parts washer equipment. The filter contents in the plastic tube are removed when the entire contents of the container are replaced with fresh product approximately every 6 months. The waste product is placed in the wet dumpster. The filter contents are either mixed with the waste product or placed in the waste sludge satellite accumulation container located at the return/fill shelter wet dumpster. Once the branch's satellite accumulation container is full, it is transported to a recycle center for processing. The filters from the Actrel® system will contain approximately the same constituents as dumpster mud.

In 1990, Safety-Kleen began offering a service for the collection of spent antifreeze (ethylene glycol) from automobile service stations. These wastes are deposited into a carboy or containers by the customer, which are located on the customer's premises. The contents of carboy are pumped into a tanker truck or into containers by a Safety-Kleen sales representative. At the service center the containers are placed in the container storage warehouse (if handled in containers) for shipment to a Safety-Kleen recycle center.

Revision - 09/15/94

Safety-Kleen also collects used oil filters and oily water. These materials are generally not hazardous wastes. The used oil and oily water may be managed in either drums or bulk tanks.

Attachment I.D.3-1

*Estimated Annual Quantities of
Hazardous Waste*

TABLE I.D.3-1

**SAFETY-KLEEN CORP.
TALLAHASSEE, FLORIDA
ESTIMATED ANNUAL QUANTITIES OF HAZARDOUS WASTE**

Waste Type	Process Code(s)	Estimated Annual Amounts (Tons)	Waste Codes
Spent Parts Washer Solvent ^a	S01 ^b S02 ^c	900	D001 and D-Codes Listed in Note Below
Dumpster Sediment	S01 ^b	20	D001 and D-Codes Listed in Note Below
Tank Bottoms	S01 ^b	Included Above	D001 and D-Codes Listed in Note Below
Spent Ethylene Glycol	S01 ^e	13	D-Codes Listed in Note Below
Spent Immersion Cleaner (Old Formula)	S01 ^d	1	F002, F004, and D-Codes Listed in Note Below
Spent Immersion Cleaner (New Formula)	S01 ^b	18	D-Codes Listed in Note Below
Dry Cleaning Waste (Perchloroethylene)	S01 ^b	45	F002 and D-Codes Listed in Note Below
Dry Cleaning Waste (Non-perchloroethylene)	S01 ^d	Included Above	D001 or F002 and D-Codes Listed in Note Below
Paint Waste	S01 ^b	55	D001, F003, F005 and D-Codes Listed in Note Below
Fluid Recovery Service (FRS) Waste	S01 ^d	250	D001, D002, and D-Codes, F-Codes, K-Codes, and U-Codes Listed in Note Below

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

F-Codes: F001, F002, F003, F004, F005, F006, F019, F024, F039

K-Codes: K006, K016, K019, K022, K029, K030, K031, K048, K049, K050, K051, K052, K085, K086, K095, K096, K009, K010, K011, K013, K014, K015, K002, K003, K004, K005

U-Codes: U001, U002, U003, U009, U031, U037, U043, U044, U051, U052, U055, U056, U057, U068, U069, U070, U071, U072, U075, U077, U078, U079, U080, U083, U084, U107, U108, U110, U112, U113, U117, U118, U121, U125, U140, U154, U159, U161, U162, U165, U169, U171, U188, U191, U196, U210, U211, U213, U220, U226, U227, U228, U239, U359

TABLE I.D.3-1

**SAFETY-KLEEN CORP.
TALLAHASSEE, FLORIDA
ESTIMATED ANNUAL QUANTITIES OF HAZARDOUS WASTE**

- ^a Spent Parts Washer 105, Actrel[®], and Premium Solvent are transported from the customer to the Service Center as a hazardous waste unless the generator's hazardous waste determination indicates that it is non-hazardous. Once it reaches the Service Center, it is bulked with hazardous parts washer of a similar nature and managed as a hazardous waste.
- ^b These wastes will be stored in containers in the container storage area. The maximum capacity in the container storage area for hazardous waste is 6,912 gallons.
- ^c The spent parts washer solvent storage tank has a capacity of 15,000 gallons and may be filled up to 14,250 gallons.
- ^d These are transfer wastes only.
- ^e Spent Ethylene Glycol is managed as a non-hazardous waste in conjunction with used oil unless the generator's hazardous waste determination indicates that it is hazardous. If the waste is hazardous, it is managed as a transfer waste.

Part II A

General

Attachment II.A.1(a)

Topographic Map

ATTACHMENT II.A.1(a)

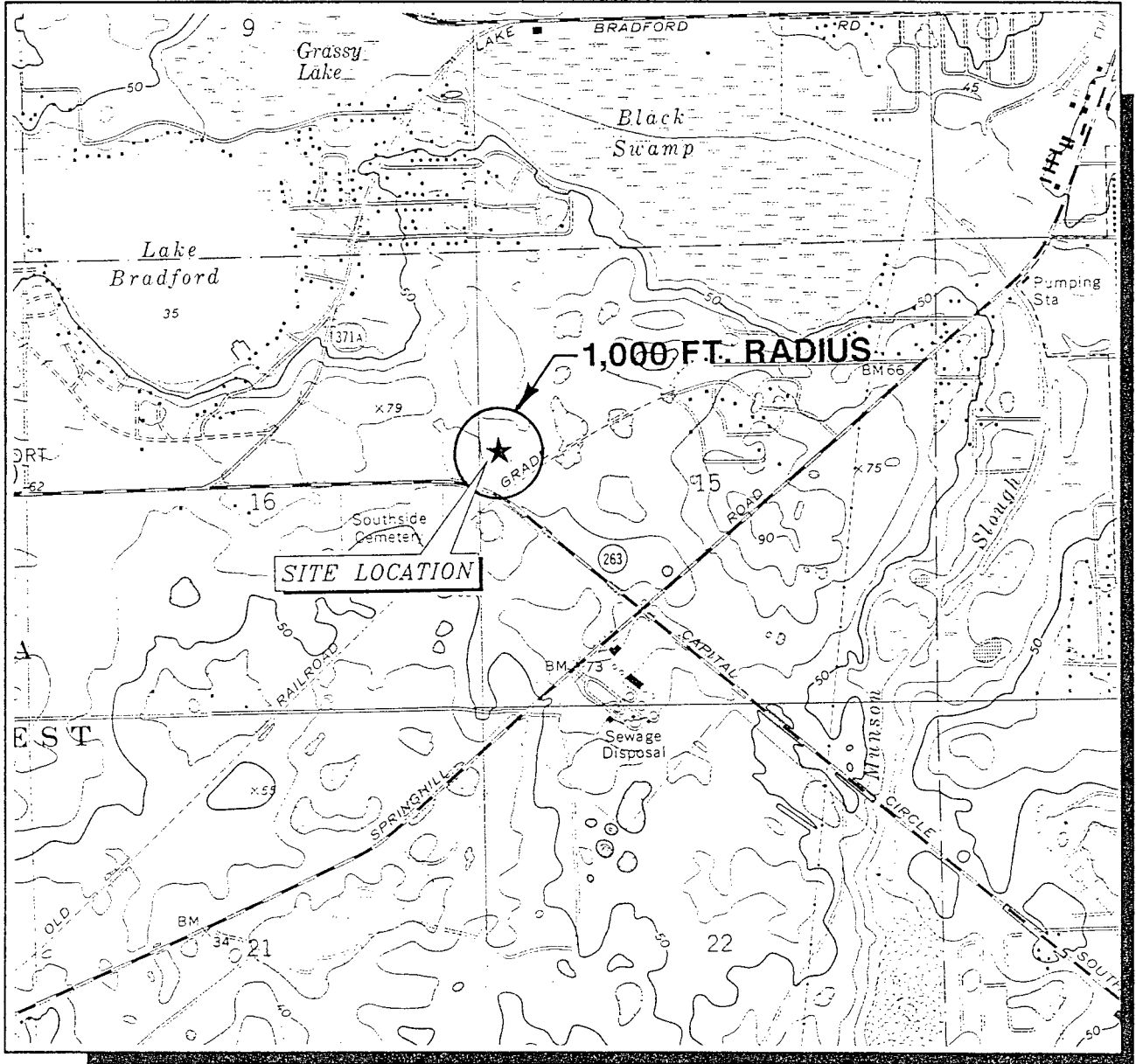
TOPOGRAPHIC MAP

FDEP requires submission of a topographic map showing a distance of 1,000 feet around the waste management area and having a scale of one inch equals 200 feet (Figure II.A.1(a)-1). Contours must be on the map with intervals sufficient to clearly show the pattern of surface water flow in the vicinity of and from each operational unit of the facility. Because this is a small site, multiple maps were created to display required information in a legible format. Map figure numbers are referenced for the following FDEP requirements:

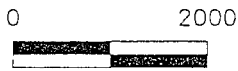
1. Map scale and date:
All maps have a scale and date indicated.
2. 100-year floodplain area:
Based on a review of the Federal Emergency Management Agency, Flood Insurance Rate Map of Leon County (Figure II.A.1(a)-2), this facility does not lie within the 100-year flood plain.
3. Orientation of the map:
All maps show orientation.
4. Access control (fences, gates, etc.):
Figure II.A.1(a)-3 shows access control features.
5. Injection and withdrawal wells both onsite and offsite:
No injection or withdrawal wells are used by the facility. Information provided by the Northwest Florida Water Management District for withdrawal wells located offsite is provided in Section I.B.4.
6. Buildings and other structures:
Buildings and other structures are shown in Figure II.A.1(a)-3.
7. Elevations and contours sufficient to show surface water flow:
Surface water run-off sheet flows across the property and drains east into Entrepot Boulevard (Figure II.A.1(a)-4).
8. Loading and unloading areas:
Figure II.A.1(a)-5 shows loading and unloading areas in relation to the waste management areas. Additional details regarding traffic patterns are in Attachment II.A.1(c).
9. Drainage or flood control barriers:
The facility is not located in a floodway and flood control barriers are not necessary.

Figure II.A.1(a)-1
 Topographic Map
 Safety-Kleen Corp. Facility
 Tallahassee, Florida

TALLAHASSEE QUADRANGLE
 FLORIDA-LEON CO.
 7.5 MINUTE SERIES (TOPOGRAPHIC)
 PHOTOREVISED 1976



R. 1 W.



FEET

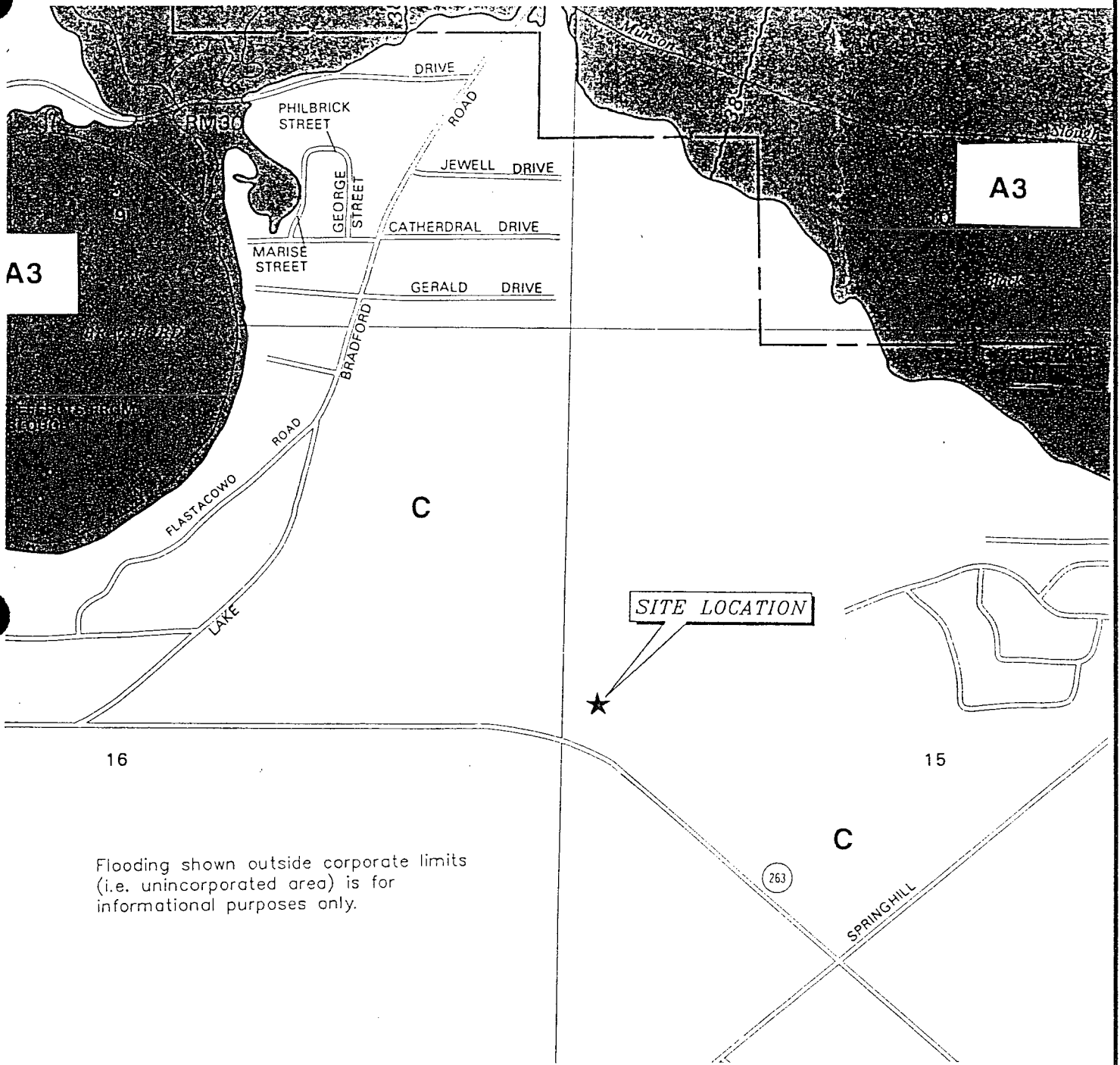


FLORIDA
 QUADRANGLE LOCATION



ERM

Figure II.A.1(a)-2
 Floodplain Map
 Safety-Kleen Corp.
 Tallahassee, Florida

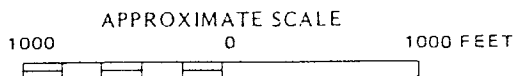


LEGEND

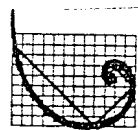


C
A1 - A30

AREAS OF MINIMAL FLOODING (NO SHADING)
 AREAS OF 100-YEAR FLOOD; BASE FLOOD ELEVATIONS
 AND FLOOD HAZARD FACTORS DETERMINED



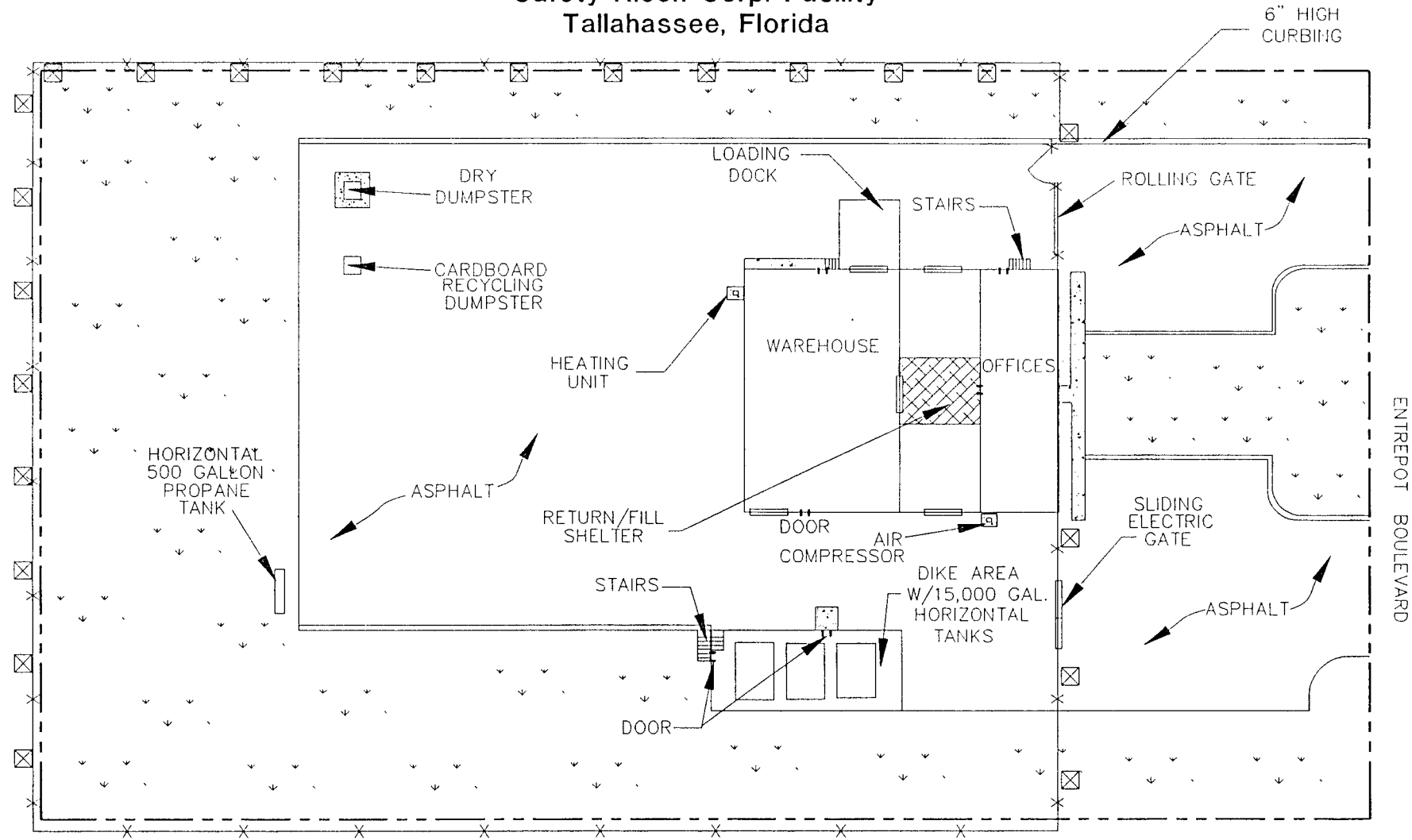
OBTAINED FROM FEMA FLOOD INSURANCE RATE
 MAP, TALLAHASSEE, FLORIDA. PANEL NUMBER 12014400300,
 DATED AUGUST 5, 1986.



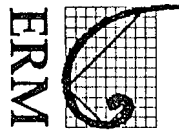
ERM

13112:29 31129SS 081794-6

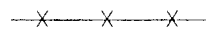
Figure II.A.1(a)-3 Security Signage Safety-Kleen Corp. Facility Tallahassee, Florida



ENTREPOT BOULEVARD



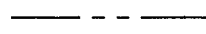
LEGEND



FENCE



SECURITY SIGNAGE



PROPERTY BOUNDARY



ROLL UP DOOR



CONCRETE



VEGETATION



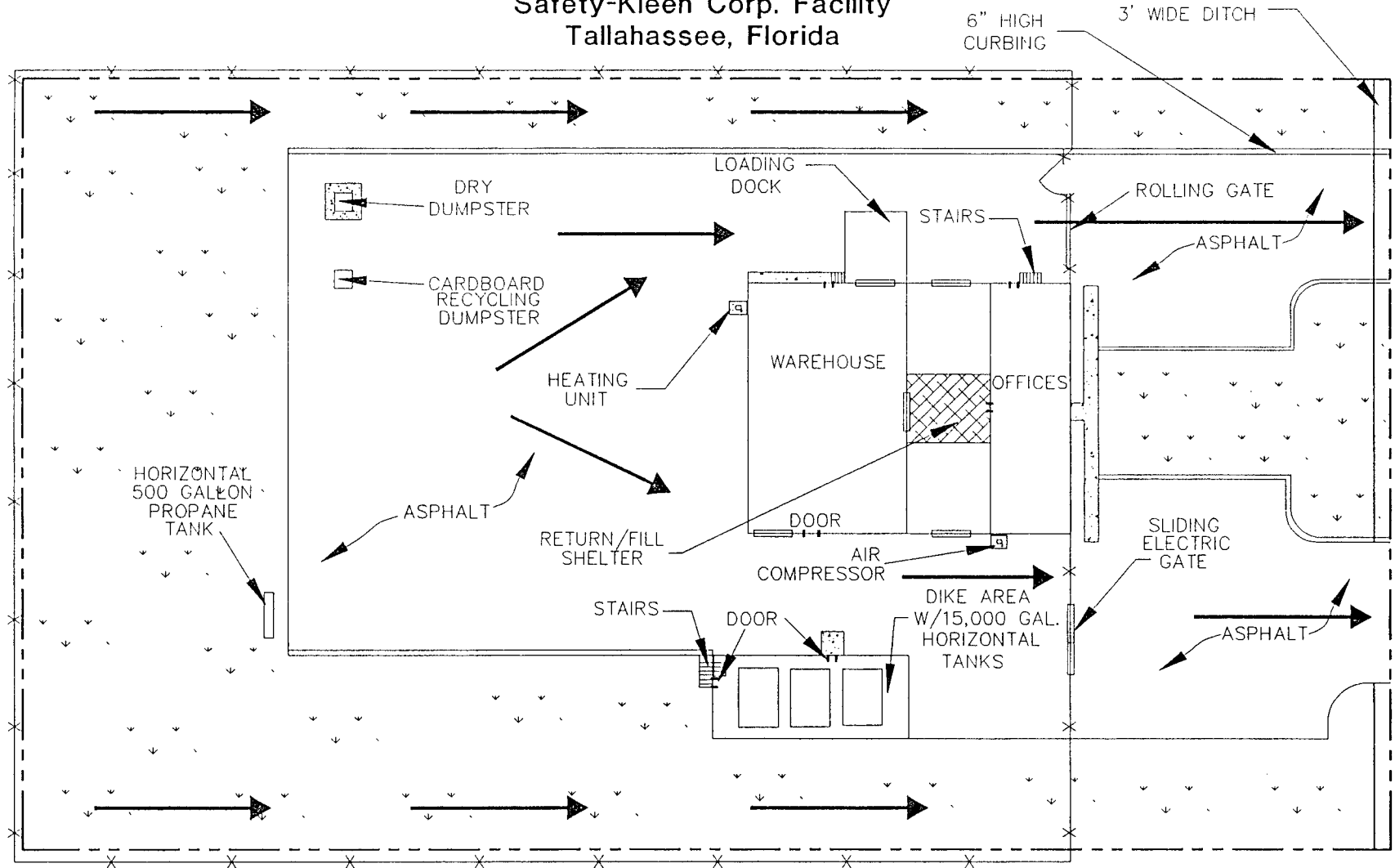
GRATING



APPROXIMATE SCALE IN FEET

13112.29 31129SWF081794-6

Figure II.A.1(a)-4 Surface Water Flow Safety-Kleen Corp. Facility Tallahassee, Florida



DRAINAGE SWALE
ENTREPOT BOULEVARD

LEGEND

- FENCE
- PROPERTY BOUNDARY
- CONCRETE
- GRATING
- VEGETATION
- SURFACE WATER FLOW



APPROXIMATE SCALE IN FEET

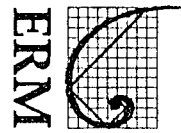
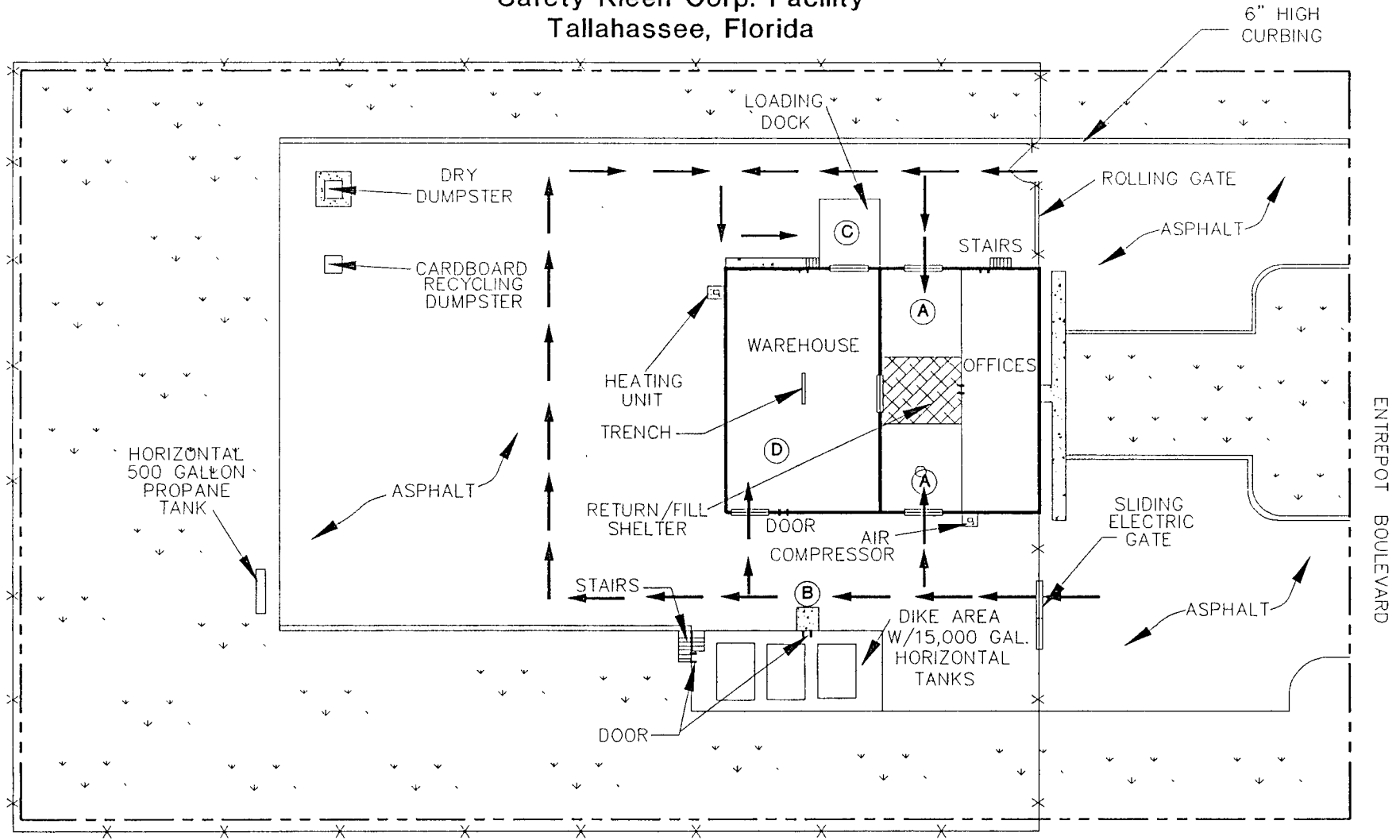


Figure II.A.1(a)-5
Truck Traffic Patterns and Loading/Unloading Areas of Hazardous Waste
Safety-Kleen Corp. Facility
Tallahassee, Florida



LEGEND

- FENCE
- PROPERTY BOUNDARY
- CONCRETE
- GRATING
- VEGETATION
- ROLL UP DOOR
- TRUCK TRAFFIC PATTERN

- (A)** LOADING AND UNLOADING OF CONTAINERS WITH SOLVENTS FROM VANS
- (B)** LOADING AND UNLOADING OF PARTS WASHER SOLVENT FROM TANKER TRUCKS
- (C)** LOADING AND UNLOADING OF CONTAINERIZED WASTE AND PRODUCT
- (D)** LOADING AND UNLOADING OF CONTAINERIZED WASTES FROM LOCAL AREA VANS



APPROXIMATE SCALE IN FEET

REVISED 08/15/94

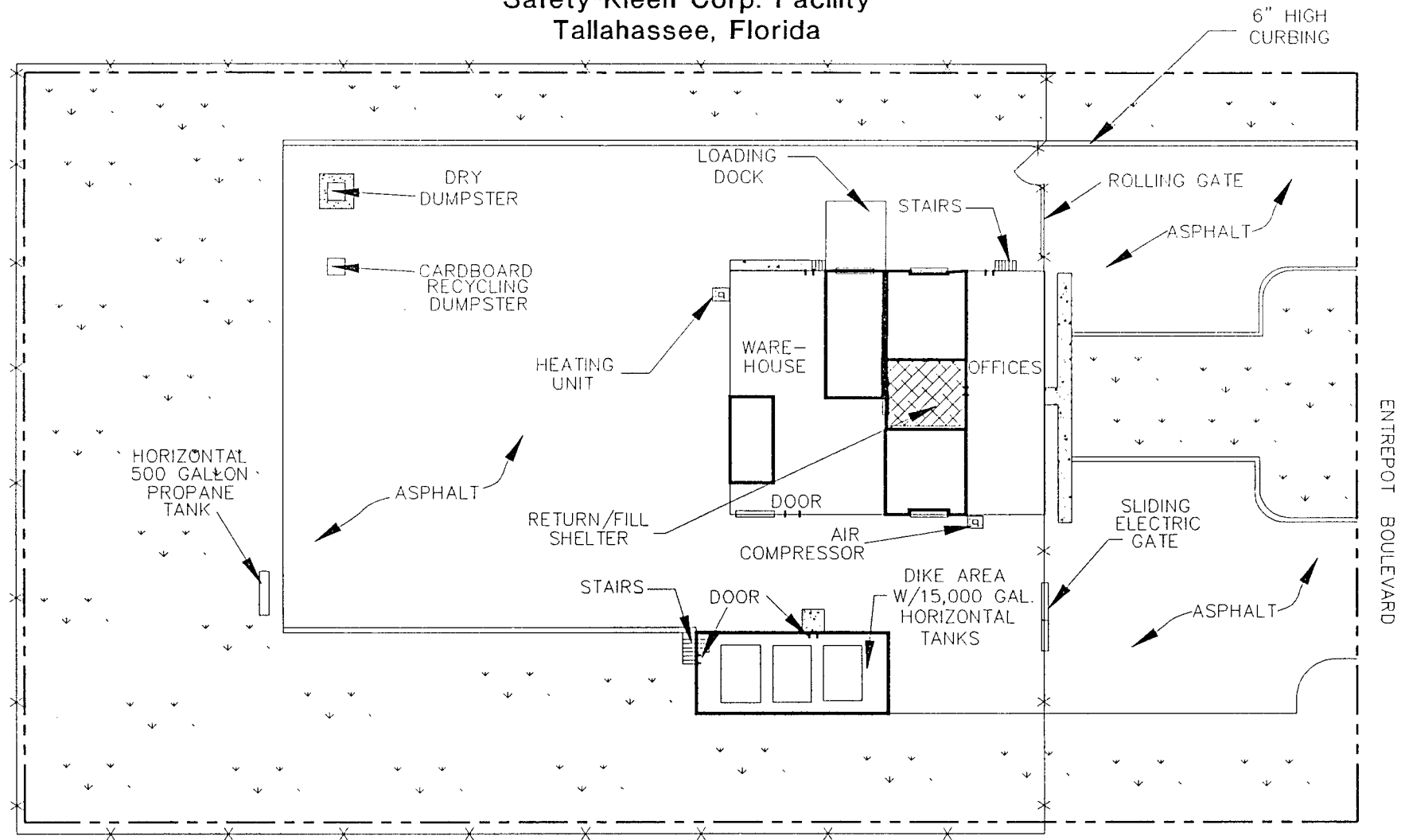


10. Hazardous waste units:
Figure II.A.1(a)-6 shows hazardous waste management areas. These are the container storage area, return/fill shelter, and the tank farm.

11. Run-off control system:
The facility has no formal run-off control system.

13112.29 31129LHW081794-6

Figure II.A.1(a)-6 Location of Hazardous Waste Management Areas Safety-Kleen Corp. Facility Tallahassee, Florida



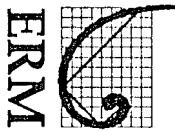
LEGEND

- FENCE
- PROPERTY BOUNDARY
- CONCRETE
- GRATING
- VEGETATION
- ROLL UP DOOR
- HAZARDOUS WASTE MANAGEMENT AREA



0 50

APPROXIMATE SCALE IN FEET



ENTREPOT BOULEVARD

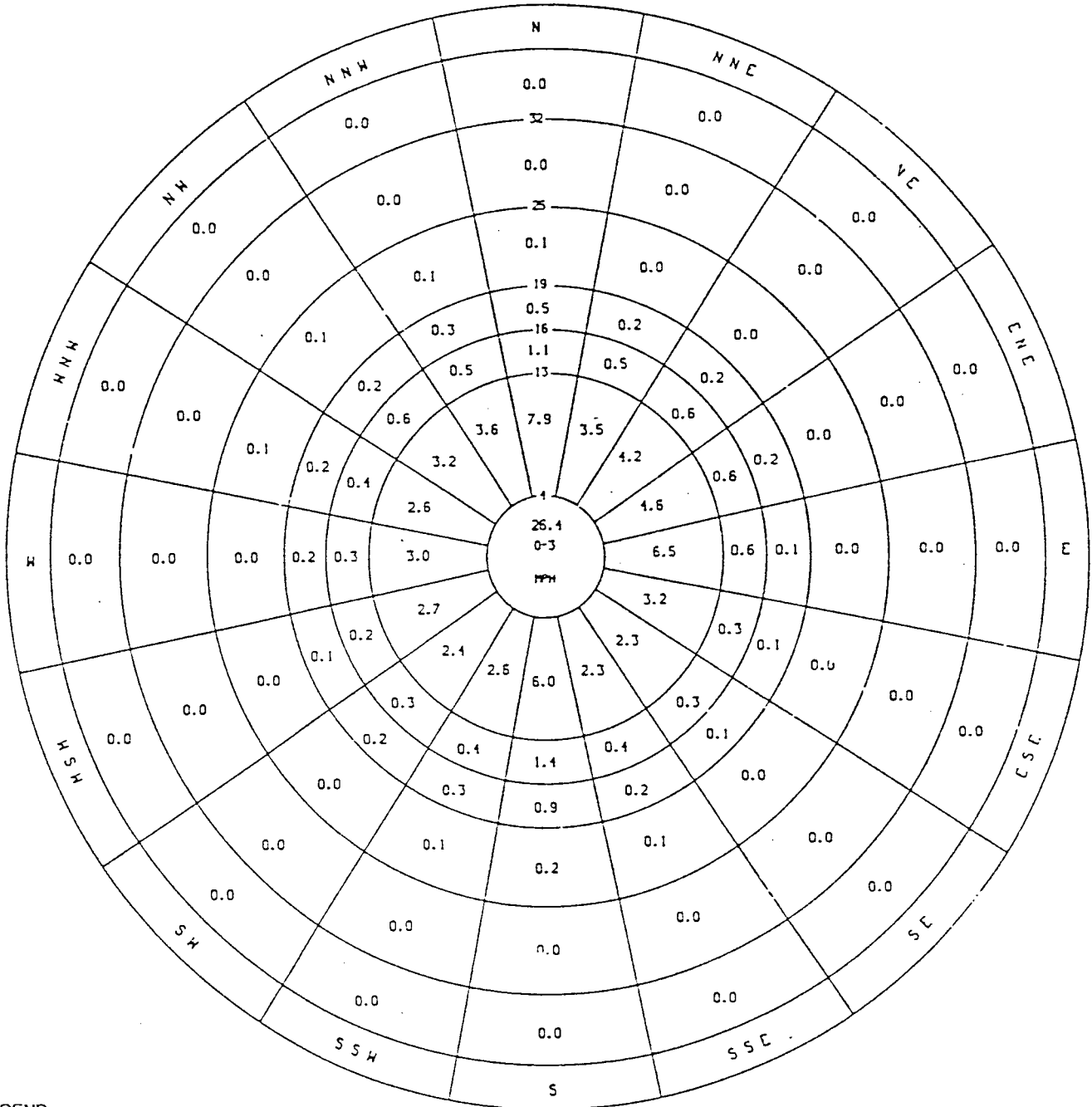
Attachment II.A.1(b)

Wind Rose

Figure II.A.1(b)-1 Wind Rose Safety-Kleen Corp. Facility Tallahassee, Florida

TLH TALLAHASSEE, FL
CLASS 7
JANUARY 1981

CEILING-VISIBILITY
WIND GRAPH

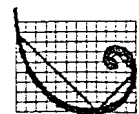


LEGEND

WIND ROSE GRAPH OBTAINED FROM NATIONAL OCEANIC AND
ATMOSPHERIC ADMINISTRATION .

WIND ROSE BASED ON DATA COLLECTED FROM 1948
THROUGH 1978 FROM TALLAHASSEE AIRPORT .

WIND ROSE OBTAINED IN JANUARY 1994.



ERM

Attachment II.A.1(c)

Traffic Information

ATTACHMENT II.A.1(c)

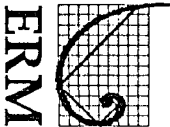
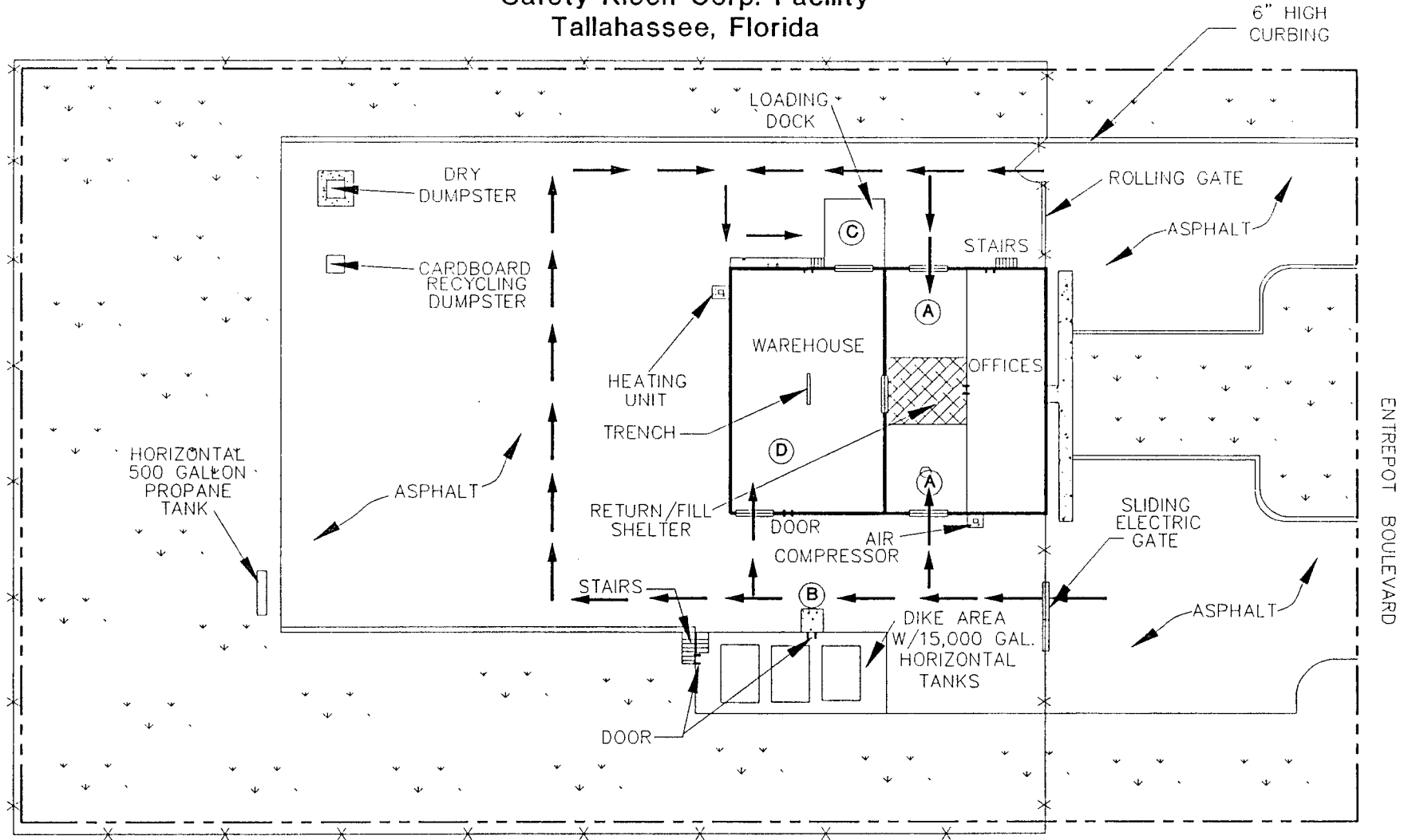
TRAFFIC INFORMATION

The service center (i.e., facility) layout and traffic patterns are illustrated in Figure II.A.1(c)-1.

The non-building areas of the facility are covered with asphalt, concrete, gravel, or vegetation as noted on the site plan (Figure II.A.1(c)-1). The majority of the vehicular traffic and loading/unloading operations occurs at and near the return and fill (Area A) which is paved with asphalt and concrete (Figure II.A.1(c)-1). Approximately once per week a tractor trailer brings fresh containerized solvents and removes used, containerized solvents for transfer to a recycle facility. This truck backs up to the concrete dock, located on the north side of the facility in Area C, to load and unload containers. Areas A and D are used for the loading/unloading of transfer wastes, and containerized permitted wastes from local area vans and trucks.

Capital Circle 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 that travel the routes daily between the service center and Safety-Kleen customers use the two-lane road, Entrepot Boulevard. The trucks dispatched from the recycle center to deliver fresh parts washer solvent and pick up used parts washer solvent will perform these activities at the aboveground tank Area B approximately once per week. Traffic from this facility does not have a major effect on local traffic conditions.

Figure II.A.1(c)-1
Truck Traffic Patterns and Loading/Unloading Areas of Hazardous Waste
Safety-Kleen Corp. Facility
Tallahassee, Florida



LEGEND

- X-X- FENCE
- - - - - PROPERTY BOUNDARY
- [Concrete Hatch] CONCRETE
- [Grating Hatch] GRATING
- [Vegetation Hatch] VEGETATION
- [Roll Up Door Hatch] ROLL UP DOOR
- [Arrow] TRUCK TRAFFIC PATTERN

- (A) LOADING AND UNLOADING OF CONTAINERS WITH SOLVENTS FROM VANS
- (B) LOADING AND UNLOADING OF PARTS WASHER SOLVENT FROM TANKER TRUCKS
- (C) LOADING AND UNLOADING OF CONTAINERIZED WASTE AND PRODUCT
- (D) LOADING AND UNLOADING OF CONTAINERIZED WASTES FROM LOCAL AREA VANS

REVISED 08/15/94



APPROXIMATE SCALE IN FEET

Attachment II.A.2

Financial Responsibility Information

ATTACHMENT II.A.2

FINANCIAL ASSURANCE FOR CLOSURE

Safety-Kleen Corp. will be the operator of the Tallahassee, Florida Service Center. The cost for closure of the facility, as estimated in Attachment II. K.1, is assured through the use of the financial test specified in Subpart H of 40 CFR Part 264. The letter from the Chief Financial Officer of Safety-Kleen Corp. to demonstrate the financial responsibility for closure through the financial test is attached.

SAFETY KLEEN CORP.
CLOSURE COST ESTIMATE
ANNUAL UPDATE FORM

JANUARY 30, 1994

Tallahassee (Enterprise) Branch
FACILITY NAME - FACILITY TYPE

03 - 079 - 02
LOCATION

FLD 982 133 159
EPA ID #

STATUS OF FACILITY: Operational

This document updates the closure cost estimates for inflation in accordance with 40 CFR 264.142(b).

1993 Closure Cost Estimate (CCE): = \$ 50,191

CCE * 1.033 = \$ 51,847
(note: Inflation factor is 3.30%)

1994 Closure Cost Estimate (CCE): = \$ 51,847 -

File: Facility File 1610 (Closure Cost Estimate)
Engineer's File - Facility File XII
Regional Env Manager's File - Facility File XII
Corporate File - send to Michelle Walper

Completed By: William C Crawford

Title: Sr. Env. Eng.

Attachment II.A.3

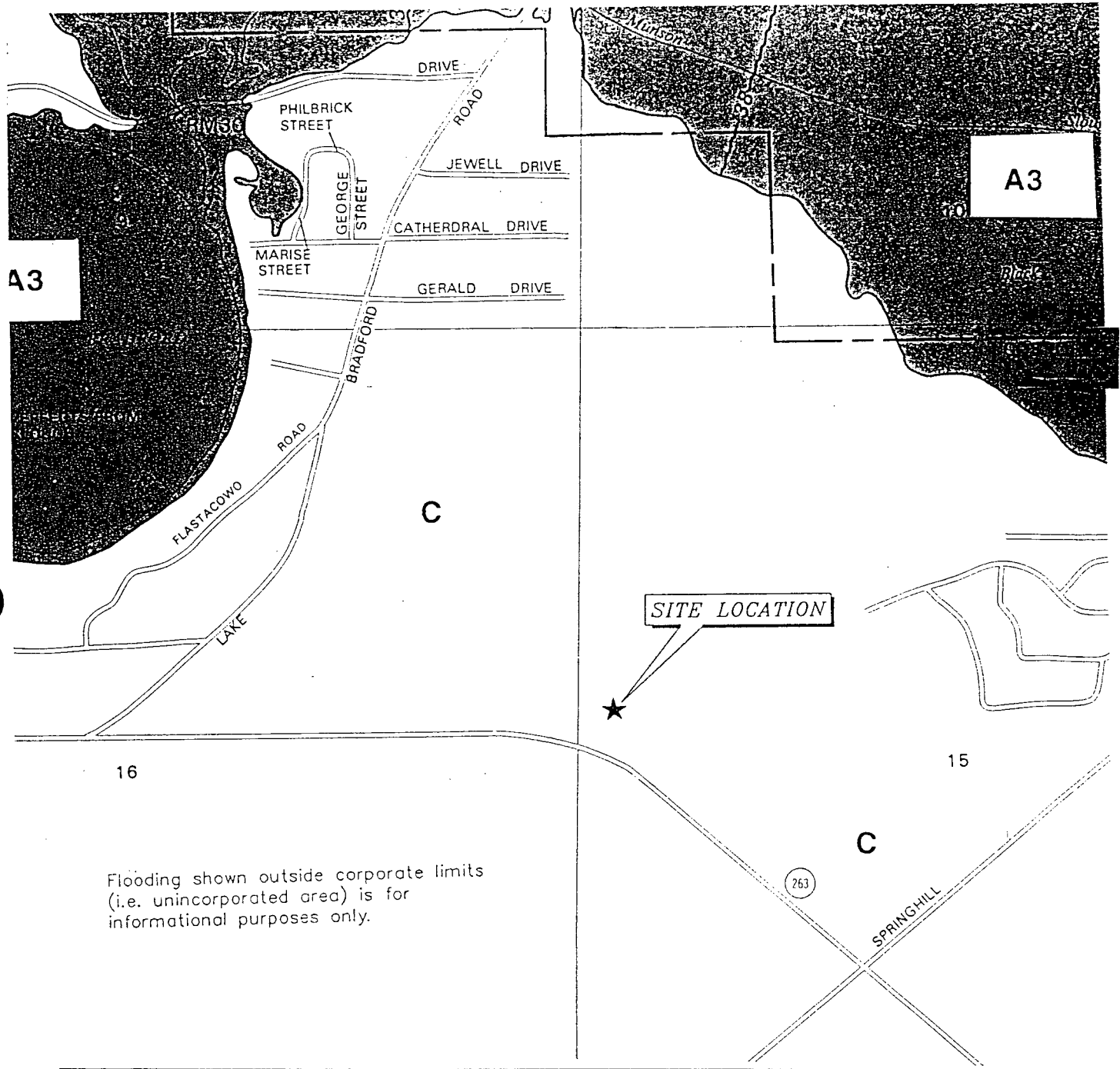
Flood Information

ATTACHMENT II.A.3

FLOOD INFORMATION

Based on a review of the Federal Emergency Management Agency Flood Insurance Rate Map of Leon County (Figure II.A.3-1), this facility does not lie within the 100-year flood plain.

Figure II.A.3-1
 Floodplain Map
 Safety-Kleen Corp.
 Tallahassee, Florida



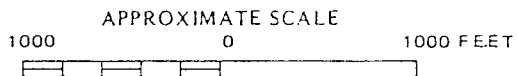
Flooding shown outside corporate limits
 (i.e. unincorporated area) is for
 informational purposes only.

LEGEND

C
 A1 - A30

AREAS OF MINIMAL FLOODING (NO SHADING)
 AREAS OF 100-YEAR FLOOD; BASE FLOOD ELEVATIONS
 AND FLOOD HAZARD FACTORS DETERMINED

OBTAINED FROM FEMA FLOOD INSURANCE RATE
 MAP, TALLAHASSEE, FLORIDA. PANEL NUMBER 12014400300,
 DATED AUGUST 5, 1986.



ERM

Attachment II.A.4(a)

Security Procedures and Equipment

ATTACHMENT II.A.4(a)

SECURITY PROCEDURES AND EQUIPMENT

Security Measures

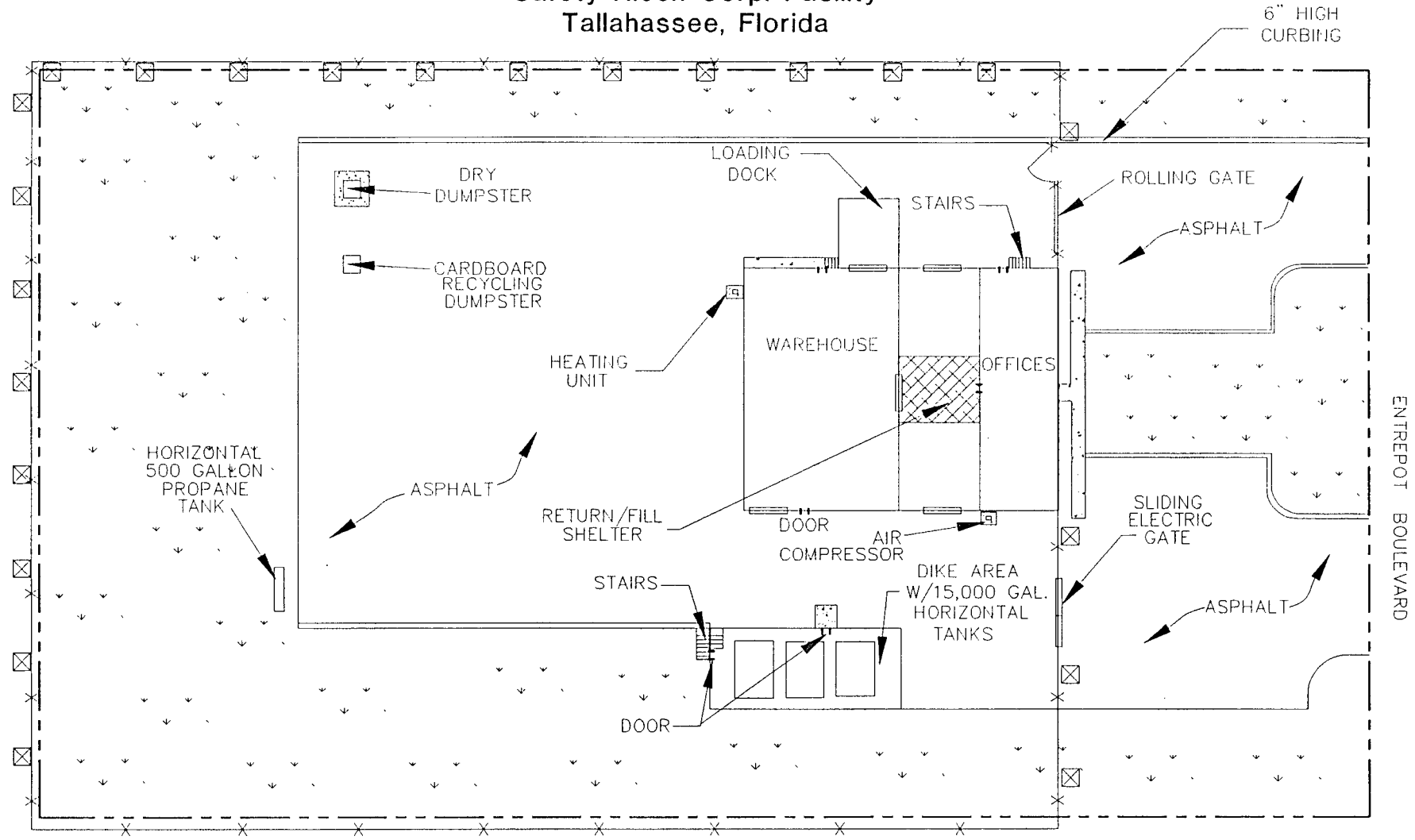
In accordance with 40 CFR 264.14, access to the facility is controlled through the following methods:

1. Entry to the container storage, return/fill area, and tank farm will be controlled through gates and doors. All gates and doors will be locked at all times when facility is not in operation.
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 40 feet. Signs are marked "DANGER - UNAUTHORIZED PERSONNEL KEEP OUT." See Figure II.A.4(a)-1 for locations of the signs.
4. "No Smoking" signs are posted in areas where flammables are handled or stored.

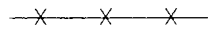
The northern, southern, and western perimeters of the site are bordered by an approximate eight-foot-high fence. This fence consists of a six-foot-high chain link fence topped by approximately two feet of barbed wire. The eastern perimeter consists of two secured gates and the building front.

13112.29 31129SS 081794-6

Figure II.A.4(a)-1 Security Signage Safety-Kleen Corp. Facility Tallahassee, Florida



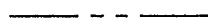
LEGEND



FENCE



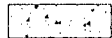
SECURITY SIGNAGE



PROPERTY BOUNDARY



ROLL UP DOOR



CONCRETE



VEGETATION



GRATING



APPROXIMATE SCALE IN FEET



Attachment II.A.4(b)

*Preparedness, Prevention,
Contingency Plan, and Emergency
Procedure for Daily Business Operations*

**Preparedness, Prevention,
Contingency Plan, and Emergency
Procedures for Daily Business
Operations**

*Safety-Kleen Corp. 3-079-01
4426 Entrepot Boulevard
Tallahassee, Florida
FLD982133159*

September 15, 1994

Prepared for:

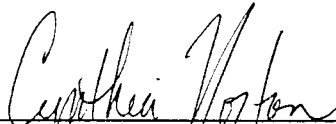
Safety-Kleen Corp.
1000 North Randall Road
Elgin, Illinois 60123-7857

ERM-South, Inc.
9501 Princess Palm Avenue, Suite 100
Tampa, Florida 33619
(813) 622-8727

**Preparedness, Prevention,
Contingency Plan, and Emergency
Procedures for Daily Business
Operations**

*Safety-Kleen Corp. 3-079-01
4426 Entrepot Boulevard
Tallahassee, Florida
FLD982133159*

September 15, 1994



Cynthia H. Norton
Project Manager

Prepared for:

Safety-Kleen Corp.
1000 North Randall Road
Elgin, Illinois 60123-7857

ERM-South, Inc.
9501 Princess Palm Avenue, Suite 100
Tampa, Florida 33619
(813) 622-8727

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EMERGENCY PHONE NUMBERS

Emergency Coordinators

Title	Name	Address	Home Phone	Office Phone	800-999-6710 Beeper
Primary	Debbie Widner	4050 Stoneler Place Ct. Tallahassee, FL 32303	904-562-4512	904-576-9764	PIN#9974464
Alternate	Ben Buda	6503 Kingman Trace Tallahassee, FL 32308	904-668-6971	904-576-9764	PIN#9974651

Emergency Notification Phone Numbers

Name	Phone Number
Safety-Kleen Environmental Health and Safety Department Northwest District, FDER 160 Government Center Pensacola, FL 32501	708-888-4660 (24-hour number) 904-436-8360 (Monday-Friday, 8:00 a.m. to 5:00 p.m., except holidays)
Florida Department of Emergency Management National Response Center ¹	904-488-1320 800-424-8802

Emergency Team to be Notified

Name	Address	Telephone Number(s)
Tallahassee Fire Dept.	327 North Adams Tallahassee, FL 32301	904-891-4310 dispatch OR 911
Tallahassee Police Dept.	234 East 7th Avenue Tallahassee, FL 32303	904-891-4200 dispatch OR 911
Tallahassee Memorial Regional Medical Center	1300 Miccosukee Road Tallahassee, FL 32308	904-681-1155
Ryckman's Emergency Action & Consulting Team	2208 Welsch Industrial Ct. St. Louis, MO 63146	800-325-1398
OHM Materials Company	P.O.Box 551 Findlay, OH 45839-0551	800-537-9540

¹ Call NRC only if the Florida Department of Emergency Management cannot be reached.

EMERGENCY PHONE NUMBERS

Emergency Coordinators

Title	Name	Address	Home Phone	Office Phone	Beeper Nos.
Primary	Frank Balaz	5747 Doonesberry Way Tallahassee, FL 32303	904-562-4039	904-576-9764	904-422-4327
Alternate	Debbie Widner	4050 Stoneler Place Court Tallahassee, FL 32303	904-562-4512	904-576-9764	904-422-4320

Emergency Notification Phone Numbers

Name	Phone Number
Safety-Kleen Environmental Health & Safety Department	708-888-4660 (24-hour number)
Northwest District, FDER 160 Government Center Pensacola, FL 32501	904-436-8360 (Monday-Friday, 8:00 a.m. to 5:00 p.m., except holidays)
Florida Department of Emergency Management	904-488-1320
National Response Center ¹	800-424-8802

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Ryckman's Emergency Action & Consulting Team	2208 Welsch Industrial Ct. St. Louis, MO 63146	800-325-1398
O.H. Materials Company	P.O. Box 551 Findlay, OH 45839-0551	800-537-9540

¹Call NRC only if the Florida Department of Emergency Management cannot be reached.

ATTACHMENT II.A.4(b)

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

General Information

Purpose

The preparedness, prevention, 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 nonsudden 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 occurs that could threaten human health or the environment. All plan responses must conform with the procedures contained in this plan.

General Description of Activities

The business activities conducted at the Tallahassee Service Center 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 are returned to the Service Center, where separate aboveground storage tanks are utilized for the storage of clean and used parts washer solvent (Parts Cleaner 105, Premium Solvent, and Actrel®). There is one clean solvent storage tank at this time. This tank may store any of the clean parts washer solvent (Parts Cleaner 105, Premium Solvent, or Actrel®). Warehouse space is designated for the storage of containers of both clean and used immersion cleaner, parts washer solvent, tank bottoms, dumpster mud, antifreeze, dry cleaning wastes (chlorinated and non-chlorinated solvent), paint wastes, fluid recovery service (FRS) wastes and oil. Premium Solvent may be stored in the clean parts washer solvent tank in the future. Eighty five-gallon overpack containers are utilized for the management of containers whose integrity has been compromised.

The parts washer solvent is transported in covered containers between the Service Center and customers. Upon returning to the Service Center, the used parts washer solvent (Parts Cleaner 105, Premium Solvent, and Actrel®) is transferred from the containers into a wet dumpster/barrel washer (solvent return receptacle) in which coarse solids in the parts washer solvent are retained. Used parts washer solvent (Parts Cleaner 105, Premium Solvent, and Actrel®) in the wet dumpster flows into a 15,000-gallon aboveground tank for storage. Used parts washer solvent (Parts Cleaner 105, Premium Solvent, and Actrel®) is picked up periodically by a bulk tank truck from the Recycle Center which, upon arrival at the Service Center, delivers a load of clean parts washer solvent. The sludge in the wet dumpster is periodically

cleaned out, containerized, and temporarily stored in the container storage area for later shipment to the Recycle Center for reclamation or treatment.

The immersion cleaners #609 and #699 remain in covered containers 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 Service Center. Immersion Cleaner #609 is managed as a transfer waste. The dry cleaning wastes are picked up at commercial dry cleaning establishments in containers and stored temporarily at the Service Center. Non-perchloroethylene dry cleaning wastes are managed as transfer wastes. The containers are picked up periodically for recycling at the recycle facility.

Paint wastes are collected in containers and handled similarly to the immersion cleaners.

Dry cleaning wastes consist of spent filter cartridges, powder residue from diatomaceous or other powder filter systems and still bottoms. These wastes are packaged on the customer's premises in containers.

Spent antifreeze containers are placed in the container storage area for shipment to a Safety-Kleen Recycle Center.

The FRS wastes are transfer wastes. They may be temporarily stored onsite for up to 10 days.

The waste products exhibit essentially the same biological, physical, and chemical properties as the fresh product. Used products are basically fresh products with impurities of dirt and metals. The MSDSs provided in Appendix A represent the biological, physical, and chemical properties of the fresh products (except FRS).

All wastes are ultimately shipped to a Safety-Kleen recycling facility.

Figure II.A.4(b)-1 shows the basic site and floor plan, particularly, the locations of waste management facilities.

Operating Facility Procedures

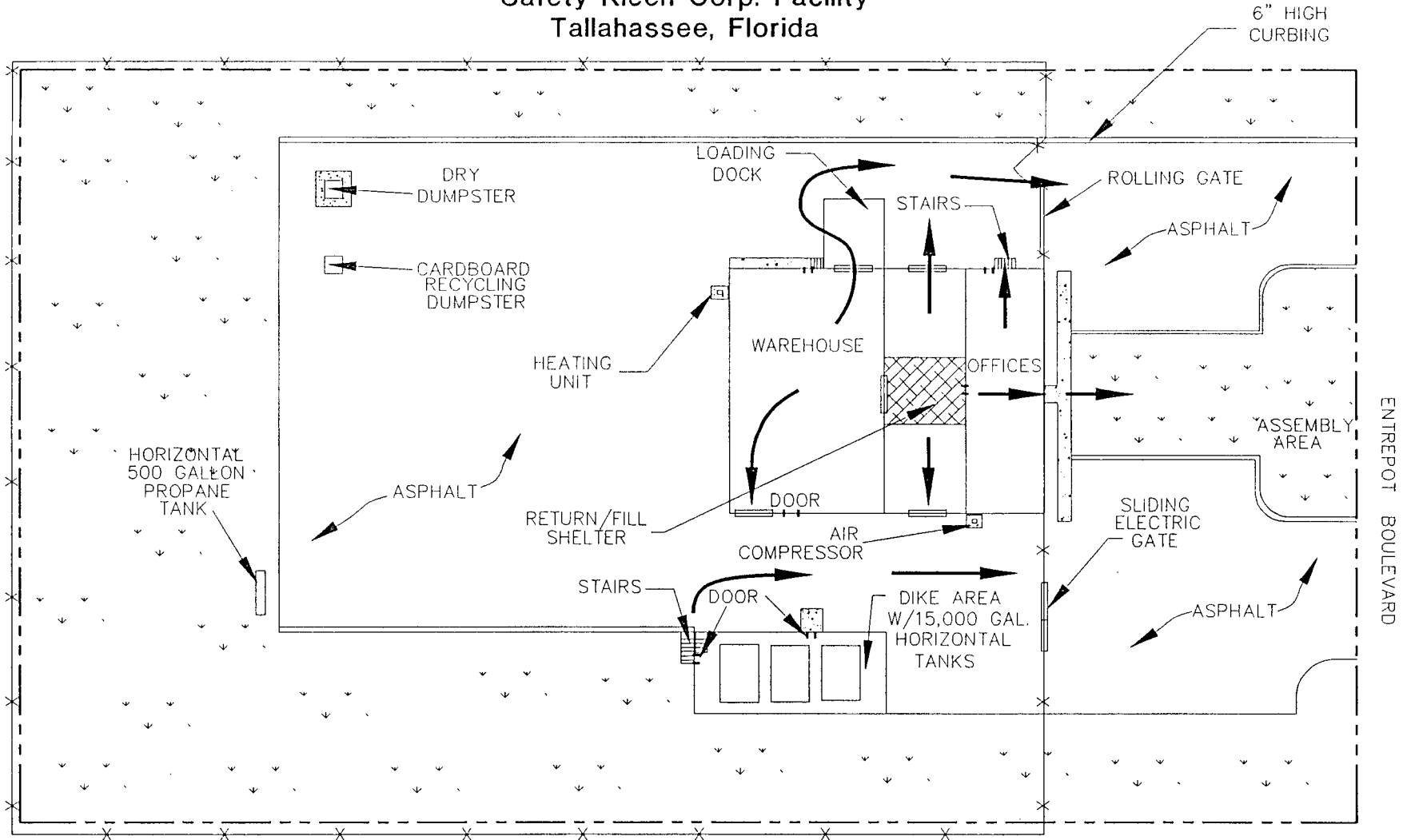
Inspection of Waste Management Facilities

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 II.A.4(b)-1 provides an inspection schedule.

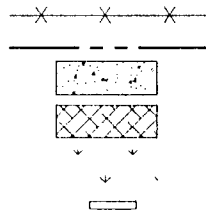
The Branch Manager or his designee is responsible for carrying out the inspections of all hazardous waste management facilities in accordance with the following procedure and schedule.

13112.29 31129BM 081894-9

Figure II.A.4(b)-1 Site Layout Map Safety-Kleen Corp. Facility Tallahassee, Florida



LEGEND

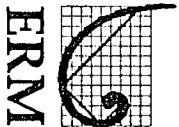


FENCE
PROPERTY BOUNDARY
CONCRETE
GRATING
VEGETATION
ROLL UP DOOR

→ EVACUATION ROUTE



APPROXIMATE SCALE IN FEET



**TABLE II.A.4(b)-1
INSPECTION SCHEDULE**

Area/Equipment	Specific Item	Types of Problems	Frequency of Inspection
Safety Equipment	Fire Extinguishers	<ul style="list-style-type: none"> • Overdue inspection • Inadequately charged • Inaccessible 	Weekly
	Eye Wash and/or Emergency Shower	<ul style="list-style-type: none"> • Disconnected/malfunctioning valves • Pressure • Inaccessible 	Weekly
	First-Aid Kit	<ul style="list-style-type: none"> • Inadequate inventory 	Weekly
	Spill Cleanup Equipment	<ul style="list-style-type: none"> • Inadequate supply of sorbent, towels, shovels, mops, empty drums 	Weekly
	Personal Protection Equipment	<ul style="list-style-type: none"> • Inadequate supply of aprons, glasses, respirators 	Weekly
Security Equipment	Gates and Locks	<ul style="list-style-type: none"> • Sticking corrosion, lack of warning signs 	Weekly
	Fence	<ul style="list-style-type: none"> • Broken ties, corrosion, holes, distortion 	Weekly
Storage Tank System- Storage Tanks	Volume in Tank	<ul style="list-style-type: none"> • Must never be more than 95 percent full 	Each operating day
	Tank Exterior	<ul style="list-style-type: none"> • Rusty or loose anchoring, lack of grounding, wet spots, discoloration, leaks, distortion 	Each operating day
	High Level Alarms	<ul style="list-style-type: none"> • Malfunctioning siren/strobe light 	Each operating day
	Volume Gauges	<ul style="list-style-type: none"> • Disconnected, sticking, condensation 	Each operating day
Secondary Containment	Bottom and Walls	<ul style="list-style-type: none"> • Cracks, debris, ponding, wet spots/stains, deterioration, displacement, leaks 	Each operating day
	Self Closing Drain Valve	<ul style="list-style-type: none"> • Open, leaks 	Each operating day
	Rigid Piping and Supports	<ul style="list-style-type: none"> • Distortion, corrosion, paint failures, leaks 	Each operating day

**TABLE II.A.4(b)-1
INSPECTION SCHEDULE**

Area/Equipment	Specific Item	Types of Problems	Frequency of Inspection
	Fittings	<ul style="list-style-type: none"> Leaks 	Each operating day
	Valves	<ul style="list-style-type: none"> Leaks, sticking 	Each operating day
	Hose Connections and Fittings	<ul style="list-style-type: none"> Cracks, loose, leaks 	Each operating day
	Hose Body	<ul style="list-style-type: none"> Crushed, cracked, thin spots, leaks 	Each operating day
Return and Fill Station	Wet Dumpster	<ul style="list-style-type: none"> Excess sediment build-up, leaks, rust, split seams, distortion, deterioration, excess debris 	Each operating day
	Secondary Containment	<ul style="list-style-type: none"> Excess sediment/liquid, leaks, deterioration, distortion, excess debris 	Each operating day
	Loading/Unloading Area	<ul style="list-style-type: none"> Cracks, pondings/wet spots 	Each operating day
Container Storage Area	Total Volume in Storage	<ul style="list-style-type: none"> Exceeds permitted limit 	Each operating day
	Condition of Drums	<ul style="list-style-type: none"> Missing or loose lids; labels missing, incomplete or incorrect; rust, leaks, distortion 	Each operating day
	Stacking/Placement/ Aisle Space	<ul style="list-style-type: none"> Containers not on pallets, unstable stacks, inadequate aisle space 	Each operating day
Secondary Containment	Curbing, Floor and Sump	<ul style="list-style-type: none"> Ponding/wet spots, deterioration, displacement, leaks, other 	Each operating day
	Loading/Unloading Area	<ul style="list-style-type: none"> Cracks, deterioration, ponding/wet spots 	Each operating day

The Branch Manager or his designee inspects the facility weekly for security (gates and locks) and any evidence of sticking, corrosion, or uncommon activity. The facility fence is checked weekly for deterioration, gaps, and broken wire ties.

Daily inspections of the container storage area(s) include the following:

- Physically examine the container storage area to verify that leaks have not occurred since the last inspection.
- Verify that the containers have not been damaged or rusted to the point of near leakage.
- Replace or adjust damaged, missing, or loose equipment.
- Examine the container storage areas to verify that all container identification, dates, loading data, hazardous waste labels are attached and current.
- Check containment areas to detect signs of deterioration and failure of the containment system such as cracks, breakage, settlement, and spillage.
- Verify container placement and stacking such as aisle space, height, and stability of stacks.

Daily inspections of aboveground tanks also include the following:

- Check the automatic high level alarm. In addition, read 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 the solvent dispensing hose, connections, and valve for any leaks, damage, or wear that could cause a leak to develop.
- Drain the hose and unloading pipe so that all of the solvent is collected and returned to storage.
- Inspect the valves for proper seat. Stem leaks from worn glands and warped valve bodies will be repaired. If the valve cannot be repaired, replace the unit.
- Pumps will be inspected for packing leaks and cool, quiet operation.

The tanks will be periodically visually inspected and tested. Every five years, a general structural inspection, hydraulic test of the tank, and wall thickness will be made.

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

Inspection of Emergency and Spill Control 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.

The Branch Manager or his 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. The unit must be inspected by a fire service supplier on a yearly basis.
- A weekly inspection of eye wash 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 Transportation Equipment

The purpose of this inspection plan is to establish a procedure and schedule for the systematic monitoring and inspection of the route trucks which travel between the customers and the service center to ensure proper operation and safety of the equipment.

The Branch Manager or his designee is responsible for daily inspection of each route vehicle to ensure the proper operation of brakes, lights, turn signals, emergency flashers, and wipers. Trucks dispatched from the recycle center should also be noted for their operation.

Daily inspection for safety equipment such as sorbent, eyewash, fire extinguisher, first-aid kit, and reflector kits on the route vehicles must be performed.

Any equipment that is inoperative or unavailable shall be immediately repaired or replaced.

Corrective Action

Any discrepancies or deficiencies found during the routine inspection must be corrected in an expedient manner to ensure that the problem does not lead to an environmental or human health hazard. Where a hazard is imminent or an accident has already occurred, remedial action must be taken immediately. The Branch

Manager of the Service Center has the overall responsibility for resolving any discrepancies found during the routine inspection.

Emergency Notification

Emergency Coordinator

The Branch Manager or his designee is the emergency coordinator. Page iii of this plan provides the names, home addresses, and both office and home phones of the primary emergency coordinator and his alternatives. At least one employee is 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 of this plan. A Field Spill Report Form is shown in Table II.A.4(b)-2.

Actions of the Emergency Coordinator

Whenever there is an imminent or actual emergency situation, the emergency coordinator (or his or her 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 Service Center 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 sounding a car horn repeatedly 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 he is absent.

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

Field Environmental Incident Report Form

*Report all spills to the Safety-Kleen Environment, Health and Safety Dept. immediately
(including spills, fires, DOT reportable releases, etc.).*

safety-kleen .

1. Facility Number: _____ Facility Location: _____

2. Date of Incident: _____ Time: _____ a.m. p.m.

3. Reported By: _____

4. Location of Incident: _____

If not at S-K site, name and phone of contact person: _____

5. Material Involved: _____ Quantity: _____

6. Material Status: Clean Non-Hazardous Waste Hazardous Waste

7. Any injuries or property damage? Yes No If yes, explain: _____

8. Cause of Incident: (Explain in detail) _____

9. Describe incident in detail (including nearby surface water or sewer and distance, type of surface spilled on, was spill contained): _____

10. Describe actions taken to prevent recurrence: _____

11. Describe response/cleanup action taken and any material not recovered: _____

12. Cleanup Residue Volume: _____ Spill Kit Restocked? Yes No

13. Emergency Response Company Involved: _____ Phone # _____

14. Person(s) Involved in Incident: _____ Phone # _____

15. Vehicle #: _____ Company: _____

16. List Emergency Agencies at Scene (include names & phones): _____

17. Potential Public Exposure, Distance to Homes, Businesses, etc.: _____

18. Notification:	S-K EHS 1-708-888-4660	S-K Regional Env. Staff	Nat'l Response Center 1-800-424-8802	1- - -	State/Local - -
-------------------	---------------------------	----------------------------	---	--------------	-----------------------

Date/Time: _____

Contact Name: _____

Comments Rec'd: _____

Report Number: _____

19. Spill EPA ID # (if obtained): _____

20. Spill Residue Paperwork (check): Bill of Lading Manifest Spill: LDR

21. DOT Reports Required/Completed? Verbal: Yes No Written: Yes No

22. State Reports Required/Completed? Verbal: Yes No Written: Yes No

Signature of Preparer: _____ Date of Report: _____

After completing this form, file copy 1 in the Facility Incident (Spill) File at the facility, send copy 2 to the SK EHS Department in Elgin and copy 3 to the site's regional environmental staff.

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 shall be requested.
- In case of a release outside of the containment area that is deemed immediately uncontrollable or unrecoverable, a local emergency response agency and/or specialty cleanup contractor shall be called in.
- After termination of a fire or explosion, 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, 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 Northwest District of the FDEP, 160 Governmental Center, Pensacola, Florida (904/436-8363) (Monday-Friday, 8:00 a.m. to 5:00 p.m., except holidays), or the Florida Department of Emergency Management (904/488-1320), 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 emergency number of the Safety-Kleen Corporation Environmental, Health and Safety Department ((708) 888-4660).

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 buildup, 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 Northwest District of the FDEP, 160 Governmental Center, Pensacola, Florida 32501-5794 (904/436-8363). 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 being moved.

2. Delivery truck container transfers.

- a. Individual delivery containers holds 5 to 30 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 off the truck and into the customer's shop and returning the dirty solvent to the truck.
- c. Clamp type lids are on containers during movement to prevent a spill.
- d. Each truck should contain a shovel and a quantity of sorbent material to contain a minor spill.
- e. The cargo should 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) (Appendix A), the worker would enter the area wearing rubber gloves, boots, and respirator and mop up the liquid, place it in a container, and return it to 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 emergency 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 characterized for hazardous waste requirements.

Tanks Spills or Leakage

Aboveground tanks are underlain by a concrete slab and surrounded by a concrete dike to contain any spilled or leaked 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 characterized for hazardous waste requirements.

Spill Control Procedures

If a harmful discharge occurs:

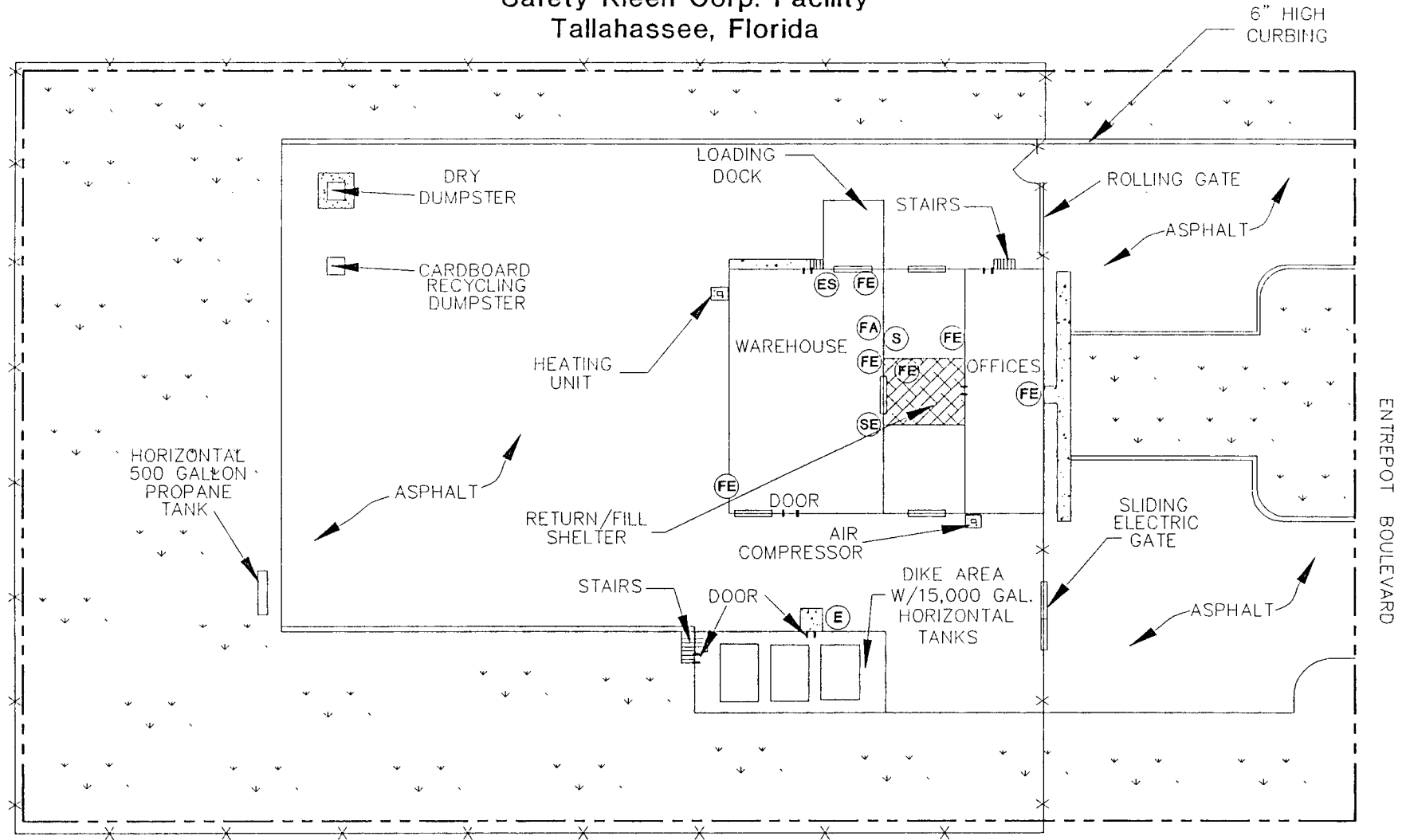
1. Stop the discharge, if possible, by immediately transferring the liquid to a salvage container.
2. Retain, contain, or slow the flow of the material, if possible, by diking with sorbent pad or dirt. Appropriate personal protective equipment should be worn. Pump and mop up the liquid from the floor into a salvage container and return the container to storage and then later to the Recycle Center 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 at a Safety-Kleen Recycle Center.
3. If the material escapes the containment efforts, *immediately* call the cleanup contractor with response time less than two hours on page iii. Record the date, time, and name of person taking the message. Call the primary emergency coordinator, if he is absent.
4. Immediately recover spilled solvent to reduce property and environmental damage using the safety equipment stored onsite for such situations (Figure II.A.4(b)-2 and Table II.A.4(b)-3) or call in emergency response contractors on 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 Safety-Kleen recycle center. In addition, the recovered solvent will be sent to a Safety-Kleen recycle center for reclamation.

5. Report any incident as soon as possible to Safety-Kleen Corporate Environmental Department on the 24-hour telephone line: (708) 888-4660. If the Environmental Department does not respond within 30 minutes, call the Northwest District of the FDEP, 160 Governmental Center, Pensacola, FL 32501-5794 (904) 436-8363 (Monday-Friday, 8:00 a.m. to 5:00 p.m., except holidays), or the Florida Department of Emergency Management (904) 488-1320, or the National Response Center (telephone: (800) 424-8802).
6. The person reporting a spill should be prepared to give his 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,

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Figure II.A.4(b)-2
 Location of Emergency Equipment
 Safety-Kleen Corp. Facility
 Tallahassee, Florida



LEGEND

- x-x-x- FENCE
- - - - - PROPERTY BOUNDARY
- [Stippled Box] CONCRETE
- [Cross-hatched Box] GRATING
- [Downward Arrow] VEGETATION
- [Roll-up Door Symbol] ROLL UP DOOR

- (E) EYEWASH
- (ES) EYEWASH AND SHOWER
- (FA) FIRST AID
- (FE) FIRE EXTINGUISHER
- (S) SHOWER
- (SE) SPILL EQUIPMENT



APPROXIMATE SCALE IN FEET



TABLE II.A.4(b)-3

SPILL CONTROL AND EMERGENCY RESPONSE EQUIPMENT

Description	Type/Capacity	Location	Quantity
Fire Extinguisher	ABC (10 lb)	Container Storage Area	3
Fire Extinguisher	ABC (10 lb)	Return/Fill Shelter	1
Fire Extinguisher	ABC (10 lb)	Office	1
Eyewash/Shower	Fountain	Container Storage Area	1
Shower	Drench	Return/Fill Shelter	1
Eyewash	Fountain	Tank Storage Area	1
First-Aid		Container Storage Area	1
Telephones	Standard	Manager's Office	1
Telephones	Standard	Secretary's Desk	1
Telephones	Explosion-proof	Loading Dock	1
Gloves	Rubber	Spill Equip. Area	Min. 3
Boots (optional)	Rubber	Spill Equip. Area	Min. 3
Protective Clothing	Apron	Spill Equip. Area	Min. 3
Eye Protection	Goggles/Safety Glasses	Spill Equip. Area	Min. 3
Sorbent Material	Oil Absorbing	Spill Equip. Area	Min. 1 bale
Shovel	Standard	Spill Equip. Area	Min. 1
Mop and Bucket	Standard	Spill Equip. Area	Min. 1
Pump	Hand-held, Electric	Spill Equip. Area	Min. 1
Wet/Dry Vacuum	Portable, Electric	Spill Equip. Area	1
Empty Containers for Over Pack	30, 55, and 85 gallons	Container Storage Area	9
Alarm	N/A	Tank Storage Area	1
Alarm	N/A	Container Storage Area	1
Alarm	N/A	Return/Fill Shelter	1

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.

Reports of emergency incidents will be transmitted to the Secretary of the FDEP or his designee within 15 days of occurrence. This report shall 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 materials involved;
5. The extent of injuries, if any;
6. An assessment of actual or potential hazards to human health or the environment, (where applicable); and
7. Estimated quantity and disposition of recovered material that resulted from the incident.

Containment Systems

Containerized Wastes

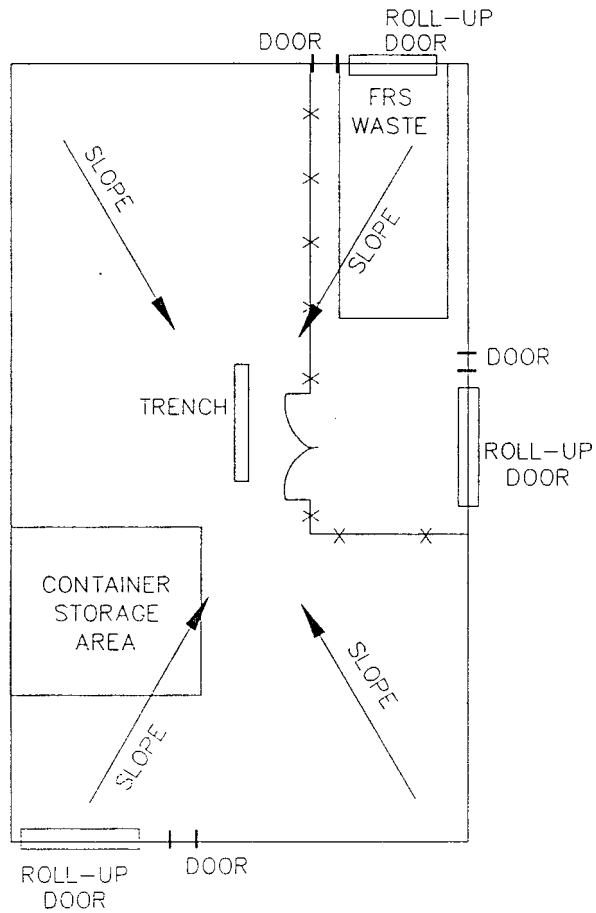
All containers are stored in the container storage areas. The storage areas are contained by a concrete floor, berm, trench, and sumps (Figure II.A.4(b)-3). The containment system is sealed with an impermeable coating and is free of cracks. Adequate aisle space for emergency response will be maintained, and the containers will be stored no more than six feet high or two pallets high, whichever is higher. Containers will be placed on pallets whenever possible.

The container storage area is a approximately 78' x 48' concrete floor with one containment trench with a containment capacity of 270 gallons. The sloped floor accounts for a containment capacity of 2,323.7 gallons for a total containment capacity of 2,593.7 gallons. Maximum storage capacity is 25,937 gallons of which 6,912 gallons may be permitted wastes. Waste allowed for storage is immersion cleaner, dry cleaning solvent, parts washer solvent dumpster mud, tank bottoms, and paint waste. The remaining storage capacity (25,937 gallons less 6,912 gallons) will be used for virgin product, transfer wastes, and non-hazardous wastes.

The floor has intentional sloping toward the containment trench. Any spill which might occur would be directed to the containment trench.

The FRS accumulation area consists of a designated section within the warehouse.

Figure II.A.4(b)-3
Container Storage Area
Safety-Kleen Corp. Facility
Tallahassee, Florida



— x — x — FENCE

0 20
APPROXIMATE SCALE IN FEET

In the container storage area, containers are handled with a hand-truck free of sharp points or stacked by hand. Each time a container is moved, a possibility 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 a salvage container. Some route trucks are equipped with an electric hoist. This hoist is used in the loading/unloading operation to minimize the possibility of spillage and/or employee injury. Trucks used for shipping containers between the recycle center and service center have lift gates for container loading/unloading. All containerized wastes are loaded/unloaded in the vicinity of the garage doors on the northern and southern sides of the building or in the return/fill shelter (Figure II.A.4(b)-4).

All containers are covered during movement and are located within diked, concrete floored areas to contain any potential spill. The small quantities of waste onsite at any time can 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 will be containerized for offsite recycling/reclamation.

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

Fill/Return Shelter

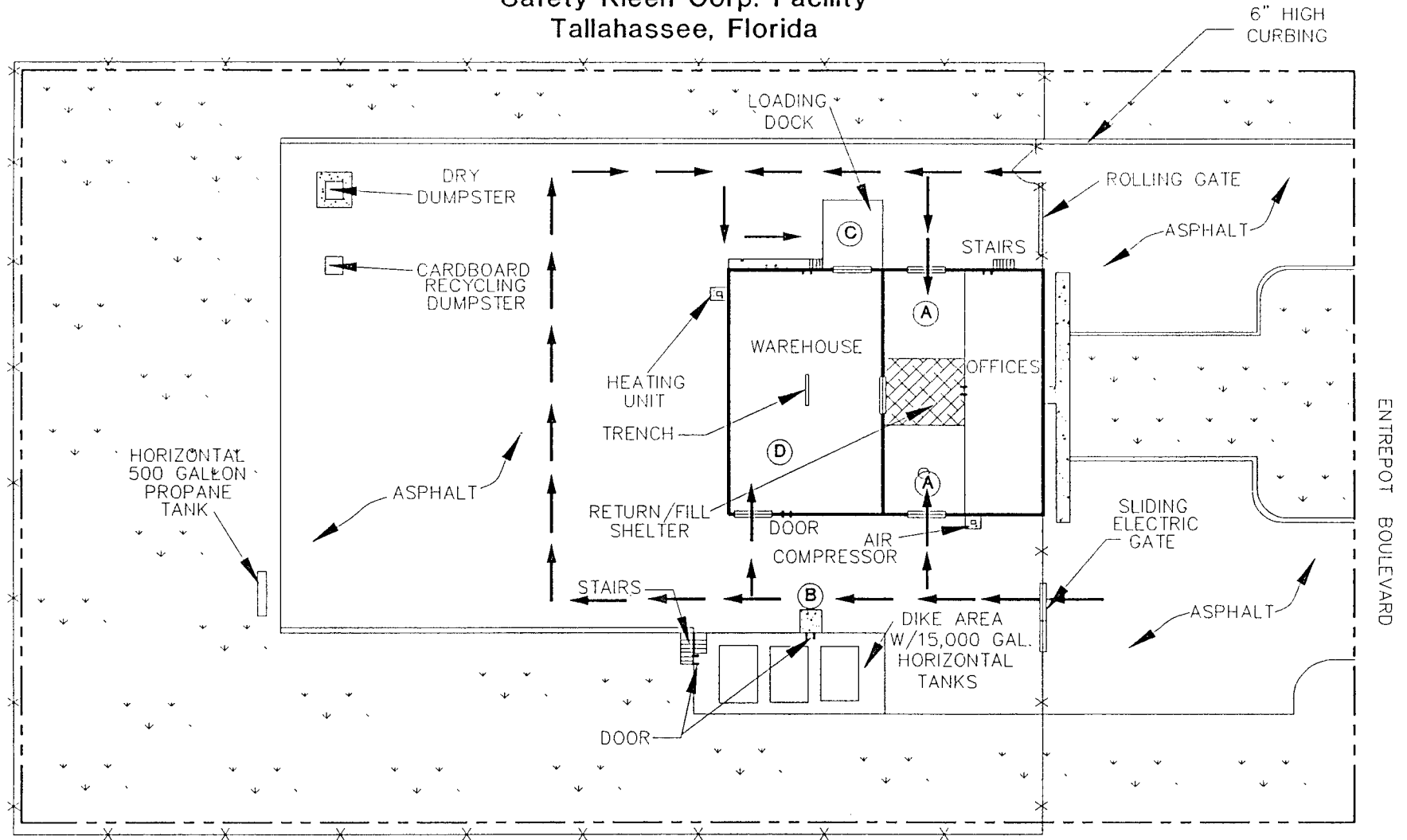
The fill/return shelter (Figure II.A.4(b)-5) is an enclosed shelter with steel grating and a concrete floor with 4" high curbing beneath the steel grating. The curbing extends beyond the grating so that the delivery trucks can position over the containment area during loading/unloading. This area has a containment capacity of 1,013 gallons. The dumpsters are not intended for storage; however, they are capable of holding approximately 504 gallons each (total of 1,008 gallons). The area just outside of the fill/return shelters is concrete. Any spills which occur on the concrete are cleaned up and the area decontaminated. The decontamination process should result in the *de minimus* amounts of residue remaining.

Tank Area

The tank area (Figure II.A.4(b)-6) is provided with containment including a sump. This containment area is capable of holding 27,700 gallons which exceeds the single largest tank of 15,000 gallons. The tank area is an enclosed building. This containment area is not sloped. Any spilled material is removed by pump or wet vacuum. The tanks loading/unloading area is a concrete pad. No curbing presently exists around the pad. The pad is intentionally sloped toward the middle. Any spills which occur on the pad are cleaned up and the area decontaminated. This decontamination results in *de minimus* residue available for run-off during a rain storm.

Employee training emphasizes the importance of inspection, maintenance, personal safety, and reporting of conditions with pollution incident potential. This training, coupled with the Safety-Kleen's containment system and immediate cleanup of any

Figure II.A.4(b)-4
Truck Traffic Patterns and Loading/Unloading Areas of Hazardous Waste
Safety-Kleen Corp. Facility
Tallahassee, Florida



LEGEND

- FENCE
- PROPERTY BOUNDARY
- CONCRETE
- GRATING
- VEGETATION
- ROLL UP DOOR
- TRUCK TRAFFIC PATTERN

- (A)** LOADING AND UNLOADING OF CONTAINERS WITH SOLVENTS FROM VANS
- (B)** LOADING AND UNLOADING OF PARTS WASHER SOLVENT FROM TANKER TRUCKS
- (C)** LOADING AND UNLOADING OF CONTAINERIZED WASTE AND PRODUCT
- (D)** LOADING AND UNLOADING OF CONTAINERIZED WASTES FROM LOCAL AREA VANS

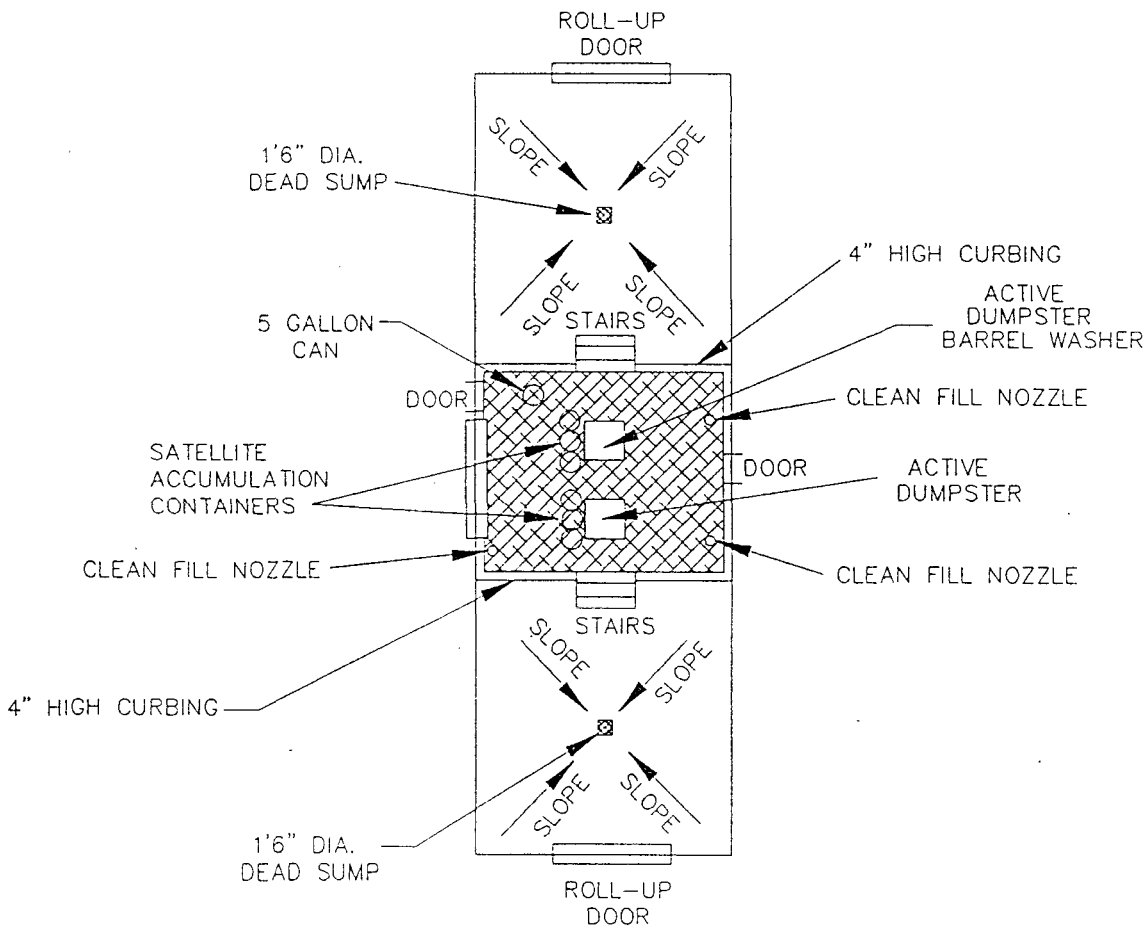


APPROXIMATE SCALE IN FEET





ENTREPOT BOULEVARD

Figure II.A.4(b)-5
Return/Fill Shelter
Safety-Kleen Corp. Facility
Tallahassee, Florida



LEGEND

 GRATING

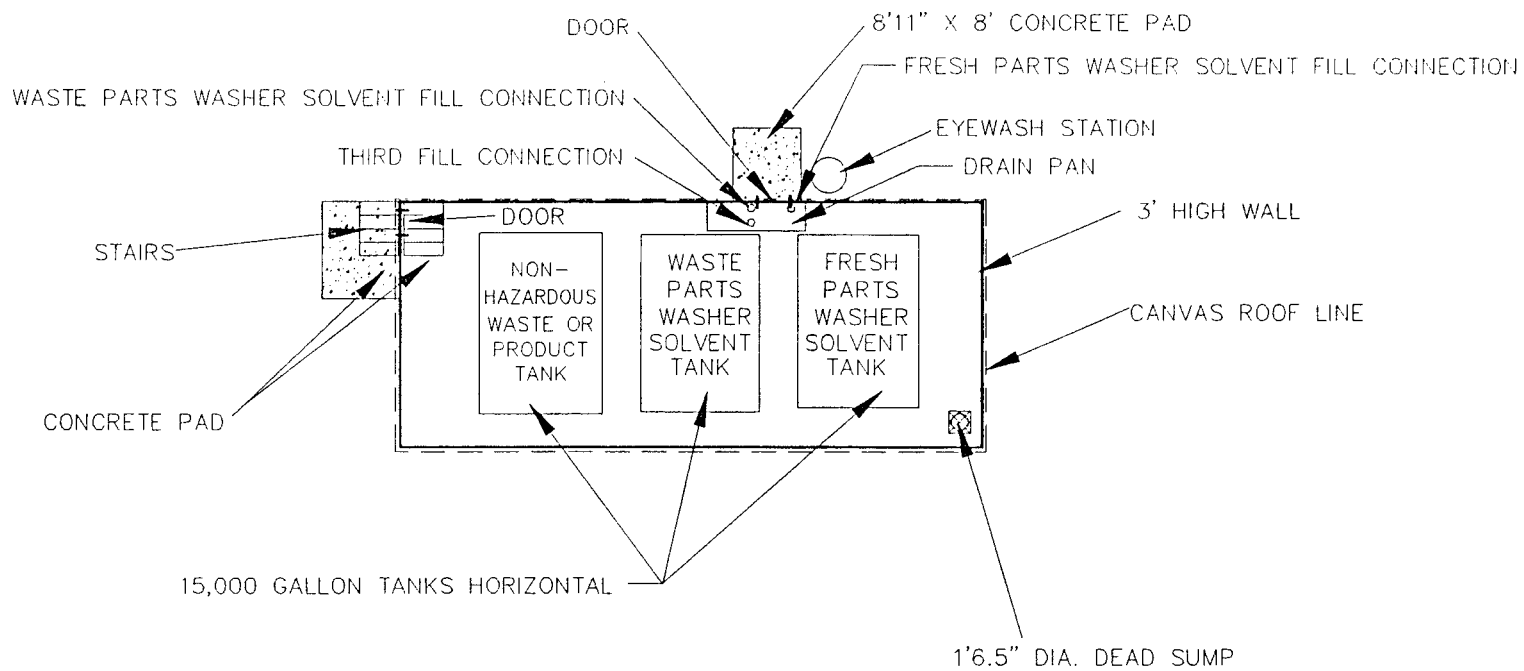

0 APPROXIMATE SCALE 20
FEET

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Figure II.A.4(b)-6 Tank Farm Safety-Kleen Corp. Facility Tallahassee, Florida



NOTE: THIS IS AN ENCLOSED BUILDING



APPROXIMATE SCALE IN FEET

REVISED 08/15/94



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spills, will eliminate or greatly minimize the chance of contamination of ground water, soils, and/or surface water in the vicinity of the site. In addition, surface run-off at the site does not come in contact with stored products in the waste management area.

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.

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/vac, hoses) will be washed with detergent solution, triple rinsed with water, and the wash water and rinsate will be collected in a container. 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 are determined to be hazardous, they 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 any waterway.

Emergency Response Equipment and Communication

Due to the small size of the facility, routine communication is accomplished by voice communication. Telephones are used in case of a spill or fire emergency to summon assistance. Emergency numbers are posted by each phone in the office. Included with these phone numbers is the 24-hour spill number which connects to Corporate Environmental Department at the corporate office in Elgin, Illinois. See Figure II.A.4(b)-2 for locations of fire extinguisher, the first-aid kit, and the emergency eyewash. Other emergency response equipment (Table II.A.4(b)-3) is kept in a small storage area inside the warehouse near the return/fill dock. 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 II.A.4(b)-4. Adequate aisle space is provided in the container storage area for movement in an emergency situation.

The equipment available at the Service Center 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 operated in accordance with National Fire Protection Association (NFPA) standards and applicable local ordinances. Applicable health and safety standards also are observed at the service center.

TABLE II.A.4(b)-4

DESCRIPTION AND USES OF EMERGENCY EQUIPMENT

Item	Location	Use/Description
Gloves	Warehouse/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	Warehouse/Emergency Equipment Area	Whichever the worker prefers is to be worn when loading or unloading solvent.
Plastic Aprons	Warehouse/Emergency Equipment Area	For situations where a solvent may get on the worker's clothing.
Eyewash Stand	Tank Area/Container Area	The workers should operate the stand and become familiar with its operation.
Emergency Shower	Return/Fill Container Storage	The workers should operate the shower and become familiar with its operation.
Showers	Locker Room	
Fire Extinguisher	Points where solvent is transferred Office	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. The accepted extinguisher is available as S-K Part No. 4009.
Absorbent Material	Loading/Unloading Area and Warehouse	An adequate supply will be on hand to handle small spills. S-K Part No. 8890 A 50-pound bag of sorbent clay will also be kept in the warehouse to remediate and prevent the spread of large spills.
Air Purifying Respirator	Warehouse/Emergency Equipment Area	To be worn by any person entering an area or performing work where potentially harmful fumes are present or are suspected to be present but are not considered to be immediately dangerous to life and health.
Portable Pumps Wet/Dry Vacuum	Warehouse	For use in picking up liquid spills in the drum containment area, or other paved areas, and to transfer materials associated with a spill.
Recovery Drums	Warehouse	Emergency storage of spilled product, cleaning fluids, or other materials associated with a spill.
Plastic	Warehouse	To be used for containment of decontamination zones.
Duct Tape	Emergency Equipment Area	Taping of protective clothing, containment plastic, and other miscellaneous uses.
First-Aid Supplies	Warehouse	Minor first-aid needs and health problems.
Shovels and Mops	Warehouse/Emergency Equipment Area	To be used to collect spills and spill residue.
Communication Equipment	Throughout the Facility	Eight telephones with paging/loudspeaker systems are available in the office for internal and external communications.
Decontamination Equipment	Warehouse	Two brushes, 5-gallon buckets, 100 lb. detergent, cloth rags, brushes, and brooms are available for decontamination of clean-up equipment.

Fire Control Procedures

Call the Fire Department.

Ignitable Wastes

All wastes and products are kept away from ignitable sources--Personnel must confine smoking and open flames to remote areas, separate from any solvent (e.g., the office or locker room). 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.

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 solvent 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 painted white to reflect sunlight and are vented to prevent radiant heat buildup. In addition, the tank farm is covered and equipped with an explosion-proof fan which can be used for vapor dispersion.
2. *Produce uncontrolled toxic mists, fumes, dusts, or gases in quantities sufficient to threaten human health*--The vapor pressure of mineral spirits is low (2 mm) and it and the paint waste are reactive with strong oxidizers and reactive metals only. Toxic mists, fumes, dusts, or gases will not form in quantities sufficient to threaten human health since strong oxidizers are not handled at this facility and the solvent vaporization will be minimal under normal working conditions.
3. *Produce uncontrolled fires or gases in quantities sufficient to pose a risk of fire or explosion*--See "1" above.
4. *Damage the structural integrity of the Safety-Kleen facility*--The parts washer solvent and paint wastes will not cause deterioration of the tank, containers, or other structural components of the facility.

Incompatible Wastes

Reactive and/or incompatible waste is not handled at the facility. 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:

1. Generate extreme heat or pressure, fire or explosion, or violent reaction.
2. Produce uncontrolled toxic mists, fumes, dusts, or gases in sufficient quantities to threaten human health.

3. Produce uncontrolled fires or gases in sufficient quantities to pose a risk of fire or explosion.
4. 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.

Act quickly with the fire extinguisher to put out the fire before it spreads.

Call the Police Department and local hospital (page iii) when injury occurs and/or the order of on-lookers and traffic is to be maintained.

External Factors

The design of the installation 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 of the building onsite. 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 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 and fill station is roofed to eliminate the possibility of rain or snow entering the dumpsters. Snow, cold weather, or stormwater is not expected to affect the facility.

Excavation Plan

In an uncontrolled emergency, all persons will be warned verbally and required to evacuate from the area and assemble across from the entrance drive to the facility. The emergency coordination will assure that all personnel are accounted for and out of the area (Figure II.A.4(b)-1). The emergency coordinator may elect to use a car horn as a means of emergency notification.

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, Contingency Plan, and Emergency Procedure 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 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 the 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, Appendix A) 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 as well as sorbent suppliers are identified on page iii.

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 B includes copies of letters which have been transmitted to local authorities for emergency response in the event of an incident where public health or environment is threatened.

Appendix A

*Material Safety Data Sheets for
Known Hazardous Constituents*



Material Safety Data Sheet

**SAFETY-KLEEN
PREMIUM SOLVENT**

Part Number: 6605

Dear Safety-Kleen Customer,

At Safety-Kleen Corp., supplying material safety data sheets is more than a requirement to us; it is a commitment to our customers and their employees.

The material safety data sheet is a valuable source of product information and should be a part of your hazard communication program. With this in mind, we are providing you, our valued customer, this important product information.

Thank you for showing your concern for the environment by choosing Safety-Kleen Corp. products and services.

Sincerely,

Your friends at Safety-Kleen Corp.



SAFETY-KLEEN PREMIUM SOLVENT
MATERIAL SAFETY DATA SHEET FOR U.S.A. AND CANADA

SECTION 1 -- PRODUCT AND PREPARATION INFORMATION

PRODUCT INFORMATION

IDENTITY (TRADE NAME): SAFETY-KLEEN PREMIUM SOLVENT

SYNONYMS: Parts Washer Solvent; Petroleum Distillates; Petroleum Naphtha; Naphtha, Solvent; Stoddard Solvent; Mineral Spirits

SK PART NUMBER(S): 6605

FAMILY/CHEMICAL NAME: Petroleum hydrocarbon

PRODUCT USE: Cleaning and degreasing metal parts.
If this product is used in combination with other chemicals, refer to the Material Safety Data Sheets for those chemicals.

24-HOUR EMERGENCY TELEPHONE

These numbers are for emergency use only. If you desire non-emergency information about this product, please call a telephone number listed below.

MEDICAL:

1-800-752-7869 (U.S.A.)
1-312-942-5969 (CANADA)
RUSH POISON CONTROL CENTER
CHICAGO, ILLINOIS, U.S.A.

TRANSPORTATION:

1-708-888-4660 (U.S.A.)
SAFETY-KLEEN ENVIRONMENT,
HEALTH AND SAFETY DEPARTMENT
1-613-996-6666 (CANADA)
CANUTEC

MANUFACTURER/SUPPLIER: Safety-Kleen Corp. - 1000 North Randall Road - Elgin, IL, U.S.A. 60123-7857
Telephone number: 1-800-669-5840
Safety-Kleen Canada Inc. - 300 Woolwich Street South - Breslau, ON, Canada N0B 1M0
Telephone number: 1-800-265-2792

PREPARATION INFORMATION

MSDS FORM NO.: 82529 **REVISION DATE:** February 2, 1994
ORIGINAL ISSUE DATE: January 7, 1993 **SUPERSEDES:** February 11, 1993
PREPARED BY: Product MSDS Coordinator **APPROVED BY:** MSDS Task Force
TELEPHONE NUMBER: For Product Technical Information Call 1-312-694-2700 (U.S.A.);
1-519-648-2291 (Canada)

SECTION 2 -- HAZARDOUS COMPONENTS

NAME	SYNONYM	CAS NO.	WT%	OSHA PEL		ACGIH TLV		OTHER DATA	
				TWA	STEL	TWA	STEL	LD ^a	LC ^b
Distillates (petroleum) hydrotreated light	Solvent naphtha (petroleum), heavy aliph., hydrotreated	64742-47-8 ^{e,f}	100	500 ^{c,d} ppm	N.Av.	100 ^c ppm	N.Av.	> 5000	> 5500 ^c mg/m ³ /4 hours

N.Av. = Not Available
^aOral-Rat LD50 (mg/kg)
^bInhalation-Rat LC50

^cFor Stoddard Solvent CAS 8052-41-3

^dReference source 1910.1000 29 CFR Ch. XVII (7-1-92 edition): 100 ppm TWA

^eFor Stoddard Solvent: 29500 mg/m³ (approximately 5000 ppm) IDLH

^fFor Petroleum Distillates: 10000 ppm IDLH

SAFETY-KLEEN PREMIUM SOLVENT

MATERIAL SAFETY DATA SHEET FOR U.S.A. AND CANADA

SECTION 3 -- EMERGENCY AND FIRST AID PROCEDURES

- EYES:** For direct contact, flush eyes with water for 15 minutes lifting upper and lower lids occasionally. If irritation or redness from exposure to vapor or mist develops, move victim away from exposure into fresh air. Consult physician if irritation or pain persists.
- SKIN:** Remove contaminated clothing and shoes. Wash skin twice with soap and water. Consult physician if irritation or pain persists.
- INHALATION:
(Breathing):** Remove to fresh air immediately. Use oxygen if there is difficulty breathing or artificial respiration if breathing has stopped. Do not leave victim unattended. Seek immediate medical attention if necessary.
- INGESTION:
(Swallowing):** Seek immediate medical attention. Do NOT induce vomiting. If spontaneous vomiting occurs, keep head below hips to avoid aspiration (breathing) into the lungs.
- SPECIAL
NOTE TO
PHYSICIAN:** Treat symptomatically and supportively. Administration of gastric lavage, if warranted, should be performed by qualified medical personnel. Contact Rush Poison Control Center (see Section 1) for additional medical information.

SECTION 4 -- HEALTH HAZARD DATA AND TOXICOLOGICAL PROPERTIES

PRIMARY ROUTES OF EXPOSURE: Eye and skin contact; inhalation, ingestion.

EXPOSURE LIMITS: See Section 2.

SIGNS AND SYMPTOMS OF EXPOSURE

ACUTE: **Eyes:** Contact with liquid or exposure to vapors may cause mild to moderate irritation with watering, stinging, or redness.

Skin: Contact with liquid or exposure to vapors may cause mild to severe irritation. Contact with liquid or exposure to vapors may cause redness, drying, cracking, burning, or dermatitis. No significant skin absorption hazard.

Inhalation (Breathing): High concentrations of vapor or mist may irritate the nose, throat, or respiratory tract. High concentrations of vapor or mist may cause nausea, vomiting, or irregular heartbeat. High concentrations of vapor or mist may cause headaches, dizziness, incoordination, numbness, unconsciousness, and other central nervous system effects. Massive acute exposure may result in rapid central nervous system depression with sudden collapse, deep coma, and death.

Ingestion (Swallowing): Low order of acute oral toxicity. May cause throat irritation, nausea, vomiting, myocardial (muscular tissue of the heart) injury, arrhythmias (irregular heartbeats), and symptoms of central nervous system effects as listed for *ACUTE Inhalation*. Breathing material into the lungs during ingestion or vomiting may cause mild to severe pulmonary (lung) injury and possibly death.

CHRONIC: Prolonged or repeated eye contact may cause conjunctivitis. Prolonged or repeated skin contact may cause drying, cracking, dermatitis, or burns.

MEDICAL CONDITIONS

**AGGRAVATED BY
EXPOSURE:** Individuals with pre-existing lung, cardiac, central nervous system, or skin disorders may have increased susceptibility to the effects of exposure.

CARCINOGENICITY: Not applicable.

**OTHER POTENTIAL
HEALTH HAZARDS:** The following information is required by Canadian WHMIS regulations. Irritancy is covered in Signs and Symptoms of Exposure in Section 4. There is no known human sensitization, toxicologically synergistic product, reproductive toxicity, mutagenicity, or teratogenicity associated with this product as a whole.

SAFETY-KLEEN PREMIUM SOLVENT
MATERIAL SAFETY DATA SHEET FOR U.S.A. AND CANADA

SECTION 5 -- FIRE AND EXPLOSION HAZARD DATA

**EMERGENCY RESPONSE
GUIDE NUMBER:**

27
Reference 1993 Emergency Response Guidebook (RSPA P 5800.6)

**FIRE AND
EXPLOSION HAZARDS:**

Decomposition and combustion products may be toxic. Heated containers may rupture, explode, or be thrown into the air. Vapors are heavier than air and may travel great distances to ignition source and flash back. Vapor explosion hazard indoors, outdoors, or in sewers. Run-off to sewer may create fire or explosion hazard. Not sensitive to mechanical impact. Material may be sensitive to static discharge, which could result in fire or explosion.

FIRE FIGHTING PROCEDURES:

Keep storage containers cool with water spray. Positive-pressure, self-contained breathing apparatus (SCBA) and structural firefighters' protective clothing will provide limited protection.

EXTINGUISHING MEDIA:

Carbon dioxide, foam, dry chemical, or water spray.

CONDITIONS OF FLAMMABILITY:

Heat, sparks, or flame.

FLASH POINT:

150°F (66°C) (approximately) Tag Closed Cup

AUTOIGNITION TEMPERATURE:

440°F (227°C) (minimum)

FLAMMABLE LIMITS IN AIR:

LOWER: 1.0 Vol. % **UPPER:** 9.3 Vol. %

**HAZARDOUS COMBUSTION
PRODUCTS:**

Burning may produce carbon monoxide.

SECTION 6 -- REACTIVITY DATA

STABILITY:

Stable under normal temperatures and pressures, and not reactive with water.

**INCOMPATIBILITY (MATERIALS AND
CONDITIONS TO AVOID):**

Avoid strong acids, bases, or oxidizing agents. Chlorine may cause a violent reaction. Avoid heat, sparks, or flame.

HAZARDOUS POLYMERIZATION:

Not known to occur under normal temperatures and pressures.

**HAZARDOUS DECOMPOSITION
PRODUCTS:**

None under normal temperatures and pressures.

SECTION 7 -- PREVENTIVE MEASURES

PRECAUTIONS FOR SAFE USE AND HANDLING

**HANDLING
PRECAUTIONS:**

Keep away from heat, sparks, or flame. Where explosive mixtures may be present, equipment safe for such locations should be used. When transferring material, metal containers, including tank cars and trucks, should be grounded and bonded. Avoid contact with eyes, skin, clothing, or shoes. Use in well ventilated area and avoid breathing vapor or mist.

**PERSONAL
HYGIENE:**

Use good personal hygiene. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco products. Clean contaminated clothing, shoes, and protective equipment before reuse. Discard contaminated clothing, shoes, or protective equipment if they cannot be thoroughly cleaned.

**SHIPPING AND
STORING
PRECAUTIONS:**

Keep container tightly closed when not in use and during transport. Do not pressurize, drill, cut, heat, weld, braze, grind, or expose containers to flame or other sources of ignition. Empty product containers may contain product residue. See Section 9 for Packing Group information.

SAFETY-KLEEN PREMIUM SOLVENT

MATERIAL SAFETY DATA SHEET FOR U.S.A. AND CANADA

SPILL PROCEDURES:

Remove all ignition sources. Stop leak if you can do it without risk. Wear protective equipment specified in Section 7, CONTROL MEASURES. Ventilate area and avoid breathing vapor or mist. Water spray may reduce vapor, but it may not prevent ignition in closed spaces. For large spills, isolate area and deny entry; dike far ahead of liquid spill for later disposal. Contain away from surface waters and sewers. If possible, contain as a liquid for possible re-refining or sorb with compatible sorbent material and shovel with a non-sparking tool into closable container for disposal. See 1993 *Emergency Response Guidebook* (RSPA P 5800.6) Guide Number 27 for more information.

WASTE DISPOSAL METHODS:

Dispose in accordance with federal, state, provincial, and local regulations. Contact Safety-Kleen regarding recycling or proper disposal.

CONTROL MEASURES

EYE PROTECTION:

Where there is likelihood of eye contact, wear chemical goggles; do NOT wear contact lenses.

PROTECTIVE GLOVES:

Use Nitrile, Viton[®], or equivalent gloves to prevent contact with skin. Use of Butyl rubber, natural rubber, or equivalent gloves is not recommended.

RESPIRATORY PROTECTION:

Use NIOSH/MSHA-approved respiratory protective equipment when concentration of vapor or mist exceeds applicable exposure limit. A self-contained breathing apparatus (SCBA) and full protective equipment are required for large spills or fire emergencies. Selection and use of respiratory protective equipment should be in accordance in the U.S.A. with OSHA General Industry Standard 29 CFR 1910.134 or in Canada with CSA Standard Z94.4-M1982.

ENGINEERING CONTROLS:

Provide process enclosure or local ventilation needed to maintain concentration of vapor or mist below applicable exposure limits. Where explosive mixtures may be present, equipment safe for such locations should be used.

OTHER PROTECTIVE EQUIPMENT:

Where spills and splashes are possible, wear appropriate solvent-resistant boots, apron, or other protective clothing. Clean water should be available in work areas for flushing the eyes and skin.

SECTION 8 -- PHYSICAL DATA

PHYSICAL STATE, APPEARANCE AND ODOR:

Liquid, clear and colorless (water white), with characteristic hydrocarbon odor.

ODOR THRESHOLD:

30 ppm (based on Stoddard Solvent)

SPECIFIC GRAVITY:

0.78 to 0.82 (60°/60°F) (15.6°/15.6°C) (water = 1)

DENSITY:

6.5 to 6.8 lb/US gal (780 to 820 g/l)

VAPOR DENSITY:

5.3 to 6.2 (air = 1)

VAPOR PRESSURE:

0.4 to 1 mm Hg at 68°F (20°C)

BOILING POINT:

350° to 470°F (177° to 244°C)

FREEZING POINT:

less than -45°F (-43°C)

pH:

Not applicable.

VOLATILE ORGANIC COMPOUNDS: (US EPA DEFINITION)

100 WT%; 6.5 to 6.8 lb/US gal; 780 to 820 g/l

EVAPORATION RATE:

less than 0.1 (butyl acetate = 1)

SOLUBILITY IN WATER:

Insoluble.

SAFETY-KLEEN PREMIUM SOLVENT
MATERIAL SAFETY DATA SHEET FOR U.S.A. AND CANADA

COEFFICIENT OF WATER/OIL DISTRIBUTION: less than 1

MOLECULAR WEIGHT: 155 to 180

SECTION 9 -- OTHER REGULATORY INFORMATION

TRANSPORTATION INFORMATION

DOT PROPER SHIPPING NAME: COMBUSTIBLE LIQUID, N.O.S. (PETROLEUM NAPHTHA)

DOT CLASS: Combustible Liquid

DOT ID NUMBER: NA1993 PG III

TDG CLASSIFICATION: Not regulated.

SARA TITLE III: Product does not contain toxic chemicals subject to the requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

Product poses the following physical and health hazards as defined in 40 CFR Part 370 and is subject to the requirements of sections 311 and 312 of Title III of the Superfund Amendments and Reauthorization Act of 1986:

Immediate (Acute) Health Hazard
Delayed (Chronic) Health Hazard
Fire Hazard

WHMIS CLASSIFICATION: B3, Flammable and Combustible Material, Combustible Liquids; D2B, Poisonous and Infectious Material, Materials Causing Other Toxic Effects, Toxic Material

TSCA: All of the components for this product are listed on, or are exempted from the requirement to be listed on, the TSCA Inventory.

CALIFORNIA: This product is not for sale or use in the State of California.

User assumes all risks incident to the use of this product. To the best of our knowledge, the information contained herein is accurate. However, Safety-Kleen assumes no liability whatsoever for the accuracy or completeness of the information contained herein. No representations or warranties, either expressed or implied, or merchantability, fitness for a particular purpose or of any other nature are made hereunder with respect to information or the product to which information refers. The data contained on this sheet apply to the material as supplied to the user.



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Material Safety Data Sheet

**SAFETY-KLEEN 105 SOLVENT
RECYCLED**

Part Number: 6617, 1011662, 1014662

Dear Safety-Kleen Customer,

At Safety-Kleen Corp., supplying material safety data sheets is more than a requirement to us; it is a commitment to our customers and their employees.

The material safety data sheet is a valuable source of product information and should be a part of your hazard communication program. With this in mind, we are providing you, our valued customer, this important product information.

Thank you for showing your concern for the environment by choosing Safety-Kleen Corp. products and services.

Sincerely,

Your friends at Safety-Kleen Corp.



SAFETY-KLEEN 105 SOLVENT RECYCLED
MATERIAL SAFETY DATA SHEET FOR U.S.A. AND CANADA

SECTION 1 -- PRODUCT AND PREPARATION INFORMATION

PRODUCT INFORMATION

IDENTITY (TRADE NAME): SAFETY-KLEEN 105 SOLVENT RECYCLED

SYNONYMS: Parts Washer Solvent; Petroleum Distillates; Petroleum Naphtha; Naphtha, Solvent; Stoddard Solvent; Mineral Spirits

SK PART NUMBER(S): 6617, 1011662, 1014662

FAMILY/CHEMICAL NAME: Petroleum hydrocarbon

PRODUCT USE: Cleaning and degreasing metal parts.
If this product is used in combination with other chemicals, refer to the Material Safety Data Sheets for those chemicals.

24-HOUR EMERGENCY TELEPHONE	MEDICAL:	TRANSPORTATION:
These numbers are for emergency use only. If you desire non-emergency information about this product, please call a telephone number listed below.	1-800-752-7869 (U.S.A.) 1-312-942-5969 (CANADA)	1-708-888-4660 (U.S.A.) SAFETY-KLEEN ENVIRONMENT, HEALTH AND SAFETY DEPARTMENT
	RUSH POISON CONTROL CENTER CHICAGO, ILLINOIS, U.S.A.	1-613-996-6666 (CANADA) CANUTEK

MANUFACTURER/SUPPLIER: Safety-Kleen Corp. - 1000 North Randall Road - Elgin, IL, U.S.A. 60123-7857
Telephone number: 1-800-669-5840
Safety-Kleen Canada Inc. - 300 Woolwich Street South - Breslau, ON, Canada N0B 1M0
Telephone number: 1-800-265-2792

PREPARATION INFORMATION

MSDS FORM NO.: 82310 **REVISION DATE:** February 2, 1994

ORIGINAL ISSUE DATE: July 20, 1989 **SUPERSEDES:** January 15, 1992

PREPARED BY: Product MSDS Coordinator **APPROVED BY:** MSDS Task Force

TELEPHONE NUMBER: For Product Technical Information Call 1-312-694-2700 (U.S.A.);
1-519-648-2291 (Canada)

SECTION 2 -- HAZARDOUS COMPONENTS

<u>NAME</u>	<u>SYNONYM</u>	<u>CAS NO.</u>	<u>WT%</u>	<u>OSHA PEL</u>		<u>ACGIH TLV</u>		<u>OTHER DATA</u>	
				<u>TWA</u> ppm	<u>STEL</u> ppm	<u>TWA</u> ppm	<u>STEL</u> ppm	<u>LD^a</u>	<u>LC^b</u>
Distillates (petroleum) hydrotreated light	Solvent naphtha (petroleum), heavy aliph., hydro-treated	64742-47-8 ^{f,g}	99-100	500 ^{c,d}	N.Av.	100 ^c	N.Av.	> 5000	> 5500 ^c mg/m ³ /4 hours
Tetrachloroethene	Perchloroethylene; Tetrachloroethylene	127-18-4	0-0.5**	100 ^e	N.Av.	25	100	2629	34200 mg/m ³ /8 hours

SAFETY-KLEEN 105 SOLVENT RECYCLED
MATERIAL SAFETY DATA SHEET FOR U.S.A. AND CANADA

NAME	SYNONYM	CAS NO.	WT%	OSHA PEL		ACGIH TLV		OTHER DATA	
				TWA ppm	STEL ppm	TWA ppm	STEL ppm	LD ^a	LC ^b
*1,1,1-Trichloroethane	Methyl chloroform	71-55-6	0-0.5**	350	450	350	450	10300	18000 ppm/4 hours

N.Av. = Not Available

^bInhalation-Rat LC50

^cFor Stoddard Solvent CAS 8052-41-3

^dReference source 1910.1000 29 CFR Ch. XVII (7-1-92 edition): 100 ppm TWA

^eReference source 1910.1000 29 CFR Ch. XVII (7-1-92 edition): 25 ppm TWA

^fFor Stoddard Solvent: 29500 mg/m³ (approximately 5000 ppm) IDLH

^gFor Petroleum Distillates: 10000 ppm IDLH

*See Section 9-SARA Title III

**Even though the concentration range does not fall under the ranges prescribed by WHMIS, this is the actual range which varies with each batch of the product.

^aOral-Rat LD50 (mg/kg)

SECTION 3 -- EMERGENCY AND FIRST AID PROCEDURES

- EYES:** For direct contact, flush eyes with water for 15 minutes lifting upper and lower lids occasionally. If irritation or redness from exposure to vapor or mist develops, move victim away from exposure into fresh air. Consult physician if irritation or pain persists.
- SKIN:** Remove contaminated clothing and shoes. Wash skin twice with soap and water. Consult physician if irritation or pain persists.
- INHALATION: (Breathing):** Remove to fresh air immediately. Use oxygen if there is difficulty breathing or artificial respiration if breathing has stopped. Do not leave victim unattended. Seek immediate medical attention if necessary.
- INGESTION: (Swallowing):** Seek immediate medical attention. Do NOT induce vomiting. If spontaneous vomiting occurs, keep head below hips to avoid aspiration (breathing) into the lungs.
- SPECIAL NOTE TO PHYSICIAN:** Treat symptomatically and supportively. Administration of gastric lavage, if warranted, should be performed by qualified medical personnel. Contact Rush Poison Control center (see Section 1) for additional medical information.

SECTION 4 -- HEALTH HAZARD DATA AND TOXICOLOGICAL PROPERTIES

PRIMARY ROUTES OF EXPOSURE: Eye and skin contact; inhalation, ingestion.

EXPOSURE LIMITS: See Section 2.

SIGNS AND SYMPTOMS OF EXPOSURE

ACUTE: Eyes: Contact with liquid or exposure to vapors may cause mild to moderate irritation with watering, stinging, or redness.

Skin: Contact with liquid or exposure to vapors may cause mild to severe irritation. Contact with liquid or exposure to vapors may cause redness, dryness, cracking, burning, or dermatitis. No significant skin absorption hazard.

Inhalation (Breathing): High concentrations of vapor or mist may irritate the nose, throat, or respiratory tract. High concentrations of vapor or mist may cause nausea, vomiting, or irregular heartbeat. High concentrations of vapor or mist may cause headaches, dizziness, incoordination, numbness, unconsciousness, and other central nervous system effects. Massive acute exposure may result in rapid central nervous system depression with sudden collapse, deep coma, and death.

Ingestion (Swallowing): Low order of acute oral toxicity. May cause throat irritation, nausea, vomiting, myocardial (muscular tissue of the heart) injury, arrhythmias (irregular heartbeats), and symptoms of central nervous system effects as listed for **ACUTE Inhalation**. Breathing material into the lungs during ingestion or vomiting may cause mild to severe pulmonary (lung) injury and possibly death.

SAFETY-KLEEN 105 SOLVENT RECYCLED
MATERIAL SAFETY DATA SHEET FOR U.S.A. AND CANADA

CHRONIC: Prolonged or repeated eye contact may cause conjunctivitis. Prolonged or repeated skin contact may cause drying, cracking, dermatitis, or burns.

**MEDICAL CONDITIONS
AGGRAVATED BY
EXPOSURE:**

Individuals with pre-existing lung, cardiac, central nervous system, or skin disorders may have increased susceptibility to the effects of exposure.

CARCINOGENICITY:

IARC classifies chemicals by their carcinogenic risk, including agents that are known, probable, or possible carcinogens. NTP classifies chemicals as either known carcinogens, or for which there is a limited evidence of carcinogenicity in humans or sufficient evidence of carcinogenicity in experimental animals. ACGIH recognizes several categories of carcinogens, including confirmed human carcinogens, suspected human carcinogens, and animal carcinogens.

Tetrachloroethene is listed by IARC as a possible carcinogen. Tetrachloroethene is classified by NTP as having limited evidence of carcinogenicity in humans or sufficient evidence of carcinogenicity in experimental animals. Tetrachloroethene is recognized by ACGIH as an animal carcinogen.

**OTHER POTENTIAL
HEALTH HAZARDS:**

The following information is required by Canadian WHMIS regulations. Irritancy is covered in Signs and Symptoms of Exposure in Section 4. There is no known human sensitization, toxicologically synergistic product, reproductive toxicity, or mutagenicity associated with this product as a whole. Studies indicate that 1,1,1-trichloroethane is an experimental teratogen.

SECTION 5 – FIRE AND EXPLOSION HAZARD DATA

**EMERGENCY RESPONSE
GUIDE NUMBER:**

27
Reference 1993 Emergency Response Guidebook (RSPA P 5800.6)

**FIRE AND
EXPLOSION HAZARDS:**

Decomposition and combustion products may be toxic. Heated containers may rupture, explode, or be thrown into the air. Vapors are heavier than air and may travel great distances to ignition source and flash back. Vapor explosion hazard indoors, outdoors, or in sewers. Run-off to sewer may create fire or explosion hazard. Not sensitive to mechanical impact. Material may be sensitive to static discharge, which could result in fire or explosion.

FIRE FIGHTING PROCEDURES:

Keep storage containers cool with water spray. Positive-pressure, self-contained breathing apparatus (SCBA) and structural firefighters' protective clothing will provide limited protection.

EXTINGUISHING MEDIA:

Carbon dioxide, foam, dry chemical, or water spray.

CONDITIONS OF FLAMMABILITY:

Heat, sparks, or flame.

FLASH POINT:

105°F (40°C) (minimum) Tag Closed Cup

AUTOIGNITION TEMPERATURE:

440°F (227°C) (minimum) (based on similar materials)

FLAMMABLE LIMITS IN AIR:

LOWER: 1.0 Vol. % (based on similar materials)
UPPER: 9.3 Vol. % (based on similar materials)

**HAZARDOUS COMBUSTION
PRODUCTS:**

Burning may produce phosgene, chloroacetylenes, chlorides, or carbon monoxide.

SECTION 6 -- REACTIVITY DATA

STABILITY:

Stable under normal temperatures and pressures, and not reactive with water.

**INCOMPATIBILITY (MATERIALS AND
CONDITIONS TO AVOID):**

Avoid strong acids, bases, or oxidizing agents. Chlorine may cause a violent reaction. Avoid heat, sparks, or flame.

SAFETY-KLEEN 105 SOLVENT RECYCLED
MATERIAL SAFETY DATA SHEET FOR U.S.A. AND CANADA

HAZARDOUS POLYMERIZATION: Not known to occur under normal temperatures and pressures.

HAZARDOUS DECOMPOSITION PRODUCTS: None under normal temperatures and pressures.

SECTION 7 -- PREVENTIVE MEASURES

PRECAUTIONS FOR SAFE USE AND HANDLING

HANDLING PRECAUTIONS: Keep away from heat, sparks, or flame. Where explosive mixtures may be present, equipment safe for such locations should be used. When transferring material, metal containers, including tank cars and trucks, should be grounded and bonded. Avoid contact with eyes, skin, clothing, or shoes. Use in well ventilated area and avoid breathing vapor or mist.

PERSONAL HYGIENE: Use good personal hygiene. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco products. Clean contaminated clothing, shoes, and protective equipment before reuse. Discard contaminated clothing, shoes, or protective equipment if they cannot be thoroughly cleaned.

SHIPPING AND STORING PRECAUTIONS: Keep container tightly closed when not in use and during transport. Do not pressurize, drill, cut, heat, weld, braze, grind, or expose containers to flame or other sources of ignition. Empty product containers may contain product residue. See Section 9 for Packing Group information.

SPILL PROCEDURES: Remove all ignition sources. Stop leak if you can do it without risk. Wear protective equipment specified in Section 7, CONTROL MEASURES. Ventilate area and avoid breathing vapor or mist. Water spray may reduce vapor, but it may not prevent ignition in closed spaces. For large spills, isolate area and deny entry; dike far ahead of liquid spill for later disposal. Contain away from surface waters and sewers. If possible, contain as a liquid for possible re-refining or sorb with compatible sorbent material and shovel with a non-sparking tool into closable container for disposal. See 1993 *Emergency Response Guidebook* (RSPA P 5800.6) Guide Number 27 for more information.

WASTE DISPOSAL METHODS: Dispose in accordance with federal, state, provincial, and local regulations. Contact Safety-Kleen regarding recycling or proper disposal.

CONTROL MEASURES

EYE PROTECTION: Where there is likelihood of eye contact, wear chemical goggles; do NOT wear contact lenses.

PROTECTIVE GLOVES: Use Nitrile, Viton[®], or equivalent gloves to prevent contact with skin. Use of Butyl rubber, natural rubber, or equivalent gloves is not recommended.

RESPIRATORY PROTECTION: Use NIOSH/MSHA-approved respiratory protective equipment when concentration of vapor or mist exceeds applicable exposure limit. A self-contained breathing apparatus (SCBA) and full protective equipment are required for large spills or fire emergencies. Selection and use of respiratory protective equipment should be in accordance in the U.S.A. with OSHA General Industry Standard 29 CFR 1910.134 or in Canada with CSA Standard Z94.4-M1982.

ENGINEERING CONTROLS: Provide process enclosure or local ventilation needed to maintain concentration of vapor or mist below applicable exposure limits. Where explosive mixtures may be present, equipment safe for such locations should be used.

OTHER PROTECTIVE EQUIPMENT: Where spills and splashes are possible, wear appropriate solvent-resistant boots, apron, or other protective clothing. Clean water should be available in work areas for flushing the eyes and skin.

SECTION 8 -- PHYSICAL DATA

PHYSICAL STATE, APPEARANCE AND ODOR: Liquid, clear, green, with characteristic hydrocarbon odor.

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MATERIAL SAFETY DATA SHEET FOR U.S.A. AND CANADA

ODOR THRESHOLD:	30 ppm (based on Stoddard Solvent)
SPECIFIC GRAVITY:	0.77 to 0.80 (60°/60°F) (16°/16°C) (water = 1)
DENSITY:	6.4 to 6.7 lb/US gal (770 to 800 g/l)
VAPOR DENSITY:	5.3 to 6.2 (air = 1) (based on similar materials)
VAPOR PRESSURE:	1 to 2 mm Hg at 68°F (20°C)
BOILING POINT:	310° to 400°F (155° to 205°C)
FREEZING POINT:	less than -45°F (-43°C) (based on similar materials)
pH:	Not applicable.
VOLATILE ORGANIC COMPOUNDS: (US EPA DEFINITION)	100 WT %; 6.4 to 6.7 lb/US gal; 770 to 800 g/l
EVAPORATION RATE:	less than 0.1 (butyl acetate = 1) (based on similar materials)
SOLUBILITY IN WATER:	Insoluble. (based on similar materials)
COEFFICIENT OF WATER/OIL DISTRIBUTION:	less than 1 (based on similar materials)
MOLECULAR WEIGHT:	155 to 180 (based on similar materials)

SECTION 9 -- OTHER REGULATORY INFORMATION

TRANSPORTATION INFORMATION

DOT PROPER SHIPPING NAME:	COMBUSTIBLE LIQUID, N.O.S. (PETROLEUM NAPHTHA)
DOT CLASS:	Combustible Liquid
DOT ID NUMBER:	NA1993 PG III
TDG CLASSIFICATION:	Naphtha, Petroleum, Class 3.3, UN1255, PG III
SARA TITLE III:	Product contains toxic chemicals subject to requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372. Toxic constituents are listed with an asterisk in Section 2 of this Material Safety Data Sheet. Product poses the following physical and health hazards as defined in 40 CFR Part 370 and is subject to the requirements of sections 311 and 312 of Title III of the Superfund Amendments and Reauthorization Act of 1986: Immediate (Acute) Health Hazard Delayed (Chronic) Health Hazard Fire Hazard
WHMIS CLASSIFICATION:	B3, Flammable and Combustible Material, Combustible Liquids; D2A, Poisonous and Infectious Material, Materials Causing Other Toxic Effects, Very Toxic Material D2B, Poisonous and Infectious Material, Materials Causing Other Toxic Effects, Toxic Material

SAFETY-KLEEN 105 SOLVENT RECYCLED
MATERIAL SAFETY DATA SHEET FOR U.S.A. AND CANADA

TSCA: All of the components for this product are listed on, or are exempted from the requirement to be listed on, the TSCA Inventory.

CALIFORNIA: This product is not for sale or use in the State of California.

User assumes all risks incident to the use of this product. To the best of our knowledge, the information contained herein is accurate. However, Safety-Kleen assumes no liability whatsoever for the accuracy or completeness of the information contained herein. No representations or warranties, either expressed or implied, or merchantability, fitness for a particular purpose or of any other nature are made hereunder with respect to information or the product to which information refers. The data contained on this sheet apply to the material as supplied to the user.





Material Safety Data Sheet

**SAFETY-KLEEN 105 SOLVENT
VIRGIN**

Part Number: 6610

Dear Safety-Kleen Customer,

At Safety-Kleen Corp., supplying material safety data sheets is more than a requirement to us; it is a commitment to our customers and their employees.

The material safety data sheet is a valuable source of product information and should be a part of your hazard communication program. With this in mind, we are providing you, our valued customer, this important product information.

Thank you for showing your concern for the environment by choosing Safety-Kleen Corp. products and services.

Sincerely,

Your friends at Safety-Kleen Corp.



SAFETY-KLEEN 105 SOLVENT VIRGIN
MATERIAL SAFETY DATA SHEET FOR U.S.A. AND CANADA

SECTION 3 -- EMERGENCY AND FIRST AID PROCEDURES

- EYES:** For direct contact, flush eyes with water for 15 minutes lifting upper and lower lids occasionally. If irritation or redness from exposure to vapor or mist develops, move victim away from exposure into fresh air. Consult physician if irritation or pain persists.
- SKIN:** Remove contaminated clothing and shoes. Wash skin twice with soap and water. Consult physician if irritation or pain persists.
- INHALATION:
(Breathing)** Remove to fresh air immediately. Use oxygen if there is difficulty breathing or artificial respiration if breathing has stopped. Do not leave victim unattended. Seek immediate medical attention if necessary.
- INGESTION:
(Swallowing)** Seek immediate medical attention. Do NOT induce vomiting. If spontaneous vomiting occurs, keep head below hips to avoid aspiration (breathing) into the lungs.
- SPECIAL
NOTE TO
PHYSICIAN:** Treat symptomatically and supportively. Administration of gastric lavage, if warranted, should be performed by qualified medical personnel. Contact Rush Poison Control Center (see Section 1) for additional medical information.

SECTION 4 -- HEALTH HAZARD DATA AND TOXICOLOGICAL PROPERTIES

PRIMARY ROUTES OF EXPOSURE: Eye and skin contact; inhalation, ingestion.

EXPOSURE LIMITS: See Section 2.

SIGNS AND SYMPTOMS OF EXPOSURE

ACUTE: *Eyes:* Contact with liquid or exposure to vapors may cause mild to moderate irritation with watering, stinging, or redness.

Skin: Contact with liquid or exposure to vapors may cause mild to severe irritation. Contact with liquid or exposure to vapors may cause redness, drying, cracking, burning, or dermatitis. No significant skin absorption hazard.

Inhalation (Breathing): High concentrations of vapor or mist may irritate the nose, throat, or respiratory tract. High concentrations of vapor or mist may cause nausea, vomiting, or irregular heartbeat. High concentrations of vapor or mist may cause headaches, dizziness, incoordination, numbness, unconsciousness, and other central nervous system effects. Massive acute exposure may result in rapid central nervous system depression with sudden collapse, deep coma, and death.

Ingestion (Swallowing): Low order of acute oral toxicity. May cause throat irritation, nausea, vomiting, myocardial (muscular tissue of the heart) injury, arrhythmias (irregular heartbeats), and symptoms of central nervous system effects as listed for *ACUTE Inhalation*. Breathing material into the lungs during ingestion or vomiting may cause mild to severe pulmonary (lung) injury and possibly death.

CHRONIC: Prolonged or repeated eye contact may cause conjunctivitis. Prolonged or repeated skin contact may cause drying, cracking, dermatitis, or burns.

MEDICAL CONDITIONS

**AGGRAVATED BY
EXPOSURE:** Individuals with pre-existing lung, cardiac, central nervous system, or skin disorders may have increased susceptibility to the effects of exposure.

CARCINOGENICITY: Not applicable.

**OTHER POTENTIAL
HEALTH HAZARDS:** The following information is required by Canadian WHMIS regulations. Irritancy is covered in Signs and Symptoms of Exposure in Section 4. There is no known human sensitization, toxicologically synergistic product, reproductive toxicity, mutagenicity, or teratogenicity associated with this product as a whole.

SAFETY-KLEEN 105 SOLVENT VIRGIN
MATERIAL SAFETY DATA SHEET FOR U.S.A. AND CANADA

SECTION 5 -- FIRE AND EXPLOSION HAZARD DATA

EMERGENCY RESPONSE GUIDE NUMBER:	27 Reference 1993 <i>Emergency Response Guidebook</i> (RSPA P 5800.6)
FIRE AND EXPLOSION HAZARDS:	Decomposition and combustion products may be toxic. Heated containers may rupture, explode, or be thrown into the air. Vapors are heavier than air and may travel great distances to ignition source and flash back. Vapor explosion hazard indoors, outdoors, or in sewers. Run-off to sewers may create fire or explosion hazard. Not sensitive to mechanical impact. Material may be sensitive to static discharge, which could result in fire or explosion.
FIRE FIGHTING PROCEDURES:	Keep storage containers cool with water spray. Positive-pressure, self-contained breathing apparatus (SCBA) and structural firefighters' protective clothing will provide limited protection.
EXTINGUISHING MEDIA:	Carbon dioxide, foam, dry chemical, or water spray.
CONDITIONS OF FLAMMABILITY:	Heat, sparks, or flame.
FLASH POINT:	105°F (40°C) (minimum) Tag Closed Cup
AUTOIGNITION TEMPERATURE:	440°F (227°C) (minimum) (based on similar materials)
FLAMMABLE LIMITS IN AIR:	LOWER: 1.0 Vol. % (based on similar materials) UPPER: 9.3 Vol. % (based on similar materials)
HAZARDOUS COMBUSTION PRODUCTS:	Burning may produce carbon monoxide.

SECTION 6 -- REACTIVITY DATA

STABILITY:	Stable under normal temperatures and pressures, and not reactive with water.
INCOMPATIBILITY (MATERIALS AND CONDITIONS TO AVOID):	Avoid strong acids, bases, or oxidizing agents. Chlorine may cause a violent reaction. Avoid heat, sparks, or flame.
HAZARDOUS POLYMERIZATION:	Not known to occur under normal temperatures and pressures.
HAZARDOUS DECOMPOSITION PRODUCTS:	None under normal temperatures and pressures.

SECTION 7 -- PREVENTIVE MEASURES

PRECAUTIONS FOR SAFE USE AND HANDLING

HANDLING PRECAUTIONS:	Keep away from heat, sparks, or flame. Where explosive mixtures may be present, equipment safe for such locations should be used. When transferring material, metal containers, including tank cars and trucks, should be grounded and bonded. Avoid contact with eyes, skin, clothing, or shoes. Use in well ventilated area and avoid breathing vapor or mist.
PERSONAL HYGIENE:	Use good personal hygiene. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco products. Clean contaminated clothing, shoes, and protective equipment before reuse. Discard contaminated clothing, shoes, or protective equipment if they cannot be thoroughly cleaned.
SHIPPING AND STORING PRECAUTIONS:	Keep container tightly closed when not in use and during transport. Do not pressurize, drill, cut, heat, weld, braze, grind, or expose containers to flame or other sources of ignition. Empty product containers may contain product residue. See Section 9 for Packing Group information.

SAFETY-KLEEN 105 SOLVENT VIRGIN

MATERIAL SAFETY DATA SHEET FOR U.S.A. AND CANADA

SPILL PROCEDURES: Remove all ignition sources. Stop leak if you can do it without risk. Wear protective equipment specified in Section 7, CONTROL MEASURES. Ventilate area and avoid breathing vapor or mist. Water spray may reduce vapor, but it may not prevent ignition in closed spaces. For large spills, isolate area and deny entry; dike far ahead of liquid spill for later disposal. Contain away from surface waters and sewers. If possible, contain as a liquid for possible re-refining or sorb with compatible sorbent material and shovel with a non-sparking tool into closable container for disposal. See 1993 *Emergency Response Guidebook* (RSPA P 5800.6) Guide Number 27 for more information.

WASTE DISPOSAL METHODS: Dispose in accordance with federal, state, provincial, and local regulations. Contact Safety-Kleen regarding recycling or proper disposal.

CONTROL MEASURES

EYE PROTECTION: Where there is likelihood of eye contact, wear chemical goggles; do NOT wear contact lenses.

PROTECTIVE GLOVES: Use Nitrile, Viton[®], or equivalent gloves to prevent contact with skin. Use of Butyl rubber, natural rubber, or equivalent gloves is not recommended.

RESPIRATORY PROTECTION: Use NIOSH/MSHA-approved respiratory protective equipment when concentration of vapor or mist exceeds applicable exposure limit. A self-contained breathing apparatus (SCBA) and full protective equipment are required for large spills or fire emergencies. Selection and use of respiratory protective equipment should be in accordance in the U.S.A. with OSHA General Industry Standard 29 CFR 1910.134 or in Canada with CSA Standard Z94.4-M1982.

ENGINEERING CONTROLS: Provide process enclosure or local ventilation needed to maintain concentration of vapor or mist below applicable exposure limits. Where explosive mixtures may be present, equipment safe for such locations should be used.

OTHER PROTECTIVE EQUIPMENT: Where spills and splashes are possible, wear appropriate solvent-resistant boots, apron, or other protective clothing. Clean water should be available in work areas for flushing the eyes and skin.

SECTION 8 -- PHYSICAL DATA

PHYSICAL STATE, APPEARANCE AND ODOR: Liquid, clear, colorless (water white) or green, with characteristic hydrocarbon odor.

ODOR THRESHOLD: 30 ppm (based on Stoddard Solvent)

SPECIFIC GRAVITY: 0.77 to 0.80 (60°/60°F) (16°/16°C) (water = 1)

DENSITY: 6.4 to 6.7 lb/US gal (770 to 800 g/l)

VAPOR DENSITY: 5.3 to 6.2 (air = 1) (based on similar materials)

VAPOR PRESSURE: 1 to 2 mm Hg at 68°F (20°C)

BOILING POINT: 310° to 400°F (155° to 205°C)

FREEZING POINT: less than -45°F (-43°C) (based on similar materials)

pH: Not applicable.

VOLATILE ORGANIC COMPOUNDS: (US EPA DEFINITION) 100 WT%; 6.4 to 6.7 lb/US gal; 770 to 800 g/l

EVAPORATION RATE: less than 0.1 (butyl acetate = 1) (based on similar materials)

SOLUBILITY IN WATER: Insoluble. (based on similar materials)

SAFETY-KLEEN 105 SOLVENT VIRGIN
MATERIAL SAFETY DATA SHEET FOR U.S.A. AND CANADA

**COEFFICIENT OF WATER/OIL
DISTRIBUTION:**

less than 1 (based on similar materials)

MOLECULAR WEIGHT:

155 to 180 (based on similar materials)

SECTION 9 – OTHER REGULATORY INFORMATION

TRANSPORTATION INFORMATION

DOT PROPER SHIPPING NAME: COMBUSTIBLE LIQUID, N.O.S. (PETROLEUM NAPHTHA)

DOT CLASS: Combustible Liquid

DOT ID NUMBER: NA1993 PG III

TDG CLASSIFICATION: Naphtha, Petroleum, Class 3.3, UN1255, PG III

SARA TITLE III:

Product does not contain toxic chemicals subject to requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

Product poses the following physical and health hazards as defined in 40 CFR Part 370 and is subject to the requirements of sections 311 and 312 of Title III of the Superfund Amendments and Reauthorization Act of 1986:

Immediate (Acute) Health Hazard
Delayed (Chronic) Health Hazard
Fire Hazard

WHMIS CLASSIFICATION:

B3, Flammable and Combustible Material, Combustible Liquids;
D2B, Poisonous and Infectious Material, Materials Causing Other Toxic Effects,
Toxic Material

TSCA:

All of the components for this product are listed on, or are exempted from the requirement to be listed on, the TSCA Inventory.

CALIFORNIA:

This product is not for sale or use in the State of California.

User assumes all risks incident to the use of this product. To the best of our knowledge, the information contained herein is accurate. However, Safety-Kleen assumes no liability whatsoever for the accuracy or completeness of the information contained herein. No representations or warranties, either expressed or implied, or merchantability, fitness for a particular purpose or of any other nature are made hereunder with respect to information or the product to which information refers. The data contained on this sheet apply to the material as supplied to the user.



Material Safety Data Sheet

Safety-Kleen 140 Solvent

Part Number 6616

Dear Safety-Kleen Customer,

At Safety-Kleen Corp., supplying material safety data sheets is more than a requirement to us; it is a commitment to our customers and their employees.

The material safety data sheet is a valuable source of product information and should be a part of your hazard communication program. With this in mind, we are providing you, our valued customer, this important product information.

Thank you for showing your concern for the environment by choosing Safety-Kleen Corp. products and services.

Sincerely,

Your friends at Safety-Kleen Corp.



SAFETY-KLEEN 140 SOLVENT
MATERIAL SAFETY DATA SHEET FOR U.S.A. AND CANADA

SECTION 1 -- PRODUCT AND PREPARATION INFORMATION

PRODUCT INFORMATION

IDENTITY (TRADE NAME): SAFETY-KLEEN 140 SOLVENT
SYNONYMS: Petroleum distillates, petroleum naphtha
SK PART NUMBER(S): 6616
FAMILY/CHEMICAL NAME: Aliphatic petroleum hydrocarbon
PRODUCT USE: Solvent for cleaning and degreasing metal parts.
If this product is used in combination with other chemicals,
refer to the Material Safety Data Sheets for those chemicals.

24-HOUR EMERGENCY TELEPHONE

These numbers are for emergency use only. If you desire non-emergency information about this product, please call a telephone number listed below.

MEDICAL:

1-800-752-7869 (U.S.A.)
1-312-942-5969 (CANADA)
RUSH POISON CONTROL CENTER
CHICAGO, ILLINOIS, U.S.A.

TRANSPORTATION:

1-708-888-4660 (U.S.A.)
SAFETY-KLEEN ENVIRONMENT,
HEALTH AND SAFETY DEPARTMENT
1-613-996-6666 (CANADA)
CANUTEC

MANUFACTURER/SUPPLIER: Safety-Kleen Corp. - 777 Big Timber Road - Elgin, IL, U.S.A. 60123
Telephone number: 1-800-669-5840
Safety-Kleen Canada Inc. - 3090 Blvd. Le Carrefour - Suite 300 - Chomedey Laval
Quebec, Canada H7T 2J7 Telephone number: 1-800-363-2260

PREPARATION INFORMATION

MSDS FORM NO.: 82418
REVISION DATE: December 4, 1991
ORIGINAL ISSUE DATE: July 20, 1989
SUPERSEDES: December 1, 1989
PREPARED BY: Product MSDS Coordinator
APPROVED BY: MSDS Task Force
TELEPHONE NUMBER: For Product Technical Information Call 1-312-694-2700 (U.S.A.);
1-800-363-2260 (Canada)

SECTION 2 -- HAZARDOUS COMPONENTS

NAME	SYNONYM	CAS NO.	WT%	OSHA PEL		ACGIH TLV		OTHER DATA	
				TWA	STEL	TWA	STEL	LD ^a	LC ^b
Aliphatic petroleum distillates	Petroleum naphtha	64742-88-7	100	100 ^c ppm	N.Av.	100 ^c ppm	N.Av.	> 5000 ^c	> 5500 ^c mg/m ³ /4 hours

N.Av. = Not Available

^aOral-Rat LD50 (mg/kg)

^bInhalation-Rat LC50

^cFor Stoddard Solvent

SECTION 3 -- EMERGENCY AND FIRST AID PROCEDURES

EYES: For direct contact, flush eyes with water for 15 minutes lifting upper and lower lids occasionally. If irritation or redness from exposure to vapor or mist develops, move victim away from exposure into fresh air. Consult physician if irritation or pain persists.

SAFETY-KLEEN 140 SOLVENT

MATERIAL SAFETY DATA SHEET FOR U.S.A. AND CANADA

SKIN: Remove contaminated clothing and shoes. Wash skin twice with soap and water. Consult physician if irritation or pain persists.

**INHALATION:
(Breathing)** Remove to fresh air immediately. Use oxygen if there is difficulty breathing or artificial respiration if breathing has stopped. Do not leave victim unattended. Seek immediate medical attention if necessary.

**INGESTION:
(Swallowing)** Seek immediate medical attention. Do NOT induce vomiting. If spontaneous vomiting occurs, keep head below hips to avoid aspiration (into lungs).

**SPECIAL
NOTE TO
PHYSICIAN:** Treat symptomatically and supportively. Administration of gastric lavage, if warranted, should be performed by qualified medical personnel. Contact Rush Poison Control Center (see Section 1) for additional medical information.

SECTION 4 -- HEALTH HAZARD DATA AND TOXICOLOGICAL PROPERTIES

PRIMARY ROUTES OF EXPOSURE: Eye and skin contact; inhalation, ingestion.

EXPOSURE LIMITS: See Section 2.

SIGNS AND SYMPTOMS OF EXPOSURE

ACUTE: **Eyes:** Contact with liquid or exposure to vapors may cause mild to moderate irritation with stinging, tearing or redness.

Skin: Contact tends to remove skin oils, possibly leading to irritation and dermatitis. No significant skin absorption hazard.

Inhalation (Breathing): High concentrations of vapor or mist may be irritating to the respiratory tract, may cause nausea; may cause headaches, dizziness, impaired coordination, anesthesia and other central nervous system effects.

Ingestion (Swallowing): Low order of acute oral toxicity. May cause irritation of the throat, nausea, vomiting, myocardial injury with arrhythmias and symptoms of central nervous system depression as listed for ACUTE Inhalation. Aspiration into the lungs during ingestion or vomiting may cause mild to severe pulmonary injury and possibly death.

CHRONIC: Prolonged or repeated skin contact may cause drying and cracking or dermatitis.

MEDICAL CONDITIONS

**AGGRAVATED BY
EXPOSURE:** Individuals with pre-existing lung, central nervous system, or skin disorders may have increased susceptibility to the effects of exposure.

CARCINOGENICITY: Not applicable.

Also see Section 9.

OTHER POTENTIAL HEALTH HAZARDS:

The following information is required by Canadian WHMIS regulations. Irritancy is covered in Signs and Symptoms of Exposure in Section 4. There is no known human sensitization, toxicologically synergistic product, reproductive toxicity, mutagenicity, or teratogenicity associated with this material.

SECTION 5 -- FIRE AND EXPLOSION HAZARD DATA

EMERGENCY RESPONSE GUIDE NUMBER:

27
Reference Emergency Response Guidebook (DOT 5800.5)

SAFETY-KLEEN 140 SOLVENT
MATERIAL SAFETY DATA SHEET FOR U.S.A. AND CANADA

**FIRE AND
EXPLOSION HAZARDS:**

Vapor explosion hazard may occur indoors, outdoors or in sewers. Decomposition and combustion products may be toxic. Heated containers may rupture, explode or be thrown into the air. Vapors are heavier than air and may travel great distances to ignition source and flash back. Not sensitive to mechanical impact. Material may be sensitive to static discharge, which could result in fire or explosion.

FIRE FIGHTING PROCEDURES:

NFPA 704 Rating 0-2-0 (Health-Fire-Reactivity)
Keep storage containers cool with water spray. Positive pressure self-contained breathing apparatus (SCBA) and structural firefighters' protective clothing will provide limited protection.

EXTINGUISHING MEDIA:

Carbon dioxide, foam, dry chemical or water spray.

CONDITIONS OF FLAMMABILITY:

Heat, sparks or flame.

FLASH POINT:

140°F (60°C) (minimum) Tag Closed Cup

AUTOIGNITION TEMPERATURE:

441°F (227°C)

FLAMMABLE LIMITS IN AIR:

LOWER: 0.6 Vol. % **UPPER:** 7.0 Vol. %

**HAZARDOUS COMBUSTION
PRODUCTS:**

Burning may produce carbon monoxide.

SECTION 6 -- REACTIVITY DATA

STABILITY:

Stable under normal temperatures and pressures, and not reactive with water.

**INCOMPATIBILITY (MATERIALS AND
CONDITIONS TO AVOID):**

Avoid acids, alkalies, oxidizing agents, chlorines, selected amines, heat, sparks or flame. May cause a violent reaction.

HAZARDOUS POLYMERIZATION:

Not known to occur under normal temperatures and pressures.

**HAZARDOUS DECOMPOSITION
PRODUCTS:**

None under normal temperatures and pressures.

SECTION 7 -- PREVENTIVE MEASURES

PRECAUTIONS FOR SAFE USE AND HANDLING

**HANDLING
PRECAUTIONS:**

Keep away from heat, sparks or flame. Metal containers, including tank cars and trucks, should be grounded and bonded when material is transferred. Avoid contact with eyes, skin, clothing or shoes. Use in well ventilated area and avoid breathing vapor or mist.

**PERSONAL
HYGIENE:**

Use good personal hygiene. Wash thoroughly with soap and water after handling and before eating, drinking or using tobacco products. Clean contaminated clothing, shoes and protective equipment before reuse. Discard contaminated clothing, shoes or protective equipment if they cannot be thoroughly cleaned.

**SHIPPING AND
STORING
PRECAUTIONS:**

Keep container tightly closed when not in use and during transport. Do not pressurize, cut, heat, weld, grind or expose containers to flame or other sources of ignition. Empty product containers may contain product residue. See Section 9 for Packing Group information.

SAFETY-KLEEN 140 SOLVENT
MATERIAL SAFETY DATA SHEET FOR U.S.A. AND CANADA

SPILL PROCEDURES: Remove all ignition sources. Stop leak if you can do it without risk. Wear protective equipment specified in Section 7, CONTROL MEASURES. Ventilate area and avoid breathing vapor or mist. Water spray may reduce vapor; but it may not prevent ignition in closed spaces. For large spills, isolate area and deny entry; dike far ahead of liquid spill for later disposal. Contain away from surface waters and sewers. If possible, contain as a liquid for possible re-refining or sorb with compatible sorbent material and shovel with a non-sparking tool into closable container for disposal. See Emergency Response Guidebook (DOT P 5800.5) Guide Number 27 for more information.

WASTE DISPOSAL METHODS: Dispose in accordance with federal, state, provincial and local regulations. Contact Safety-Kleen regarding recycling or proper disposal.

CONTROL MEASURES

EYE PROTECTION: Where there is likelihood of spill or splash, wear chemical goggles and faceshield. Do NOT wear contact lenses.

PROTECTIVE GLOVES: Use Nitrile, Viton[®] or equivalent gloves to prevent contact with skin. Do NOT use Butyl rubber, natural rubber or equivalent gloves.

RESPIRATORY PROTECTION: Use NIOSH/MSHA-approved respiratory protective equipment when concentration of vapor or mist exceeds applicable exposure limit. A self-contained breathing apparatus (SCBA) and full protective equipment is required for large spills or fire emergencies. Selection and use of respiratory protective equipment should be in accordance in the U.S.A. with OSHA General Industry Standard 29 CFR 1910.134 and in Canada with CSA Standard Z94.4-M1982.

ENGINEERING CONTROLS: Provide process enclosure or local ventilation needed to maintain concentration of vapor or mist below applicable exposure limits. Where explosive mixtures may be present, systems safe for such locations should be used.

OTHER PROTECTIVE EQUIPMENT: Where spills and splashes are possible, wear appropriate solvent-resistant boots, apron or other protective clothing. Clean water should be available in work areas for flushing the eyes and skin.

SECTION 8 -- PHYSICAL DATA

PHYSICAL STATE, APPEARANCE AND ODOR: Liquid, clear or green, with characteristic hydrocarbon odor

ODOR THRESHOLD: Not available

SPECIFIC GRAVITY: 0.78 to 0.81 (60/60°F) (15.6/15.6°C) (water = 1)

DENSITY: 6.5 to 6.8 lbs/gal

VAPOR DENSITY: 4.9 (air = 1) (approximately)

VAPOR PRESSURE: < 1 mm Hg at 68°F (20°C)

BOILING POINT: 355 to 414°F (180 to 212°C)

FREEZING POINT: Not available

pH: Not applicable

VOLATILE ORGANIC COMPOUNDS: (US EPA DEFINITION) 100 WT%; 6.49 to 6.76 lbs/gal; 779 to 811 g/l

EVAPORATION RATE: 0.1 (butyl acetate = 1)

SOLUBILITY IN WATER: Slight

SAFETY-KLEEN 140 SOLVENT
MATERIAL SAFETY DATA SHEET FOR U.S.A. AND CANADA

COEFFICIENT OF WATER/OIL DISTRIBUTION: Not available

MOLECULAR WEIGHT: 142 (approximately)

SECTION 9 -- OTHER REGULATORY INFORMATION
--

TRANSPORTATION INFORMATION

DOT PROPER SHIPPING NAME: NAPHTHA, SOLVENT

DOT CLASS: Class 3

DOT ID NUMBER: UN1256, Packing Group III

TDG CLASSIFICATION: Naphtha, solvent, Class 3.3, UN1256, P.G. III

SARA TITLE III: Product does not contain toxic chemicals subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

Product poses the following physical and health hazards as defined in 40 CFR 370.3 (Sections 311, 312 of SARA Title III):

- Immediate (Acute) Health Hazard
- Delayed (Chronic) Health Hazard
- Fire Hazard

WHMIS CLASSIFICATION: Class B3, Combustible Liquids;
Class D2B, Poisonous and Infectious Materials, Other Toxic Effects, Toxic Material

CALIFORNIA: This product does not contain detectable amounts of any of the materials listed by the State of California as known carcinogens.

User assumes all risks incident to the use of this product. To the best of our knowledge, the information contained herein is accurate. However, Safety-Kleen assumes no liability whatsoever for the accuracy or completeness of the information contained herein. No representations or warranties, either expressed or implied, or merchantability, fitness for a particular purpose or of any other nature are made hereunder with respect to information or the product to which information refers. The data contained on this sheet apply to the material as supplied to the user.



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MATERIAL SAFETY DATA SHEET

EXXON CHEMICAL AMERICAS, P.O. BOX 3272, HOUSTON, TEXAS 77001
A Division of EXXON CHEMICAL COMPANY, A Division of EXXON CORPORATION

ACTREL PC 95 CLEANER

PAGE: 1
DATE PREPARED: APR 29, 1993
MSDS NO.: 92863595

SECTION 1 PRODUCT IDENTIFICATION & EMERGENCY INFORMATION

PRODUCT NAME: ACTREL PC 95 CLEANER

CHEMICAL NAME:

Not Applicable: Blend

CHEMICAL FAMILY:

Petroleum Hydrocarbon

PRODUCT DESCRIPTION:

Clear colorless liquid; mild hydrocarbon odor.

EMERGENCY TELEPHONE NUMBERS: EXXON CHEMICAL AMERICAS 800-726-2015
CHEMTREC 800-424-9300

SECTION 2 HAZARDOUS INGREDIENT INFORMATION

The composition of this mixture may be proprietary information. In the event of a medical emergency, compositional information will be provided to a physician or nurse.

This product is not hazardous as defined in 29 CFR1910.1200

SECTION 3 HEALTH INFORMATION & PROTECTION

NATURE OF HAZARD

EYE CONTACT:

Slightly irritating but does not injure eye tissue.

SKIN CONTACT:

Occasional brief contact with the liquid will not result in significant irritation unless evaporation is impeded.

Frequent or prolonged contact may irritate and cause dermatitis.

Low order of toxicity.

Skin contact may aggravate an existing dermatitis condition.

INHALATION:

High vapor/aerosol concentrations (greater than approximately 700 ppm, attainable at elevated temperatures well above ambient) are irritating to the eyes and the respiratory tract, and may cause headaches, dizziness, anesthesia, drowsiness, unconsciousness, and other central nervous system effects, including death.

INGESTION:

Small amounts of this product aspirated into the respiratory system during ingestion or vomiting may cause mild to severe pulmonary injury, possibly progressing to death.

Low order of toxicity.

FIRST AID

EYE CONTACT:

Flush eyes with large amounts of water until irritation subsides. If irritation persists, get medical attention.

SKIN CONTACT:

Flush with large amounts of water; use soap if available.

Remove grossly contaminated clothing, including shoes, and launder before reuse.

INHALATION:

Using proper respiratory protection, immediately remove the affected victim from exposure. Administer artificial respiration if breathing is stopped. Keep at rest. Call for prompt medical attention.

INGESTION:

If swallowed, DO NOT induce vomiting. Keep at rest. Get prompt medical attention.



MATERIAL SAFETY DATA SHEET

EXXON CHEMICAL AMERICAS, P.O. BOX 3272, HOUSTON, TEXAS 77001
A Division of EXXON CHEMICAL COMPANY, A Division of EXXON CORPORATION

ACTREL PC 95 CLEANER

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WORKPLACE EXPOSURE LIMITS

EXXON RECOMMENDS THE FOLLOWING OCCUPATIONAL EXPOSURE LIMITS:

300 ppm total hydrocarbon based on composition.

PRECAUTIONS

SPECIAL PRECAUTIONS:

Health studies have shown that many petroleum hydrocarbons pose potential human health risks which may vary from person to person. As a precaution, exposure to liquids, vapors, mists or fumes should be minimized.

PERSONAL PROTECTION:

For open systems where contact is likely, wear safety glasses with side shields, long sleeves, and chemical resistant gloves.

Where contact may occur, wear safety glasses with side shields.

Where concentrations in air may exceed the limits given in this Section and engineering, work practice or other means of exposure reduction are not adequate, NIOSH/MSHA approved respirators may be necessary to prevent exposure by inhalation.

VENTILATION:

The use of mechanical dilution ventilation is recommended whenever this product is used in a confined space, is heated above ambient temperatures, or is agitated.

SECTION 4 FIRE & EXPLOSION HAZARD

FLASHPOINT: 212 Deg F. **METHOD:** PMCC **NOTE:** Typical
FLAMMABLE LIMITS: LEL: 1.3 UEL: 10.3 @ 77 Deg F. **NOTE:** Approximate
AUTOIGNITION TEMPERATURE: 505 Deg F. **NOTE:** Approximate

GENERAL HAZARD:

Low Hazard, liquid can burn upon heating to temperatures at or above the flashpoint.
Static Discharge, material can accumulate static charges which can cause an incendiary electrical discharge.
"Empty" containers retain product residue (liquid and/or vapor) and can be dangerous. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.
Empty drums should be completely drained, properly bunged and promptly returned to a drum reconditioner, or properly disposed of.
Static Discharge, material can accumulate static charges which can cause an incendiary electrical discharge.

FIRE FIGHTING:

Use water spray to cool fire exposed surfaces and to protect personnel.
Isolate "fuel" supply from fire.
Use foam, dry chemical, or water spray to extinguish fire.
Avoid spraying water directly into storage containers due to danger of boilover.
This liquid is volatile and gives off invisible vapors. Either the liquid or vapor may settle in low areas or travel some distance along the ground or surface to ignition sources where they may ignite or explode.

HAZARDOUS COMBUSTION PRODUCTS:

No unusual



MATERIAL SAFETY DATA SHEET

EXXON CHEMICAL AMERICAS, P.O. BOX 3272, HOUSTON, TEXAS 77001
A Division of EXXON CHEMICAL COMPANY, A Division of EXXON CORPORATION

ACTREL PC 95 CLEANER

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DATE PREPARED: APR 29, 1993
MSDS NO.: 92863595

SECTION 5 SPILL CONTROL PROCEDURE

LAND SPILL:

Eliminate sources of ignition. Prevent additional discharge of material, if possible to do so without hazard. For small spills implement cleanup procedures; for large spills implement cleanup procedures and, if in public area, keep public away and advise authorities. Also, if this product is subject to CERCLA reporting (see Section 7) notify the National Response Center.

Prevent liquid from entering sewers, watercourses, or low areas. Contain spilled liquid with sand or earth.

Recover by pumping or with suitable absorbent.

Consult an expert on disposal of recovered material and ensure conformity to local disposal regulations.

WATER SPILL:

Eliminate sources of ignition. Warn occupants and shipping in surrounding and downwind areas of fire and explosion hazard and request all to stay clear.

Remove from surface by skimming or with suitable absorbents. If allowed by local authorities and environmental agencies, sinking and/or suitable dispersants may be used in non-confined waters.

Consult an expert on disposal of recovered material and ensure conformity to local disposal regulations.

SECTION 6 NOTES

HAZARD RATING SYSTEMS:

This information is for people trained in:

National Paint & Coating Association's (NPCA)

Hazardous Materials Identifications System (HMIS)

National Fire Protection Association (NFPA 704)

Identification of the Fire Hazards of Materials

	NPCA-HMIS	NFPA 704
HEALTH	1	1
FLAMMABILITY	1	1
REACTIVITY	0	0

KEY

- 4 = Severe
- 3 = Serious
- 2 = Moderate
- 1 = Slight
- 0 = Minimal



MATERIAL SAFETY DATA SHEET

EXXON CHEMICAL AMERICAS; P.O. BOX 3272, HOUSTON, TEXAS 77001
A Division of EXXON CHEMICAL COMPANY, A Division of EXXON CORPORATION

ACTREL PC 95 CLEANER

PAGE: 4
DATE PREPARED: APR 29, 1993
MSDS NO.: 92863595

SECTION 7 REGULATORY INFORMATION

DEPARTMENT OF TRANSPORTATION (DOT):
DOT HAZARD CLASS: Not regulated
DOT IDENTIFICATION NUMBER: Not Available

FLASHPOINT: 212 Deg F. **METHOD:** PMCC **NOTE:** Typical

TSCA:
Components of this product are listed on the TSCA Inventory.

CERCLA:
If this product is accidentally spilled, it is not subject to any special reporting under the requirements of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). We recommend you contact local authorities to determine if there may be other local reporting requirements.

SARA TITLE III:
Under the provisions of Title III, Sections 311/312 of the Superfund Amendments and Reauthorization Act, this product is classified into the following hazard categories: Not Hazardous.
This product does not contain Section 313 Reportable Ingredients.

SECTION 8 TYPICAL PHYSICAL & CHEMICAL PROPERTIES

SPECIFIC GRAVITY: 0.78 at 60	VAPOR PRESSURE, mmHg at °F: Approx. .02 mmHg at 68F
SOLUBILITY IN WATER, WT. % AT °F: Less than 0.01 at 77	VISCOSITY OF LIQUID, CST AT °F: 2.6 at 77F
SP. GRAV. OF VAPOR, at 1 atm (Air = 1): 6.20 Calculated	FREEZING/MELTING POINT, °F: 14
EVAPORATION RATE, n-Bu Acetate = 1: Less than .01	BOILING POINT, °F: 441 to 506

SECTION 9 REACTIVITY DATA

STABILITY: Stable	HAZARDOUS POLYMERIZATION: Will not occur
CONDITIONS TO AVOID INSTABILITY: Not Applicable	
MATERIALS AND CONDITIONS TO AVOID INCOMPATIBILITY: Strong oxidizing agents	
HAZARDOUS DECOMPOSITION PRODUCTS: None	

SECTION 10 STORAGE AND HANDLING

ELECTROSTATIC ACCUMULATION HAZARD: Yes, use proper grounding procedure	LOADING/UNLOADING TEMPERATURE, °F: Ambient
STORAGE TEMPERATURE, °F: Ambient	VISC. AT LOADING/UNLOADING TEMP., cST: 3 Approximately
STORAGE/TRANSPORT PRESSURE, mmHg: Atmospheric	

REFERENCE NUMBER: HDHA-C-25155	DATE PREPARED: April 29, 1993	SUPERSEDES ISSUE DATE:
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FOR ADDITIONAL INFORMATION, CONTACT YOUR TECHNICAL SALES REPRESENTATIVE
FOR ADDITIONAL HEALTH/SAFETY INFORMATION, CALL 713-870-6884

THIS INFORMATION RELATES TO THE SPECIFIC MATERIAL DESIGNATED AND MAY NOT BE VALID FOR SUCH MATERIAL USED IN COMBINATION WITH ANY OTHER MATERIALS OR IN ANY PROCESS. SUCH INFORMATION IS TO THE BEST OF OUR KNOWLEDGE AND BELIEF, ACCURATE AND AVAILABLE AS OF THE DATE COMPILED. HOWEVER, NO REPRESENTATION, WARRANTY OR GUARANTEE IS MADE AS TO ITS ACCURACY, AVAILABILITY OR COMPLETENESS. IT IS THE USER'S RESPONSIBILITY TO SATISFY HIMSELF AS TO THE SUITABILITY AND COMPLETENESS OF THIS INFORMATION FOR HIS OWN PARTICULAR USE. WE DO NOT ACCEPT LIABILITY FOR ANY LOSS OR DAMAGE THAT MAY OCCUR FROM THE USE OF THIS INFORMATION NOR DO WE OFFER WARRANTY AGAINST PATENT INFRINGEMENT.



Model 110 & 5 gal bucket .

Material Safety Data Sheet

Immersion Cleaner and Cold Parts Cleaner

Part Numbers 699, 6861, 9699

Dear Safety-Kleen Customer,

At Safety-Kleen Corp., supplying material safety data sheets is more than a requirement to us; it is a commitment to our customers and their employees.

The material safety data sheet is a valuable source of product information and should be a part of your hazard communication program. With this in mind, we are providing you, our valued customer, this important product information.

Thank you for showing your concern for the environment by choosing Safety-Kleen Corp. products and services.

Sincerely,

Your friends at Safety-Kleen Corp.



**IMMERSION CLEANER AND COLD PARTS CLEANER
MATERIAL SAFETY DATA SHEET FOR U.S.A. AND CANADA**

SECTION 1 -- PRODUCT AND PREPARATION INFORMATION

PRODUCT INFORMATION

IDENTITY (TRADE NAME): IMMERSION CLEANER AND COLD PARTS CLEANER
SYNONYMS: None
SK PART NUMBER(S): 699, 6861, 9699
FAMILY/CHEMICAL NAME: None
PRODUCT USE: For cleaning carburetors and metal parts.
 If this product is used in combination with other chemicals,
 refer to the Material Safety Data Sheets for those chemicals.

<i>24-HOUR EMERGENCY TELEPHONE</i>	<i>MEDICAL:</i>	<i>TRANSPORTATION:</i>
These numbers are for emergency use only. If you desire non-emergency information about this product, please call a telephone number listed below.	1-800-752-7869 (U.S.A.) 1-312-942-5969 (CANADA) RUSH POISON CONTROL CENTER CHICAGO, ILLINOIS, U.S.A.	1-708-888-4660 (U.S.A.) SAFETY-KLEEN ENVIRONMENT, HEALTH AND SAFETY DEPARTMENT 1-613-996-6666 (CANADA) CANUTEC

MANUFACTURER/SUPPLIER: Safety-Kleen Corp. - 777 Big Timber Road - Elgin, IL, U.S.A. 60123
 Telephone number: 1-800-669-5840
 Safety-Kleen Canada Inc. - 3090 Blvd. Le Carrefour - Suite 300 - Chomedey Laval
 Quebec, Canada H7T 2J7 Telephone number: 1-800-363-2260

PREPARATION INFORMATION

MSDS FORM NO.: 82411 **REVISION DATE:** March 18, 1992
ORIGINAL ISSUE DATE: December 1, 1989 **SUPERSEDES:** July 13, 1990
PREPARED BY: Product MSDS Coordinator **APPROVED BY:** MSDS Task Force
TELEPHONE NUMBER: For Product Technical Information Call 1-312-694-2700 (U.S.A.);
 1-800-363-2260 (Canada)

SECTION 2 -- HAZARDOUS COMPONENTS

NAME	SYNONYM	CAS NO.	WT%	OSHA PEL		ACGIH TLV		OTHER DATA	
				TWA	STEL	TWA	STEL	LD ^a	LC
Aromatic 150 ^c	Heavy aromatic solvent naphtha	64742-94-5	30-60	N.Av.	N.Av.	N.Av.	N.Av.	>5000 Exxon recommended	N.Av.
N-Methyl-2-pyrrolidone	1-Methyl-2-pyrrolidinone	872-50-4	10-30	N.Av.	N.Av.	N.Av.	N.Av.	3914	N.Av.
Dipropylene glycol monomethyl ether	(2-methoxymethyl ethoxy)-propanol	34590-94-8	7-13	100 ppm (skin)	150 ppm (skin)	100 ppm (skin)	150 ppm (skin)	5135	N.Av.
Oleic acid	Red Oil	112-80-1	5-10	5 ^e mg/m ³	N.Av.	10 ^d mg/m ³	N.Av.	74000	N.Av.
Monoethanolamine	2-Amino-ethanol	141-43-5	3-7	3 ppm	6 ppm	3 ppm	6 ppm	1720	N.Av.

IMMERSION CLEANER AND COLD PARTS CLEANER

MATERIAL SAFETY DATA SHEET FOR U.S.A. AND CANADA

*Naphthalene ^h	Naphthalin	91-20-3	0-6**	10 ppm	15 ppm	10 ppm	15 ppm	490	N.Av.
*1,4-Dichlorobenzene	Dichlorobenzene, para-	106-46-7	0-0.4**	75 ppm	110 ppm	75 ppm	110 ppm	500	N.Av.
*Methylene chloride	Dichloromethane	75-09-2	0-0.3**	500 ppm	N.Av.	50 ppm	N.Av.	1600	88000 ^b mg/m ³ /30 minutes
*Perchloroethylene	Tetrachloroethylene	127-18-4	0-0.5**	25 ppm	N.Av.	50 ppm	200 ppm	2629	34200 ^b mg/m ³ /8 hours

N.Ap. = Not Applicable

N.Av. = Not Available

*See Section 9-Other Regulatory Information

**Even though the concentration range does not fall under the ranges prescribed by WHMIS, this is the actual range which varies with each batch of the product.

^aOral-Rat LD50 (mg/kg)

^bInhalation-Rat LC50

^cExxon recommended 8hr workday exposure: 100 ppm

^dVegetable oil mists

^eRespirable fraction

^fInhalation-Rat LCLo

^gMonsanto MSDS

^hConstituent of Aromatic 150

SECTION 3 -- EMERGENCY AND FIRST AID PROCEDURES

EYES:	For direct contact, flush eyes with water for 15 minutes lifting upper and lower lids occasionally. If irritation or redness from exposure to vapor or mist develops, move victim away from exposure into fresh air. Consult physician if irritation or pain persists.
SKIN:	Remove contaminated clothing and shoes. Wash skin twice with soap and water. Consult physician if irritation or pain persists.
INHALATION: (Breathing)	Remove to fresh air immediately. Use oxygen if there is difficulty breathing or artificial respiration if breathing has stopped. Do not leave victim unattended. Seek immediate medical attention if necessary.
INGESTION: (Swallowing)	Seek immediate medical attention. Do NOT induce vomiting. If spontaneous vomiting occurs, keep head below hips to avoid aspiration (into lungs).
SPECIAL NOTE TO PHYSICIAN:	Treat symptomatically and supportively. Administration of gastric lavage, if warranted, should be performed by qualified medical personnel. Contact Rush Poison Control Center (Section 1) for additional medical information.

SECTION 4 -- HEALTH HAZARD DATA AND TOXICOLOGICAL PROPERTIES

PRIMARY ROUTES OF EXPOSURE: Eye and skin contact; inhalation, ingestion.

EXPOSURE LIMITS: See Section 2.

SIGNS AND SYMPTOMS OF EXPOSURE

ACUTE: Eyes: Contact with liquid or exposure to vapor may cause irritation, tearing and burns.

Skin: Contact removes skin oils, possibly leading to irritation and dermatitis. Dipropylene glycol monomethyl ether is a skin absorption hazard.

Inhalation (Breathing): High concentrations of vapor or mist may be irritating to the respiratory tract, may cause nausea and vomiting, may cause dizziness, impaired coordination, anesthesia and other central nervous system effects or in more severe cases inebriation or unconsciousness. When in contact with mucous membranes, liquid aromatic hydrocarbons may cause vasodilation and chemical pneumonitis with pulmonary edema, hemorrhaging, and tissue necrosis. Naphthalene poisoning may affect eyes.

IMMERSION CLEANER AND COLD PARTS CLEANER

MATERIAL SAFETY DATA SHEET FOR U.S.A. AND CANADA

Ingestion (Swallowing): Harmful or fatal if swallowed. May cause irritation of the throat, nausea, vomiting, abdominal pain, symptoms of central nervous system depression and myocardial injury. Monoethanolamine may cause mucosal burns of the mouth and esophagus. Aspiration into the lungs during ingestion or vomiting may cause mild to severe pulmonary injury and possibly death.

CHRONIC: Prolonged or repeated eye contact may cause tissue injury or skin contact may cause drying and cracking or dermatitis. Repeated or prolonged exposure to monoethanolamine may cause inflammatory and ulcerative changes in the mouth and possibly bronchial and gastrointestinal disturbances. Cataracts and corneal ulcerations have been reported in humans following repeated or prolonged exposure to naphthalene.

**MEDICAL CONDITIONS
AGGRAVATED BY
EXPOSURE:**

Individuals with pre-existing liver, kidney, respiratory, central nervous system or skin disorders may have increased susceptibility to the effects of exposure.

CARCINOGENICITY:

IARC classifies chemicals by their carcinogenic risk, including agents that are known, probable or possible carcinogens. NTP classifies chemicals as either known carcinogens or for which there is a limited evidence of carcinogenicity in humans or sufficient evidence of carcinogenicity in experimental animals. ACGIH recognizes two categories of carcinogens, confirmed or suspected human carcinogens.

Methylene chloride, perchloroethylene and 1,4-dichlorobenzene are listed by IARC as possible carcinogens. Methylene chloride, perchloroethylene and 1,4-dichlorobenzene are classified by NTP as having limited evidence of carcinogenicity in humans or sufficient evidence of carcinogenicity in experimental animals. Methylene chloride is recognized by ACGIH as a suspected human carcinogen.

Also see Section 9.

**OTHER POTENTIAL
HEALTH HAZARDS:**

The following information is required by Canadian WHMIS regulations. Irritancy is covered in Signs and Symptoms of Exposure in Section 4. There is no known human sensitization, toxicologically synergistic product or teratogenicity associated with this material. N-methyl-2-pyrrolidone and methylene chloride have demonstrated experimental effects for reproductive toxicity and mutagenicity.

SECTION 5 -- FIRE AND EXPLOSION HAZARD DATA

**EMERGENCY RESPONSE
GUIDE NUMBER:**

60
Reference Emergency Response Guidebook (DOT 5800.5)

**FIRE AND
EXPLOSION HAZARDS:**

Decomposition and combustion products may be toxic. Heated containers may rupture, explode or be thrown into the air. Vapors are heavier than air and may travel great distances to ignition source and flash back. Not sensitive to mechanical impact. Material may be sensitive to static discharge, which could result in fire or explosion.

FIRE FIGHTING PROCEDURES:

NFPA 704 Rating 2-2-0 (Health-Fire-Reactivity)
Keep storage containers cool with water spray. Positive pressure self-contained breathing apparatus (SCBA) and structural firefighters' protective clothing will provide limited protection.

EXTINGUISHING MEDIA:

Carbon dioxide, regular foam, dry chemical, water spray.

CONDITIONS OF FLAMMABILITY:

Heat, sparks or flame.

FLASH POINT:

150°F (65°C) (approximately) Tag Closed Cup

AUTOIGNITION TEMPERATURE:

Not available.

FLAMMABLE LIMITS IN AIR:

LOWER: 0.8 Vol. % **UPPER:** 7.0 Vol. %

IMMERSION CLEANER AND COLD PARTS CLEANER
MATERIAL SAFETY DATA SHEET FOR U.S.A. AND CANADA

HAZARDOUS COMBUSTION PRODUCTS:

Burning may produce carbon monoxide, nitrogen oxides, irritating smoke and fumes.

SECTION 6 -- REACTIVITY DATA

STABILITY:

Stable under normal temperatures and pressures, and not reactive with water.

INCOMPATIBILITY (MATERIALS AND CONDITIONS TO AVOID):

Avoid acids, oxidizing agents, heat, sparks or flame. Oleic acid can react with perchlorates and perchloric acid to form explosive products.

HAZARDOUS POLYMERIZATION:

Not known to occur under normal temperatures and pressures.

HAZARDOUS DECOMPOSITION PRODUCTS:

None under normal temperatures and pressures.

SECTION 7 -- PREVENTIVE MEASURES

PRECAUTIONS FOR SAFE USE AND HANDLING

HANDLING PRECAUTIONS:

Keep away from heat, sparks or flame. Avoid contact with eyes, skin, clothing or shoes. Use in well ventilated area and avoid breathing vapor or mist.

PERSONAL HYGIENE:

Use good personal hygiene. Wash thoroughly with soap and water after handling and before eating, drinking or using tobacco products. Clean contaminated clothing, shoes and protective equipment before reuse. Discard contaminated clothing, shoes or protective equipment if they cannot be thoroughly cleaned.

SHIPPING AND STORING PRECAUTIONS:

Keep container tightly closed when not in use and during transport. Do not pressurize, cut, heat, weld, grind or expose containers to flame or other sources of ignition. Empty product containers may contain product residue. See Section 9 for Packing Group information.

SPILL PROCEDURES:

Remove all ignition sources. Do not touch or walk through spilled material; stop leak if you can do it without risk. Wear protective equipment specified in Section 7, CONTROL MEASURES. Ventilate area and avoid breathing vapor or mist. For large spills, isolate area and deny entry; dike far ahead of liquid spill for later disposal. Contain away from surface waters and sewers. If possible, contain as a liquid for possible re-refining or sorb with compatible sorbent material and shovel with a non-sparking tool into closable container for disposal. See Emergency Response Guidebook (DOT P 5800.5) Guide Number 60 for more information.

WASTE DISPOSAL METHODS:

Dispose in accordance with federal, state, provincial and local regulations. Contact Safety-Kleen regarding recycling or proper disposal.

CONTROL MEASURES

EYE PROTECTION:

Where there is likelihood of eye contact, wear chemical goggles and faceshield. Do NOT wear contact lenses.

PROTECTIVE GLOVES:

Use Neoprene or equivalent gloves to prevent contact with skin. Do NOT use Latex or equivalent gloves.

RESPIRATORY PROTECTION:

Use NIOSH/MSHA-approved respiratory protective equipment when concentration of vapor or mist exceeds applicable exposure limit. A self-contained breathing apparatus (SCBA) and full protective equipment is required for large spills or fire emergencies. Selection and use of respiratory protective equipment should be in accordance in the U.S.A. with OSHA General Industry Standard 29 CFR 1910.134 and in Canada with CSA Standard Z94.4-M1982.

IMMERSION CLEANER AND COLD PARTS CLEANER

MATERIAL SAFETY DATA SHEET FOR U.S.A. AND CANADA

ENGINEERING CONTROLS:

Provide process enclosure or local ventilation needed to maintain concentration of vapor or mist below applicable exposure limits. Where explosive mixtures may be present, systems safe for such locations should be used.

OTHER PROTECTIVE EQUIPMENT:

Where spills and splashes are possible, wear appropriate solvent-resistant boots, apron or other protective clothing. Clean water should be available in work areas for flushing the eyes and skin.

SECTION 8 -- PHYSICAL DATA

PHYSICAL STATE, APPEARANCE AND ODOR:

Liquid, clear, brown

ODOR THRESHOLD:

Not available

SPECIFIC GRAVITY:

0.95 (water = 1)

DENSITY:

7.9 lbs/gal

VAPOR DENSITY:

4.4 (air = 1)

VAPOR PRESSURE:

11 mm Hg at 77°F (25°C)

BOILING POINT:

210 to 439°F (99 to 226°C)

FREEZING POINT:

Less than 10°F (-12°C)

pH:

11

VOLATILE ORGANIC COMPOUNDS: (US EPA DEFINITION)

85.2 WT%; 6.7 lbs/gal; 809 g/l

EVAPORATION RATE:

1.0 (butyl acetate = 1)

SOLUBILITY IN WATER:

Complete

COEFFICIENT OF WATER/OIL DISTRIBUTION:

Not available

MOLECULAR WEIGHT:

127

SECTION 9 -- OTHER REGULATORY INFORMATION

TRANSPORTATION INFORMATION

DOT PROPER SHIPPING NAME:

CORROSIVE LIQUIDS, N.O.S. (contains Monoethanolamine)

DOT CLASS:

Class 8

DOT ID NUMBER:

UN1760, Packing Group III

TDG CLASSIFICATION:

Corrosive Liquids, N.O.S. (contains monoethanolamine)
Class 8, UN1760, Packing Group III

SARA TITLE III:

Product contains toxic chemicals subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372. Toxic constituents are listed with an asterisk in Section 2 of this Material Safety Data Sheet.

IMMERSION CLEANER AND COLD PARTS CLEANER
MATERIAL SAFETY DATA SHEET FOR U.S.A. AND CANADA

Product poses the following physical and health hazards as defined in 40 CFR 370.3 (Sections 311, 312 of SARA Title III):

Immediate (Acute) Health Hazard
Delayed (Chronic) Health Hazard
Fire Hazard

WHMIS CLASSIFICATION:

Class B3, Combustible Liquids;
Class D2A, Infectious and Toxic Materials, Other Toxic Effects, Very Toxic Material;
Class D2B, Infectious and Toxic Materials, Other Toxic Effects, Toxic Material

CALIFORNIA:

This product contains detectable amounts of benzene CAS No. 71-43-2, 1,4-dichlorobenzene CAS No. 106-46-7, methylene chloride CAS No. 75-09-2, perchloroethylene CAS No. 127-18-4 and trichloroethylene CAS No. 79-01-6. These materials are listed by the State of California as known carcinogens.

User assumes all risks incident to the use of this product. To the best of our knowledge, the information contained herein is accurate. However, Safety-Kleen assumes no liability whatsoever for the accuracy or completeness of the information contained herein. No representations or warranties, either expressed or implied, or merchantability, fitness for a particular purpose or of any other nature are made hereunder with respect to information or the product to which information refers. The data contained on this sheet apply to the material as supplied to the user.





Material Safety Data Sheet

*Immersion Cleaner/
Carburetor and Cold Parts
Cleaner 609*

Part Numbers: 50, 609, 6631

SECTION III -- PHYSICAL DATA

PHYSICAL STATE, APPEARANCE AND ODOR:	Liquid - clear, dark amber, with aromatic odor. Two distinct layers comprise the product; top layer water, lower layer solvent.
BOILING POINT:	102° - 395° F
MELTING POINT:	Not available
EVAPORATION RATE:	1.0 (Water = 1)
PERCENT VOLATILE:	> 50% (approximately)
VAPOR DENSITY:	Same as Water
VAPOR PRESSURE:	Same as Water
SOLUBILITY IN WATER:	Immiscible
pH:	9-10 in water phase
SPECIFIC GRAVITY:	1.2 (Water = 1.0)
MOLECULAR WEIGHT:	Use molecular weights of individual components.
VOLATILE ORGANIC COMPOUNDS:	Not available

SECTION IV -- FIRE AND EXPLOSION HAZARD DATA

FLASH POINT:	Non-Flammable	
AUTOIGNITION TEMPERATURE:	Not available	
CONDITIONS OF FLAMMABILITY:	Non-Flammable	
FLAMMABLE LIMITS IN AIR - LOWER:	Non-Flammable	UPPER: Non-Flammable
EXTINGUISHING MEDIA:	None Special	
FIRE FIGHTING PROCEDURES - SPECIAL:	None; product is non-flammable. NFPA 704 Rating 3-2-0	
UNUSUAL FIRE AND EXPLOSION HAZARDS:		

Although product is non-flammable, flames, welding arcs or other high temperature sources can cause decomposition. This decomposition can yield corrosive and toxic gases, vapors mists or fumes. Use a self-contained breathing apparatus (SCBA).

HAZARDOUS COMBUSTION PRODUCTS:

Although product is non-flammable, flames, welding arcs or other high temperature sources can cause decomposition. This decomposition can yield corrosive and toxic gases, vapors, mists or fumes (e.g. hydrogen chloride, phosgene, carbon monoxide, etc.)

SECTION V -- REACTIVITY DATA

STABILITY:	Normally stable.
INCOMPATIBILITY: (CONDITIONS TO AVOID)	Avoid alkalis, strong oxidizing agents (e.g. chlorine, peroxides, strong acids)
HAZARDOUS POLYMERIZATION:	Not known to occur under normal conditions.

HAZARDOUS DECOMPOSITION PRODUCTS:

Normally none; however, flames and welding arcs can produce corrosive and toxic gases, vapors and fumes (e.g. hydrogen chloride, phosgene, carbon monoxide).

SECTION VI -- HEALTH HAZARD DATA

PRIMARY ROUTES OF EXPOSURE:

Inhalation, skin and eye contact, skin absorption.

HEALTH HAZARD DATA/SIGNS AND SYMPTOMS OF EXPOSURE:

ACUTE: *Skin:* Corrosive to living tissue and is rapidly absorbed through the skin causing systemic poisoning. Contact with unprotected skin can cause discoloration, irritation, blistering and slow healing chemical burns. Partial anesthetic properties may mask affects.

Eyes: Contact with liquid may cause severe chemical burns and produce permanent damage.

Inhalation: May result in severe respiratory irritation; gastrointestinal distress (nausea, vomiting), central nervous system depression (headache, drowsiness, dizziness, confusion) and tingling or numbness of the extremities. Severe exposures may lead to respiratory failure, coma and death.

Ingestion: May produce burning pain in the mouth and stomach, severe abdominal pain with nausea, vomiting, slow respiration and irregular pulse, and dark blue skin discoloration. Symptoms similar to those for inhalation also may occur.

CHRONIC: Exposure to high concentrations may lead to damage to the liver, kidneys and lungs. Contact with skin may cause dermatitis, gastrointestinal disorders and produce symptoms similar to those for inhalation.

OTHER POTENTIAL HEALTH HAZARDS:

Metabolism of methylene chloride may elevate carboxyhemoglobin levels.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:

Individuals with pre-existing liver, kidney, lung or cardiovascular dysfunction may have increased susceptibility to the effects of exposure. Contact with skin may aggravate pre-existing dermatitis.

CARCINOGENICITY: IARC classifies chemicals by their carcinogenic risk, including agents that are known, probable or possible carcinogens. NTP classifies chemicals as either known carcinogens or for which there is a limited evidence of carcinogenicity in humans or sufficient evidence of carcinogenicity in experimental animals. ACGIH recognizes two categories of carcinogens, confirmed or suspected human carcinogens.

Methylene chloride, perchloroethylene and p-dichlorobenzene are listed by IARC as possible carcinogens. Methylene chloride, perchloroethylene and p-dichlorobenzene are classified by NTP as having limited evidence of carcinogenicity in humans. Methylene chloride is recognized by ACGIH as a suspected human carcinogen.

Also see Section X.

SECTION VII -- EMERGENCY AND FIRST AID PROCEDURES

EYES: For direct contact, flush eyes with clean water for 15 minutes lifting upper and lower lids occasionally. Consult physician if irritation persists. If irritation or redness from exposure to vapors or mists develop, move victim away from exposure and into fresh air.

SKIN: Remove contaminated clothing. Wash skin twice with soap and water. If irritation develops and persists, consult a physician.

INGESTION: Aspiration hazard. If conscious, dilute with 4 to 8 ounces of water and seek immediate medical attention. DO NOT induce vomiting.

INHALATION: Remove to fresh air immediately. Use oxygen if there is difficulty breathing or artificial respiration if respiration has stopped. Do not leave victim unattended. Seek immediate medical attention if necessary.

SECTION VIII -- PRECAUTIONS FOR SAFE USE AND HANDLING

SPILL

PROCEDURES: Ventilate area and avoid breathing vapors. Absorb spill with oil absorbent or soda ash. Catch and collect for recovery as soon as possible. Shovel into closable container for disposal. Wear protective equipment specified below. Contain away from surface waters and sewers.

WASTE DISPOSAL METHODS:

Dispose in accordance with Federal, State and local regulations. Contact Safety-Kleen regarding recycling.

HANDLING

PRECAUTIONS: Keep away from heat, sparks and open flames. Use adequate ventilation. Avoid contact with skin, eyes and clothing. Avoid breathing vapors.

SHIPPING AND STORING

PRECAUTIONS: Empty product containers may contain product residue. Do not pressurize, cut, heat, weld, grind or expose containers to flame or other sources of ignition. Keep container tightly closed when not in use and during transport.

PERSONAL HYGIENE:

Use good personal hygiene. Wash thoroughly with soap and water after handling and before eating, drinking or using tobacco products.

SECTION IX - CONTROL MEASURES

VENTILATION: Provide local exhaust or general dilution ventilation, as determined necessary, to maintain concentrations of vapors below applicable exposure limits.

PROTECTIVE GLOVES: Wear Viton gloves to prevent skin contact.

EYE PROTECTION: Where there is a likelihood of contact with the face and/or eyes, wear a faceshield and chemical goggles. Contact lenses should not be worn.

RESPIRATORY PROTECTION:

Use NIOSH-approved respiratory protective equipment when concentration of vapors exceeds applicable exposure limit. Depending on the airborne concentration, use a respirator or gas mask with appropriate cartridges or canisters (for organic vapors). A self-contained breathing apparatus (SCBA) is required for large spills and emergencies. Selection and use of respiratory protective equipment should be in accordance with OSHA General Industry Standard 29 CFR 1910.134 - Respiratory Protection.

OTHER PROTECTIVE EQUIPMENT:

A source of clean water should be available in the work area for flushing eyes and skin. Wear solvent-resistant boots, apron or other protective clothing where spills or splashes are possible.

SECTION X -- OTHER REGULATORY INFORMATION

**DOT PROPER
SHIPPING NAME:** Compound, Cleaning Liquid

DOT CLASS: Corrosive Liquid

DOT ID NUMBER: NA1760

SARA TITLE III: Product contains a toxic chemical or chemicals subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372. Toxic constituents are listed with an asterisk in Section II of this Material Safety Data Sheet.

Product poses the following physical and/or health hazard(s) as defined in 40 CFR 370.3 (Sections 311, 312 of SARA Title III):

Immediate (Acute) Health Hazard
Delayed (Chronic) Health Hazard

CALIFORNIA:

This product contains detectable amounts of Methylene chloride CAS No. 75-09-2, Perchloroethylene CAS No. 127-18-4 and p-dichlorobenzene CAS No. 106-46-7. These materials are listed by the State of California as known carcinogens.

SECTION XI -- PREPARATION INFORMATION

PREPARED BY: Product MSDS Coordinator

FORM NO. 82412
(was 900-14-002)

ORIGINAL ISSUE DATE: July 20, 1989

REVISED: December 1, 1989

SUPERSEDES: July 20, 1989

User assumes all risks incident to the use of this product. To the best of our knowledge, the information contained herein is accurate. However, Safety-Kleen assumes no liability whatsoever for the accuracy or completeness of the information contained herein. No representations or warranties, either express or implied, or merchantability, fitness for a particular purpose or of any other nature are made hereunder with respect to information or the product to which information refers. The data contained on this sheet applies to the material as supplied to the user.



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Material Safety Data Sheet
Dry Cleaning Grade
Solvent F
Part # 780

EVAPORATION RATE: 0.45 (Acetone = 1) (Based on Fluorocarbon 113).
VOLATILE: 100%
VOLATILE ORGANIC COMPOUNDS: 0 lbs/gal; 0 g/l
DENSITY: 12.8 to 13.1 lbs/gal
VAPOR DENSITY: 6.5 (Air = 1) (Based on Fluorocarbon 113).
SOLUBILITY IN WATER: Slight.
pH Greater than 7.
SPECIFIC GRAVITY: 1.54 to 1.57 (Water = 1).
COEFFICIENT OF WATER/OIL DISTRIBUTION: Not available.
MOLECULAR WEIGHT: 187.4 (Based on Fluorocarbon 113).

SECTION 4 -- FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: Not available.
AUTOIGNITION TEMPERATURE: 1256°F (680°C) (Based on Fluorocarbon 113).
CONDITIONS OF FLAMMABILITY: May burn but does not ignite readily. Avoid heat, sparks and flame.
FLAMMABLE LIMITS IN AIR: **LOWER:** Not available. **UPPER:** Not available.
UNUSUAL FIRE AND EXPLOSION HAZARDS: Decomposition and combustion products may be toxic. Heated containers may rupture, explode or be thrown into the air. Vapors are heavier than air and may travel great distances to ignition source and flash back. Not sensitive to mechanical impact or static discharge.
EXTINGUISHING MEDIA: Carbon dioxide, foam, dry chemical, water spray.
FIRE FIGHTING PROCEDURES -- SPECIAL: Fluorocarbon 113 NFPA 704 Rating *-1-0 (Health-Fire-Reactivity)
*: undetermined
Keep storage containers cool with water spray. Use self-contained breathing apparatus (SCBA).
HAZARDOUS COMBUSTION PRODUCTS: Thermal decomposition and burning may produce toxic and corrosive fumes of chlorides and fluorides, and carbon monoxide.

SECTION 5 -- REACTIVITY DATA

STABILITY: Stable under normal temperatures and pressures, and not reactive with water.
INCOMPATIBILITY (MATERIALS AND CONDITIONS TO AVOID): Avoid metals, acids, alkalis, oxidizing agents, heat, sparks and flame. Explosive mixtures may be formed.
HAZARDOUS POLYMERIZATION: Not known to occur under normal temperatures and pressures.
HAZARDOUS DECOMPOSITION PRODUCTS: None under normal temperatures and pressures. However, thermal decomposition may produce toxic and corrosive fumes of chlorides and fluorides, and carbon monoxide.

SECTION 6 -- HEALTH HAZARD DATA AND TOXICOLOGICAL PROPERTIES

PRIMARY ROUTES OF EXPOSURE: Eye and skin contact; inhalation.
EXPOSURE LIMITS: See Section 2.

SIGNS AND SYMPTOMS OF EXPOSURE:

ACUTE: *Eyes:* Contact may cause slight to moderate irritation.

Skin: Contact may cause irritation. No significant skin absorption hazard.

Inhalation (Breathing): High concentrations of vapor or mist may be irritating to the mucous membranes of the upper respiratory tract, cause headaches, dizziness, nausea, arrhythmia, impaired coordination, anesthesia and may have other central nervous system effects.

Ingestion (Swallowing): Low order of acute oral toxicity. May cause irritation of the throat, nausea, vomiting, arrhythmia and symptoms of central nervous system depression. Aspiration into the lungs during ingestion or vomiting may cause mild to severe pulmonary injury and possibly death.

CHRONIC: Prolonged and/or repeated skin contact may cause drying and cracking or dermatitis.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Individuals with pre-existing central nervous system dysfunction or cardiovascular disease may have increased susceptibility to the effects of exposure. Contact with skin may aggravate pre-existing dermatitis.

CARCINOGENICITY: IARC classifies chemicals by their carcinogenic risk, including agents that are known, probable or possible carcinogens. NTP classifies chemicals as either known carcinogens or for which there is a limited evidence of carcinogenicity in humans or sufficient evidence of carcinogenicity in experimental animals. ACGIH recognizes two categories of carcinogens, confirmed or suspected human carcinogens.

Methylene chloride is listed by IARC as a possible carcinogen. Methylene chloride is classified by NTP as having limited evidence of carcinogenicity in humans or sufficient evidence of carcinogenicity in experimental animals. Methylene chloride is recognized by ACGIH as a suspected human carcinogen.

Also see Section 10.

OTHER POTENTIAL HEALTH HAZARDS:

The following information is required by Canadian WHMIS regulations. Irritancy is covered in Signs and Symptoms of Exposure in Section 6. There is no known human sensitization, toxicologically synergistic product or teratogenicity associated with this material. There is limited experimental evidence of reproductive toxicity and bacterial mutagenicity associated with Methylene chloride.

SECTION 7 -- EMERGENCY AND FIRST AID PROCEDURES

EYES: For direct contact, flush eyes with water for 15 minutes lifting upper and lower lids occasionally. If irritation or redness from exposure to vapors or mists develops, move victim away from exposure into fresh air. Consult physician if irritation or pain persists.

SKIN: Remove contaminated clothing and shoes. Wash skin twice with soap and water. Consult physician if irritation or pain persists.

INHALATION: (Breathing) Remove to fresh air immediately. Use oxygen if there is difficulty breathing or artificial respiration if breathing has stopped. Do not leave victim unattended. Seek immediate medical attention if necessary.

INGESTION: (Swallowing) If conscious, drink 4 to 8 ounces of water and seek immediate medical attention. DO NOT induce vomiting. If vomiting occurs, keep head lower than hips to prevent aspiration.

NOTE TO PHYSICIAN: Never administer Adrenalin or similar type drugs following Dry Cleaning Grade Solvent F overexposure. Increased sensitivity of the heart to Adrenalin (epinephrine) or similar type drugs may be caused by overexposure to Dry Cleaning Grade Solvent F.

SECTION 8 -- PRECAUTIONS FOR SAFE USE AND HANDLING AND PREVENTIVE MEASURES

SPILL PROCEDURES: Remove all ignition sources. Ventilate area and avoid breathing vapors. For large spills, isolate area and deny entry. If possible, contain as a liquid for possible re-refining. Absorb with compatible absorbent material. Shovel into closable container for disposal. Wear protective equipment specified in Section 9. Contain away from surface waters and sewers.

WASTE DISPOSAL METHODS:	Dispose in accordance with federal, state, provincial and local regulations. Contact Safety-Kleen regarding recycling or proper disposal.
HANDLING PRECAUTIONS:	Avoid contact with eyes, skin, clothing or shoes. Use in well ventilated area and avoid breathing vapors or mists. Keep away from heat, sparks and flames.
SHIPPING AND STORING PRECAUTIONS:	Keep container tightly closed when not in use and during transport. Empty product containers may contain product residue. Do not pressurize, cut, heat, weld, grind or expose containers to flame or other sources of ignition. See Section 10 for Packing Group information.
PERSONAL HYGIENE:	Use good personal hygiene. Wash thoroughly with soap and water after handling and before eating, drinking or using tobacco products. Clean contaminated clothing, shoes and protective equipment before reuse.

SECTION 9 -- CONTROL MEASURES AND OTHER PREVENTIVE MEASURES

EYE PROTECTION:	Where there is likelihood of spill or splash, wear chemical goggles and faceshield. Contact lenses should not be worn.
PROTECTIVE GLOVES:	Use Nitrile gloves to prevent contact with skin.
RESPIRATORY PROTECTION:	Use NIOSH/MSHA-approved respiratory protective equipment when concentration of vapors or mists exceeds applicable exposure limit. A self-contained breathing apparatus (SCBA) is required for large spills and emergencies. Selection and use of respiratory protective equipment should be in accordance in the U.S.A. with OSHA General Industry Standard 29 CFR 1910.134 and in Canada with CSA Standard Z94.4-M1982.
ENGINEERING CONTROLS:	Provide local exhaust or general dilution ventilation needed to maintain concentrations of vapors or mists below applicable exposure limits. Where explosive mixtures may be present, systems safe for such locations should be used.
OTHER PROTECTIVE EQUIPMENT:	Wear appropriate solvent-resistant boots, apron or other protective clothing where spills and splashes are possible. A source of clean water should be available in work areas for flushing the eyes and skin.

SECTION 10 -- OTHER REGULATORY INFORMATION

DOT PROPER SHIPPING NAME:	For shipments greater than 5000 lbs/container: RQ ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S. (CONTAINS TRICHLOROTRIFLUOROETHANE)
	For shipments less than 5000 lbs/container: FREON
DOT CLASS:	For shipments greater than 5000 lbs/container: Class 9
	For shipments less than 5000 lbs/container: None
DOT ID NUMBER:	For shipments greater than 5000 lbs/container: UN3082, Packing Group III (Reportable Quantity = 5000 lbs/container)
	For shipments less than 5000 lbs/container: None
SARA TITLE III:	Product contains toxic chemicals subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372. Toxic constituents are listed with an asterisk in Section 2 of this Material Safety Data Sheet.

Product poses the following physical and/or health hazards as defined in 40 CFR 370.3 (Sections 311, 312 of SARA Title III):

Immediate (Acute) Health Hazard
Delayed (Chronic) Health Hazard

CALIFORNIA:

This product contains a detectable amount of Methylene chloride CAS No. 75-09-2. This material is listed by the State of California as a known carcinogen.

TDGA:

Not regulated

WHMIS CLASSIFICATION:

Class D2B, Poisonous and Infectious Materials, Other Toxic Effects, Toxic Material (due to skin and eye irritation)

SECTION 11 -- PREPARATION INFORMATION

PREPARED BY: Product MSDS Coordinator

REVISED: April 10, 1991

ORIGINAL ISSUE DATE: July 20, 1989

SUPERSEDES: December 1, 1989

User assumes all risks incident to the use of this product. To the best of our knowledge, the information contained herein is accurate. However, Safety-Kleen assumes no liability whatsoever for the accuracy or completeness of the information contained herein. No representations or warranties, either expressed or implied, or merchantability, fitness for a particular purpose or of any other nature are made hereunder with respect to information or the product to which information refers. The data contained on this sheet apply to the material as supplied to the user.



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SAFETY-KLEEN PERCHLOROETHYLENE
MATERIAL SAFETY DATA SHEET

SECTION I -- PRODUCT INFORMATION

Safety-Kleen Corporation - 777 Big Timber Road - Elgin, IL 60123
For Product/Sales Information Call 708/697-8460

EMERGENCY TELEPHONE

These numbers are for emergency use only. If you desire non-emergency information about this product, please call the telephone number listed above.

MEDICAL:

800/942-5969 or 312/942-5969
RUSH POISON CONTROL CENTER
CHICAGO, ILLINOIS (24 HOURS)

TRANSPORTATION:

800/424-9300
CHEMTREC

IDENTITY (TRADE NAME): SAFETY-KLEEN PERCHLOROETHYLENE
SK PART NUMBER: 775, 778, 10778, 30778
FAMILY/CHEMICAL NAME: CHLORINATED HYDROCARBON
PRODUCT USAGE: DRY CLEANING SOLVENT

SECTION II -- HAZARDOUS COMPONENTS

<u>NAME</u>	<u>SYNONYM</u>	<u>%</u>	<u>CAS NO.</u>	<u>OSHA PEL (ppm)</u>	<u>ACGIH TLV (ppm)</u>
*Perchloroethylene (Stabilized)	1,1,2,2 - Tetra-chloroethylene	100	127-18-4	25	50 200 STEL

* See Section X - Other Regulatory Information

SECTION III -- PHYSICAL DATA

PHYSICAL STATE, APPEARANCE AND ODOR: Liquid - colorless, clear liquid with mildly sweet odor.
BOILING POINT: 250° F
MELTING POINT: - 9° F
EVAPORATION RATE: 0.09 (Toluene = 1)
PERCENT VOLATILE: Approximately 100%
VAPOR DENSITY: 5.83
VAPOR PRESSURE: 13 mm Hg @ 20° C (Concentrate)
SOLUBILITY IN WATER: 0.015 mg/100 gm @ 25° C
pH: Not Applicable
SPECIFIC GRAVITY: 1.6 (Water = 1.0)
MOLECULAR WEIGHT: 164
VOLATILE ORGANIC COMPOUNDS: None

SECTION IV -- FIRE AND EXPLOSION HAZARD DATA

FLASH POINT:	Non-Flammable
AUTOIGNITION TEMPERATURE:	Not Applicable
CONDITIONS OF FLAMMABILITY:	Non-Flammable
FLAMMABLE LIMITS IN AIR - LOWER:	Non-Flammable
FLAMMABLE LIMITS IN AIR - UPPER:	Non-Flammable
EXTINGUISHING MEDIA:	Non-Flammable
FIRE FIGHTING PROCEDURES -- SPECIAL:	NFPA 704 Rating 2-0-0

Self-contained breathing apparatus (SCBA) should be used by fire fighters in buildings where perchloroethylene is stored. Keep containers cool.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

Concentrated vapors will decompose on contact with high intensity heat source and produce hydrogen chloride or phosgene.

HAZARDOUS COMBUSTION PRODUCTS:

Exposure to flames, an electric arc or other high energy sources will result in thermal decomposition forming toxic gases (e.g. phosgene and hydrogen chloride).

SECTION V -- REACTIVITY DATA

STABILITY:	Stable under normal temperatures and pressures.
INCOMPATIBILITY (CONDITIONS TO AVOID):	Open flames, hot surfaces, emissions from welding arcs. Strong alkalis and oxidizing materials. Reacts violently with barium, beryllium and lithium.
HAZARDOUS POLYMERIZATION:	Does not normally occur under normal temperatures and pressures.
HAZARDOUS DECOMPOSITION PRODUCTS:	Decomposition produces phosgene and hydrogen chloride and other highly toxic substances.

SECTION VI -- HEALTH HAZARD DATA

PRIMARY ROUTES OF EXPOSURE: Inhalation, skin and eye contact, skin absorption.

HEALTH HAZARD DATA/SIGNS AND SYMPTOMS OF EXPOSURE:

ACUTE: *Skin:* May cause irritation, discomfort or pain. May be absorbed through the skin, although it is not expected to produce toxicity by this route.

Eyes: Contact with liquid may cause slight to moderate irritation resulting in pain, tearing and general inflammation.

Inhalation: May result in respiratory irritation, gastrointestinal distress (nausea, vomiting), central nervous system depression, headaches, drowsiness, dizziness, confusion, loss of coordination and equilibrium and more severe central nervous system effects at much higher concentrations. Overexposure can cause unconsciousness and even death in extreme cases.

Ingestion: May produce irritation of the mouth and gastrointestinal tract and cause effects similar to those of "Inhalation". Aspiration into the lungs during ingestion or vomiting may cause mild to severe pulmonary injury and possible death.

CHRONIC: Prolonged and repeated exposure to high concentrations may result in damage to the liver, kidneys and central nervous system. Prolonged or repeated contact with skin may cause skin to become reddened, rough and dry and may result in dermatitis.

OTHER POTENTIAL HEALTH HAZARDS:

Animals exposed to high levels have shown cardiac sensitization.

**MEDICAL CONDITIONS
AGGRAVATED BY EXPOSURE:**

Individuals with pre-existing liver, kidney or central nervous system dysfunction may have increased susceptibility to effects of the exposure. Contact with skin may aggravate pre-existing dermatitis.

CARCINOGENICITY: Perchloroethylene is listed by OSHA, NTP and IARC as a suspected carcinogen.

SECTION VII -- EMERGENCY AND FIRST AID PROCEDURES

EYES: Flush eyes with water for 20 minutes lifting upper and lower lids occasionally. Consult physician if irritation persists. If irritation or redness from exposure to vapors or mists develop, move victim away from exposure and into fresh air.

SKIN: Remove contaminated clothing. Wash skin twice with soap and water. If irritation persists, consult a physician.

INGESTION: Aspiration hazard. If conscious, dilute with 4 to 8 ounces of water and seek immediate medical attention. DO NOT induce vomiting.

INHALATION: Remove to fresh air immediately. Use oxygen if there is difficulty breathing or artificial respiration if breathing has stopped. Do not leave victim unattended. Seek immediate medical attention if necessary.

SECTION VIII -- PRECAUTIONS FOR SAFE HANDLING AND USE

**SPILL
PROCEDURES:** Isolate area and deny entry. Ventilate area and avoid breathing vapors. Absorb onto sand or other absorbent material. Shovel into closable container for disposal. Wear protective equipment specified below. Contain away from surface waters and sewers.

**WASTE DISPOSAL
METHODS:** Dispose in accordance with Federal, State and local regulations. Contact Safety-Kleen regarding recycling.

**HANDLING
PRECAUTIONS:** Do not get into eyes, on skin or clothing. Avoid breathing vapors. DO NOT smoke when using this product.

**SHIPPING AND
STORING
PRECAUTIONS:** Empty product containers may contain product residue. Do not pressurize, cut, heat, weld, grind or expose containers to flame or other sources of ignition. Keep container tightly closed when not in use and during transport. Because vapors are much heavier than air, do not store in basements, pits or depressions without ventilation at floor level.

**PERSONAL
HYGIENE:** Use good personal hygiene. Wash thoroughly with soap and water after handling and before eating, drinking or using tobacco products. Clothing which becomes soaked with solvent should be removed immediately and must not be worn until it is thoroughly laundered and dried.

SECTION IX -- CONTROL MEASURES

- VENTILATION:** Provide local exhaust or general dilution ventilation as determined appropriate to maintain concentrations of vapors below applicable exposure limits.
- PROTECTIVE GLOVES:** Wear solvent-resistant gloves such as nitrile or neoprene to prevent contact with skin.
- EYE PROTECTION:** Use protective eyewear such as chemical goggles or faceshield to prevent contact from splash, spray or mist. Contact lenses should not be worn.
- RESPIRATORY PROTECTION:** Use NIOSH-approved respiratory protective equipment when concentration of vapors exceeds applicable exposure limit. Depending on the airborne concentration, use a respirator or gas mask with appropriate cartridges and canisters (for organic vapors). A self-contained breathing apparatus (SCBA) is required for large spills and emergencies. Selection and use of respiratory protective equipment should be in accordance with OSHA General Industry Standard 29 CFR 1910.134 - Respiratory Protection.
- OTHER PROTECTIVE EQUIPMENT:** A source of clean water should be available in work area for flushing eyes and skin. Wear boots, apron and other protective clothing as need to protect against contact with skin.

SECTION X -- OTHER REGULATORY INFORMATION

- DOT PROPER SHIPPING NAME:** Perchloroethylene
- DOT CLASS:** ORM-A
- DOT ID NUMBER:** UN 1897
- SARA TITLE III:** Product contains a toxic chemical or chemicals subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372. Toxic constituents are listed with an asterisk in Section II of this Material Safety Data Sheet.
- Product poses the following physical and/or health hazard(s) as defined in 40 CFR 370.3 (Sections 311, 312 of SARA Title III):
- Immediate (Acute) Health Hazard
 - Delayed (Chronic) Health Hazard
- OTHER:** State of California Safe Drinking Water and Toxic Enforcement Act (Proposition #65)
- Warning: Perchloroethylene is known to the State of California to cause cancer.
- California South Coast Air Quality Management District Rule 443.1:
- Maximum Volatile Organic Carbon (VOC): 1620 grams/liter
 - VOC Vapor Pressure at 20^o C: 13 mm Hg

SECTION XI -- PREPARATION INFORMATION

- PREPARED BY:** SK Product Review Committee **FORM NO.** 900-14-022
- ORIGINAL ISSUE DATE:** July 20, 1989 **REVISED:** December 1, 1989 **SUPERSEDES:** July 20, 1989

User assumes all risks incident to the use of this product. To the best of our knowledge, the information contained herein is accurate. However, Safety-Kleen assumes no liability whatsoever for the accuracy or completeness of the information contained herein. No representations or warranties, either express or implied, or merchantability, fitness for a particular purpose or of any other nature are made hereunder with respect to information or the product to which information refers. The data contained on this sheet applies to the material as supplied to the user.



16 gal. container

Material Safety Data Sheet
Multi-Use Lacquer Thinner

Part Numbers **6801**
 96801

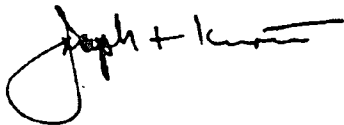
Dear Safety-Kleen Customer,

At Safety-Kleen Corp., our material safety data sheets are more than a requirement to us. They are a commitment to our customers and their employees.

The material safety data sheet is a valuable source of information and should be readily available and compatible with your hazard communication program. With this in mind, we are providing to you, our valued customer, this important information about our products.

We would also like to take this opportunity to thank you for showing your concern for the environment by choosing Safety-Kleen Corp. products and services.

Sincerely,



*Joseph F. Knott
President, Chief Operating Officer
Safety-Kleen Corp.*



MULTI-USE LACQUER THINNER

MATERIAL SAFETY DATA SHEET FOR U.S.A. AND CANADA

SECTION 1 -- PRODUCT INFORMATION

Safety-Kleen Corp. - 777 Big Timber Road - Elgin, IL, U.S.A. 60123
 Safety-Kleen Canada Inc. - 3090 Blvd. Le Carrefour - Suite 300 - Chomedey Laval Quebec, Canada H7T 2J7
 For Product Technical Information Call 312-694-2700 (U.S.A.);
 800-363-2260 (Eastern Canada); 514-686-2040 (Western Provinces/Call Collect)

24-HOUR EMERGENCY TELEPHONE	MEDICAL:	TRANSPORTATION:
These numbers are for emergency use only. If you desire non-emergency information about this product, please call a telephone number listed above.	800-752-7869 (U.S.A.) 312-942-5969 (CANADA)	708-888-4660 (U.S.A.) SAFETY-KLEEN ENVIRONMENT, HEALTH AND SAFETY DEPARTMENT
	RUSH POISON CONTROL CENTER CHICAGO, ILLINOIS, U.S.A.	613-996-6666 (CANADA) CANUTEC

IDENTITY (TRADE NAME): MULTI-USE LACQUER THINNER

SYNONYMS: NONE

SK PART NUMBER(S): 6801, 96801

FAMILY/CHEMICAL NAME: NONE

PRODUCT USAGE: LACQUER THINNER.
IF THIS PRODUCT IS USED IN COMBINATION WITH OTHER CHEMICALS, REFER TO THE MATERIAL SAFETY DATA SHEETS FOR THOSE CHEMICALS.

MSDS FORM NO.: 82410

SECTION 2 -- HAZARDOUS COMPONENTS

NAME	SYNONYM	WT %	CAS NO.	OSHA PEL		ACGIH TLV		LD50 ^a	LC50 ^b
				TWA (ppm)	STEL (ppm)	TWA (ppm)	STEL (ppm)		
*Toluene	Methylbenzene	11-49**	108-88-3	100	150	100	150	5000	4000 ^c ppm/4 hrs
*Acetone	Dimethyl ketone	15-40**	67-64-1	750	1000	750	1000	5800	50100 ^b mg/m ³ /8 hrs
Lactol spirits	Light aliphatic petroleum naphtha	0-28**	64742-89-8	400 ^d	N.Av.	N.Av.	N.Av.	N.Av.	N.Av.
*Methyl ethyl ketone	2-Butanone	4-11**	78-93-3	200	300	200	300	2737	23500 ^b mg/m ³ /8 hrs
Isopropyl alcohol	Isopropanol	9	67-63-0	400	500	400	500	5045	16000 ^c ppm/4 hrs
*Methyl isobutyl ketone	Hexone	2-8	108-10-1	50	75	50	75	2080	8000 ^b ppm/4 hrs
*Xylene	Dimethylbenzene	2-7	1330-20-7	100	150	100	150	4300	5000 ^b ppm/4 hrs
Ethyl 3-ethoxy-propionate	Ethyl 4-oxahexanoate	6	763-69-9	50 (Eastman)	100 (Eastman)	N.Av.	N.Av.	5000	N.Av.

Iso-butyl acetate	2-methylpropyl acetate	5	110-19-0	150	N.Av.	150	N.Av.	13400	8000 ^c ppm/4 hrs
*Ethylbenzene	Phenylethane	0-4	100-41-4	100	125	100	125	3500	4000 ^c ppm/4 hrs

N.Av. = Not Available

*See Section 10-Other Regulatory Information

**Even though the concentration range does not fall under the ranges prescribed by WHMIS, this is the actual range which varies with each batch of the product.

^aOral-Rat LD50 (mg/kg)

^bInhalation-Rat LC50

^cInhalation-Rat LCLo

^dFor Petroleum distillates

SECTION 3 -- PHYSICAL DATA

**PHYSICAL STATE,
APPEARANCE AND ODOR:**

Liquid, clear and colorless, solvent odor

ODOR THRESHOLD:

Not available

BOILING POINT:

133 to 342°F (56 to 172°C)

VAPOR PRESSURE:

77 mm Hg at 68°F (20°C) (approximately)

FREEZING POINT:

Not available

EVAPORATION RATE:

3.3 (butyl acetate = 1) (approximately)

VOLATILE ORGANIC COMPOUNDS:

100 WT %; 7.0 lbs/gal; 842 g/l

DENSITY:

7.0 lbs/gal (approximately)

VAPOR DENSITY:

3.0 (air = 1)

SOLUBILITY IN WATER:

Partial

pH:

Not applicable

SPECIFIC GRAVITY:

0.84 (water = 1) (approximately)

**COEFFICIENT OF WATER/OIL
DISTRIBUTION:**

Not available

MOLECULAR WEIGHT:

84 (approximately)

SECTION 4 -- FIRE AND EXPLOSION HAZARD DATA

FLASH POINT:

0°F (-18°C) Tag Closed Cup (approximately)

AUTOIGNITION TEMPERATURE:

Not available.

CONDITIONS OF FLAMMABILITY:

Heat, sparks, flame or other sources of ignition (such as static electricity, pilot lights, mechanical or electrical equipment).

FLAMMABLE LIMITS IN AIR:

LOWER: 1 Vol. %

UPPER: 13 Vol. %

**UNUSUAL FIRE AND
EXPLOSION HAZARDS:**

Decomposition and combustion products may be toxic. Heated containers may rupture, explode or be thrown into the air. Vapors are heavier than air and may travel great distances to ignition source and flash back or explode. Vapor explosion hazard indoors, outdoors or in sewers. Run off to sewer may create fire or explosion hazard. Not sensitive to mechanical impact. Material may be sensitive to static discharge, which could result in fire or explosion.

EXTINGUISHING MEDIA:

Carbon dioxide, universal foam or dry chemical.

**FIRE FIGHTING
PROCEDURES -- SPECIAL:**

NFPA 704 Rating 2-3-0 (Health-Fire-Reactivity)
Keep storage containers cool with water spray. Use self-contained breathing apparatus (SCBA).

**HAZARDOUS COMBUSTION
PRODUCTS:**

Thermal decomposition and burning may produce carbon monoxide.

SECTION 5 -- REACTIVITY DATA

STABILITY:

Stable under normal temperatures and pressures, and not reactive with water.

**INCOMPATIBILITY (MATERIALS AND
CONDITIONS TO AVOID):**

Avoid acids, alkalies, oxidizing agents, metals, halogens, anhydrides, isocyanates, heat, sparks or flame. This product forms combustible or explosive mixtures with air or oxygen.

HAZARDOUS POLYMERIZATION:

Not known to occur under normal temperatures and pressures.

**HAZARDOUS DECOMPOSITION
PRODUCTS:**

Thermal decomposition in the presence of air may produce carbon monoxide.

SECTION 6 -- HEALTH HAZARD DATA AND TOXICOLOGICAL PROPERTIES

PRIMARY ROUTES OF EXPOSURE:

Eye and skin contact; inhalation, ingestion.

EXPOSURE LIMITS:

See Section 2.

SIGNS AND SYMPTOMS OF EXPOSURE:

ACUTE: *Eyes:* Direct contact with the liquid or exposure to vapor or mist may cause severe irritation, tearing, redness, swelling and eye damage.

Skin: Contact tends to cause redness, burning and removal of skin oils, possibly leading to irritation and dermatitis. Significant skin absorption hazard.

Inhalation (Breathing): High concentration of vapor or mist may cause irregular heartbeat, be irritating to the respiratory tract, cause nausea, vomiting, headaches, dizziness, impaired coordination, anesthesia and may have other central nervous system effects.

Ingestion (Swallowing): Low order of acute oral toxicity. May cause irritation of the throat, nausea, vomiting and symptoms of central nervous system depression. Aspiration into the lungs during ingestion or vomiting may cause mild to severe pulmonary injury and possibly death.

CHRONIC:

Prolonged or repeated skin contact may cause drying and cracking or dermatitis. Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage.

**MEDICAL CONDITIONS
AGGRAVATED BY
EXPOSURE:**

Individuals with pre-existing skin, lung, kidney, liver, heart and central nervous system disorders may have increased susceptibility to the effects of exposure.

CARCINOGENICITY:

Not applicable.

Also see Section 10.

**OTHER POTENTIAL
HEALTH HAZARDS:**

The following information is required by Canadian WHMIS regulations. Irritancy is covered in Signs and Symptoms of Exposure in Section 6. There is no known human sensitization or toxicologically synergistic product associated with this material. Toluene and xylene have demonstrated experimental effects for reproductive toxicity, mutagenicity and teratogenicity. There is limited experimental evidence of teratogenicity associated with methyl ethyl ketone. Ethylbenzene has shown experimental effects for mutagenicity and teratogenicity.

SECTION 7 -- EMERGENCY AND FIRST AID PROCEDURES

- EYES:** For direct contact, flush eyes with water for 15 minutes lifting upper and lower lids occasionally. If irritation or redness from exposure to vapors or mists develops, move victim away from exposure into fresh air. Consult physician if irritation or pain persists.
- SKIN:** Remove contaminated clothing and shoes. Wash skin twice with soap and water. Consult physician if irritation or pain persists.
- INHALATION:
(Breathing)** Remove to fresh air immediately. Use oxygen if there is difficulty breathing or artificial respiration if breathing has stopped. Do not leave victim unattended. Seek immediate medical attention if necessary.
- INGESTION:
(Swallowing)** Seek immediate medical attention. Do NOT induce vomiting. If spontaneous vomiting occurs, keep head below hips to avoid aspiration.
- SPECIAL
NOTE TO
PHYSICIAN:** Do not administer Adrenalin (epinephrine) or similar drugs following MULTI-USE LACQUER THINNER overexposure. Increased sensitivity of the heart to such drugs may be caused by overexposure to MULTI-USE LACQUER THINNER. Administration of gastric lavage, if warranted, should be performed by qualified medical personnel. Isopropyl alcohol is effectively removed by hemodialysis. Contact Rush Poison Control Center (Section 1) for additional medical information.

SECTION 8 -- PRECAUTIONS FOR SAFE USE AND HANDLING AND PREVENTIVE MEASURES

- SPILL
PROCEDURES:** Remove all ignition sources. Ventilate area and avoid breathing vapors. For large spills, isolate area and deny entry, dike far ahead of liquid spill for later disposal. If possible, contain as a liquid for possible re-refining. Sorb with compatible sorbent material. Shovel into closable container for disposal. Wear protective equipment specified in Section 9. Contain away from surface waters and sewers.
- WASTE DISPOSAL
METHODS:** Dispose in accordance with federal, state, provincial and local regulations. Contact Safety-Kleen regarding recycling or proper disposal.
- HANDLING
PRECAUTIONS:** Avoid contact with eyes, skin, clothing or shoes. Use in well ventilated area and avoid breathing vapor or mist. Keep away from heat, sparks or flame. Use non-sparking tools and explosion-proof equipment. Bond and ground equipment when transferring to another container.
- SHIPPING AND
STORING
PRECAUTIONS:** Keep container tightly closed when not in use and during transport. Empty product containers may contain product residue. Do not pressurize, cut, heat, weld, grind or expose containers to flame or other sources of ignition; they may explode and cause injury or death. See Section 10 for Packing Group information.
- PERSONAL
HYGIENE:** Use good personal hygiene. Wash thoroughly with soap and water after handling and before eating, drinking or using tobacco products. Clean contaminated clothing, shoes and protective equipment before reuse.

SECTION 9 -- CONTROL MEASURES AND OTHER PREVENTIVE MEASURES

- EYE
PROTECTION:** Where there is likelihood of spill or splash, wear chemical goggles and faceshield. Contact lenses should not be worn.
- PROTECTIVE
GLOVES:** Use Teflon[®] gloves or equivalent to prevent contact with skin.
- RESPIRATORY
PROTECTION:** Use NIOSH/MSHA-approved respiratory protective equipment when concentration of vapors or mists exceeds applicable exposure limit. A self-contained breathing apparatus (SCBA) is required for large spills and emergencies. Selection and use of respiratory protective equipment should be in accordance in the U.S.A. with OSHA General Industry Standard 29 CFR 1910.134 and in Canada with CSA Standard Z94.4-M1982.
- ENGINEERING
CONTROLS:** Provide process enclosure or local exhaust ventilation needed to maintain concentrations of vapors or mists below applicable exposure limits. Where explosive mixtures may be present, systems safe for such locations should be used.

OTHER PROTECTIVE EQUIPMENT:

Wear appropriate solvent-resistant boots, apron or other protective clothing where spills and splashes are possible. Clean water should be available in work areas for flushing the eyes and skin.

SECTION 10 -- OTHER REGULATORY INFORMATION

DOT PROPER SHIPPING NAME: PAINT RELATED MATERIAL

DOT CLASS: Class 3

DOT ID NUMBER: UN1263 PGII

SARA TITLE III: Product contains toxic chemicals subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372. Toxic constituents are listed with an asterisk in Section 2 of this Material Safety Data Sheet.

Product poses the following physical and/or health hazards as defined in 40 CFR 370.3 (Sections 311, 312 of SARA Title III):

- Immediate (Acute) Health Hazard
- Delayed (Chronic) Health Hazard
- Fire Hazard

CALIFORNIA: This product contains a detectable amount of benzene CAS No. 71-43-2. This material is listed by the State of California as a known carcinogen.

TDG CLASSIFICATION: Paint Related Material, Class 3.2, UN1263, PG II

WHMIS CLASSIFICATION: B2, Flammable Liquid;
D2B, Materials Causing Other Toxic Effects, Toxic Material (due to skin and eye irritation).

SECTION 11 -- PREPARATION INFORMATION

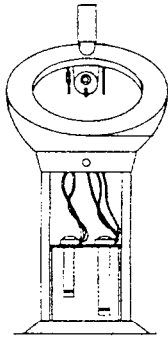
PREPARED BY: Product MSDS Coordinator **REVISED:** October 17, 1991

ORIGINAL ISSUE DATE: July 20, 1989 **SUPERSEDES:** December 1, 1989

User assumes all risks incident to the use of this product. To the best of our knowledge, the information contained herein is accurate. However, Safety-Kleen assumes no liability whatsoever for the accuracy or completeness of the information contained herein. No representations or warranties, either expressed or implied, or merchantability, fitness for a particular purpose or of any other nature are made hereunder with respect to information or the product to which information refers. The data contained on this sheet apply to the material as supplied to the user.



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spray gun cleaner



5 gal container

Material Safety Data Sheet
Heavy Duty Lacquer Thinner
Part # 's 5820, 5825, 15820,
15825, 95825

*N-Butyl alcohol	Butanol	0-9.6**	71-36-3	50 (Skin) (Ceiling)	N.Av.	50 (Skin) (Ceiling)	N.Av.	790	8000
C5 to C8 Aliphatic hydrocarbons	N.Av.	0-42.1**	109-66-0 ^c	600 ^c	750 ^c	600 ^c	750 ^c	N.Av. ^c	325 ^{c,l}
C9 to C20 Aliphatic hydrocarbons	N.Av.	0-9.6**	64741-41-9 ^d	100 ^d	N.Av.	100 ^d	N.Av.	> 5000 ^d	N.Av.
*1,1,1-Trichloroethane	Methyl chloroform	0-1.0**	71-55-6	350	450	350	450	10300	18000
*Methylene chloride	Dichloromethane	0-1.0**	75-09-2	500	2000 ^m	50	174	1600	88000 ^k
*Perchloroethylene	Tetrachloro-ethylene	0-1.0**	127-18-4	25	N.Av.	50	200	2629	34200 ^f
Total chlorinated compounds		0-1.0**							

N.Av. = Not Available

*See Section X-Other Regulatory Information

**Even though the concentration range does not fall under the ranges prescribed by WHMIS, this is the actual range which varies with each batch of the product.

^aOral-Rat LD50 (mg/kg)

^bInhalation-Rat LC50 (ppm/4 hours)

^cFor Pentane

^dFor Stoddard Solvent

^eInhalation-Rat LCLo (ppm/4 hours)

^fInhalation-Rat LC50 (mg/m³/8 hours)

^gInhalation-Rat LC50 (ppm/8 hours)

ⁱInhalation-Rat LC50 (ppm/6 hours)

^jInhalation-Rat LC50 (ppm/10 hours)

^kInhalation-Rat LC50 (mg/m³/30 minutes)

^lInhalation-Mus LCLo (gm/m³/2 hours)

^m5 minutes in any 2 hours

SECTION III -- PHYSICAL DATA

PHYSICAL STATE,

APPEARANCE AND ODOR:

Clear, colorless liquid with a solvent odor.

ODOR THRESHOLD:

Not available.

BOILING POINT:

133°F to 342°F (56°C to 172°C) (based on a similar UNOCAL[®] product) (Approximately).

VAPOR PRESSURE:

94.7 mm Hg at 68°F (20°C) (based on a similar UNOCAL[®] product) (Approximately).

FREEZING POINT:

-200°F to -8°F (-129°C to -22°C) (Approximately).

EVAPORATION RATE:

3.7 (Butyl Acetate = 1) (based on a similar UNOCAL[®] product) (Approximately).

VOLATILE:

100%

VOLATILE ORGANIC COMPOUNDS:

6.9 lbs/gal; 830 g/l

DENSITY:

6.9 lbs/gal

VAPOR DENSITY:

2.2 to 3.9 (Air = 1) (Approximately).

SOLUBILITY IN WATER:

Partial.

pH

Not applicable.

SPECIFIC GRAVITY:

0.83 (Water = 1).

COEFFICIENT OF WATER/OIL DISTRIBUTION:

Not available.

MOLECULAR WEIGHT:

65 to 114 (Approximately).

SECTION IV -- FIRE AND EXPLOSION HAZARD DATA

FLASH POINT:

< 100°F (< 37°C) Tag Closed Cup

AUTOIGNITION TEMPERATURE: Not available.

CONDITIONS OF FLAMMABILITY: Heat, sparks and flame.

FLAMMABLE LIMITS IN AIR: **LOWER:** 1.0 Vol. % (based on a similar UNOCAL[®] product) (Approximately).
UPPER: 13.2 Vol. % (based on a similar UNOCAL[®] product) (Approximately).

UNUSUAL FIRE AND EXPLOSION HAZARDS: Decomposition and combustion products may be toxic. Heated containers may rupture, explode or be thrown into the air. Vapors are heavier than air and may travel great distances to ignition source and flash back. Not sensitive to mechanical impact. Material may be sensitive to static discharge, which could result in fire or explosion.

EXTINGUISHING MEDIA: Carbon dioxide, foam, dry chemical, water (mist only).

FIRE FIGHTING PROCEDURES -- SPECIAL: NFPA 704 Rating 2-3-0
Product could float on water and spread fire. Keep storage containers cool with water spray. Use self-contained breathing apparatus (SCBA).

HAZARDOUS COMBUSTION PRODUCTS: Thermal decomposition and burning may produce carbon monoxide.

SECTION V -- REACTIVITY DATA

STABILITY: Stable under normal temperatures and pressures, and not reactive with water.

INCOMPATIBILITY (MATERIALS AND CONDITIONS TO AVOID): Avoid acids, alkalies, oxidizing agents, heat, sparks and flame.

HAZARDOUS POLYMERIZATION: Not known to occur under normal temperatures and pressures.

HAZARDOUS DECOMPOSITION PRODUCTS: None under normal temperatures and pressures. Thermal decomposition may produce carbon monoxide.

SECTION VI -- HEALTH HAZARD DATA AND TOXICOLOGICAL PROPERTIES

PRIMARY ROUTES OF EXPOSURE: Eye and skin contact; inhalation.

EXPOSURE LIMITS: See Section II.

SIGNS AND SYMPTOMS OF EXPOSURE:

ACUTE: **Eyes:** Contact may cause severe irritation. Vapors may cause noticeable redness, tearing, irritation and pain.

Skin: Prolonged or repeated contact tends to remove skin oils, possibly leading to irritation and dermatitis. No significant skin absorption hazard.

Inhalation (Breathing): Vapor or mist can be irritating to the respiratory tract, cause headaches, dizziness, confusion, nausea, vomiting, impaired coordination, anesthesia and may have other central nervous system effects, including unconsciousness in extreme cases.

Ingestion (Swallowing): Can cause burning of the mouth, throat and abdomen, nausea, vomiting, diarrhea, symptoms of central nervous system depression, including weakness, dizziness, slow and shallow respiration, unconsciousness and convulsions. Aspiration into the lungs during ingestion or vomiting may cause mild to severe pulmonary injury and possibly death.

CHRONIC: Conjunctivitis may occur upon chronic exposure. Prolonged and/or repeated skin contact may cause drying and cracking or dermatitis and inhalation may cause damage to the liver, kidney, spleen, lungs or nervous system.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Individuals with pre-existing liver, kidney, spleen, lungs or nervous system dysfunction may have increased susceptibility to the effects of exposure. Contact with skin may aggravate pre-existing dermatitis.

CARCINOGENICITY: IARC classifies chemicals by their carcinogenic risk, including agents that are known, probable or possible carcinogens. NTP classifies chemicals as either known carcinogens or for which there is a limited evidence of carcinogenicity in humans or sufficient evidence of carcinogenicity in experimental animals. ACGIH recognizes two categories of carcinogens, confirmed or suspected human carcinogens.

Methylene chloride and Perchloroethylene are listed by IARC as possible carcinogens. Methylene chloride and Perchloroethylene are classified by NTP as having limited evidence of carcinogenicity in humans or sufficient evidence of carcinogenicity in experimental animals. Methylene chloride is recognized by ACGIH as a suspected human carcinogen.

Also see Section X.

OTHER POTENTIAL HEALTH HAZARDS: Reports have associated prolonged and repeated occupational exposure to solvents with permanent brain and/or central nervous system damage. Intentional misuse by deliberately concentrating and inhaling this material may be harmful or fatal. Observe all appropriate control measures

The following information is required by Canadian WHMIS regulations. Irritancy is covered in Signs and Symptoms of Exposure in Section VI. There is no known human sensitization or toxicologically synergistic product associated with this product. Toluene and Xylene have demonstrated experimental effects for reproductive toxicity, mutagenicity and teratogenicity. Ethyl benzene and Ethyl alcohol have demonstrated experimental effects for teratogenicity and mutagenicity. Methyl ethyl ketone and 1,1,1-Trichloroethane have shown experimental effects for teratogenicity. There is limited experimental evidence of reproductive toxicity and bacterial mutagenicity associated with Methylene chloride.

SECTION VII -- EMERGENCY AND FIRST AID PROCEDURES

EYES: For direct contact, flush eyes with water for 15 minutes lifting upper and lower lids occasionally. If irritation or redness from exposure to vapors or mists develops, move victim away from exposure into fresh air. Consult physician if irritation or pain persists.

SKIN: Remove contaminated clothing and shoes. Wash skin twice with soap and water. Consult physician if irritation or pain persists.

INHALATION:
(Breathing) Remove to fresh air immediately. Use oxygen if there is difficulty breathing or artificial respiration if breathing has stopped. Do not leave victim unattended. Seek immediate medical attention if necessary.

INGESTION:
(Swallowing) If conscious, drink 4 to 8 ounces of water and seek immediate medical attention. DO NOT induce vomiting.

SECTION VIII -- PRECAUTIONS FOR SAFE USE AND HANDLING AND PREVENTIVE MEASURES

SPILL PROCEDURES: Remove all ignition sources. Ventilate area and avoid breathing vapors. For large spills, isolate area and deny entry. If possible, contain as a liquid for possible re-refining. Absorb with compatible absorbent material. Shovel into closable container for disposal. Wear protective equipment specified in Section IX. Contain away from surface waters and sewers.

WASTE DISPOSAL METHODS: Dispose in accordance with federal, state, provincial and local regulations. Contact Safety-Kleen regarding recycling or proper disposal.

HANDLING PRECAUTIONS: Avoid contact with eyes, skin, clothing or shoes. Use in well ventilated area and avoid breathing vapors or mists. Keep away from heat, sparks and flames.

SHIPPING AND STORING PRECAUTIONS: Keep container tightly closed when not in use and during transport. Empty product containers may contain product residue. Do not pressurize, cut, heat, weld, grind or expose containers to flame or other sources of ignition. See Section X for Packing Group information.

PERSONAL HYGIENE: Use good personal hygiene. Wash thoroughly with soap and water after handling and before eating, drinking or using tobacco products. Clean contaminated clothing, shoes and protective equipment before reuse.

SECTION IX -- CONTROL MEASURES AND OTHER PREVENTIVE MEASURES

EYE PROTECTION:	Where there is likelihood of spill or splash, wear chemical goggles and faceshield. Contact lenses should not be worn.
PROTECTIVE GLOVES:	Use polyethylene, ethylene vinyl or similar gloves to prevent contact with skin.
RESPIRATORY PROTECTION:	Use NIOSH/MSHA-approved respiratory protective equipment when concentrations of vapors or mists exceeds applicable exposure limit. A self-contained breathing apparatus (SCBA) is required for large spills and emergencies. Selection and use of respiratory protective equipment should be in accordance in the U.S.A. with OSHA General Industry Standard 29 CFR 1910.134 and in Canada with CSA Standard Z94.4-M1982.
ENGINEERING CONTROLS:	Provide local exhaust or general dilution ventilation needed to maintain concentrations of vapors or mists below applicable exposure limits. Where explosive mixtures may be present, systems safe for such locations should be used.
OTHER PROTECTIVE EQUIPMENT:	Wear appropriate solvent-resistant boots, apron or other protective clothing where spills and splashes are possible. A source of clean water should be available in work areas for flushing the eyes and skin.

SECTION X -- OTHER REGULATORY INFORMATION

DOT PROPER SHIPPING NAME:	PAINT RELATED MATERIAL
DOT CLASS:	Class 3
DOT ID NUMBER:	UN1263, Packing Group II
SARA TITLE III:	<p>Product contains toxic chemicals subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372. Toxic constituents are listed with an asterisk in Section II of this Material Safety Data Sheet.</p> <p>Product poses the following physical and/or health hazards as defined in 40 CFR 370.3 (Sections 311, 312 of SARA Title III):</p> <ul style="list-style-type: none">Immediate (Acute) Health HazardDelayed (Chronic) Health HazardFire Hazard
CALIFORNIA:	This product contains detectable amounts of Methylene chloride CAS No. 75-09-2 and Perchloroethylene CAS No. 127-18-4. These materials are listed by the State of California as known carcinogens.
TDGA:	PAINT RELATED MATERIAL, Class 3.2, UN1263, Packing Group II
WHMIS CLASSIFICATION:	Class B2 (Flammable and Combustible Materials, Flammable Liquid); Class D1B (Poisonous and Infectious Materials, Immediate and Serious Toxic Effects, Toxic Material); Class D2A (Poisonous and Infectious Materials, Other Toxic Effects, Very Toxic Material); Class D2B (Poisonous and Infectious Materials, Other Toxic Effects, Toxic Material)

SECTION XI -- PREPARATION INFORMATION

PREPARED BY: Product MSDS Coordinator

FORM PART NO. 82343

ORIGINAL ISSUE DATE: July 20, 1989

REVISED: February 28, 1991

SUPERSEDES: December 1, 1989

User assumes all risks incident to the use of this product. To the best of our knowledge, the information contained herein is accurate. However, Safety-Kleen assumes no liability whatsoever for the accuracy or completeness of the information contained herein. No representations or warranties, either expressed or implied, or merchantability, fitness for a particular purpose or of any other nature are made hereunder with respect to information or the product to which information refers. The data contained on this sheet apply to the material as supplied to the user.





Material Safety Data Sheet

Absorbent

Part Numbers 840

3391

8830

Dear Safety-Kleen Customer,

At Safety-Kleen Corp., supplying material safety data sheets is more than a requirement to us; it is a commitment to our customers and their employees.

The material safety data sheet is a valuable source of product information and should be a part of your hazard communication program. With this in mind, we are providing you, our valued customer, this important product information.

Thank you for showing your concern for the environment by choosing Safety-Kleen Corp. products and services.

Sincerely,

Your friends at Safety-Kleen Corp.



ABSORBENT

MATERIAL SAFETY DATA SHEET FOR U.S.A. AND CANADA

SECTION 1 -- PRODUCT AND PREPARATION INFORMATION

PRODUCT INFORMATION

IDENTITY (TRADE NAME): ABSORBENT

SYNONYMS: GRIT-O'COBS[®], DRI-ZORB[®]

SK PART NUMBER(S): 840, 3391, 8830

FAMILY/CHEMICAL NAME: None

PRODUCT USE: Absorbent for spill clean up.
Do NOT use for oxidizers or concentrated strong acids, such as battery acid.
IMPORTANT: DURING AND AFTER USE, HAZARDS MAY CHANGE. FOR MORE INFORMATION, SEE ABSORBED CHEMICALS' MATERIAL SAFETY DATA SHEETS.

24-HOUR EMERGENCY TELEPHONE

These numbers are for emergency use only. If you desire non-emergency information about this product, please call a telephone number listed below.

MEDICAL:

1-800-752-7869 (U.S.A.)
1-312-942-5969 (CANADA)

RUSH POISON CONTROL CENTER
CHICAGO, ILLINOIS, U.S.A.

TRANSPORTATION:

1-708-888-4660 (U.S.A.)
SAFETY-KLEEN ENVIRONMENT,
HEALTH AND SAFETY DEPARTMENT

1-613-996-6666 (CANADA)
CANUTEC

MANUFACTURER/SUPPLIER: Safety-Kleen Corp. - 777 Big Timber Road - Elgin, IL, U.S.A. 60123
Telephone number: 1-800-669-5840
Safety-Kleen Canada Inc. - 3090 Blvd. Le Carrefour - Suite 300 - Chomedey Laval
Quebec, Canada H7T 2J7 Telephone number: 1-800-363-2260

PREPARATION INFORMATION

MSDS FORM NO.: 82320 **REVISION DATE:** April 23, 1992

ORIGINAL ISSUE DATE: January 14, 1991 **SUPERSEDES:** December 4, 1991

PREPARED BY: Product MSDS Coordinator **APPROVED BY:** MSDS Task Force

TELEPHONE NUMBER: For Product Technical Information Call 1-312-694-2700 (U.S.A.);
1-800-363-2260 (Canada)

SECTION 2 -- HAZARDOUS COMPONENTS

NAME	SYNONYM	CAS NO.	WT%	OSHA PEL		ACGIH TLV		OTHER DATA	
				TWA	STEL	TWA	STEL	LD ^a	LC ^b

NONE for clean Absorbent

Av. = Not Available

See Section 10-Other Regulatory Information

^aOral-Rat LD50 (mg/kg)

^bInhalation-Rat LC50

ABSORBENT

MATERIAL SAFETY DATA SHEET FOR U.S.A. AND CANADA

SECTION 3 -- EMERGENCY AND FIRST AID PROCEDURES

EYES: For mechanical irritation, flush eyes with water for 15 minutes lifting upper and lower lids occasionally. Consult physician if irritation or pain persists.

SKIN: If irritation or pain develops and persists, consult a physician.

**INHALATION:
(Breathing)** Remove to fresh air immediately.

**INGESTION:
(Swallowing)** Not applicable.

**SPECIAL
NOTE TO
PHYSICIAN:** No specific data available. Treat symptomatically and supportively. Contact Rush Poison Control Center (Section 1) for additional medical information.

SECTION 4 -- HEALTH HAZARD DATA AND TOXICOLOGICAL PROPERTIES

PRIMARY ROUTES OF EXPOSURE: Inhalation and ingestion (for clean Absorbent).

EXPOSURE LIMITS: Particulates Not Otherwise Classified (PNOC), use TLV of 10mg/m³ for clean Absorbent.

SIGNS AND SYMPTOMS OF EXPOSURE

ACUTE: *Eyes:* Contact with clean Absorbent may cause mechanical irritation. Dust may cause eye watering.

Skin: No significant skin absorption hazard for clean Absorbent.

Inhalation (Breathing): Nuisance dust may cause coughing or sneezing.

Ingestion (Swallowing): Not applicable for clean Absorbent.

CHRONIC: Not applicable for clean Absorbent.

MEDICAL CONDITIONS

AGGRAVATED BY EXPOSURE:

Nuisance dust may aggravate pre-existing respiratory conditions.

CARCINOGENICITY:

Not applicable for clean Absorbent.

Also see Section 9.

OTHER POTENTIAL HEALTH HAZARDS:

The following information is required by Canadian WHMIS regulations. Irritancy is covered in Signs and Symptoms of Exposure in Section 4. There is no known human sensitization, toxicologically synergistic product, reproductive toxicity, mutagenicity, or teratogenicity associated with clean Absorbent.

SECTION 5 -- FIRE AND EXPLOSION HAZARD DATA

EMERGENCY RESPONSE GUIDE NUMBER:

Not applicable for clean Absorbent.
Reference Emergency Response Guidebook (DOT 5800.5)

FIRE AND EXPLOSION HAZARDS:

For clean Absorbent, the minimum explosive concentration is 0.045oz./cu.ft. (-200 mesh dust cloud). Not sensitive to mechanical impact or static discharge.

FIRE FIGHTING PROCEDURES:

For clean Absorbent: NFPA 704 Rating 0-1-0 (Health-Fire-Reactivity)
Use self-contained breathing apparatus (SCBA) and full protective equipment.

ABSORBENT

MATERIAL SAFETY DATA SHEET FOR U.S.A. AND CANADA

EXTINGUISHING MEDIA:	Water spray for clean Absorbent.
CONDITIONS OF FLAMMABILITY:	Sparks or flame for clean Absorbent.
FLASH POINT:	Not applicable for clean Absorbent.
AUTOIGNITION TEMPERATURE:	Not applicable for clean Absorbent.
FLAMMABLE LIMITS IN AIR:	LOWER: Not applicable for clean Absorbent. UPPER: Not applicable for clean Absorbent.
HAZARDOUS COMBUSTION PRODUCTS:	Burning may produce carbon monoxide and nitrogen oxides for clean Absorbent.

SECTION 6 -- REACTIVITY DATA

STABILITY:	Stable under normal temperatures and pressures, and not reactive with water for clean Absorbent.
INCOMPATIBILITY (MATERIALS AND CONDITIONS TO AVOID):	Contact with oxidizing agents or concentrated strong acids (for example, battery acid) in a closed drum may cause exothermic reaction, drum overpressurization and explosion.
HAZARDOUS POLYMERIZATION:	Not known to occur under normal temperatures and pressures for clean Absorbent.
HAZARDOUS DECOMPOSITION PRODUCTS:	None under normal temperatures and pressures for clean Absorbent.

SECTION 7 -- PREVENTIVE MEASURES

PRECAUTIONS FOR SAFE USE AND HANDLING

HANDLING PRECAUTIONS:	Use in well ventilated area and avoid breathing dust.
PERSONAL HYGIENE:	Use good personal hygiene.
SHIPPING AND STORING PRECAUTIONS:	Keep container tightly closed when not in use and during transport. See Section 9 for Packing Group information.
SPILL PROCEDURES:	Sweep or shovel clean Absorbent into closable container for disposal.
WASTE DISPOSAL METHODS:	Dispose in accordance with federal, state, provincial and local regulations. Contact Safety-Kleen regarding proper disposal.

CONTROL MEASURES

EYE PROTECTION:	Although not required, goggles are recommended for clean Absorbent. Do NOT wear contact lenses.
PROTECTIVE GLOVES:	Not required for clean Absorbent.
RESPIRATORY PROTECTION:	Not normally required for clean Absorbent. Selection and use of respiratory protective equipment, if warranted, should be in accordance in the U.S.A. with OSHA General Industry Standard 29 CFR 1910.134 and in Canada with CSA Standard Z94.4-M1982.

ABSORBENT

MATERIAL SAFETY DATA SHEET FOR U.S.A. AND CANADA

ENGINEERING CONTROLS:

Provide process enclosure or local ventilation needed to maintain concentration of dust below applicable exposure limits. Where explosive mixtures may be present, systems safe for such locations should be used (see Section 5, FIRE AND EXPLOSION HAZARDS).

OTHER PROTECTIVE EQUIPMENT:

None required for clean Absorbent.

SECTION 8 -- PHYSICAL DATA

PHYSICAL STATE, APPEARANCE AND ODOR:

Granules, tan, odorless.

ODOR THRESHOLD:

Not applicable.

SPECIFIC GRAVITY:

0.8 to 1.2 (water = 1).

DENSITY:

Not applicable.

VAPOR DENSITY:

Not applicable.

VAPOR PRESSURE:

Not applicable.

BOILING POINT:

Not applicable.

FREEZING POINT:

Not applicable.

pH:

Not applicable.

VOLATILE ORGANIC COMPOUNDS: (US EPA DEFINITION)

Not applicable.

EVAPORATION RATE:

Not applicable.

SOLUBILITY IN WATER:

Partial.

COEFFICIENT OF WATER/OIL DISTRIBUTION:

Not applicable.

MOLECULAR WEIGHT:

Not available.

SECTION 9 -- OTHER REGULATORY INFORMATION

TRANSPORTATION INFORMATION

DOT PROPER SHIPPING NAME: GRAINS, SPENT, DRIED (89490)

DOT CLASS: None

DOT ID NUMBER: None

TDG CLASSIFICATION: Not Regulated

SARA TITLE III:

Product does not contain toxic chemicals subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

Product does not pose physical and/or health hazards as defined in 40 CFR 370.3 (Sections 311, 312 of SARA Title III).

ABSORBENT

MATERIAL SAFETY DATA SHEET FOR U.S.A. AND CANADA

WHMIS CLASSIFICATION:

Not regulated.

CALIFORNIA:

This product does not contain detectable amounts of any of the materials listed by the State of California as known carcinogens.

User assumes all risks incident to the use of this product. To the best of our knowledge, the information contained herein is accurate. However, Safety-Kleen assumes no liability whatsoever for the accuracy or completeness of the information contained herein. No representations or warranties, either expressed or implied, or merchantability, fitness for a particular purpose or of any other nature are made hereunder with respect to information or the product to which information refers. The data contained on this sheet apply to the material as supplied to the user.



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Material Safety Data Sheet

SORBENT

Part Numbers: 850

Dear Safety-Kleen Customer,

At Safety-Kleen Corp., supplying material safety data sheets is more than a requirement to us; it is a commitment to our customers and their employees.

The material safety data sheet is a valuable source of product information and should be a part of your hazard communication program. With this in mind, we are providing you, our valued customer, this important product information.

Thank you for showing your concern for the environment by choosing Safety-Kleen Corp. products and services.

Sincerely,

Your friends at Safety-Kleen Corp.



SORBENT

MATERIAL SAFETY DATA SHEET FOR U.S.A. AND CANADA

SECTION 1 -- PRODUCT AND PREPARATION INFORMATION

PRODUCT INFORMATION

IDENTITY (TRADE NAME): SORBENT

SYNONYMS: Maintenance sorbent.

SK PART NUMBER(S): 850

FAMILY/CHEMICAL NAME: Not applicable.

PRODUCT USE: Sorbent which can be used as a boom, pillow, pad, or roll.
Do NOT use for oxidizers, caustics, acids, peroxides, or other reactive chemicals.
IMPORTANT: DURING AND AFTER USE, HAZARDS MAY CHANGE. FOR MORE INFORMATION, SEE SORBED MATERIALS' MATERIAL SAFETY DATA SHEETS.

24-HOUR EMERGENCY TELEPHONE

These numbers are for emergency use only. If you desire non-emergency information about this product, please call a telephone number listed below.

MEDICAL:

1-800-752-7869 (U.S.A.)
1-312-942-5969 (CANADA)
RUSH POISON CONTROL CENTER
CHICAGO, ILLINOIS, U.S.A.

TRANSPORTATION:

1-708-888-4660 (U.S.A.)
SAFETY-KLEEN ENVIRONMENT,
HEALTH AND SAFETY DEPARTMENT
1-613-996-6666 (CANADA)
CANUTEC

MANUFACTURER/SUPPLIER:

Safety-Kleen Corp. - 1000 North Randall Road - Elgin, IL, U.S.A. 60123
Telephone number: 1-800-669-5840
Safety-Kleen Canada Inc. - 3090 Blvd. Le Carrefour - Suite 300 - Chomedey Laval
Quebec, Canada H7T 2J7 Telephone number: 1-800-363-2260

PREPARATION INFORMATION

MSDS FORM NO.: 82550
REVISION DATE: Original

ORIGINAL ISSUE DATE: April 12, 1993
SUPERSEDES: New

PREPARED BY: Product MSDS Coordinator
APPROVED BY: MSDS Task Force

TELEPHONE NUMBER: For Product Technical Information Call 1-312-694-2700 (U.S.A.);
1-800-363-2260 (Canada)

SECTION 2 -- HAZARDOUS COMPONENTS

NAME	SYNONYM	CAS NO.	WT%	OSHA PEL		ACGIH TLV		OTHER DATA	
				TWA	STEL	TWA	STEL	LD	LC ^c
Homopolymer 1-propene	Polypropylene	9003-07-0	47-90*	N.Av.	N.Av.	N.Av.	N.Av.	3200 ^a	N.Av.
Polyester	N.Av.	**	18-30	N.Av.	N.Av.	N.Av.	N.Av.	N.Av.	N.Av.

SORBENT

MATERIAL SAFETY DATA SHEET FOR U.S.A. AND CANADA

Butanedioic acid, sulfo- 1,4-bis (2-ethylhexyl) ester, sodium salt	Dioctyl sodium sulfosuccinate	577-11-7	3	N.Av.	N.Av.	N.Av.	N.Av.	1900 ^b	N.Av.
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N.Av. = Not Available

*Even though the concentration range does not fall under the ranges prescribed by WHMIS, this is the actual range which varies with each batch of the product.

**Supplier advises that this is a trade secret.

^aOral-mouse LD50

^bOral-rat LD50

^cInhalation LC

SECTION 3 -- EMERGENCY AND FIRST AID PROCEDURES

EYES: Not applicable for clean Sorbent.

SKIN: Consult physician if irritation or pain develops and persists.

INHALATION: Not applicable for clean Sorbent.
(Breathing)

INGESTION: Not applicable for clean Sorbent.
(Swallowing)

SPECIAL NOTE TO PHYSICIAN: No specific data available. Treat symptomatically and supportively. Contact Rush Poison Control Center (see Section 1) for additional medical information.

SECTION 4 -- HEALTH HAZARD DATA AND TOXICOLOGICAL PROPERTIES

PRIMARY ROUTES OF EXPOSURE: Skin contact.

EXPOSURE LIMITS: See Section 2.

SIGNS AND SYMPTOMS OF EXPOSURE

ACUTE: *Eyes:* No health hazard expected for clean Sorbent.

Skin: Clean Sorbent is not expected to cause irritation. No significant skin absorption hazard.

Inhalation (Breathing): No health hazard expected for clean Sorbent.

Ingestion (Swallowing): No health hazard expected for clean Sorbent.

CHRONIC: No health hazard expected for clean Sorbent.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:

Not applicable for clean Sorbent.

CARCINOGENICITY: Not applicable for clean Sorbent.

Also see Section 9.

OTHER POTENTIAL HEALTH HAZARDS:

The following information is required by Canadian WHMIS regulations. Irritancy is covered in Signs and Symptoms of Exposure in Section 4. There is no known human sensitization, toxicologically synergistic product, reproductive toxicity, mutagenicity, or teratogenicity associated with clean Sorbent.

SORBENT

MATERIAL SAFETY DATA SHEET FOR U.S.A. AND CANADA

SECTION 5 -- FIRE AND EXPLOSION HAZARD DATA

**EMERGENCY RESPONSE
GUIDE NUMBER:**

Not applicable for clean Sorbent.

**FIRE AND
EXPLOSION HAZARDS:**

Decomposition and combustion products may be toxic. Not sensitive to mechanical impact or static discharge.

FIRE FIGHTING PROCEDURES:

For clean Sorbent: NFPA 704 Rating 0-1-0 (Health-Fire-Reactivity)
Positive-pressure, self-contained breathing apparatus (SCBA) and structural firefighters' protective clothing will provide limited protection.

EXTINGUISHING MEDIA:

Carbon dioxide, dry chemical, water spray.

CONDITIONS OF FLAMMABILITY:

Intense flame for clean Sorbent.

FLASH POINT:

Not applicable for clean Sorbent.

AUTOIGNITION TEMPERATURE:

Not applicable for clean Sorbent.

FLAMMABLE LIMITS IN AIR:

LOWER: Not applicable for clean Sorbent.
UPPER: Not applicable for clean Sorbent.

**HAZARDOUS COMBUSTION
PRODUCTS:**

Burning may produce acrolein, aldehydes, ketones, methane, nitrogen oxide, propane, sulfur oxide, or carbon monoxide.

SECTION 6 -- REACTIVITY DATA

STABILITY:

Clean Sorbent is stable under normal temperatures and pressures, and not reactive with water.

**INCOMPATIBILITY (MATERIALS AND
CONDITIONS TO AVOID):**

Avoid acids, alkalis, oxidizing agents, peroxides, other reactive chemicals, or intense flame.

HAZARDOUS POLYMERIZATION:

Not known to occur under normal temperatures and pressures for clean Sorbent.

**HAZARDOUS DECOMPOSITION
PRODUCTS:**

None under normal temperatures and pressures for clean Sorbent.

SECTION 7 -- PREVENTIVE MEASURES

PRECAUTIONS FOR SAFE USE AND HANDLING

**HANDLING
PRECAUTIONS:**

Keep away from sparks or flame. No precautions required for normal handling of this product. However, flammable and other hazardous materials when contained in this Sorbent may continue to be hazardous or unsafe, and under certain conditions may spontaneously ignite.

**PERSONAL
HYGIENE:**

Use good personal hygiene.

**SHIPPING AND
STORING
PRECAUTIONS:**

Do not expose containers to flame or other sources of ignition. See Section 9 for Packing Group information.

**SPILL
PROCEDURES:**

Remove all ignition sources. Sorbent may become slippery when used on flooring. Do not walk on Sorbent. Do not place Sorbent on flooring in high traffic areas. Contain away from surface waters and sewers.

SORBENT

MATERIAL SAFETY DATA SHEET FOR U.S.A. AND CANADA

WASTE DISPOSAL METHODS:

Dispose in accordance with federal, state, provincial, and local regulations. Contact Safety-Kleen regarding recycling or proper disposal.

CONTROL MEASURES

EYE PROTECTION:

Not required for clean Sorbent. However, wear appropriate eyewear for handling the material to be sorbed. Do NOT wear contact lenses.

PROTECTIVE GLOVES:

Not required for clean Sorbent. However, use appropriate gloves for handling the material to be sorbed.

RESPIRATORY PROTECTION:

Not normally required for clean Sorbent. However, use NIOSH/MSHA-approved respiratory protective equipment appropriate for handling the material to be sorbed. A self-contained breathing apparatus (SCBA) and full protective equipment may be required for large spills or fire emergencies for the material to be sorbed. Selection and use of respiratory protective equipment should be in accordance in the U.S.A. with OSHA General Industry Standard 29 CFR 1910.134 or in Canada with CSA Standard Z94.4-M1982.

ENGINEERING CONTROLS:

Not required for clean Sorbent. However, provide process enclosure or local ventilation needed to maintain concentration of material to be sorbed below applicable exposure limits. Where explosive mixtures may be present, systems safe for such locations should be used.

OTHER PROTECTIVE EQUIPMENT:

Not required for clean Sorbent. However, where spills and splashes of the material to be sorbed are possible, wear appropriate solvent-resistant boots, apron, or other protective clothing. Clean water should be available in work areas for flushing the eyes and skin.

SECTION 8 -- PHYSICAL DATA

PHYSICAL STATE, APPEARANCE AND ODOR:

Sorbent is grey matted fiber covered with a thin scrim (a durable, loosely woven fabric). Sorbent comes in a 50-foot roll approximately 5 inches wide when folded, 20 inches wide when unfolded. It comes in a box approximately 21 inches square by 6 inches wide.

ODOR THRESHOLD:

Not applicable.

SPECIFIC GRAVITY:

Not applicable.

DENSITY:

Not applicable.

VAPOR DENSITY:

Not applicable.

VAPOR PRESSURE:

Not applicable.

BOILING POINT:

Not applicable.

FREEZING POINT:

Not applicable.

pH:

Not applicable.

VOLATILE ORGANIC COMPOUNDS: (US EPA DEFINITION)

Not applicable.

EVAPORATION RATE:

Not applicable.

SOLUBILITY IN WATER:

Not applicable.

COEFFICIENT OF WATER/OIL DISTRIBUTION:

Not applicable.

MOLECULAR WEIGHT:

Not available.

SORBENT

MATERIAL SAFETY DATA SHEET FOR U.S.A. AND CANADA

SECTION 9 -- OTHER REGULATORY INFORMATION

TRANSPORTATION INFORMATION

DOT PROPER SHIPPING NAME: Not regulated.

DOT CLASS: Not regulated.

DOT ID NUMBER: Not regulated.

TDG CLASSIFICATION: Not regulated.

SARA TITLE III: Product does not contain toxic chemicals subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

Product does not pose physical or health hazards as defined in 40 CFR Part 370 and is not subject to the requirements of sections 311 and 312 of Title III of the Superfund Amendments and Reauthorization Act of 1986.

WHMIS CLASSIFICATION: Not regulated.

TSCA: All of the components for this product are listed on, or are exempted from the requirement to be listed on, the TSCA Inventory.

CALIFORNIA: This product does not contain detectable amounts of any of the materials listed by the State of California as known carcinogens or as known to cause reproductive toxicity.

User assumes all risks incident to the use of this product. To the best of our knowledge, the information contained herein is accurate. However, Safety-Kleen assumes no liability whatsoever for the accuracy or completeness of the information contained herein. No representations or warranties, either expressed or implied, or merchantability, fitness for a particular purpose or of any other nature are made hereunder with respect to information or the product to which information refers. The data contained on this sheet apply to the material as supplied to the user.

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Revision 04/93; Form No. 82550



Appendix B

Letters to Local Authorities



Hand Delivered

Tallahassee Police Department
234 East 7th Avenue
Tallahassee, FL 32303

RE: Safety-Kleen Corp., Tallahassee, Florida

Dear Sir:

Under terms of U.S. EPA Regulations 40 CFR 264, Subpart D, Safety-Kleen Corp. must provide local police, fire departments, hospitals, and state or local emergency response teams with a copy of the contingency plan for the referenced facility, and any revisions to the plan. A copy of the updated Contingency Plan is enclosed for your files.

EPA regulations 40 CFR 264, Subpart C, require that Safety-Kleen 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 (904) 576-9764.

Sincerely,

Frank Taylor
Branch Manager
Tallahassee

mmm/pjh

Enclosure(s)



Hand Delivered

Tallahassee Fire Department
327 North Adams
Tallahassee, FL 32301

RE: Safety-Kleen Corp., Tallahassee, Florida

Dear Sir:

Under terms of U.S. EPA Regulations 40 CFR 264, Subpart D, Safety-Kleen Corp. must provide local police, fire departments, hospitals, and state or local emergency response teams with a copy of the contingency plan for the referenced facility, and any revisions to the plan. A copy of the updated Contingency Plan is enclosed for your files.

EPA regulations 40 CFR 264, Subpart C, require that Safety-Kleen 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 (904) 576-9764.

Sincerely,

Frank Taylor
Branch Manager
Tallahassee

mmm/pjh

Enclosure(s)



Hand Delivered

Tallahassee Memorial Regional Medical Center
1300 Miccosukee Road
Tallahassee, FL 32303

RE: Safety-Kleen Corp., Tallahassee, Florida

Dear Sir:

Under terms of U.S. EPA Regulations 40 CFR 264, Subpart D, Safety-Kleen Corp. must provide local police, fire departments, hospitals, and state or local emergency response teams with a copy of the contingency plan for the referenced facility, and any revisions to the plan. A copy of the updated Contingency Plan is enclosed for your files.

EPA regulations 40 CFR 264, Subpart C, require that Safety-Kleen 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 (904) 576-9764.

Sincerely,

Frank Taylor
Branch Manager
Tallahassee

mmm/pjh

Enclosure(s)

Attachment II.A.4(e)

Training Program

ATTACHMENT II.A.4(e)

PERSONNEL TRAINING

This section of the permit application describes Safety-Kleen's corporate training program. Training plan outlines, job descriptions, training content, frequency and techniques are described as well as the implementation of the training program. All positions described herein may not be present at all facilities.

The purpose of Safety-Kleen's training program is to familiarize employees with environmental regulations, records, and emergency procedures so they can perform their jobs 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 his job assignment. New Branch Managers (Resource Recovery Branch Manager) and new Branch Facility managers have completed a formal introductory training program before starting their jobs, with an annual review and update thereafter. New Sales Representatives are trained prior to unsupervised customer visits. All other hazardous waste employees undergo a combination of videotape and on-the-job training within six months of starting.

OUTLINE OF TRAINING PROGRAM

An outline of the training program, given both initially and annually to employees who manage or handle hazardous waste at the Service Center is presented in table IIA.4(e)-1.

JOB TITLE/JOB DESCRIPTION

Job descriptions for employees who would be expected to manage or handle hazardous wastes, including the Branch Manager (Resource Recovery Branch Manager), Branch Automotive Manager, Branch Industrial Manager, Branch Secretary (paperwork only), Sales Representatives, Warehouse Personnel, and Branch Special Markets Manager are provided in tables II.A.4(e)-2 through II.A.4(e)-8.

TRAINING CONTENT, FREQUENCY, AND TECHNIQUES

Employee training is accomplished using classroom, videotape, written, and on-the-job methods. The Environment Health and Safety (EHS) Department of Safety-Kleen's Corporate Office prepares a training program for employees and they must provide documentation that the program has been executed. An employee is trained

TABLE II.A.4(e)-1

INTRODUCTORY AND CONTINUING TRAINING TOPICS
FOR SERVICE CENTER EMPLOYEES

- Hazard Communication Safety Training
- Hazard Communication Understanding MSDSs
- Preventing Injuries and Illnesses
- Chemistry of Safety-Kleen Products
- Hazardous Materials Regulations
- Waste Analysis Plan
- Preparedness, Prevention and Contingency Plans
- Day Four - Ten Day Training - Haz Mat/POT/MANFST VID QUIZ
- Completion of New Employee Orientation Program *
- Initial Contingency Plan Training (Including Part B review) *
- Respirator Fit Testing and Training

* New employees only. Not a part of annual training.

TABLE II.A.4(e)-2

**JOB DESCRIPTION
RESOURCE RECOVERY BRANCH MANAGER**

JOB DESCRIPTION:

The Resource Recovery Branch Manager has overall responsibility for the facility operations and maintenance, and directs sales activities within a certain geographic area defined by the corporate Marketing Department. He is responsible for the proper operations and profitability of the service center.

REPORTS TO:

Regional Manager of Sales

QUALIFICATION:

Minimum high school graduate with Safety-Kleen sales experience

PRINCIPAL RESPONSIBILITIES:

1. Plan, direct, and monitor activities of Sales Representatives.
2. Training of branch facility managers, sales representatives, and other branch personnel.
3. Assist or accompany sales representatives during their sales activities when necessary.
4. Tabulate daily sales and inventory figures and report them to the corporate offices.
5. Maintain adequate inventory of solvents, allied products, and equipment.
6. Carry out corporate policies and standards regarding facilities, equipment operation and maintenance.
7. Ensure the regular inspection of the facility and equipment and the implementation of any necessary repairs or remedial actions.
8. Represent Safety-Kleen Corp. in local community affairs and public relations activities.
9. Coordinate with corporate Technical Services and EHS Departments and implement necessary actions or plans for Regulatory compliance.
10. Be able to act as the primary emergency response coordinator.

TABLE II.A.4(e)-3

**JOB DESCRIPTION
BRANCH AUTOMOTIVE MANAGER**

JOB DESCRIPTION:

Develops and maintains automotive account business by presenting and providing the complete Automotive Fluid Recovery Service to customers in assigned territories. Trains, motivates, and controls the automotive sales staff within the assigned territories.

REPORTS TO:

Directly to the Resource Recovery Branch manager and indirectly to Regional Automotive Sales Manager. All Automotive and Oil Sales Representatives within assigned territories report directly to the BAM. One or more Branch Secretaries report to the BAM, as assigned by the Resource Recovery Branch Manager.

QUALIFICATION:

Minimum high school graduate with above average Safety-Kleen route sales experience. Applicant should exhibit leadership abilities and be self-motivated, and pass Company testing.

PRINCIPAL RESPONSIBILITIES:

1. Markets and sells the total Automotive Fluid Recovery Service.
2. Signs automotive accounts to the Safety-Kleen Service Contract and Oil agreements where applicable.
3. Ensures that customers have the right kind of equipment which is properly labeled, and on the appropriate service interval, by completing machine condition reports.
4. Ensures that the Company's ethical standards are maintained.
5. Reviews weekly and period sales production summaries.
6. Ensures the timely completion of services.
7. Reviews and acts on accounts receivable standards.
8. Assures proper completion and administration of hazardous waste paperwork.
9. Assures proper management, preparation, and shipment of hazardous waste (including packaging, placarding, transportation, and storage procedures).

TABLE II.A.4(e)-3

JOB DESCRIPTION
BRANCH AUTOMOTIVE MANAGER

10. Assures DOT compliance.
11. Trains personnel following the *Corporate Training 10-Day Action Plan*.
12. Conducts sales meetings.
13. Oversees career development by conducting selling skills training meetings (in conjunction with ASM).
14. Conducts health and safety meetings.
15. Develops team contests or rewards for set period objectives.
16. Develops rewards for achieved objectives.
17. Holds monthly goal setting sessions with assigned personnel.
18. Conducts quarterly performance reviews with assigned personnel.
19. Controls all personnel within the assigned territories by daily/weekly communication in regards to branch standards and goals.

TABLE II.A.4(e)-4

**JOB DESCRIPTION
BRANCH INDUSTRIAL MANAGER**

JOB DESCRIPTION:

Develops and maintains industrial account business by presenting and providing the complete Industrial Fluid Recovery Service to customers in assigned territories. Trains, motivates, and controls the industrial sales staff within the assigned territories.

REPORTS TO:

Directly to the Resource Recovery Branch Manager and indirectly to Regional Industrial Sales Manager. All Industrial Sales Representatives within assigned territories report directly to the BIM. One or more Branch Secretaries report to the BIM, as assigned by the Resource Recovery Branch Manager.

QUALIFICATION:

Minimum high school graduate with above average Safety-Kleen route sales experience. Applicant should exhibit leadership abilities, be self-motivated, and pass Company testing. Good reading and letter writing skills are also required.

PRINCIPAL RESPONSIBILITIES:

1. Ensures that customers have the right kind of equipment which is properly labeled, and on the appropriate service interval, by completing machine condition reports.
2. Ensures that the Company's ethical standards are maintained.
3. Performs the required amount of cold calls, sample processing, and machine placements.
4. Reviews weekly and period sales production summaries.
5. Ensures the timely completion of services.
6. Reviews and acts on accounts receivable standards.
7. Assures proper completion and administration of hazardous waste paperwork.
8. Assures proper management, preparation, and shipment of hazardous waste (including packaging, placarding, transportation, and storage procedures).
9. Assures DOT compliance.

TABLE II.A.4(e)-4

JOB DESCRIPTION
BRANCH INDUSTRIAL MANAGER

10. Trains personnel following the *Corporate Training 10-Day Action Plan*.
11. Conducts sales meetings.
12. Oversees career development by conducting selling skills training meetings (in conjunction with ISM).
13. Conducts health and safety meetings.
14. Develops team contests or rewards for set period objectives.
15. Develops rewards for achieved objectives.
16. Holds monthly goal setting sessions with assigned personnel.
17. Conducts quarterly performance reviews with assigned personnel.
18. Controls all personnel within the assigned territories by daily/weekly communication in regards to branch standards and goals.

TABLE II.A.4(e)-5

**JOB DESCRIPTION
BRANCH SECRETARY**

JOB DESCRIPTION:

Performs duties to assist the branch manager, sales representatives, and customers with billing, scheduling, and recordkeeping. Performs secretarial duties at the branch.

REPORTS TO:

Resource Recovery Branch Manager

QUALIFICATION:

Attended high school

PRINCIPAL RESPONSIBILITIES:

1. Maintain records in an orderly manner.
2. Assist sales representatives in scheduling services.
3. Ensure that all hazardous waste manifests are complete, and manage distribution and filing of copies.
4. Maintain Personnel Training Record files.
5. Maintain Facility Inspection Records.
6. Answer customer inquiries.
7. Manage customer billing.
8. Perform other related duties as assigned.

TABLE II.A.4(e)-6

**JOB DESCRIPTION
SALES REPRESENTATIVE**

JOB DESCRIPTION:

The Sales Representative is charged with the responsibility of generating new business and servicing established accounts within a certain defined geographic area.

REPORTS TO:

Branch Automotive Manager, Branch Industrial Manager, or Branch Special Markets Manager.

QUALIFICATION:

Minimum high school graduate

PRINCIPAL RESPONSIBILITIES:

1. Maintain his route truck and replenish his products on the truck before beginning his route sales.
2. Contact potential customers for the purpose of selling Safety-Kleen services and allied products.
3. Exchange used solvents with fresh solvent and replenish the inventory of Safety-Kleen's products for existing customers.
4. Make minor repairs of Safety-Kleen's parts washer equipment or lease new equipment to the customer.
5. Prepare the necessary paperwork for each service, and bill or credit the customer, as necessary.
6. At the end of each day, return the truck to the branch for cleaning and maintenance, and summarize the day's activities so the Branch Manager can tabulate the daily figures and forward them to the corporate office.

TABLE II.A.4(e)-7

**JOB DESCRIPTION
WAREHOUSE PERSONNEL**

JOB DESCRIPTION:

Perform duties to assist the sales representatives in loading and unloading the trucks.
Perform janitorial duties at the warehouse.

REPORTS TO:

Resource Recovery Branch Manager

QUALIFICATIONS:

Attended high school

PRINCIPAL RESPONSIBILITIES:

1. Maintain warehouse in clean and orderly manner.
2. Assist sales representatives in loading trucks and replacing solvent.
3. Refurbish drums as needed.
4. Park or move trucks as needed.
5. Stock inventory.
6. Replenish trucks with inventory.
7. Perform other related duties as assigned.

TABLE II.A.4(e)-8

**JOB DESCRIPTION
BRANCH SPECIAL MARKETS MANAGER**

JOB DESCRIPTION:

Develops and maintains Corporate and Branch goals related to special markets by planning, organizing, directing, and controlling all assigned employees. In most instances, the BSM is responsible for personal production within an assigned zone and operates under the guidelines established by the Special Markets Specialist job description. This would include a minimum number of sales calls that would generate a set revenue quota. Branch specific standards would be established by the Regional Special Markets Manager in conjunction with the Resource Recovery Branch Manager.

REPORTS TO:

Directly to Resource Recovery Branch Manager and indirectly to the Regional Special Markets Sales Manager.

QUALIFICATION:

Minimum high school graduate

PRINCIPAL RESPONSIBILITIES:

1. Responsible for sales and service of one-half route and for obtaining the branch's total sales objectives.
2. Responsible for personally netting six new customers or equivalent sales revenue per period.
3. Responsible for training and developing Special Markets Sales Specialists.
4. Responsible for developing new customers for Paint Refinishing and Dry Cleaning throughout all branch routes.
5. Through training, assures proper management, preparation, and shipment of hazardous materials and waste (including packaging, placarding, transportation, storage, and paperwork procedures).
6. Assures the meeting of assigned sales quotas.

TABLE II.A.4(e)-8

**JOB DESCRIPTION
BRANCH SPECIAL MARKETS MANAGER**

7. Assures that Safety-Kleen equipment at customers (where applicable) is properly labeled and on the appropriate service interval by completing Customer Visit Reports.
8. Assures that the company's ethical standards are maintained.
9. Reviews weekly and period sales promotion summaries.
10. Assures the timely completion of services.
11. Reviews and acts on accounts receivable standards.
12. Conducts sales meetings.
13. Develops team contests or rewards for set period objectives.
14. Holds monthly goal setting sessions with assigned personnel.
15. Conducts quarterly performance reviews with assigned personnel.
16. Controls all personnel within the assigned territories by daily/weekly communication in regards to branch standards and goals.

prior to starting or as soon as he or she begins working, (depending on his or her position), and is trained annually thereafter.

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

Training of New Resource Recovery Branch Managers: New Resource Recovery Branch Managers are trained for several weeks before they begin their new positions. This training is given both on the job and in the classroom. During this training, the new manager reviews all environmental records and learns the recordkeeping requirements. These records include: manifests, personnel records, training records, service center inspection records, and spill reports. The initial training consists of an introduction to environmental law and a review of the Part B, including the Waste Analysis Plan, Preparedness, Prevention, and Contingency Plan and Emergency Procedures, Training Plan, and Closure Plan.

The training culminates in at least three weeks of training at his new service center, at least one day of which is devoted to environmental training with the Regional Environmental Engineer. Past environmental compliance at the Resource Recovery Branch Manager's service center, and regulations unique to his state are discussed as well.

Branch Automotive Managers, Branch Industrial Managers, and Branch Special Markets Managers receive training specified in table II.A.4(e)-1.

Training of New Branch Secretaries: Branch 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 the Resource Recovery Branch Manager and is done within six months of starting. This training is often presented in company-produced videotape presentations on emergency response, shipping documents (including manifests), drum labels, and other safety and environmental compliance issues.

Training of New Sales Representatives: New Sales Representatives are trained on the job for two weeks during which they are introduced to manifests, service center inspection records, and training records. A Sales Representative may also be trained as the designee for performing the service center inspection. Additional training is in the form of videotape presentations and a review of the Preparedness, Prevention, Contingency, Emergency Procedures Plan. The Preparedness, Prevention, Contingency, and Emergency Procedures Plan must be reviewed with the Resource Recovery Branch Manager before the Sales Representative formally begins his new position and annually thereafter. New Sales Representatives must complete Training Sheet I (table II.A.4(e)-9) within six months.

Training of New Warehousemen: A warehouseman is trained to maintain the service center and assist the other branch employees in their tasks. He may be a designee for the service center inspection and must be trained by the Resource Recovery Branch Manager as such. Within 6 months of the warehouseman's starting, the Resource

TABLE II.A.4(e)-9

1560. _____

ENVIRONMENT, HEALTH, & SAFETY TRAINING

TRAINING SUMMARY SHEET I

Branch Name : _____ Branch No. : _____

Employee Name : _____ Employee Number : _____

Hire Date : _____ 6 Mon. Training Compl. Date (target) : _____

Position / Title : _____ Termination Date : _____

** CORE HAZARDOUS MATERIALS TRAINING **

(Emergency Response Training must be completed before an employee works in an unsupervised position. Employees must be completely trained in all items listed below within six (6) months of starting and annually thereafter.)

TRAINING COMPLETED:

MGR.
INIT.

DATE

_____	EHS VIDEO PART I - HAZ COM - Safety Training	_____
_____	EHS VIDEO PART II - HAZ COM - Understanding MSDSs	_____
_____	EHS VIDEO PART III - Preventing Injuries & Illnesses	_____
_____	EHS VIDEO PART IV - Hazards Associated w/ Mat'ls Handling	_____
_____	EHS VIDEO PART V - Chemistry of Safety - Kleen Products	_____
_____	EHS VIDEO PART VI - Hazardous Materials Regulations	_____
_____	EHS VIDEO PART VII - Waste Analysis Plan	_____
_____	EHS VIDEO PART VIII - Prep., Pym., & Contingency Plans	_____
_____	Day Four - TEN DAY TRAINING - HAZ MAT/DOT/MANFST VID QUIZ	_____
_____	Completion of New Employee Orientation Program	_____
_____	Initial Contingency Plan Training (incl. Part B review)	_____
_____	Respirator Fit Testing & Training	_____

CERTIFICATION by the employee that training has been received obligates the employee to discharge his/her duties in accordance with the training provided. Failure to comply with the requirements established during the training program may result in civil or criminal penalties against the employee. **

12/31/91

Employee's Signature: _____

Recovery Branch Manager must review the items listed in the outline presented in table II.A.4(e)-1.

Annual Training: On an annual basis, employees are trained using a program prepared and updated annually by the EHS Department which contains the topics in table II.A.4(e)-1. This training also includes updates on environmental regulations, an in-depth review of the Preparedness, Prevention, Contingency, and Emergency Procedures Plan and a review of RCRA inspection criteria. This review is in the form of videotapes and a review and discussion of the storage service center permit/application. In addition, periodic memoranda on changes in environmental regulations are issued by the EHS Department and must be read and discussed by all branch personnel.

TRAINING DIRECTOR

The training is directed by Safety-Kleen's Training and Development and Environment, Health and Safety (EHS) Departments which operate out of the Corporate Office in Elgin, Illinois. Each regional environmental engineer who works in this department is responsible for compliance of the service centers in a given geographic area of the country. The cooperative effort of both departments 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;
- Manage any environmental compliance issues which exceed the resources available at the service center level; and
- Participate in training new Resource Recovery Branch Managers.

Qualifications for individuals that are members of the EHS Department and may conduct training at the Service Center 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 the 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, Prevention, Contingency, and Emergency Procedures 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.

TRAINING FOR PREPAREDNESS, PREVENTION, CONTINGENCY, AND EMERGENCY PROCEDURES PLAN IMPLEMENTATION

All employees are trained in Preparedness, Prevention, Contingency, and Emergency Procedures Plan implementation, through both initial training and yearly refresher courses, as summarized in table II.A.4(e)-1. Employees are trained on the contents of the Preparedness, Prevention, Contingency, and Emergency Procedures Plan as well as criteria for implementation.

TRAINING FOR EMERGENCY RESPONSE

All employees are trained in emergency response procedures, through both initial training and yearly refresher courses, as summarized in table II.A.4(e)-1. The emergency training involves spill and fire prevention as well as remedial action procedures. Employees are also trained to recognize when evacuation and outside assistance may be necessary.

IMPLEMENTATION OF TRAINING PROGRAM

New Resource Recovery Branch Managers, Branch Facility Managers, and Sales Representatives must complete an introductory training program discussed previously before starting their jobs, with annual review and update thereafter. Branch Secretaries and Warehousemen are given instruction on the Preparedness, Prevention, Contingency, and Emergency Procedures Plan within two weeks of starting work, and are given the full hazardous waste training course, as outlined in table II.A.4(e)-1, within six months of starting work. Warehousemen involved in direct handling of hazardous waste do not work unsupervised until they have completed the entire initial hazardous waste training course.

PERSONNEL TRAINING RECORD FORMS

Table II.A.4(e)-9 is a sample personnel training record form. This form, or one similar to it, will be used to record training. All training is documented and kept on file at the service center until closure. Additional forms may be used contingent upon the specific issue being addressed. All forms will show the training received, employee name, and the date of training.

Attachment II.A.5

Waste Analysis Report

ATTACHMENT II.A.5

WASTE ANALYSIS REPORT

In accordance with U.S. EPA Hazardous Waste Regulations, eight types of hazardous waste have been identified for collection either as permitted or transfer wastes at the service center:

1. The used Parts Cleaner 105 returned from customers in separate containers, transferred, and stored in the aboveground tank awaiting shipment to the recycle facility, is considered to be an Ignitable Waste (D001). Used Actrel[®] and used Premium Solvent are considered non-ignitable. The used Parts Cleaner 105, used Actrel[®], and used Premium Solvent are considered a characteristic waste by toxicity characteristic leaching procedure (TCLP) (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, and D043). Used parts washer solvent 105 is manifested from the customer as a hazardous waste. Used Actrel[®] and used Premium Solvent are manifested from the customer as hazardous wastes unless a generator's hazardous waste determination indicates that they are non-hazardous, in which case they will be managed as a non-hazardous waste until they are placed in the used parts washer solvent tank, at which time they will be hazardous wastes.
2. The used chlorinated solvent #609 (old), returned from customers in separate containers and remaining in the same container for shipment to the recycle facility, is considered to be a Listed Waste from Non-Specific sources (F002 and F004); and a characteristic waste by TCLP (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, and D043). This waste is managed as a transfer waste.
3. The used immersion cleaner #699 (new), returned from customers in separate containers and remaining in the same container for shipment to the recycle facility, is considered a characteristic waste by TCLP (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, and D043).
4. Parts washer solvent dumpster mud and tank bottom sludge, which will accumulate in the solvent return receptacles (wet dumpsters) and in the sludge tank, are considered to be an Ignitable Waste (D001) and a characteristic waste by TCLP (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, and D043). Other parts washer solid debris, such as metal parts and filters, are considered a characteristic waste only by TCLP.

5. Dry cleaning wastes will consist of spent filter cartridges, powder residue from diatomaceous or other powder filter systems and still bottoms. While approximately 80 percent of the dry cleaning solvent returned by Safety-Kleen customers will be perchloroethylene (F002) and a characteristic waste by TCLP (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, and D043), approximately 17 percent is mineral spirits (D001), and a characteristic waste by TCLP (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, and D043), and the remaining 3 percent is trichlorotrifluoroethane (F002) and a characteristic waste by TCLP (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, and D043). Non-perchloroethylene dry cleaning wastes are managed as transfer wastes.
6. Antifreeze waste is approximately one-third water with the remaining third being antifreeze (ethylene glycol) and contaminants. Some spent antifreeze may exhibit the following TCLP characteristics: 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, and D043, in which case they are managed as a hazardous waste transfer waste.
7. Paint wastes will consist of various lacquer thinners such as acetone, isopropyl alcohol, methyl ethyl ketone, methyl isobutyl ketone, toluene, xylenes, and acetate compounds (D001, F003, and F005) and is a characteristic waste by TCLP (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, and D043). The waste will be collected in containers at the customer's place of business and the containers will then be palletized whenever possible and stored in the paint waste storage area of the accumulation center.
8. Due to the great variability in the composition of Fluid Recovery Service (FRS) wastes, their application or use, and the source industry, Safety-Kleen characterizes each stream from each generator separately. FRS wastes received at the facility are classified as characteristic wastes (D-waste codes), non-specific source wastes (F-waste codes), listed wastes from specific sources (K-wastes), commercial chemical products, manufacturing intermediates or off-specification chemical commercial products (U-waste codes). Most of the time, a waste stream will be some combination of specific components, and be categorized as a D- or F- waste. Table II.A.5-1 provides a list of the EPA waste codes managed at the facility under the FRS program. These wastes, except characteristic waste oil, are shipped in

TABLE II.A.5-1

FLUID RECOVERY SERVICE WASTE TYPES

EPA Hazardous Waste No.	Description
D001	Solid waste that exhibits the characteristic of ignitability, but is not listed as a hazardous waste.
D002	Solid waste that exhibits the characteristic of corrosivity, but is not listed as a hazardous waste.
D004	Solid waste that exhibits the characteristic of toxicity for arsenic at 5.0 mg/L or more.
D005	Solid waste exhibiting the characteristic of toxicity for barium at 100 mg/L or more.
D006	Solid waste exhibiting the characteristic of toxicity for cadmium at 1.0 mg/L or more.
D007	Solid waste exhibiting the characteristic of toxicity for chromium at 5.0 mg/L or more.
D008	Solid waste exhibiting the characteristic of toxicity for lead at 5.0 mg/L or more.
D009	Solid waste exhibiting the characteristic of toxicity for mercury at 0.2 mg/L or more.
D010	Solid waste exhibiting the characteristic of toxicity for selenium at 1.0 mg/L or more.
D011	Solid waste exhibiting the characteristic of toxicity for silver at 5.0 mg/L or more.
D018	Solid waste exhibiting the characteristic of toxicity for benzene at 0.5 mg/L or more.
D019	Solid waste exhibiting the characteristic of toxicity for carbon tetrachloride at 0.5 mg/L or more.
D021	Solid waste exhibiting the characteristic of toxicity for chlorobenzene at 100.0 mg/L or more.
D022	Solid waste exhibiting the characteristic of toxicity for chloroform at 6.0 mg/L or more.
D023	Solid waste exhibiting the characteristic of toxicity for o-Cresol at 200.0 mg/L or more.
D024	Solid waste exhibiting the characteristic of toxicity for m-Cresol at 200.0 mg/L or more.
D025	Solid waste exhibiting the characteristic of toxicity for p-Cresol at 200.0 mg/L or more.
D026	Solid waste exhibiting the characteristic of toxicity for Cresol at 100.0 mg/L or more.
D027	Solid waste exhibiting the characteristic of toxicity for 1,4 Dichlorobenzene at 7.5 mg/L or more.
D028	Solid waste exhibiting the characteristic of toxicity for 1,2 Dichloroethane at 0.5 mg/L or more.
D029	Solid waste exhibiting the characteristic of toxicity for 1,1 Dichloroethylene at 0.7 mg/L or more.
D030	Solid waste exhibiting the characteristic of toxicity for 2,4 Dinitrotoluene at 0.13 mg/L or quantification limit.
D032	Solid waste exhibiting the characteristic of toxicity for Hexachlorobenzene at 0.13 mg/L or quantification limits.
D033	Solid waste exhibiting the characteristic of toxicity for Hexachlorobutadiene at 0.5 mg/L or more.
D034	Solid waste exhibiting the characteristic of toxicity for Hexachloroethane at above 3.0 mg/L or more.
D035	Solid waste exhibiting the characteristic of toxicity for Methyl Ethyl Ketone (MEK) at 200 mg/L or more.
D036	Solid waste exhibiting the characteristic of toxicity for Nitrobenzene at 2.0 mg/L or more.

TABLE II.A.5-1

FLUID RECOVERY SERVICE WASTE TYPES

EPA Hazardous Waste No.	Description
D037	Solid waste exhibiting the characteristic of toxicity for Pentachlorophenol at 100.0 mg/L or more.
D038	Solid waste exhibiting the characteristic of toxicity for Pyridine at 5.0 mg/L or quantification limit.
D039	Solid waste exhibiting the characteristic of toxicity for Tetrachloroethylene at 0.7 mg/L or more.
D040	Solid waste exhibiting the characteristic of toxicity for Trichloroethylene at 0.5 mg/L or more.
D041	Solid waste exhibiting the characteristic of toxicity for 2,4,5-Trichlorophenol at 400.0 mg/L or more.
D042	Solid waste exhibiting the characteristic of toxicity for 2,4,6-Trichlorophenol at 2.0 mg/L or more.
D043	Solid waste exhibiting the characteristic of toxicity for Vinyl Chloride at 0.2 mg/L or more.
F001	The following spent halogenated solvents used in degreasing: tetrachloroethylene, trichloroethylene, methylene chloride, 1,1,1-trichloroethane, carbon tetrachloride, chlorinated fluorocarbons, spent solvent mixtures/blends used in degreasing, and still bottoms from the recovery of these spent solvents and spent solvent mixtures.
F002	The following spent halogenated solvents: tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, chlorobenzene, 1,1,2-trichloro-1,2,2-trifluoroethane, orthodichlorobenzene, trichlorofluoromethane, 1,1,2-trichloroethane, spent solvent mixtures and blends, and the still bottoms from the recovery of these spent solvents and spent solvent mixtures.
F003	The following spent non-halogenated solvents: xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, methyl isobutyl ketone, n-butyl alcohol, cyclohexanone, methanol, spent solvent mixtures and blends, and the still bottoms from the recovery of these spent solvents and spent solvent mixtures.
F004	The following spent non-halogenated solvents: cresols and cresylic acid, nitrobenzene, spent solvent mixtures and blends, and still bottoms from the recovery of these spent solvents and spent solvent mixtures.
F005	The following spent non-halogenated solvents: toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, benzene, 2-ethoxyethanol, 2-nitropropane, spent solvent mixtures and blends, and the still bottoms from the recovery of these spent solvents and spent solvent mixtures.
F006	Wastewater treatment sludges from electroplating operations except from the following processes: 1) sulfuric acid anodizing of aluminum; 2) tin plating on carbon steel; 3) zinc plating (segregated basis) on carbon steel; 4) aluminum or zinc-aluminum plating on carbon steel; 5) cleaning/stripping associated with tin, zinc and aluminum plating on carbon steel; and 6) chemical etching and milling of aluminum.
F019	Wastewater treatment sludges from the chemical conversion coating of aluminum.
F024	Wastes, including but not limited to, distillation residues, heavy ends, tars, and reactor clean-out wastes from the production of chlorinated aliphatic hydrocarbons, having carbon content from one to five, utilizing free radical catalyzed processes. (This listing does not include light ends, spent filters and filter aids, spent dessicants, wastewater, wastewater treatment sludges, spent catalysts and wastes listed in 261.32).
F039	Multisource leachate for wastes other than F020 - F023, F026, F027, and F028.
K006	Wastewater treatment sludge from the production of chrome oxide green pigments (anhydrous and hydrated).

TABLE II.A.5-1
FLUID RECOVERY SERVICE WASTE TYPES

EPA Hazardous Waste No.	Description
K016	Heavy ends of distillation residues from the production of carbon tetrachloride.
K019	Heavy ends from the distillation of ethylene dichloride in ethylene dichloride production.
K022	Distillation bottom tars from the production of phenol/acetone from cumene.
K029	Waste from the product steam stripper in the production of 1,1,1-trichloroethane.
K030	Column bottoms or heavy ends from the combined production of trichloroethylene and perchloroethylene.
K031	By-product salts generated in the production of MSMA and cacodylic acid.
K048	Dissolved air flotation float from the petroleum refining industry.
K049	Slop oil emulsion solids from the petroleum refining industry.
K050	Heat exchanger bundle cleaning sludge from the petroleum refining industry.
K051	API separator sludge from the petroleum refining industry.
K052	Tank bottoms (leaded) from the petroleum refining industry.
K085	Distillation or fractionation column bottoms from the production of chlorobenzene.
K086	Solvent washes and sludges, caustic washes and sludges or water washes and sludges from cleaning tubs and equipment used in the formulation of ink from pigments, driers, soaps and stabilizers containing chromium and lead.
K095	Distillation bottoms from the production of 1,1,1-trichloroethane.
K096	Heavy ends from the heavy ends column from the production of 1,1,1-trichloroethane.
K009	Distillation bottoms from production of acetaldehyde from ethylene.
K010	Distillation side cuts from the production of acetaldehyde from ethylene.
K011	Bottom stream from the wastewater stripper in the production of acrylonitrile.
K013	Bottom stream from the acetonitrile column in the production of acrylonitrile.
K014	Bottoms from the acetonitrile purification column in the production of acrylonitrile.
K015	Still bottoms from the distillation of benzyl chloride.
K002	Wastewater treatment sludge from the production of chrome yellow and orange pigments.
K003	Wastewater treatment sludge from the production of molybdate orange pigments.
K004	Wastewater treatment sludge from the production of zinc yellow pigments.
K005	Wastewater treatment sludge from the production of chrome green pigments.
U001	Acetaldehyde
U002	Acetone
U003	Acetonitrile

TABLE II.A.5-1

FLUID RECOVERY SERVICE WASTE TYPES

EPA Hazardous Waste No.	Description
U009	Acrylonitrile
U019	Benzene
U031	n-Butyl Alcohol
U037	Chlorobenzene
U043	Ethane, chloro-
U044	Chloroform
U051	Creosote
U052	Cresol (Cresylic Acid)
U055	Cumene
U056	Benzene, Hexahydro-
U057	Cyclohexanone
U068	Methylene bromide
U069	1,2 Benzenedicarboxylic Acid, dibutyl ester
U070	Benzene, 1,2 - dichloro-
U071	Benzene, 1,3 - dichloro-
U072	Benzene, 1,4 - dichloro-
U075	Methane Dichlorodifluoro-
U077	Ethane, 1,2, - dichloro-
U078	Ethene, 1,2 - dichloro-
U079	Ethene, 1,2 - dichloro-
U080	Methylene Chloride
U083	Propane, 1,2 - dichloro-
U084	1 - Propane, 1,3 - dichloro
U107	1,2 - Benzenedicarboxylic acid
U108	1,4-Diethyleneoxide
U110	Dipropylamine
U112	Ethyl acetate
U113	Ethyl acrylate
U117	Ethyl ether

TABLE II.A.5-1

FLUID RECOVERY SERVICE WASTE TYPES

EPA Hazardous Waste No.	Description
U118	Ethyl methacrylate
U121	Trichloromonofluoromethane
U125	Furfural
U140	Isobutyl alcohol
U154	Methanol (Methyl Alcohol)
U159	Methyl ethyl ketone
U161	Methyl isobutyl ketone
U162	Methyl methacrylate
U165	Naphthalene
U169	Nitrobenzene
U171	2-Nitropropane
U188	Phenol
U191	2-Picoline
U196	Pyridine
U210	Tetrachloroethylene
U211	Methane, tetrachloro
U213	Tetrahydrofuran
U220	Toluene
U226	1,1,1 Trichloroethane
U227	1,1,2 Trichloroethane
U228	Trichloroethylene
U239	Xylene
U359	2-Ethoxyethanol

containers and are stored on pallets. The FRS wastes are handled as transfer wastes only.

A typical composition, and chemical physical analysis for each of the waste streams listed above (except FRS) are shown in the attached chemical analyses reports, based on existing data on these wastes generated from similar processes within Safety-Kleen's current and/or potential customers.

USED PARTS SOLVENT

The clean parts washer solvent is labeled under the trade name of "Safety-Kleen 105 Solvent," so-named because of the flash point of the solvent being 105°F (minimum). Premium solvent has a flash point of 148°C or higher. Actrel® has a flash point of 212°F. Chemically, the solvent primarily consists of petroleum hydrocarbon fractions with a boiling point range 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 mineral spirits constitute at least 95% of the total volume of the Parts Cleaner 105 and Premium Solvent. The Actrel® solvent consists primarily of a paraffinic compound with C₁₂ - C₁₄ chains.

The used parts washer solvent consists primarily of mineral spirits or paraffinic compound solvent plus water (parts cleaner 105, premium solvent, and Actrel®), insoluble solids, oil, and grease picked up in the various degreasing operations that Safety-Kleen's customers use. 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 tank bottoms may range from 2 percent to 10 percent, by volume, in the used solvent. These tank bottoms are generated when the bulk tank is cleaned out. The used parts washer premium solvent is non-hazardous as received from the customers and prior to being placed in the used parts washer solvent tank.

The premium solvent and Safety-Kleen's existing parts washing solvent 105 are very similar in nature, both being predominantly mineral spirits. The Actrel® solvent is a paraffinic compound with C₁₂ - C₁₄ chains. However, the premium solvent has a flash point of 148°F, and Actrel® has a flash point of 212°F; they are therefore not ignitable. The Actrel® and Premium Solvent are presumed to be TCLP hazardous unless a generator's hazardous waste determination indicates otherwise.

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.

USED IMMERSION CLEANER

The clean chlorinated solvent is labeled under the trade name of "Immersion Cleaner and Carburetor and Cold Parts Cleaner #609." It is a two-phase system consisting of an upper aqueous (water) layer and lower non-aqueous (solvent) layer. The water phase consists of water and Dresinate TX (a sodium soap of tall oil). The solvent

phase is composed of methylene chloride, orthodichlorobenzene, cresylic acid, and an amines additive.

A new "Immersion Cleaner and Carburetor and Cold Parts Cleaner #699" is also being leased and will eventually replace the #609 immersion cleaner. It is a heavy aromatic naphtha, N-methyl-2-pyrrolidon dipropylene glycol methyl ether, monoethanolamine and oleic acid, and the waste contains a maximum of 1 percent total chlorinated solvents.

Both the new and old used immersion cleaner is basically unchanged from its clean state, except oils, greases, and insoluble solids may be picked up during the various degreasing operations used by Safety-Kleen's customers. The spent solvent is non-flammable. It is regarded as toxic because it contains various toxic chemicals (see MSDSs in Attachment II.A.4(b)).

USED PARTS WASHER SOLVENT BOTTOM SLUDGE

This is material settled from used parts washer solvent in the aboveground tanks. It contains insoluble solids, oils and greases, and some water picked up in the degreasing operations, together with a small amount of mineral spirits. Analyses have shown that the sludge is an ignitable waste and some TCLP analyses have shown it to be toxic using TCLP standards while others have not. The same analyses apply to tank bottoms as apply to dumpster mud.

The sludge is removed from the aboveground tank periodically and shipped to Safety-Kleen's facility for reclamation. The estimated annual quantity is included in the estimate of used parts washer solvent.

USED PARTS WASHER SOLVENT DUMPSTER MUD

This waste material is accumulated in the wet dumpsters when emptying the used parts washer solvent from the containers into the aboveground storage tanks. Filters from parts washers utilizing Actrel® or Premium Solvent may also be added. The nature of this waste is similar to the used parts washer solvent bottom sludge, except with some small metal parts and less parts washer solvent. It is regarded as an ignitable waste and often is also considered a characteristic waste using TCLP standards.

The sludge in the dumpsters is cleaned out frequently. The waste is containerized and shipped to Safety-Kleen's facility for recycling.

DRY CLEANING WASTES

Solvent used in dry cleaning of clothing is commonly tetrachloroethylene (or perchloroethylene). Hence, waste generated from dry cleaning operations contains various concentrations of the solvent. Basically, wastes generated by dry cleaning facilities are in the following forms.

1. Cartridge Filter: 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, oil, and grease retained by this medium, between 40 and 50 percent by weight of the "muck" is 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.

ANTIFREEZE COLLECTION SERVICE

The spent antifreeze (ethylene glycol) is collected from automobile service states. These wastes are deposited into a carboy or containers by the customer, on the customer's premises, and the carboy is pumped into a tanker truck or containers by the sales representative. The spent antifreeze deemed to be hazardous is placed in the container storage area prior to shipment to a reclamation facility.

PAINT WASTES

Paint wastes consist of various lacquer thinners and paints. The waste is collected in containers at the customer's place of business and the containers are then palletized and stored in the container storage area of the warehouse.

FLUID RECOVERY SERVICE WASTES

Fluid Recovery Services (FRS) is a program managed by the Safety-Kleen Service Centers. Under this program, waste types similar to the FRS wastes provided by Safety-Kleen are collected by the service center and processed by the recycle centers. These wastes may or may not have been originally obtained from Safety-Kleen by the industrial customer. These wastes are handled as transfer wastes at the service center. Examples of the types of wastes that may be received from FRS customers include:

1. Spent hydrocarbon distillates, such as waste fuel, oil, petroleum, and naphtha, etc.
2. Lubricating, hydraulic oils, and machine oils.

3. Industrial halogenated solvents such as 1,1,1-trichloroethane, tetrachloroethylene, freon, and trichloroethane.
4. Photographic and x-ray related wastes.
5. Paint and lacquer thinners and paint wastes.
6. Other hazardous and non-hazardous halogenated and non-halogenated wastes.

FRS wastes received at the facility are classified as characteristic wastes (D-waste codes, non-specific source wastes (F-waste codes), listed wastes from specific sources (K-wastes, commercial chemical products, manufacturing intermediates or off-specification chemical commercial products (U-waste codes). Most of the time, a waste stream will be some combination of specific components, and be categorized as a D- or F- waste. Table II.A.5-1 provides a list of the EPA waste codes managed at the facility under the FRS program.

Certain other wastes that result from the use of organic solvents are also managed through the service centers. These include the solids and sludges that settle out of the used solvent during handling and processing. Lint, paper, oils, greases, carbons, and metals are examples of materials which may settle or separate out of used solvent. In addition to the listed waste codes, these wastes may also exhibit a characteristic under the toxicity characteristic leaching procedure.

Certain solvents are not economically recoverable in their primary form. These are typically solvents of low intrinsic value (e.g., methanol), those where the user's specifications are unattainable or where the mixture cannot be efficiently separated because of the formation of azeotropes, overlapping or close boiling ranges. However, when properly blended and processed, these solvents can be a beneficial source of energy. The Safety-Kleen recycle centers are equipped to process non-recoverable solvent mixtures with still bottoms from recovery of their solvent to produce valuable solvent based fuels.

In each of these end use applications at facilities classified as Industrial Furnaces, the combustion conditions are orders of magnitude more destructive than those specified for incinerators. For each industrial furnace emission controls are in place and covered by existing regulations. Specifications are restrictive for polychlorinated biphenyls (PCBs), herbicides, pesticides, etc., and for other wastes that might adversely affect the operation of the unit or the properties of the finished product.



FINAL

1993

ANNUAL

WASTE STREAM

RECHARACTERIZATION

ANALYSES

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SAFETY-KLEEN'S 1993 ANNUAL WASTE RECHARACTERIZATION PROGRAM

The attached summary tables provide the results from our 1993 testing, as well as the results for the previous three years. This provides the full data set from which Safety-Kleen determines what waste codes to include on the pre-printed manifests. The testing this year was performed by Southwest Labs (Tulsa, OK) and the TCLP Laboratory here at the SK Technical Center (Elk Grove Village, IL).

As in previous years, all samples were taken by SK employees and shipped overnight in coolers, as per EPA protocol. The tests performed were: TCLP (metals, volatiles, semi-volatiles), specific gravity, flash point, and pH.

Some of the analyses show Practical Quantitation Limits (PQLs) well above the TCLP regulatory limits. This merely confirms the SK position that TCLP and other SW-846 methods are neither appropriate nor useful for many concentrated organic waste streams. However, the regulations require this test as the criteria for setting waste codes.

It is important to note the following:

- 1) Taken alone, no one analysis or set of analyses can or should be used to make broad conclusions, which is why we present data for several years.
- 2) It is still the generator's responsibility to determine the precise waste codes to use on his materials. These data provide useful information on typical wastes.

The first column provides coded information as to which laboratory performed the analysis and the year in which the sample was taken ("90" = 1990). The second column is a code for the site from which the sample was taken. These are explained in an attachment.

If you have any questions, please feel free to call Dennis Brinkman (312)825-7304.

SITE CODES/ANNUAL RECHARACTERIZATION

CL - Clayton RC, NJ
BI - Bismark, ND Branch
BU - Buffalo, NY
CA## - California Analyses - 1992
CH - Chicago RC, IL
CO - Colorado Branches
DE - Denton RC, TX
DO - Dolton RC, IL
EL - Elgin RC, IL
FA - Fargo, ND Branch
GA-C - Columbus, Georgia Branch
GA-G - Garden City, Georgia Branch
GA-M - Macon, Georgia Branch
GA-m - Morrow, Georgia Branch
GA-N - Norcross, Georgia Branch
HE - Hebron RC, OH
IN - Indiana Branches
KS-D - Dodge City, KS Branch
KS-E - Edwardsville, KS Branch
KS-W - Wichita, KS Branch
LE - Lexington RC, SC
MA - Manati, PR
NJ - New Jersey Branches
NJ-N - Newark, NJ Branch
NJ-V - Vincentown, NJ Branch
NM - Farmington, NM
NY - New York Branches
NY-C - Colonie, NY Branch
NY-D - Dewitt, NY Branch
NY-N - N. Amityville, NY Branch
NY-W - Woodside, NY Branch
PE - Petrocon, Modena, PA
RE - Reedley RC, CA
RE-C - Reedley (CA Sources)
RE-W - Reedley (WA Sources)
TN-D - Dyersburg, TN Branch
TN-K - Knoxville, TN Branch
TN-N - Nashville, TN Branch
WL - Wolf Lake, IN
WV-N - Nitro, WV Branch
WV-W - Wheeling, WV Branch

Antifreeze Wastes

Physical Properties and TCLP Metals Analysis, ppm

	Parameter	pH	SG	FP	As	Ba	Cd	Cr	Pb	Hg	Se	Ag
	Reg. Limit	<2; >12.5	na	< 140	5	100	1	5	5	0.2	1	5
LAB	SITE											
W-90	BU	7.5	1.04	> 200	< 0.05	< 0.3	< 0.05	< 0.05	0.3	< 0.01	< 0.05	< 0.05
W-90	EL	8	1.13	> 200	< 0.05	0.3	< 0.05	< 0.05	< 0.1	< 0.01	< 0.05	< 0.05
W-90	WL	8.5	1.05	> 200	< 0.05	< 0.3	< 0.05	< 0.05	0.2	< 0.01	< 0.05	< 0.05
E-91	EL	8.3	1.073		2.5	< 0.1	< 0.05	< 0.1	2.8	< 0.002	< 20	< 0.1
E-91	BU		1.01	101	< 0.5	0.5	< 0.1	< 0.1	0.2	< 0.02	< 0.3	< 0.1
E-91	HE	8.2	0.957		3.7	< 0.1	0.058	< 0.1	1.1	< 0.002	< 50	< 0.1
S-92	LE		1.05		< 5.0	< 5.0	0.12	< 2.5	< 5.0	< 0.08	< 0.36	< 0.06
SW-93	TN-N	8.6	1	>200	< 1.0	< 0.100	< 0.060	0.178	7.6	< 0.002	2	< 0.200
SW-93	IN	8.05	0.72	194	< 0.250	0.0762	< 0.020	0.273	0.914	< 0.002	< 0.220	< 0.020
SW-93	IN	7.91	0.87	178	0.701	< 0.060	0.0228	0.173	0.63	< 0.002	< 0.220	< 0.020
SW-93	IN	8.69	1	> 200	0.301	0.0764	0.0143	< 0.020	1.09	< 0.002	< 0.425	< 0.015
SW-93	IN	8.78	1	> 200	0.317	0.0539	0.0135	< 0.020	1.07	< 0.002	< 0.425	< 0.015
	MAX	8.78	1.13	194	3.7	0.5	0.12	0.273	7.6	0	2	0
	MIN	7.5	0.72	101	0.301	0.0539	0.0135	0.173	0.2	0	2	0

Antifreeze Wastes

TCLP Volatiles Analysis, ppm

	Parameter	benzene	CCI4	Cibenz	CHCl3	1,4-DCIB	1,2-DCA	1,1-DCE	MEK	PCE	TCE	VChloride
	Reg. Limit	0.5	0.5	100	6	7.5	0.5	0.7	200	0.7	0.5	0.2
LAB	SITE											
W-90	BU	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 2.0	0.13	<u>0.97</u>	< 0.20
W-90	EL	0.32	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 2.0	0.12	< 0.10	< 0.20
W-90	WL	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 2.0	0.51	< 0.10	< 0.10
E-91	EL	< 1.20	< 1.20	< 1.20	< 1.20	< 2.0	< 1.20	< 1.20	< 2.50	< 1.20	< 1.20	< 2.50
E-91	BU	0.28	< 0.025	< 0.025	< 0.025	< 0.04	< 0.025	< 0.025	< 0.25	0.16	< 0.025	< 0.05
E-91	HE	0.15	< 0.1	< 0.1	< 0.1	< 10	< 0.1	< 0.1	0.7	<u>0.94</u>	0.11	< 0.2
S-92	LE	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 250	<u>150</u>	< 50	< 100
SW-93	TN-N	< 250	< 250	< 250	< 250	< 10	< 250	< 250	< 500	<u>250</u>	< 250	< 500
SW-93	IN	0.26	< 0.500	< 0.500	< 0.500	< 10	< 0.500	< 0.500	< 1.0	<u>0.91</u>	< 0.500	< 1.0
SW-93	IN	<u>1.9</u>	< 2.5	< 2.5	< 2.5	< 10	< 2.5	< 2.5	22	<u>8.4</u>	< 2.5	< 5.0
SW-93	IN	0.32	< 0.620	< 0.620	< 0.620	< 1.0	< 0.620	< 0.620	8.5	0.34	< 0.620	< 1.200
SW-93	IN	0.22	< 0.840	< 0.840	< 0.840	< 1.0	< 0.840	< 0.840	9.8	0.22	< 0.840	< 1.700
	MAX	1.9	0	0	0	0	0	0	22	250	0.97	0
	MIN	0.15	0	0	0	0	0	0	0.7	0.12	0.11	0

Chlorinated Water Wastes

Physical Properties and TCLP Metals Analysis, ppm

	Parameter	pH	SG	FP	As	Ba	Cd	Cr	Pb	Hg	Se	Ag
	Reg. Limit	<2; >12.5	na	< 140	5	100	1	5	5	0.2	1	5
LAB	SITE											
M-90	CH	7	na	na	< 0.5	0.37	< 0.01	0.018	< 0.1	< 0.001	< 0.2	< 0.01
M-90	CL	10	na	<u>95</u>	< 0.5	0.74	0.18	<u>10</u>	<u>12</u>	0.046	< 0.2	< 0.01
W-90	DE	10	na	na	0.17	1.2	0.14	4.9	<u>6.7</u>	0.012	< 0.05	< 0.05
M-90	LE	9.5	na	na	< 0.5	< 0.2	0.18	0.45	2.9	<u>0.81</u>	< 0.2	< 0.01
M-90	MA	7	na	na	< 0.5	< 1.0	< 0.01	0.18	< 0.1	< 0.001	< 0.2	< 0.01
M-90	PE	7	na	na	< 0.5	< 0.2	< 0.01	< 0.01	0.12	< 0.001	< 0.2	< 0.01
E-91	CL	8.3	na	na	< 1.0	0.19	0.21	<u>8.3</u>	<u>6.2</u>	< 0.002	< 0.2	< 0.1
	MAX	10	0	95	0.17	1.2	0.21	10	12	0.81	0	0
	MIN	7	0	95	0.17	0.19	0.14	0.018	0.12	0.012	0	0

Chlorinated Water Wastes

TCLP Volatiles Analysis, ppm

	Parameter	benzene	CCl4	Clbenz	CHCl3	1,4-DCIB	1,2-DCA	1,1-DCE	MEK	PCE	TCE	VChloride
	Reg. Limit	0.5	0.5	100	6	7.5	0.5	0.7	200	0.7	0.5	0.2
LAB	SITE											
M-90	CH	< 0.10	< 0.10	< 0.10	< 0.10	> 4.4	< 0.10	< 0.10	< 2.0	1.3	2.1	< 0.20
M-90	CL	< 5.0	< 5.0	10	< 5.0	33	< 5.0	< 5.0	< 100	< 5.0	< 5.0	< 10
W-90	DE	coc	coc	coc	coc	coc	coc	coc	coc	coc	coc	coc
M-90	LE	< 0.10	< 0.10	2.8	< 0.10	> 4.4	< 0.10	< 0.10	> 4.4	3.4	0.85	< 0.20
M-90	MA	< 0.25	< 0.25	< 0.25	4.5	< 0.50	1.8	< 0.25	< 5.0	< 0.25	< 0.25	< 0.50
M-90	PE	< 0.10	< 0.10	< 0.10	< 0.10	0.28	< 0.10	< 0.10	3	< 0.10	< 0.10	< 0.20
E-91	CL	< 100	< 100	< 100	< 100	< 250	< 100	< 100	< 200	< 100	< 100	< 200
	MAX	0	0	10	4.5	33	1.8	0	3	3.4	2.1	0
	MIN	0	0	2.8	4.5	0.28	1.8	0	3	1.3	0.85	0

Distillation Bottoms Other 699

Physical Properties and TCLP Metals Analysis, ppm

	Parameter	pH	SG	FP	As	Ba	Cd	Cr	Pb	Hg	Se	Ag
	Reg. Limit	<2; >12.5	na	< 140	5	100	1	5	5	0.2	1	5
LAB	SITE											
E-91	CL	8.4	0.949	> 160	< 1.0	0.51	<u>2.3</u>	< 0.1	1.4	< 0.002	< 0.1	< 0.1
	MAX	8.4	0.949	0	0	0.51	2.3	0	1.4	0	0	0
	MIN	8.4	0.949	0	0	0.51	2.3	0	1.4	0	0	0

Distillation Bottoms Other 609

Physical Properties and TCLP Metals Analysis, ppm

	Parameter	pH	SG	FP	As	Ba	Cd	Cr	Pb	Hg	Se	Ag
	Reg. Limit	<2; >12.5	na	< 140	5	100	1	5	5	0.2	1	5
LAB	SITE											
E-91	CL	9.3	na	> 160	< 5.0	17.5	<u>72.2</u>	<u>95.1</u>	<u>579</u>	< 0.002	< 1	< 0.5
E-91	EL	7		> 160	< 5.0	0.96	<u>107</u>	<u>22.9</u>	<u>313</u>	< 0.002	< 0.25	< 0.5
	MAX	9.3	0	0	0	17.5	107	95.1	579	0	0	0
	MIN	7	0	0	0	0.96	72.2	22.9	313	0	0	0

Distillation Bottoms Other 699

TCLP Volatiles Analysis, ppm

	Parameter Reg. Limit	benzene 0.5	CCl4 0.5	Clbenz 100	CHCl3 6	1,4-DCIB 7.5	1,2-DCA 0.5	1,1-DCE 0.7	MEK 200	PCE 0.7	TCE 0.5	VChloride 0.2
LAB	SITE											
E-91	CL	< 0.025	< 0.025	< 0.025	< 0.025	< 5	< 0.025	< 0.025	< 0.05	< 0.025	< 0.025	< 0.05
	MAX	0	0	0	0	0	0	0	0	0	0	0
	MIN	0	0	0	0	0	0	0	0	0	0	0

Distillation Bottoms Other 609

TCLP Volatiles Analysis, ppm

	Parameter Reg. Limit	benzene 0.5	CCl4 0.5	Clbenz 100	CHCl3 6	1,4-DCIB 7.5	1,2-DCA 0.5	1,1-DCE 0.7	MEK 200	PCE 0.7	TCE 0.5	VChloride 0.2
LAB	SITE											
E-91	CL	< 5.0	< 5.0	< 5.0	< 5.0	1800	< 5.0	< 5.0	38	< 5.0	< 5.0	< 10.0
E-91	EL	< 500	< 500	< 500	< 500	< 2000	< 500	< 500	< 1000	< 500	< 500	< 1000
	MAX	0	0	0	0	1800	0	0	38	0	0	0
	MIN	0	0	0	0	1800	0	0	38	0	0	0

Used Dry Cleaner Bottoms

Physical Properties and TCLP Metals Analysis, ppm

LAB	SITE	Parameter Reg. Limit	pH <2; >12.5	SG na	FP < 140	As 5	Ba 100	Cd 1	Cr 5	Pb 5	Hg 0.2	Se 1	Ag 5
E-91	HE		6.3	1.05		< 1.4	1.6	0.19	<u>17.4</u>	4.9	< 0.011	< 0.28	< 0.14
S-92	HE				185	< 0.45	0.48	0.41	0.07	2.19	< 0.0008	< 0.55	< 0.10
S-92	NJ			1.1	> 200	< 0.45	0.08	< 0.05	0.09	< 0.35	< 0.0008	< 0.55	< 0.10
S-92	NY			1.19	> 200	< 1.80	1.12	0.03	<u>8.72</u>	< 1.40	< 0.04	< 0.14	< 0.03
E-93	NM					< 1.0	1.8	0.14	<u>10.7</u>	1.5	0.0038	< 0.20	< 0.10
SW-93	NJ-V		4.58	1	> 200	< 0.050	0.104	0.026	0.153	0.115	< 0.002	< 0.100	< 0.010
SW-93	GA-m		5.41	0.97	148	< 0.050	0.147	0.043	0.32	1.7	< 0.002	< 0.100	< 0.010
SW-93	GA-N		4.5	1.24	> 200	< 0.050	0.046	< 0.003	0.036	< 0.050	0.0035	< 0.100	< 0.010
SW-93	WV-N		5.63	1.08	> 200	< 0.050	0.042	0.011	0.061	0.065	< 0.002	< 0.100	< 0.010
SW-93	KS-E		8.58	1.28	> 200	< 0.050	0.068	0.013	0.062	0.255	< 0.002	< 0.100	< 0.010
SW-93	KS-W		6.79	0.8	<u>116</u>	< 0.050	0.097	0.009	0.058	0.079	< 0.002	< 0.100	< 0.010
SW-93	KS-W		4.19	1.05	> 200	< 0.050	0.092	0.01	0.91	0.266	< 0.002	< 0.100	< 0.010
SW-93	GA-C		5.14	1.02	150	< 0.050	0.26	0.056	0.589	0.411	< 0.002	< 0.100	< 0.010
SW-93	GA-G		6.24	1		< 0.050	0.066	0.009	0.119	< 0.050	< 0.002	< 0.100	< 0.010
SW-93	TN-N		6.24	1.21	> 200	< 0.050	0.195	0.055	0.115	0.077	< 0.002	< 0.100	< 0.010
SW-93	TN-K		5.2	1.1	> 200	< 0.050	0.063	0.007	< 0.005	< 0.050	< 0.002	< 0.100	< 0.010
SW-93	NJ-N		5.16	0.963	> 200	< 0.050	0.257	0.329	0.17	1.4	< 0.002	< 0.100	< 0.010
SK-93	NY-W		6.9	0.82	<u>110</u>	< 4.5	< 0.50	< 0.50	1.7	< 3.5	< 0.04	< 0.359	< 1.0
SK-93	NY-W		7.16	0.97	<u>110</u>	< 0.45	0.204	0.221	0.136	< 0.35	< 0.0008	< 0.550	< 0.10
SK-93	NY-W		7.14	0.98	<u>110</u>	< 0.45	0.195	0.227	0.0855	< 0.35	< 0.0008	< 0.550	< 0.10
SK-93	NY-D		6.18	0.81	<u>106</u>	< 4.5	2.06	< 0.50	3.43	< 3.5	< 0.04	< 0.36	< 1.0
SK-93	NY-D		6.04	0.83	<u>106</u>	< 4.5	2.45	< 0.50	3.85	< 3.5	< 0.04	< 0.36	< 1.0
SK-93	NY-D		6	0.82	<u>107</u>	< 4.5	2.21	< 0.50	3.84	3.71	< 0.04	< 0.36	< 1.0
SK-93	NY-D		6	0.82	<u>109</u>	< 4.5	2.21	< 0.50	3.77	3.6	< 0.04	< 0.36	< 1.0
SK-93	NY-W		5.11	1.13	> 200	< 0.45	0.18	< 0.50	0.262	< 0.35	< 0.0008	< 0.550	< 0.10
SK-93	NY-W		4.78	1.19	> 200	< 0.45	0.379	< 0.050	0.58	< 0.35	< 0.0008	< 0.550	< 0.10
SK-93	NY-W		4.86	1.14	> 200	< 0.45	1.603	< 0.050	1.479	0.512	< 0.0008	< 0.550	< 0.10
SK-93	NY-N		6.46	1.19	> 200	< 0.45	0.318	< 0.050	0.268	< 0.35	< 0.0008	< 0.550	< 0.10
SK-93	NY-N		4.12	1.14	> 200	< 0.45	0.15	< 0.050	0.641	< 0.35	< 0.0008	< 0.550	< 0.10
SK-93	NY-C		6.18	0.93	> 200	< 0.45	0.424	< 0.050	<u>14.5</u>	< 0.35	< 0.0008	< 0.550	< 0.10
SK-93	NY-C		6.08	1.007	> 200	< 0.45	1.26	< 0.050	<u>5.8</u>	0.479	< 0.0008	< 0.550	< 0.10
SK-93	NY-D		5.06	1.07	> 200	< 0.45	0.608	< 0.050	<u>20.56</u>	< 0.35	< 0.002	< 0.550	< 0.10
SK-93	NY-D		5.86	1.07	> 200	< 0.45	0.86	0.058	0.431	< 0.35	< 0.0008	< 0.550	< 0.10
SK-93	NY-D		5.78	1.06	> 200	< 0.45	2.767	< 0.050	0.255	< 0.35	< 0.0008	< 0.550	< 0.10
SK-93	NY-D		6.75	1.54	> 200	< 4.5	0.525	< 0.50	4.25	< 3.5	< 0.04	< 0.36	< 1.0
SW-93	IN		6.69	1.04	> 200	< 0.110	2.36	0.494	0.649	<u>7.42</u>	0.0039	< 0.200	< 0.015
SW-93	IN		3.61	1.13	> 200	< 0.220	< 0.080	0.0655	0.539	0.709	0.0144	< 0.400	< 0.030
SW-93	IN		6.89	1.13	> 200	< 0.110	< 0.040	0.0216	0.304	0.273	< 0.002	0.262	< 0.015
SW-93	IN		7.09	1.1	> 200	< 0.110	0.578	0.128	<u>6.56</u>	2.42	< 0.002	< 0.200	< 0.015
SK-93	NY-N		5.58	1.18	> 200	< 0.45	0.125	< 0.050	0.43	< 0.35	< 0.00080	< 0.550	< 0.10
SW-93	IN		6.23	0.79	<u>112</u>	< 0.050	0.134	0.11	0.052	<u>7.03</u>	0.004	< 0.100	< 0.003
SW-93	IN		6.23	0.85	<u>112</u>	< 0.050	0.0996	0.115	0.039	<u>5.07</u>	0.006	< 0.100	< 0.003
SW-93	IN		6.35	0.81	<u>113</u>	< 0.050	0.168	0.124	0.0692	<u>8.7</u>	0.002	< 0.100	< 0.003
		MAX	8.58	1.54	185	0	2.767	0.494	20.56	8.7	0.0144	0.262	0
		MIN	3.61	0.79	106	0	0.042	0.007	0.036	0.065	0.002	0.262	0

Used Dry Cleaner Bottoms

TCLP Semi Volatiles Analysis, ppm

LAB	SITE	Parameter Reg. Limit	cresol 200	2,4-DNT 0.13	Cl6-benz 0.13	Cl6-13-but 0.5	Cl6-eth 3	nitrobenz 2	Cl5-phenol 100	pyridine 5	2,4,5-TCP 400	2,4,6-TCP 2
E-91	HE		< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 2.0	< 5.0	< 1.0
S-92	HE		1.6	< 0.880	< 0.880	< 2.000	< 2.400	< 1.400	< 7.000	< 2.800	< 0.800	< 2.900
S-92	NJ		< 0.94	< 0.580	< 1.100	< 1.500	< 1.300	< 0.500	< 7.200	< 0.720	< 0.360	< 0.470
S-92	NY		< 0.590	< 0.360	< 0.700	< 0.950	< 0.800	< 0.310	< 4.500	< 0.450	< 0.220	< 0.300
E-93	NM		< 100	< 100	< 100	< 100	< 100	< 100	< 500	< 200	< 500	< 100
SW-93	NJ-V		< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 1.0	< 0.500	< 1.0	< 0.500
SW-93	GA-m		< 16.5	< 16.5	< 16.5	< 16.5	< 16.5	< 16.5	< 82.5	< 16.5	< 82.5	< 16.5
SW-93	GA-N		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5	< 1.0	< 5	< 1.0
SW-93	WV-N		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5	< 1.0	< 5	< 1.0
SW-93	KS-E		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5	< 1.0	< 5	< 1.0
SW-93	KS-W		< 10	< 10	< 10	< 10	< 10	< 10	< 50	< 10	< 50	< 10
SW-93	KS-W		< 20	< 20	< 20	< 20	< 20	< 20	< 100	< 20	< 100	< 20
SW-93	GA-C		< 39.6	< 39.6	< 39.6	< 39.6	< 39.6	< 39.6	< 192	< 39.6	< 192	< 39.6
SW-93	GA-G		< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 10	< 2.0	< 10	< 2.0
SW-93	TN-N		< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5	< 1.0	< 5	< 1.0
SW-93	TN-K		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5	< 1.0	< 5	< 1.0
SW-93	NJ-N		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5	< 1.0	< 5	< 1.0
SK-93	NY-W		< 1466	< 2119	< 2200	< 4913	< 5977	< 3431	< 17470	< 7084	< 2065	< 7111
SK-93	NY-W		< 0.95	< 0.72	< 1.40	< 1.90	< 1.60	< 0.62	< 9.00	< 0.90	< 0.45	< 0.59
SK-93	NY-W		0.28	< 0.240	< 0.180	< 0.350	< 0.480	< 0.400	< 0.160	< 2.200	< 0.110	< 0.150
SK-93	NY-D		< 1466	< 2119	< 2200	< 4913	< 5977	< 3431	< 17470	< 7084	< 2065	< 7111
SK-93	NY-D		< 1466	< 2119	< 2200	< 4913	< 5977	< 3431	< 17470	< 7084	< 2065	< 7111
SK-93	NY-D		< 1466	< 2119	< 2200	< 4913	< 5977	< 3431	< 17470	< 7084	< 2065	< 7111
SK-93	NY-D		< 1466	< 2119	< 2200	< 4913	< 5977	< 3431	< 17470	< 7084	< 2065	< 7111
SK-93	NY-W		< 0.180	< 0.260	< 0.260	< 0.600	< 0.720	< 0.410	< 2.100	< 0.084	< 0.240	< 0.860
SK-93	NY-W		< 0.110	< 0.086	< 0.170	< 0.230	< 0.190	< 0.074	< 1.100	< 0.110	< 0.054	< 0.071
SK-93	NY-W		< 0.190	< 0.140	< 0.280	< 0.380	< 0.320	< 0.120	< 1.800	< 0.180	< 0.090	< 0.120
SK-93	NY-N		< 0.880	< 1.300	< 1.300	< 3.000	< 3.600	< 2.000	< 10	< 4.200	< 1.200	< 4.300
SK-93	NY-N		< 0.070	< 0.230	< 0.450	< 0.610	< 0.510	< 0.200	< 2.900	< 0.290	< 0.140	< 0.190
SK-93	NY-C		< 0.044	< 0.140	< 0.280	< 0.380	< 0.320	< 0.120	< 1.800	< 0.180	< 0.090	< 0.120
SK-93	NY-C		< 0.220	< 0.720	< 1.400	< 1.900	< 1.600	< 0.620	< 9.000	< 0.900	< 0.450	< 0.590
SK-93	NY-D		< 0.044	< 0.144	< 0.272	< 0.384	< 0.312	< 0.124	< 1.79	< 0.18	< 0.09	< 0.118
SK-93	NY-D		< 0.044	< 0.144	< 0.272	< 0.384	< 0.312	< 0.124	< 1.79	< 0.18	< 0.09	< 0.118
SK-93	NY-D		< 0.044	< 0.144	< 0.272	< 0.384	< 0.312	< 0.124	< 1.79	< 0.18	< 0.09	< 0.118
SK-93	NY-D		< 1466	< 2119	< 2200	< 4913	< 5977	< 3431	< 17470	< 7084	< 2065	< 7111
SW-93	IN		< 500	< 500	< 500	< 500	< 500	< 500	< 500	< 500	< 500	< 500
SW-93	IN		< 500	< 500	< 500	< 500	< 500	< 500	< 500	< 500	< 500	< 500
SW-93	IN		0.12	< 0.400	< 0.400	< 0.400	< 0.400	< 0.400	< 2.0	< 0.400	< 2.0	< 0.400
SW-93	IN		0.15	< 0.400	< 0.400	< 0.400	< 0.400	< 0.400	< 2.0	< 0.400	< 2.0	< 0.400
SK-93	NY-N		< 0.019	< 0.014	< 0.28	< 0.038	< 0.032	< 0.012	< 0.180	< 0.018	< 0.009	< 0.012
SW-93	IN		< 200	< 200	< 200	< 200	< 200	< 200	55	< 200	< 500	< 200
SW-93	IN		< 200	< 200	< 200	< 200	< 200	< 200	< 500	< 200	< 500	< 200
SW-93	IN		< 200	< 200	< 200	< 200	< 200	< 200	< 500	< 200	< 500	< 200

MAX
MIN

1.6
0.12

0
0

0
0

0
0

0
0

0
0

55
55

0
0

0
0

0
0

Used Dry Cleaner Bottoms

TCLP Volatiles Analysis, ppm

LAB	SITE	Parameter Reg. Limit	benzene 0.5	CCI4 0.5	Clbenz 100	CHCl3 6	1,4-DCIB 7.5	1,2-DCA 0.5	1,1-DCE 0.7	MEK 200	PCE 0.7	TCE 0.5	VChloride 0.2
E-91	HE		< 1000	< 84	< 1000	< 1000	< 1.0	< 2000	< 1000	< 1000	<u>4800</u>	< 1000	< 2000
S-92	HE		< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 500	<u>290</u>	< 10	< 14
S-92	NJ		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.5	<u>19.5</u>	< 0.1	< 0.14
S-92	NY		< 0.1	< 0.1	< 0.1	0.18	< 0.1	< 0.1	< 0.1	< 0.5	<u>18</u>	<u>3.2</u>	< 0.14
E-93	NM		< 25000	< 25000	< 25000	< 25000	<u>150</u>	< 25000	< 25000	< 50000	<u>680000</u>	< 25000	< 50000
SW-93	NJ-V		< 5	< 5	< 5	< 5	< 0.500	< 5	< 5	< 10	<u>160</u>	< 5	< 10
SW-93	GA-m		< 2.5	< 2.5	< 2.5	< 2.5	< 16.5	< 2.5	< 2.5	< 5.0	<u>58</u>	< 2.5	< 5.0
SW-93	GA-N		< 25	< 25	< 25	< 25	< 1.0	< 25	< 25	< 50	<u>4600</u>	< 25	< 50
SW-93	WV-N		< 100	< 100	< 100	< 100	< 1.0	< 100	< 100	< 500	<u>11000</u>	< 100	< 500
SW-93	KS-E		< 5	< 5	< 5	< 5	< 1.0	< 5	< 5	< 10	<u>160</u>	< 5	< 10
SW-93	KS-W		< 0.025	< 0.025	< 0.025	< 0.025	< 10	< 0.025	< 0.025	0.1	< 0.025	< 0.025	< 0.050
SW-93	KS-W		< 125	< 125	< 125	< 125	< 20	< 125	< 125	< 500	<u>4000</u>	< 125	< 500
SW-93	GA-C		< 5	< 5	< 5	< 5	< 39.6	< 5	< 5	< 10	<u>190</u>	<u>8.2</u>	< 10
SW-93	GA-G		< 6.3	< 6.3	< 6.3	< 6.3	< 2.0	< 6.3	< 6.3	< 13	<u>140</u>	< 6.3	< 13
SW-93	TN-N		< 5	< 5	< 5	< 5	< 1.0	< 5	< 5	62	<u>160</u>	< 5	< 10
SW-93	TN-K		< 5	< 5	< 5	< 5	< 1.0	< 5	< 5	< 10	<u>130</u>	< 5	< 10
SW-93	NJ-N		< 5	< 5	< 5	< 5	< 1.0	< 5	< 5	< 10	<u>44</u>	< 5	< 10
SK-93	NY-W		< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 250	<u>180</u>	< 50	< 100
SK-93	NY-W		< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	1.5	<u>0.91</u>	< 0.100	< 0.140
SK-93	NY-W		< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	1.6	0.13	< 0.100	< 0.140
SK-93	NY-D		< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 250	<u>1900</u>	< 50	< 100
SK-93	NY-D		< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 250	<u>2000</u>	< 50	< 100
SK-93	NY-D		< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 250	<u>1400</u>	< 50	< 100
SK-93	NY-D		< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 250	<u>1900</u>	< 50	< 100
SK-93	NY-W		< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 500	<u>2730</u>	< 100	< 140
SK-93	NY-W		< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 125	<u>380</u>	< 25	< 35
SK-93	NY-W		< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 125	<u>388</u>	< 25	< 35
SK-93	NY-N		< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 125	<u>1240</u>	< 25	< 35
SK-93	NY-N		< 125	< 125	< 125	< 125	< 125	< 125	< 125	< 626	<u>989</u>	< 125	< 175
SK-93	NY-C		< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 125	<u>711</u>	< 25	< 35
SK-93	NY-C		< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 12.5	<u>194</u>	< 2.5	< 3.5
SK-93	NY-D		< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 50	<u>74.3</u>	< 10	< 14
SK-93	NY-D		< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 12.5	<u>56.9</u>	< 2.5	< 3.5
SK-93	NY-D		< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 12.5	<u>81.2</u>	< 2.5	< 3.5
SK-93	NY-D		< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 500	<u>40000</u>	<u>1700</u>	< 140
SW-93	IN		< 1200	< 1200	< 1200	<u>330</u>	< 500	< 1200	< 1200	<u>3200</u>	<u>8000</u>	< 1200	< 2500
SW-93	IN		< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10	<u>170</u>	< 5.0	< 10
SW-93	IN		< 25	< 25	< 25	< 25	< 0.400	< 25	< 25	< 50	<u>480</u>	< 25	< 50
SW-93	IN		< 25	< 25	< 25	<u>7.5</u>	< 0.400	< 25	< 25	< 50	<u>760</u>	< 25	< 50
SK-93	NY-N		< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 50	<u>270</u>	< 10	< 14
SW-93	IN		< 120	< 120	< 120	< 120	< 200	< 120	< 120	< 120	<u>1600</u>	< 120	< 120
SW-93	IN		< 120	< 120	< 120	< 120	< 200	< 120	< 120	< 120	<u>1800</u>	< 120	< 120
SW-93	IN		< 120	< 120	< 120	< 120	< 200	< 120	< 120	< 120	<u>1700</u>	< 120	< 120
		MAX	0	0	0	330	150	0	0	3200	680000	1700	0
		MIN	0	0	0	0.18	150	0	0	0.1	0.13	3.2	0

Dry Cleaner Cooker Solids Wastes

Physical Properties and TCLP Metals Analysis, ppm

	Parameter	pH	SG	FP	As	Ba	Cd	Cr	Pb	Hg	Se	Ag
	Reg. Limit	<2; >12.5	na	< 140	5	100	1	5	5	0.2	1	5
LAB	SITE											
W-90	HE	6	na	<u>130</u>	< 0.05	0.3	0.5	0.12	1	< 0.01	< 0.05	< 0.05
M-90	LE	10	na	> 160	< 0.5	0.47	0.34	0.25	0.74	< 0.001	< 0.2	< 0.01
E-91	DE	7	na	> 180	< 0.5	0.4	0.7	0.2	<u>55</u>	< 0.02	< 0.3	< 0.1
N-92	CA74	8.1		> 200	< 0.30	1.39	<u>2.07</u>	0.09	<u>5.43</u>	< 0.05	< 1.0	< 0.40
SK-93	RE-C	8.02	1.58	> 200	< 0.45	1.327	<u>3.107</u>	< 0.050	2.751	< 0.0008	< 0.550	< 0.10
	MAX	10	1.58	130	0	1.39	3.107	0.25	55	0	0	0
	MIN	6	1.58	130	0	0.3	0.34	0.09	0.74	0	0	0

Dry Cleaner Cooker Solids Wastes

TCLP Volatiles Analysis, ppm

	Parameter	benzene	CCl4	Clbenz	CHCl3	1,4-DCIB	1,2-DCA	1,1-DCE	MEK	PCE	TCE	VChloride
	Reg. Limit	0.5	0.5	100	6	7.5	0.5	0.7	200	0.7	0.5	0.2
LAB	SITE											
W-90	HE	< 0.10	< 0.10	< 0.10	0.4	< 0.10	< 0.10	< 0.10	< 2.0	<u>3.8</u>	0.12	< 0.20
M-90	LE	< 0.10	< 0.10	< 0.10	< 0.10	< 0.20	< 0.10	< 0.10	< 2.0	<u>1.7</u>	< 0.10	< 0.20
E-91	DE	< 0.04	< 0.04	< 0.4	< 0.04	< 0.04	< 0.04	< 0.04	< 0.4	<u>0.9</u>	< 0.04	< 0.08
N-92	CA74	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.010	< 0.005	< 0.005	< 0.005
SK-93	RE-C	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.500	< 0.100	< 0.100	< 0.140
	MAX	0	0	0	0.4	0	0	0	0	3.8	0.12	0
	MIN	0	0	0	0.4	0	0	0	0	0.9	0.12	0

Dry Cleaning Filter Powder

Physical Properties and TCLP Metals Analysis, ppm

Parameter		pH	SG	FP	As	Ba	Cd	Cr	Pb	Hg	Se	Ag
Reg. Limit		<2; >12.5	na	< 140	5	100	1	5	5	0.2	1	5
LAB	SITE											
S-92	NY		1.32	> 200	< 0.45	0.32	< 0.05	0.11	< 0.35	< 0.0008	< 0.55	< 0.10
SW-93	KS-E	6.91	1.54	> 200	< 0.050	0.096	0.015	0.018	< 0.050	< 0.002	< 0.100	< 0.010
SW-93	KS-W	5.94	0.92	> 200	< 0.050	0.136	0.022	0.0189	0.06	< 0.002	< 0.100	< 0.010
SW-93	IN	6.47	0.8	> 200	< 0.250	0.137	0.0916	0.298	0.129	< 0.002	< 0.220	< 0.020
SW-93	IN	6.2	0.75	> 200	< 0.250	0.16	0.108	0.288	< 0.100	< 0.002	< 0.220	< 0.020
SW-93	IN	6.68	0.76	> 200	< 0.250	0.102	0.0554	0.237	< 0.100	< 0.002	< 0.220	< 0.020
SW-93	IN	6.66	0.73	> 200	< 0.250	0.0849	0.0635	0.238	0.161	< 0.002	< 0.220	< 0.020
	MAX	6.91	1.54	0	0	0.32	0.108	0.298	0.161	0	0	0
	MIN	5.94	0.73	0	0	0.0849	0.015	0.018	0.06	0	0	0

Dry Cleaning Filter Powder

TCLP Volatiles Analysis, ppm

	Parameter	benzene	CCl4	Cibenz	CHCl3	1,4-DCIB	1,2-DCA	1,1-DCE	MEK	PCE	TCE	VChloride
	Reg. Limit	0.5	0.5	100	6	7.5	0.5	0.7	200	0.7	0.5	0.2
<i>LAB</i>	<i>SITE</i>											
S-92	NY	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 125.0	<u>1315</u>	< 25.0	< 35.0
SW-93	KS-E	< 5	< 5	< 5	< 5	< 0.100	< 5	< 5	< 10	< 5	< 5	< 10
SW-93	KS-W	< 5	< 5	< 5	< 5	< 0.040	< 5	< 5	< 10	<u>200</u>	< 5	< 10
SW-93	IN	< 5.0	< 5.0	< 5.0	< 5.0	< 1.0	< 5.0	< 5.0	< 10	<u>230</u>	< 5.0	< 10
SW-93	IN	< 5.0	< 5.0	< 5.0	< 5.0	< 1.0	< 5.0	<u>6.2</u>	7.6	< 5.0	< 5.0	< 10
SW-93	IN	< 5.0	< 5.0	< 5.0	< 5.0	< 1.0	< 5.0	< 5.0	15	<u>200</u>	< 5.0	< 10
SW-93	IN	< 5.0	< 5.0	< 5.0	< 5.0	< 1.0	< 5.0	< 5.0	150	<u>150</u>	< 5.0	< 10
	MAX	0	0	0	0	0	0	6.2	150	1315	0	0
	MIN	0	0	0	0	0	0	6.2	7.6	150	0	0

Used Dry Cleaner Muck

Physical Properties and TCLP Metals Analysis, ppm

	Parameter	pH	SG	FP	As	Ba	Cd	Cr	Pb	Hg	Se	Ag
	Reg. Limit	<2; >12.5	na	< 140	5	100	1	5	5	0.2	1	5
<i>LAB</i>	<i>SITE</i>											
E-91	HE	5.5	0.976		< 1.0	0.12	0.15	< 0.1	< 0.5	< 0.002	< 0.5	< 0.1
E-91	DE	5	na	> 180	< 0.5	0.5	< 0.1	1	0.8	< 0.02	< 0.3	< 0.1
S-92	DE		1.35	> 200	< 0.50	5.36	< 0.35	0.76	< 0.50	< 0.002	< 0.30	< 0.45
S-92	HE		0.99	167	< 1.80	0.34	< 0.03	2.87	< 1.40	< 0.04	< 0.14	< 0.03
S-92	NY		1.12	> 200	< 0.45	0.09	< 0.05	0.33	< 0.35	< 0.0008	< 0.55	< 0.10
SW-93	IN	6.97	0.74	<u>109</u>	< 0.090	0.103	0.0254	< 0.020	< 0.175	< 0.002	< 0.425	< 0.015
SW-93	IN	6.92	0.73	<u>110</u>	< 0.090	0.112	0.0243	< 0.020	< 0.175	< 0.002	< 0.425	< 0.015
	MAX	6.97	1.35	167	0	5.36	0.15	2.87	0.8	0	0	0
	MIN	5	0.73	109	0	0.09	0.0243	0.33	0.8	0	0	0

Used Dry Cleaner Muck

TCLP Volatiles Analysis, ppm

	Parameter	benzene	CCl4	Clbenz	CHCl3	1,4-DCIB	1,2-DCA	1,1-DCE	MEK	PCE	TCE	VChloride
	Reg. Limit	0.5	0.5	100	6	7.5	0.5	0.7	200	0.7	0.5	0.2
LAB	SITE											
E-91	HE	< 84	< 84	< 84	< 84	< 2.0	< 84	< 84	< 170	490	< 84	< 170
E-91	DE	< 50	< 50	< 50	< 50	< 2	< 50	< 50	< 500	790	< 50	< 100
S-92	DE	0.1	0.1	0.1	< 0.1	0.1	< 0.1	0.1	< 0.8	2.6	0.1	< 0.2
S-92	HE	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 125.0	6087.6	< 25.0	< 35.0
S-92	NY	< 2.5	< 2.5	< 2.5	< 2.5	0.67	< 2.5	< 2.5	4.19	348.9	< 2.5	< 3.5
SW-93	IN	< 0.025	< 0.025	< 0.025	< 0.025	< 2.0	< 0.025	< 0.025	1.1	0.37	0.019	< 0.050
SW-93	IN	< 2.5	< 2.5	< 2.5	< 2.5	< 2.0	< 2.5	< 2.5	< 5.0	4.1	< 2.5	< 5.0
	MAX	0.1	0.1	0.1	0	0.67	0	0.1	4.19	6087.6	0.1	0
	MIN	0.1	0.1	0.1	0	0.1	0	0.1	1.1	0.37	0.019	0

Dumpster Mud Wastes

Physical Properties and TCLP Metals Analysis, ppm

LAB	SITE	Parameter Reg. Limit	pH <2; >12.5	SG na	FP < 140	As 5	Ba 100	Cd 1	Cr 5	Pb 5	Hg 0.2	Se 1	Ag 5
M-90	CL		10	na	<u>115</u>	< 0.5	0.85	0.8	0.06	2.2	0.002	< 0.2	< 0.01
W-90	DE		7	na	<u>80</u>	< 0.05	1	0.84	< 0.05	<u>570</u>	< 0.01	< 0.05	< 0.05
W-90	EL		8	na	<u>115</u>	< 0.05	0.9	1	< 0.05	1.3	< 0.01	< 0.05	< 0.05
M-90	LE		6.5	na	<u>85</u>	< 0.5	0.47	<u>2</u>	0.01	1.3	< 0.001	< 0.2	< 0.01
C-90	RE		7.9	1.2	<u>85</u>	< 1	0.41	<u>2.8</u>	0.02	4.6	< 0.002	< 1	< 0.5
M-90	CL		7.5	na	> 160	< 0.5	0.28	<u>1.3</u>	0.16	<u>8.8</u>	< 0.001	< 0.2	< 0.01
E-91	HE		8	1.503	<u>113</u>	< 1.0	1.2	0.71	< 0.1	2.4	< 0.002	< 0.1	< 0.1
S-92	CL				<u>92</u>	< 1.90	< 2.60	<u>2</u>	< 0.930	<u>19</u>	< 0.0250	0.350	< 0.350
S-92	HE			1.4	<u>130</u>	< 0.45	1.52	<u>2.93</u>	0.06	0.87	< 0.0008	< 0.55	< 0.10
S-92	NJ			0.85	<u>116</u>	< 0.94	2.3	<u>1.27</u>	0.31	<u>7.75</u>	< 0.006	< 0.53	< 0.1
S-92	NY			0.97	<u>125</u>	< 0.57	1.24	<u>1.08</u>	0.18	<u>9.46</u>	0.004	< 0.54	0.1
N-92	CA72		7.5		<u>130</u>	< 0.30	0.94	<u>1.15</u>	< 0.20	4.01	< 0.05	< 1.0	< 0.40
		MAX	10	1.503	130	0	2.3	2.93	0.31	570	0.004	0	0.1
		MIN	6.5	0.85	80	0	0.28	0.71	0.01	0.87	0.002	0	0.1

IC Dumpster Mud 699

Physical Properties and TCLP Metals Analysis, ppm

LAB	SITE	Parameter Reg. Limit	pH <2; >12.5	SG na	FP < 140	As 5	Ba 100	Cd 1	Cr 5	Pb 5	Hg 0.2	Se 1	Ag 5
E-91	CL		10.1	1.108	<u>124</u>	< 1.0	1.5	<u>2</u>	2.2	<u>14.9</u>	< 0.002	< 0.1	< 0.1
SW-93	CL		9.83	0.87	144	< 0.50	0.026	0.019	0.008	0.22	< 0.002	< 0.100	< 0.010
		MAX	10.1	1.108	144	0	1.5	2	2.2	14.9	0	0	0
		MIN	9.83	0.87	124	0	0.026	0.019	0.008	0.22	0	0	0

IC Dumpster Mud 609

Physical Properties and TCLP Metals Analysis, ppm

LAB	SITE	Parameter Reg. Limit	pH <2; >12.5	SG na	FP < 140	As 5	Ba 100	Cd 1	Cr 5	Pb 5	Hg 0.2	Se 1	Ag 5
E-91	CL		8.8	1.313	<u>77</u>	< 1.0	0.33	0.87	< 0.1	0.87	< 0.002	< 0.1	< 0.1
		MAX	8.8	1.313	77	0	0.33	0.87	0	0.87	0	0	0
		MIN	8.8	1.313	77	0	0.33	0.87	0	0.87	0	0	0

Used Immersion Cleaner 609

Physical Properties and TCLP Metals Analysis, ppm

Parameter		pH	SG	FP	As	Ba	Cd	Cr	Pb	Hg	Se	Ag
Reg. Limit		<2; >12.5	na	< 140	5	100	1	5	5	0.2	1	5
LAB	SITE											
E-91	CL	9.4	1.119	138	< 1.0	3.7	45.6	27.8	159	< 0.002	< 0.25	< 0.1
SW-93	KS-E	8.63	1.1	60	< 0.500	< 0.050	0.224	0.079	0.6	< 0.002	< 1.0	< 0.100
	MAX	9.4	1.119	138	0	3.7	45.6	27.8	159	0	0	0
	MIN	8.63	1.1	60	0	3.7	0.224	0.079	0.6	0	0	0

Used Immersion Cleaner 609

TCLP Volatiles Analysis, ppm

	Parameter	benzene	CCl4	Clbenz	CHCl3	1,4-DCIB	1,2-DCA	1,1-DCE	MEK	PCE	TCE	VChloride
	Reg. Limit	0.5	0.5	100	6	7.5	0.5	0.7	200	0.7	0.5	0.2
LAB	SITE											
E-91	CL	< 100	< 100	< 100	< 100	72000	< 100	< 100	< 200	< 100	< 100	< 200
SW-93	KS-E	< 1.3	< 1.3	< 1.3	< 1.3	1500	2.6	< 1.3	30	3.2	3.6	< 2.5
	MAX	0	0	0	0	72000	2.6	0	30	3.2	3.6	0
	MIN	0	0	0	0	1500	2.6	0	30	3.2	3.6	0

Used Immersion Cleaner 699

Physical Properties and TCLP Metals Analysis, ppm

		Parameter	pH	SG	FP	As	Ba	Cd	Cr	Pb	Hg	Se	Ag
		Reg. Limit	<2; >12.5	na	< 140	5	100	1	5	5	0.2	1	5
LAB	SITE												
E-91	CL		9.6	0.945	> 160	2.1	1.4	<u>11.6</u>	<u>50.5</u>	<u>55.1</u>	< 0.002	< 0.1	0.1
E-91	LE		9.6	0.938	> 160	< 5.0	0.54	<u>12.9</u>	4.7	<u>43.4</u>	< 0.002	< 0.5	< 0.5
E-91	EL		9.8	0.958	> 160	1.8	0.58	<u>9.2</u>	1.5	<u>86.8</u>	< 0.002	< 2.0	< 0.1
S-92	CL				> 200	< 5.00	< 5.00	<u>10.5</u>	< 2.50	<u>63.9</u>	< 0.0800	< 0.330	< 0.110
SW-93	TN-D		10.79	0.85	141	0.14	0.007	0.004	0.027	0.38	0.011	< 0.100	< 0.010
SW-93	KS-D		11.36	0.91	145	< 0.050	0.016	0.978	< 0.005	0.641	< 0.002	< 0.100	< 0.010
SW-93	WV-N		10.64	0.96	147	< 0.050	0.026	0.167	< 0.005	< 0.050	< 0.002	< 0.100	< 0.010
SW-93	KS-E		10.93	0.96	145	< 0.050	0.049	<u>5.2</u>	0.011	0.082	< 0.002	< 0.100	< 0.010
SW-93	KS-W		10.1	0.92	143	< 0.050	0.049	0.218	0.012	0.718	< 0.002	< 0.100	< 0.010
SW-93	WV-W		10.5	0.92	146	< 0.050	0.049	0.004	0.009	0.129	< 0.002	< 0.100	< 0.10
SW-93	TN-N		10.77	0.83	147	< 1.0	0.133	0.896	0.213	<u>6</u>	< 0.002	< 2.0	< 0.200
SW-93	TN-K		9.93	0.81	141	< 1.0	2.9	<u>60</u>	1.1	<u>616</u>	0.003	< 2.0	< 0.200
SW-93	CL		9.66	1	> 200	< 0.050	0.72	0.045	0.032	0.374	0.003	< 0.100	< 0.010
SW-93	CL		10.93	0.68	145	0.12	0.17	<u>1.36</u>	0.086	4.73	0.04	< 0.100	< 0.010
SK-93	NY-W		9.82	0.94	> 200	< 4.5	1.19	<u>5.775</u>	1.58	<u>24.42</u>	< 0.04	< 0.359	< 1.0
SK-93	NY-W		9.97	0.93	143	< 4.5	0.77	<u>25.16</u>	3.75	<u>137.7</u>	0.072	< 0.359	< 1.0
SK-93	NY-N		9.68	0.93	> 200	< 4.5	1.18	<u>3187</u>	3.75	<u>470.1</u>	< 0.04	< 0.359	< 1.0
SK-93	NY-N		9.77	0.94	> 200	< 4.5	0.86	<u>87.35</u>	1.66	<u>29.18</u>	< 0.04	< 0.359	< 1.0
SK-93	NY-W		9.8	0.9	> 200	< 4.5	< 0.50	<u>3.43</u>	< 0.50	3.77	0.05	< 0.359	< 1.0
SK-93	RE-W		9.87	0.96	< 200	< 4.5	1.86	<u>6.05</u>	0.99	<u>44.86</u>	0.066	< 0.359	< 1.0
SK-93	RE-C		9.91	0.95	> 200	< 4.5	0.9	<u>20.39</u>	<u>10.2</u>	<u>44.43</u>	0.08	< 0.359	< 1.0
SW-93	IN		10.62	0.96	141	2.03	0.229	<u>4.58</u>	0.453	<u>20.2</u>	< 0.002	< 0.220	< 0.020
SW-93	IN		10.58	0.75	143	1.63	0.298	<u>8.32</u>	1.49	<u>6.93</u>	0.0057	< 0.220	< 0.020
SW-93	IN		11.14	0.82	142	1.41	0.569	0.821	0.606	0.794	< 0.002	< 0.220	0.035
SW-93	IN		11.11	0.84	147	1.13	0.599	0.918	0.584	0.94	< 0.002	< 0.220	0.026
SK-93	NY-N		9.67	0.93	> 200	< 0.45	0.8	<u>5.73</u>	< 0.50	<u>11.01</u>	< 0.04	< 0.359	< 1.0
		MAX	11.36	1	147	2.1	2.9	3187	50.5	616	0.08	0	0.1
		MIN	9.6	0.68	141	0.12	0.007	0.004	0.009	0.082	0.003	0	0.026

Used Immersion Cleaner 699

TCLP Volatiles Analysis, ppm

LAB	SITE	Parameter Reg. Limit	benzene 0.5	CCl4 0.5	Clbenz 100	CHCl3 6	1,4-DCIB 7.5	1,2-DCA 0.5	1,1-DCE 0.7	MEK 200	PCE 0.7	TCE 0.5	VChloride 0.2
E-91	CL		< 2500	< 5000	< 2500	< 2500	< 10.0	< 2500	< 2500	< 5000	< 2500	< 2500	< 5000
E-91	LE		< 3300	< 3300	< 3300	< 3300	< 5.0	< 3300	< 3300	< 6600	< 3300	< 3300	< 6600
E-91	EL		< 2500	< 2500	< 2500	< 2500	< 100	< 2500	< 2500	< 5000	< 2500	< 2500	< 5000
S-92	CL		<u>4.6</u>	< 0.500	<u>113</u>	< 0.500	<u>38.2</u>	<u>1.6</u>	< 0.500	43.6	<u>353</u>	<u>24.8</u>	< 0.700
SW-93	TN-D		< 10	< 10	41	< 10	< 30.0	< 10	< 10	< 20	<u>350</u>	<u>40</u>	< 20
SW-93	KS-D		< 1.0	< 1.0	< 1.0	< 1.0	<u>29</u>	< 1.0	< 1.0	< 50	<u>18</u>	< 1.0	< 50
SW-93	WV-N		< 1.0	< 1.0	< 1.0	4.6	< 10	< 1.0	< 1.0	< 50	< 1.0	< 1.0	< 50
SW-93	KS-E		< 5	< 5	< 5	< 5	< 10	< 5	< 5	< 10	< 5	< 5	< 10
SW-93	KS-W		< 1.0	< 1.0	< 1.0	< 1.0	< 10	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 2.0
SW-93	WV-W		< 2.5	< 2.5	< 2.5	< 2.5	< 80	< 2.5	< 2.5	< 5.0	<u>8.7</u>	< 2.5	< 5.0
SW-93	TN-N		< 250	< 250	< 250	< 250	< 1000	< 250	< 250	< 500	< 250	< 250	< 500
SW-93	TN-K		< 250	< 250	< 250	< 250	< 1000	< 250	< 250	< 500	<u>550</u>	< 250	< 500
SW-93	CL		< 2500	< 2500	< 2500	< 2500	< 10	< 2500	< 2500	<u>14000</u>	< 2500	< 2500	< 5000
SW-93	CL		< 250	< 250	< 250	< 250	<u>6600</u>	< 250	< 250	< 500	<u>280</u>	< 250	< 500
SK-93	NY-W		< 50	< 50	66	< 50	<u>540</u>	< 50	< 50	< 250	<u>460</u>	< 50	< 100
SK-93	NY-W		< 50	< 50	56	< 50	<u>480</u>	< 50	< 50	< 250	<u>160</u>	< 50	< 100
SK-93	NY-N		< 50	< 50	<u>180</u>	< 50	<u>1400</u>	< 50	< 50	< 250	<u>440</u>	< 50	< 100
SK-93	NY-N		< 50	< 50	62	< 50	<u>410</u>	< 50	< 50	< 250	<u>340</u>	< 50	< 100
SK-93	NY-W		< 50	< 50	65	< 50	<u>590</u>	< 50	< 50	< 250	<u>370</u>	< 50	< 100
SK-93	RE-W		< 50	< 50	< 50	< 50	<u>240</u>	< 50	< 50	< 250	<u>170</u>	< 50	< 100
SK-93	RE-C		< 50	< 50	< 50	< 50	<u>190</u>	< 50	< 50	< 250	<u>92</u>	< 50	< 100
SW-93	IN		< 250	< 250	< 250	< 250	< 1000	< 250	< 250	< 500	<u>170</u>	< 250	< 500
SW-93	IN		< 250	< 250	< 250	< 250	< 1000	< 250	< 250	< 500	<u>190</u>	< 250	< 500
SW-93	IN		< 620	< 620	< 620	< 620	< 1000	< 620	< 620	<u>350</u>	<u>270</u>	< 620	< 1200
SW-93	IN		< 620	< 620	< 620	< 620	< 1000	< 620	< 620	<u>770</u>	<u>190</u>	< 620	< 1200
SK-93	NY-N		< 50	< 50	68	< 50	<u>510</u>	< 50	< 50	< 250	<u>300</u>	< 50	< 100
		MAX	4.6	0	180	4.6	6600	1.6	0	14000	550	40	0
		MIN	4.6	0	41	4.6	29	1.6	0	43.6	8.7	24.8	0

Immersion Cleaner, Distillation Bottoms

Physical Properties and TCLP Metals Analysis, ppm

	Parameter Reg. Limit	pH <2; >12.5	SG na	FP < 140	As 5	Ba 100	Cd 1	Cr 5	Pb 5	Hg 0.2	Se 1	Ag 5
<i>LAB</i>	<i>SITE</i>											
S-92	CL		NA	183	< 0.500	0.65	<u>1.48</u>	< 0.250	2.71	< 0.00200	< 0.300	< 0.450
S-92	DE		0.94	> 200	< 1.6	< 10	<u>105</u>	<u>24.8</u>	<u>301</u>	< 0.08	< 0.72	< 0.13
	MAX		0.94	183	0	0.65	105	24.8	301	0	0	0
	MIN		0.94	183	0	0.65	1.48	24.8	2.71	0	0	0

Nonchlorinated Water Wastes

Physical Properties and TCLP Metals Analysis, ppm

LAB	SITE	Parameter Reg. Limit	pH <2; >12.5	SG na	FP < 140	As 5	Ba 100	Cd 1	Cr 5	Pb 5	Hg 0.2	Se 1	Ag 5
W-90	BU		8.5	na	na	< 0.05	1	< 0.05	< 0.05	0.1	< 0.01	< 0.05	< 0.05
M-90	CL		9	na	na	< 0.5	0.83	0.35	0.034	0.84	< 0.001	< 0.2	< 0.01
W-90	DE		6.5	na	na	< 0.05	1.7	0.43	0.19	0.8	< 0.01	< 0.5	0.06
W-90	DO		7.5	na	na	< 0.05	0.9	0.17	0.18	2.6	< 0.01	< 0.05	< 0.05
W-90	EL		7	na	na	< 0.05	3.1	0.82	0.22	1.8	0.011	< 0.05	< 0.05
M-90	LE		6.5	na	na	< 0.5	0.82	0.16	0.038	0.86	0.001	< 0.2	< 0.01
M-90	LI		7	na	na	< 0.5	0.26	< 0.01	0.012	< 0.1	0.031	< 0.2	< 0.02
M-90	PE		6	na	na	0.95	3.5	0.048	0.047	< 0.1	< 0.001	< 0.2	< 0.01
C-90	RE		10	na	na	< 1	0.11	< 0.02	0.02	0.5	< 0.002	< 1	< 0.5
E-91	CL		8.3			< 1.0	0.35	0.98	0.53	3.2	< 0.002	< 0.5	< 0.1
S-92	CL				> 202	< 5.00	< 5.00	0.5	< 2.50	<u>6.97</u>	< 0.0800	< 0.330	< 4.50
N-92	CA76		7	1.01	> 200	< 0.30	0.3	< 0.20	< 0.20	< 0.80	< 0.05	< 1.0	< 0.40
SK-93	RE-C		7.55	1.02	> 200	< 0.45	0.26	< 0.050	< 0.050	< 0.35	0.061	< 0.550	< 0.10
		MAX	10	1.02	0	0.95	3.5	0.98	0.53	6.97	0.061	0	0.06
		MIN	6	1.01	0	0.95	0.11	0.048	0.012	0.1	0.001	0	0.06

Nonchlorinated Water Wastes PWS

Physical Properties and TCLP Metals Analysis, ppm

LAB	SITE	Parameter Reg. Limit	pH <2; >12.5	SG na	FP < 140	As 5	Ba 100	Cd 1	Cr 5	Pb 5	Hg 0.2	Se 1	Ag 5
E-91	EL		6.5	na		< 1.0	0.24	0.55	0.11	0.83	0.003	< 1	< 0.1
S-92	CL			na	<u>116</u>	< 4.55	< 5.65	0.44	2.25	1.69	< 0.0800	< 0.370	< 0.120
		MAX	6.5	0	116	0	0.24	0.55	2.25	1.69	0.003	0	0
		MIN	6.5	0	116	0	0.24	0.44	0.11	0.83	0.003	0	0

Nonchlorinated Water Wastes IC

Physical Properties and TCLP Metals Analysis, ppm

LAB	SITE	Parameter Reg. Limit	pH <2; >12.5	SG na	FP < 140	As 5	Ba 100	Cd 1	Cr 5	Pb 5	Hg 0.2	Se 1	Ag 5
E-91	EL		9.5			1.1	11.4	<u>1.8</u>	<u>5.6</u>	<u>38.7</u>	0.022	< 1.0	< 0.1
		MAX	9.5	0	0	1.1	11.4	1.8	5.6	38.7	0.022	0	0
		MIN	9.5	0	0	1.1	11.4	1.8	5.6	38.7	0.022	0	0

Paint Wastes - 16

Physical Properties and TCLP Metals Analysis, ppm

	Parameter	pH	SG	FP	As	Ba	Cd	Cr	Pb	Hg	Se	Ag
	Reg. Limit	<2; >12.5	na	< 140	5	100	1	5	5	0.2	1	5
LAB	SITE											
W-90	DE	6	0.851	<u>75</u>	< 0.05	1	< 0.05	0.21	0.3	< 0.01	< 0.05	< 0.05
W-90	DO	6.5	0.937	<u>75</u>	< 0.05	0.6	0.72	0.72	2.4	< 0.01	< 0.05	< 0.05
E-91	LE	6.2	0.872	<u>73</u>	< 1.0	1	0.47	1.1	0.71	< 0.002	< 0.1	< 0.1
E-91	DO	6.6	0.889	<u>77</u>	< 1.0	< 0.1	< 0.05	0.17	< 0.05	< 0.002	< 0.05	< 0.1
S-92	DE		0.9	<u>< 80</u>	< 0.50	1.78	< 0.35	0.38	0.62	< 0.002	< 0.30	< 0.45
S-92	LE		0.834	<u>< 73</u>	< 0.45	0.56	< 0.05	0.14	0.67	< 0.0008	< 0.55	< 0.10
SW-93	WV-W	7.3	0.81	<u>75</u>	< 0.050	0.374	0.065	0.012	< 0.050	< 0.002	< 0.100	< 0.010
SW-93	IN	5.58	0.78	<u>< 43</u>	< 0.018	0.225	< 0.002	0.249	0.38	< 0.002	< 0.085	< 0.003
SW-93	IN	7.38	0.75	<u>< 51</u>	< 0.090	1.41	< 0.010	0.517	< 0.175	0.0349	< 0.425	< 0.015
SW-93	IN	5.46	0.78	<u>< 44</u>	< 0.018	0.752	< 0.002	0.593	1.03	< 0.002	< 0.085	< 0.003
SW-93	IN	6.49	0.81	<u>< 48</u>	< 0.18	0.505	0.0034	1.42	0.608	< 0.002	< 0.085	< 0.003
	MAX	7.38	0.937	77	0	1.78	0.72	1.42	2.4	0.0349	0	0
	MIN	5.46	0.75	73	0	0.225	0.0034	0.012	0.3	0.0349	0	0

Paint Wastes - 16

TCLP Volatiles Analysis, ppm

	Parameter	benzene	CCI4	Cibenz	CHCl3	1,4-DCIB	1,2-DCA	1,1-DCE	MEK	PCE	TCE	VChloride
	Reg. Limit	0.5	0.5	100	6	7.5	0.5	0.7	200	0.7	0.5	0.2
LAB	SITE											
W-90	DE	0.18	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	<u>4000</u>	< 0.10	< 0.10	< 0.20
W-90	DO	0.14	< 0.10	< 0.10	< 0.10	< 0.10	0.12	< 0.10	> 200	0.61	<u>1.6</u>	< 0.20
E-91	LE	< 10000	< 10000	< 10000	< 10000	< 5.0	< 10000	< 10000	<u>23000</u>	< 10000	< 10000	< 20000
E-91	DO	< 120	< 120	< 120	< 120	< 5.0	< 120	< 120	< 250	< 120	< 120	< 250
S-92	DE	0.26	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.5	< 0.1	< 0.1	< 0.14
S-92	LE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.5	0.2	< 0.1	< 0.14
SW-93	WV-W	< 125	< 125	< 125	< 125	< 1.0	< 125	< 125	<u>43000</u>	< 125	< 125	< 250
SW-93	IN	< 2500	< 2500	< 2500	< 2500	< 1	< 2500	< 2500	<u>10000</u>	<u>2800</u>	< 2500	< 5000
SW-93	IN	< 2500	< 2500	< 2500	< 2500	< 100	< 2500	< 2500	< 5000	<u>630</u>	< 2500	< 5000
SW-93	IN	< 25	< 25	< 25	< 25	< 1.5	< 25	<u>16</u>	< 50	<u>43</u>	< 25	< 50
SW-93	IN	< 2500	< 2500	< 2500	< 2500	< 1.5	< 2500	< 2500	<u>7300</u>	< 2500	< 2500	< 5000
	MAX	0.26	0	0	0	0	0.12	16	43000	2800	1.6	0
	MIN	0.14	0	0	0	0	0.12	16	4000	0.2	1.6	0

Paint Gun Cleaner 5 Wastes

Physical Properties and TCLP Metals Analysis, ppm

	Parameter	pH	SG	FP	As	Ba	Cd	Cr	Pb	Hg	Se	Ag
	Reg. Limit	<2; >12.5	na	< 140	5	100	1	5	5	0.2	1	5
LAB	SITE											
E-91	LE	6.2	0.864	<u>73</u>	< 1.0	1.4	0.41	0.86	< 0.5	< 0.002	< 0.1	< 0.1
E-91	DO	6.6	0.731	<u>84</u>	< 1.6	6.2	0.73	1.8	1.9	< 0.016	< 0.16	< 0.16
S-92	NY06		0.86	<u>< 73</u>	< 0.45	0.25	< 0.05	0.08	0.38	< 0.0008	< 0.55	< 0.10
SW-93	NJ-V	5.99	0.72	> 38	0.07	0.64	0.005	0.16	0.14	< 0.002	< 0.100	< 0.010
SW-93	GA-m	6.61	0.98	<u>38</u>	< 0.050	0.916	0.011	0.013	0.095	< 0.002	< 0.100	< 0.010
SW-93	GA-N	7.47	0.78	<u>38</u>	< 0.050	0.969	0.003	< 0.005	< 0.050	< 0.002	< 0.100	< 0.010
SW-93	GA-C	7.55	0.79	<u>< 45</u>	< 0.500	< 0.050	< 0.030	< 0.050	< 0.500	< 0.002	< 1.0	< 0.100
SW-93	KS-E	7.6	0.83	<u>< 45</u>	< 0.050	0.079	< 0.003	< 0.005	< 0.050	< 0.002	< 0.100	< 0.010
SW-93	KS-W	6.01	0.82	<u>37</u>	< 0.050	0.31	0.006	0.085	< 0.050	< 0.002	< 0.100	< 0.010
SW-93	TN-N	8.12	0.7	<u>< 44</u>	< 0.050	0.104	0.054	0.625	3.1	0.008	< 0.100	< 0.010
SW-93	TN-K	7.01	0.86	<u>< 45</u>	< 1.0	< 0.100	< 0.060	0.16	< 1.0	0.055	< 2.0	< 0.200
SW-93	NJ-N	6.42	0.885	<u>< 44</u>	< 0.500	100	0.53	<u>47</u>	<u>162</u>	< 0.0002	<u>2.7</u>	< 0.100
SK-93	NY-C	4.6	0.83	<u>< 62</u>	< 4.5	1.72	< 0.50	1.25	< 3.5	< 0.04	< 0.359	< 1.0
SK-93	NY-C	4.1	0.83	<u>< 66</u>	< 4.5	2.34	< 0.50	1.13	< 3.5	< 0.04	< 0.359	< 1.0
SK-93	NY-W	4.7	0.87	<u>< 73</u>	< 4.5	1	< 0.50	1.25	3.52	< 0.04	< 0.359	< 1.0
SK-93	NY-W	6.18	0.89	<u>< 65</u>	< 0.45	0.5075	< 0.050	3.9	< 0.35	< 0.002	< 0.550	< 0.10
SK-93	NY-W	5.06	0.9	<u>< 66</u>	< 4.5	13.34	< 0.50	<u>16.16</u>	<u>75.25</u>	< 0.04	< 0.359	< 1.0
SK-93	NY-N	4.9	0.85	<u>< 58</u>	< 4.5	< 0.50	< 0.50	1.98	<u>6.16</u>	< 0.04	< 0.359	< 1.0
SK-93	NY-N	4.68	0.84	<u>< 64</u>	< 4.5	0.97	< 0.50	1.03	< 3.5	< 0.04	< 0.359	< 1.0
SK-93	NY-D	4.4	0.84	<u>< 75</u>	< 4.5	7.765	< 0.50	< 0.50	<u>53.35</u>	< 0.04	< 0.359	< 1.0
SK-93	NY-D	4.77	0.86	<u>< 70</u>	< 4.5	0.705	< 0.50	< 0.50	< 3.5	< 0.04	< 0.359	< 1.0
SK-93	NY-D	4.02	0.84	<u>< 60</u>	< 4.5	< 0.50	< 0.50	< 0.50	< 3.5	< 0.04	< 0.359	< 1.0
SK-93	NY-D	4.43	0.84	<u>< 63</u>	< 4.5	< 0.50	< 0.50	< 0.50	< 3.5	< 0.04	< 0.359	< 1.0
SK-93	NY-N	4.25	0.84	<u>< 57</u>	< 4.5	< 0.50	< 0.50	< 0.50	< 3.5	< 0.04	< 0.359	< 1.0
SW-93	IN	5.92	0.71	<u>< 38</u>	< 0.090	1.95	0.326	0.0654	0.387	< 0.002	< 0.425	< 0.015
SW-93	IN	5.9	0.76	<u>< 38</u>	0.124	4.34	0.436	0.103	0.559	< 0.020	< 0.525	0.0349
SW-93	IN	6.89	0.8	<u>< 50</u>	< 0.900	< 0.400	0.109	< 0.200	< 1.750	< 0.002	< 4.250	< 0.150
SW-93	IN	5.56	0.77	<u>< 50</u>	< 0.900	< 0.400	< 0.100	< 0.200	< 1.750	< 0.002	< 4.250	< 0.150
	MAX	8.12	0.98	84	0.124	100	0.73	47	162	0	2.7	0.0349
	MIN	4.02	0.7	37	0.07	0.079	0.003	0.013	0.095	0	2.7	0.0349

Paint Gun Cleaner 5 Wastes

TCLP Semi Volatiles Analysis, ppm

LAB	SITE	Parameter Reg. Limit	cresol 200	2,4-DNT 0.13	Cl6-benz 0.13	Cl6-13-but 0.5	Cl6-eth 3	nitrobenz 2	Cl5-phenol 100	pyridine 5	2,4,5-TCP 400	2,4,6-TCP 2
E-91	LE		< 10.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 25.0	< 10.0	< 25.0	< 5.0
E-91	DO		< 360	< 180	< 180	< 180	< 180	< 180	< 900	< 360	< 900	< 180
S-92	NY06		0.198	< 0.036	< 0.070	< 0.095	< 0.080	< 0.031	< 0.450	0.045	< 0.022	< 0.030
SW-93	NJ-V		< 0.75	< 0.75	< 0.75	< 0.75	< 0.75	< 0.75	< 1.5	< 0.75	< 1.5	< 0.75
SW-93	GA-m		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 5.0	< 1.0
SW-93	GA-N		< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.100	< 0.020	< 0.100	< 0.020
SW-93	GA-C		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 5.0	< 1.0
SW-93	KS-E		< 10	< 10	< 10	< 10	< 10	< 10	< 50	< 10	< 50	< 10
SW-93	KS-W		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 5.0	< 1.0
SW-93	TN-N		< 200	< 200	< 200	< 200	< 200	< 200	< 1000	< 200	< 1000	< 200
SW-93	TN-K		< 100	< 100	< 100	< 100	< 100	< 100	< 250	< 100	< 250	< 100
SW-93	NJ-N		< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000
SK-93	NY-C		< 1446	< 2119	< 2200	< 4913	< 5977	< 3431	< 17470	< 7084	< 2065	< 7111
SK-93	NY-C		< 1446	< 2119	< 2200	< 4913	< 5977	< 3431	< 17470	< 7084	< 2065	< 7111
SK-93	NY-W		< 1446	< 2119	< 2200	< 4913	< 5977	< 3431	< 17470	< 7084	< 2065	< 7111
SK-93	NY-W		< 1446	< 2119	< 2200	< 4913	< 5977	< 3431	< 17470	< 7084	< 2065	< 7111
SK-93	NY-W		< 1446	< 2119	< 2200	< 4913	< 5977	< 3431	< 17470	< 7084	< 2065	< 7111
SK-93	NY-N		< 1446	< 2119	< 2200	< 4913	< 5977	< 3431	< 17470	< 7084	< 2065	< 7111
SK-93	NY-N		< 1446	< 2119	< 2200	< 4913	< 5977	< 3431	< 17470	< 7084	< 2065	< 7111
SK-93	NY-D		< 1446	< 2119	< 2200	< 4913	< 5977	< 3431	< 17470	< 7084	< 2065	< 7111
SK-93	NY-D		< 1446	< 2119	< 2200	< 4913	< 5977	< 3431	< 17470	< 7084	< 2065	< 7111
SK-93	NY-D		< 1446	< 2119	< 2200	< 4913	< 5977	< 3431	< 17470	< 7084	< 2065	< 7111
SK-93	NY-D		< 1446	< 2119	< 2200	< 4913	< 5977	< 3431	< 17470	< 7084	< 2065	< 7111
SK-93	NY-W		< 1446	< 2119	< 2200	< 4913	< 5977	< 3431	< 17470	< 7084	< 2065	< 7111
SW-93	IN		< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 200	< 100	< 100
SW-93	IN		< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 200	< 100	< 100
SW-93	IN		< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100
SW-93	IN		< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100
		MAX	0.198	0	0	0	0	0	0	0.045	0	0
		MIN	0.198	0	0	0	0	0	0	0.045	0	0

Paint Gun Cleaner 5 Wastes

TCLP Volatiles Analysis, ppm

	Parameter	benzene	CCl4	Clbenz	CHCl3	1,4-DCIB	1,2-DCA	1,1-DCE	MEK	PCE	TCE	VChloride
	Reg. Limit	0.5	0.5	100	6	7.5	0.5	0.7	200	0.7	0.5	0.2
LAB	SITE											
E-91	LE	< 2200	< 2200	< 2200	< 2200	< 5.0	< 2200	< 2200	<u>6500</u>	< 2200	< 2200	< 4400
E-91	DO	< 500	< 500	< 500	< 500	< 180	< 500	< 500	< 1000	< 500	< 500	< 1000
S-92	NY06	0.12	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	<u>220</u>	< 0.1	< 0.1	< 0.14
SW-93	KS-V	< 2500	< 2500	< 2500	< 2500	< 0.75	< 2500	< 2500	<u>52000</u>	< 2500	< 2500	< 5000
SW-93	GA-m	< 62.5	< 62.5	< 62.5	< 62.5	< 1.0	< 62.5	< 62.5	<u>2700</u>	< 62.5	< 62.5	< 125
SW-93	GA-N	< 2.5	< 2.5	< 2.5	< 2.5	< 0.020	< 2.5	< 2.5	< 5.0	< 2.5	< 2.5	< 5.0
SW-93	GA-C	< 250	< 250	< 250	< 250	< 1.0	< 250	< 250	<u>11000</u>	< 250	< 250	< 500
SW-93	KS-E	< 250	< 250	< 250	< 250	< 10	< 250	< 250	<u>5200</u>	< 250	< 250	< 500
SW-93	KS-W	< 250	< 250	< 250	< 250	< 1.0	< 250	< 250	<u>11000</u>	< 250	< 250	< 500
SW-93	TN-N	< 2500	< 2500	< 2500	< 2500	< 200	< 2500	< 2500	<u>80000</u>	< 2500	< 2500	< 5000
SW-93	TN-K	< 2500	< 2500	< 2500	< 2500	< 100	< 2500	< 2500	<u>100000</u>	< 2500	< 2500	< 5000
SW-93	NJ-N	< 2500	< 2500	< 2500	< 2500	< 1000	< 2500	< 2500	<u>21000</u>	< 2500	< 2500	< 5000
SK-93	NY-C	<u>89</u>	< 50	< 50	< 50	< 50	< 50	< 50	<u>100000</u>	< 50	<u>140</u>	< 100
SK-93	NY-C	<u>86</u>	< 50	< 50	< 50	< 50	< 50	< 50	<u>86000</u>	< 50	<u>120</u>	< 100
SK-93	NY-W	< 50	< 50	< 50	< 50	< 50	< 50	< 50	<u>36000</u>	<u>690</u>	<u>150</u>	< 100
SK-93	NY-W	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 250	< 50	< 50	< 100
SK-93	NY-W	< 50	< 50	< 50	< 50	< 50	< 50	< 50	<u>36000</u>	< 50	< 50	< 100
SK-93	NY-N	<u>70</u>	< 50	< 50	< 50	< 50	< 50	< 50	<u>58000</u>	<u>68</u>	<u>230</u>	< 100
SK-93	NY-N	<u>67</u>	< 50	< 50	< 50	< 50	< 50	< 50	<u>55000</u>	<u>54</u>	<u>110</u>	< 100
SK-93	NY-D	<u>120</u>	< 50	< 50	< 50	< 50	< 50	< 50	<u>56000</u>	<u>190</u>	<u>600</u>	< 100
SK-93	NY-D	< 50	< 50	< 50	< 50	< 50	< 50	< 50	<u>48000</u>	< 50	< 50	< 100
SK-93	NY-D	<u>90</u>	< 50	< 50	< 50	< 50	< 50	< 50	<u>86000</u>	<u>270</u>	<u>440</u>	< 100
SK-93	NY-D	< 50	< 50	< 50	< 50	< 50	< 50	< 50	<u>28000</u>	< 50	<u>64</u>	< 100
SK-93	NY-N	<u>74</u>	< 50	< 50	< 50	< 50	< 50	< 50	<u>45000</u>	<u>210</u>	< 50	< 100
SW-93	IN	< 2500	< 2500	< 2500	< 2500	< 100	< 2500	< 2500	<u>82000</u>	< 2500	< 2500	< 5000
SW-93	IN	< 12	< 12	< 12	< 12	< 100	< 12	< 12	<u>46</u>	< 12	< 12	< 25
SW-93	IN	< 2500	< 2500	< 2500	< 2500	< 100	< 2500	< 2500	<u>78000</u>	< 2500	< 2500	< 5000
SW-93	IN	< 2500	< 2500	< 2500	< 2500	< 100	< 2500	< 2500	<u>71000</u>	< 2500	< 2500	< 5000
	MAX	120	0	0	0	0	0	0	100000	690	600	0
	MIN	0.12	0	0	0	0	0	0	46	54	64	0

Paint Gun Cleaner Wastes

Physical Properties and TCLP Metals Analysis, ppm

	Parameter	pH	SG	FP	As	Ba	Cd	Cr	Pb	Hg	Se	Ag
	Reg. Limit	<2; >12.5	na	< 140	5	100	1	5	5	0.2	1	5
LAB	SITE											
W-90	DE	6	0.851	<u>75</u>	< 0.05	1	< 0.05	0.21	0.3	< 0.01	< 0.05	< 0.05
W-90	DO	6.5	0.937	<u>75</u>	< 0.05	0.6	0.72	0.72	2.4	< 0.01	< 0.05	< 0.05
E-91	LE	6.2	0.872	<u>73</u>	< 1.0	1	0.47	1.1	0.71	< 0.002	< 0.1	< 0.1
E-91	DO	6.6	0.889	<u>77</u>	< 1.0	< 0.1	< 0.05	0.17	< 0.05	< 0.002	< 0.05	< 0.1
S-92	DE		0.9	< 80	< 0.50	1.78	< 0.35	0.38	0.62	< 0.002	< 0.30	< 0.45
S-92	LE		0.834	< 73	< 0.45	0.56	< 0.05	0.14	0.67	< 0.0008	< 0.55	< 0.10
E-91	LE	6.2	0.864	<u>73</u>	< 1.0	1.4	0.41	0.86	< 0.5	< 0.002	< 0.1	< 0.1
E-91	DO	6.6	0.731	<u>84</u>	< 1.6	6.2	0.73	1.8	1.9	< 0.016	< 0.16	< 0.16
S-92	NY06		0.86	< 73	< 0.45	0.25	< 0.05	0.08	0.38	< 0.0008	< 0.55	< 0.10
E-93	CO				< 5.0	< 0.50	< 0.25	0.57	< 2.5	< 0.10	< 0.25	< 0.50
	MAX	6.6	0.937	84	0	6.2	0.73	1.8	2.4	0	0	0
	MIN	6	0.731	73	0	0.25	0.41	0.08	0.3	0	0	0

Paint Gun Cleaner Wastes

TCLP Semi Volatiles Analysis, ppm

	Parameter	cresol	2,4-DNT	Cl6-benz	Cl6-13-but	Cl6-eth	nitrobenz	Cl5-phenol	pyridine	2,4,5-TCP	2,4,6-TCP
	Reg. Limit	200	0.13	0.13	0.5	3	2	100	5	400	2
LAB	SITE										
W-90	DE	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.17	< 0.17	< 0.033	< 0.033
W-90	DO	9.7	< 2.6	< 2.6	< 2.6	< 2.6	< 2.6	< 13	< 13	< 2.6	< 2.6
E-91	LE	< 10.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 25.0	< 10.0	< 25.0	< 5.0
E-91	DO	< 10.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 25.0	< 10.0	< 25.0	< 5.0
S-92	DE	0.12	< 0.036	< 0.070	< 0.95	< 0.080	< 0.031	< 0.450	< 0.045	< 0.022	0.19
S-92	LE	0.421	< 0.036	< 0.070	< 0.095	< 0.080	< 0.031	< 0.450	< 0.045	< 0.022	< 0.030
E-91	LE	< 10.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 25.0	< 10.0	< 25.0	< 5.0
E-91	DO	< 360	< 180	< 180	< 180	< 180	< 180	< 900	< 360	< 900	< 180
S-92	NY06	0.198	< 0.036	< 0.070	< 0.095	< 0.080	< 0.031	< 0.450	0.045	< 0.022	< 0.030
E-93	CO	< 2000	< 2000	< 2000	< 2000	< 2000	< 2000	< 10000	< 4000	< 10000	< 2000
	MAX	9.7	0	0	0	0	0	0	0.045	0	0.19
	MIN	0.12	0	0	0	0	0	0	0.045	0	0.19

Paint Gun Cleaner Wastes

TCLP Volatiles Analysis, ppm

	Parameter	benzene	CCI4	Clbenz	CHCl3	1,4-DCIB	1,2-DCA	1,1-DCE	MEK	PCE	TCE	VChloride
	Reg. Limit	0.5	0.5	100	6	7.5	0.5	0.7	200	0.7	0.5	0.2
LAB	SITE											
W-90	DE	0.18	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	<u>4000</u>	< 0.10	< 0.10	< 0.20
W-90	DO	0.14	< 0.10	< 0.10	< 0.10	< 0.10	0.12	< 0.10	> 200	0.61	<u>1.6</u>	< 0.20
E-91	LE	< 10000	< 10000	< 10000	< 10000	< 5.0	< 10000	< 10000	<u>23000</u>	< 10000	< 10000	< 20000
E-91	DO	< 120	< 120	< 120	< 120	< 5.0	< 120	< 120	< 250	< 120	< 120	< 250
S-92	DE	0.26	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.5	< 0.1	< 0.1	< 0.14
S-92	LE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.5	0.2	< 0.1	< 0.14
E-91	LE	< 2200	< 2200	< 2200	< 2200	< 5.0	< 2200	< 2200	<u>6500</u>	< 2200	< 2200	< 4400
E-91	DO	< 500	< 500	< 500	< 500	< 180	< 500	< 500	< 1000	< 500	< 500	< 1000
S-92	NY06	0.12	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	<u>220</u>	< 0.1	< 0.1	< 0.14
E-93	CO	< 860	< 860	< 860	< 860	< 2000	< 860	< 860	<u>19000</u>	< 860	< 860	<u>1700</u>
	MAX	0.26	0	0	0	0	0.12	0	23000	0.61	1.6	1700
	MIN	0.12	0	0	0	0	0.12	0	220	0.2	1.6	1700

Parts Washer Distillation Bottoms Wastes

Physical Properties and TCLP Metals Analysis, ppm

LAB	SITE	Parameter Reg. Limit	pH <2; >12.5	SG na	FP < 140	As 5	Ba 100	Cd 1	Cr 5	Pb 5	Hg 0.2	Se 1	Ag 5
M-90	CL		6	na	> 160	< 0.5	0.31	0.49	< 0.01	1.8	< 0.001	< 0.2	< 0.01
W-90	DE		7.5	0.79	<u>80</u>	< 0.05	0.9	0.57	< 0.05	<u>11</u>	< 0.01	< 0.05	< 0.05
W-90	EL		7.5	na	> 200	< 0.05	< 0.3	0.44	< 0.05	0.6	< 0.01	< 0.05	< 0.05
W-90	HE		5.5	na	<u>135</u>	< 0.05	0.7	0.19	< 0.05	1.9	< 0.01	< 0.05	< 0.05
M-90	LE		6	na	> 160	< 0.5	0.8	<u>1.2</u>	0.42	<u>8.3</u>	< 0.001	< 0.2	< 0.01
M-90	MA		6.5	na	<u>125</u>	< 0.5	< 1.0	0.062	0.012	0.84	< 0.001	< 0.2	< 0.01
C-90	RE		7.5	0.86	> 160	< 50	1	< 1	< 1	<u>13</u>	< 0.05	< 50	< 30
E-91	CL		9.4	na	> 160	< 5.0	32.9	<u>7.7</u>	<u>5.3</u>	<u>122</u>	< 0.002	< 0.5	< 0.5
E-91	EL		7.2	na	> 160	< 5.0	28.8	<u>6.5</u>	<u>5.8</u>	<u>132</u>	< 0.002	< 1.0	< 0.5
S-92	CL				166	< 0.500	0.63	0.56	< 0.250	1.38	< 0.00200	< 0.300	< 0.450
S-92	DE			0.8976	169	< 0.50	0.51	0.65	< 0.25	<u>7.6</u>	< 0.002	< 0.30	< 0.45
S-92	HE			0.86	180	< 0.45	0.46	0.31	< 0.05	<u>5.12</u>	0.005	< 0.55	< 0.10
N-92	CA73		7.8	0.88	195	< 0.30	48.8	<u>14.4</u>	<u>6.92</u>	<u>169</u>	0.07	< 1.0	< 0.40
		MAX	9.4	0.8976	195	0	48.8	14.4	6.92	169	0.07	0	0
		MIN	5.5	0.79	80	0	0.31	0.062	0.012	0.6	0.005	0	0

Parts Washer Distillation Bottoms Wastes

TCLP Volatiles Analysis, ppm

LAB	SITE	Parameter Reg. Limit	benzene 0.5	CCl4 0.5	Clbenz 100	CHCl3 6	1,4-DCIB 7.5	1,2-DCA 0.5	1,1-DCE 0.7	MEK 200	PCE 0.7	TCE 0.5	VChloride 0.2
M-90	CL		< 0.10	< 0.10	< 0.10	< 0.10	< 0.20	< 0.10	< 0.10	< 2.0	< 0.10	< 0.10	< 0.20
W-90	DE		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 2.0	< 0.10	0.17	< 0.20
W-90	EL		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 2.0	< 0.10	< 0.10	< 0.20
W-90	HE		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 2.0	< 0.10	< 0.10	< 0.20
M-90	LE		< 0.10	< 0.10	< 0.10	< 0.10	0.93	< 0.10	< 0.10	< 2.0	0.61	0.12	< 0.20
M-90	MA		< 0.10	< 0.10	< 0.10	0.15	< 0.20	< 0.10	< 0.10	< 2.0	< 0.10	< 0.10	< 0.20
C-90	RE		< 0.05	< 0.05	< 0.05	< 0.05	< 0.1	< 0.05	< 0.05	< 1	< 0.05	< 0.05	< 0.1
E-91	CL		< 0.025	< 0.025	< 0.025	< 0.025	< 200	< 0.025	< 0.025	< 0.05	< 0.025	< 0.025	< 0.05
E-91	EL												
S-92	CL		< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.500	< 0.100	< 0.100	< 0.140
S-92	DE		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	38	< 0.1	< 0.1	< 0.2
S-92	HE		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.5	3.3	12.6	< 0.14
N-92	CA73		< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10	8.4	< 5.0	< 5.0
		MAX	0	0	0	0.15	0.93	0	0	38	8.4	12.6	0
		MIN	0	0	0	0.15	0.93	0	0	38	0.61	0.12	0

Parts Washer Solvent Wastes

TCLP Semi Volatiles Analysis, ppm

LAB	SITE	Parameter Reg. Limit	cresol 200	2,4-DNT 0.13	Cl6-benz 0.13	Cl6-13-but 0.5	Cl6-eth 3	nitrobenz 2	Cl5-phenol 100	pyridine 5	2,4,5-TCP 400	2,4,6-TCP 2
M-90	CL		9	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.17	< 0.17	< 0.033	< 0.033
W-90	DE		3	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.17	< 0.17	< 0.033	< 0.033
W-90	EL		6.7	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 5.0	< 1.0	< 1.0
W-90	HE		< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 1.6	< 1.6	< 0.33	< 0.33
M-90	LE		< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.17	< 0.17	< 0.033	< 0.033
M-90	MA		< 0.67	4.4	< 0.67	< 0.67	< 0.67	< 0.67	< 3.3	< 3.3	< 0.67	< 0.67
E-91	CL		< 20000	< 10000	< 10000	< 10000	< 10000	< 10000	< 50000	< 20000	< 50000	< 10000
E-91	EL		< 10000	< 5000	< 5000	< 5000	< 5000	< 5000	< 25000	< 10000	< 25000	< 5000
S-92	CL		< 234	< 144	< 280	< 380	< 320	< 124	< 1800	< 180	< 90.0	< 118
N-92	CA70		< 10	< 10	< 10	< 10	< 10	< 10	< 50	< 10	< 50	< 10
N-92	CA71		< 10	< 10	< 10	< 10	< 10	< 10	< 50	< 10	< 50	< 10
G-93	FA											
G-93	BI											
E-93	NM		< 2000	< 2000	< 2000	< 2000	< 2000	< 2000	< 10000	< 4000	< 10000	< 2000
E-93	CO		< 2000	< 2000	< 2000	< 2000	< 2000	< 2000	< 10000	< 4000	< 10000	< 2000
SW-93	NJ-V		< 15	< 15	< 15	< 15	< 15	< 15	< 30	< 15	< 30	< 15
SW-93	TN-D		< 30	< 30	< 30	< 30	< 30	< 30	< 150	< 30	< 150	< 30
SW-93	KS-D		< 10	< 10	< 10	< 10	< 10	< 10	< 50	< 10	< 50	< 10
SW-93	KS-E		< 10	< 10	< 10	< 10	< 10	< 10	< 50	< 10	< 50	< 10
SW-93	WW-W		< 10	< 10	< 10	< 10	< 10	< 10	< 50	< 10	< 50	< 10
SW-93	KS-W		< 4	< 4	< 4	< 4	< 4	< 4	< 20	< 4	< 20	< 4
SW-93	TN-N		< 400	< 400	< 400	< 400	< 400	< 400	< 2000	< 400	< 2000	< 400
SW-93	TN-K		< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	< 2500	< 1000	< 2500	< 1000
SW-93	NJ-N		< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000
SW-93	CL		< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	< 2500	< 1000	< 2500	< 1000
SW-93	CL		39	< 10	< 10	< 10	< 10	< 10	< 50	< 10	< 50	< 10
SK-93	NY-C		< 1466	< 2119	< 2200	< 4913	< 5977	< 3431	< 17470	< 7084	< 2065	< 7111
SK-93	NY-C		< 1466	< 2119	< 2200	< 4913	< 5977	< 3431	< 17470	< 7084	< 2065	< 7111
SK-93	NY-W		< 1466	< 2119	< 2200	< 4913	< 5977	< 3431	< 17470	< 7084	< 2065	< 7111
SK-93	NY-D		< 1466	< 2119	< 2200	< 4913	< 5977	< 3431	< 17470	< 7084	< 2065	< 7111
SK-93	NY-D		< 1466	< 2119	< 2200	< 4913	< 5977	< 3431	< 17470	< 7084	< 2065	< 7111
SK-93	NY-W		< 1466	< 2119	< 2200	< 4913	< 5977	< 3431	< 17470	< 7084	< 2065	< 7111
SK-93	NY-W		< 1466	< 2119	< 2200	< 4913	< 5977	< 3431	< 17470	< 7084	< 2065	< 7111
SK-93	NY-N		< 1466	< 2119	< 2200	< 4913	< 5977	< 3431	< 17470	< 7084	< 2065	< 7111
SK-93	NY-N		< 1466	< 2119	< 2200	< 4913	< 5977	< 3431	< 17470	< 7084	< 2065	< 7111
SK-93	NY-D		< 1466	< 2119	< 2200	< 4913	< 5977	< 3431	< 17470	< 7084	< 2065	< 7111
SK-93	NY-D		< 1466	< 2119	< 2200	< 4913	< 5977	< 3431	< 17470	< 7084	< 2065	< 7111
SK-93	RE-W		< 1466	< 2119	< 2200	< 4913	< 5977	< 3431	< 17470	< 7084	< 2065	< 7111
SK-93	RE-C		< 1466	< 2119	< 2200	< 4913	< 5977	< 3431	< 17470	< 7084	< 2065	< 7111
SW-93	IN		< 500	< 500	< 500	< 500	< 500	< 500	< 500	< 500	< 500	< 500
SW-93	IN		< 4	< 4	< 4	< 4	< 4	< 4	< 20	< 4	< 20	< 4
SW-93	IN		< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000
SW-93	IN		< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000
SK-93	NY-N		5.9	< 0.550	< 0.550	< 1.200	< 1.500	< 0.850	< 4.400	< 1.800	< 0.500	< 1.800
SK-93	NY-N		< 1466	< 2119	< 2200	< 4913	< 5977	< 3431	< 17470	< 7084	< 2065	< 7111

Parts Washer Solvent Wastes

TCLP Volatiles Analysis, ppm

LAB	SITE	Parameter Reg. Limit	benzene 0.5	CCI4 0.5	Clbenz 100	CHCl3 6	1,4-DCIB 7.5	1,2-DCA 0.5	1,1-DCE 0.7	MEK 200	PCE 0.7	TCE 0.5	VChloride 0.2	
M-90	CL		< 0.10	< 0.10	< 0.10	< 0.10	< 0.20	< 0.10	< 0.10	< 2.0	0.61	< 0.10	< 0.20	
W-90	DE		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 2.0	0.16	< 0.10	< 0.20	
W-90	EL		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	3.9	<u>2.8</u>	< 0.10	< 0.20	
W-90	HE		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 2.0	< 0.10	0.49	< 0.20	
M-90	LE		< 0.10	< 0.10	< 0.10	< 0.10	< 0.20	< 0.10	< 0.10	< 2.0	0.58	< 0.10	< 0.20	
M-90	MA		0.15	< 0.10	< 0.10	0.41	< 0.20	< 0.10	< 0.10	< 2.0	0.15	< 0.10	< 0.20	
E-91	CL		< 5000	< 5000	< 5000	< 5000	< 10000	< 5000	< 5000	< 10000	< 5000	< 5000	< 10000	
E-91	EL		< 120	< 120	< 120	< 120	< 5000	< 120	< 120	< 250	< 120	< 120	< 250	
S-92	CL		<u>6.47</u>	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.500	<u>33.5</u>	<u>4.52</u>	< 0.140	
N-92	CA70		< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10	<u>1500</u>	< 5.0	< 5.0	
N-92	CA71		< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10	<u>1800</u>	< 5.0	< 5.0	
G-93	FA		< 100	< 100	< 100	< 100	< 200	< 100	< 100	< 400	<u>4600</u>	< 100	< 200	
G-93	BI		< 50	< 50	< 50	< 50	< 100	< 50	< 50	< 200	<u>420</u>	< 50	< 100	
E-93	NM		< 1200	< 1200	< 1200	< 1200	< 1200	< 1200	< 1200	< 2500	< 1200	< 1200	< 2500	
E-93	CO		< 390	< 390	< 390	< 390	< 2000	< 390	< 390	< 780	< 390	< 390	< 780	
SW-93	NJ-V		< 250	< 250	< 250	< 250	< 15	< 250	< 250	<u>3000</u>	<u>2300</u>	< 250	< 500	
SW-93	TN-D		< 5.0	< 5.0	< 5.0	< 5.0	< 30.0	< 5.0	< 5.0	< 10.0	<u>160</u>	<u>5.6</u>	< 10.0	
SW-93	KS-D		< 0.025	< 0.025	< 0.025	< 0.025	< 10.0	< 0.025	< 0.025	0.230	0.16	< 0.025	< 0.050	
SW-93	KS-E		< 0.025	< 0.025	< 0.025	< 0.025	< 10.0	< 0.025	< 0.025	0.32	0.18	0.047	< 0.050	
SW-93	WW-W		< 0.025	< 0.025	< 0.025	< 0.025	<u>12</u>	< 0.025	< 0.025	0.67	0.83	0.048	< 0.050	
SW-93	KS-W		< 0.50	< 0.50	< 0.50	< 0.50	< 4	< 0.50	< 0.50	< 1.0	0.92	< 0.50	< 1.0	
SW-93	TN-N		< 250	< 250	< 250	< 250	< 400	< 250	< 250	< 500	<u>950</u>	< 250	< 500	
SW-93	TN-K		< 250	< 250	< 250	< 250	< 1000	< 250	< 250	< 500	<u>10000</u>	< 250	< 500	
SW-93	NJ-N		< 250	< 250	< 250	< 250	< 1000	< 250	< 250	< 500	<u>1700</u>	< 250	< 500	
SW-93	CL		< 250	< 250	< 250	< 250	< 1000	< 250	< 250	< 500	<u>2500</u>	< 250	< 500	
SW-93	CL		< 2500	< 2500	< 2500	< 2500	< 10	< 2500	< 2500	<u>13000</u>	< 2500	< 2500	< 5000	
SK-93	NY-C		< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 250	<u>1400</u>	<u>53</u>	< 100	
SK-93	NY-C		< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 250	<u>2700</u>	< 50	< 100	
SK-93	NY-W		< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 250	<u>410</u>	< 50	< 100	
SK-93	NY-D		< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 250	<u>1500</u>	< 50	< 100	
SK-93	NY-D		< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 250	<u>3400</u>	< 50	< 100	
SK-93	NY-W		< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 250	<u>1200</u>	< 50	< 100	
SK-93	NY-W		< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 250	<u>1100</u>	< 50	< 100	
SK-93	NY-N		< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 250	<u>1800</u>	< 50	< 100	
SK-93	NY-N		< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 250	<u>1600</u>	< 50	< 100	
SK-93	NY-D		< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 250	<u>1400</u>	< 50	< 100	
SK-93	NY-D		< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 250	<u>2100</u>	< 50	< 100	
SK-93	RE-W		< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 250	<u>260</u>	<u>670</u>	< 50	< 100
SK-93	RE-C		< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 250	<u>1000</u>	<u>62</u>	< 100	
SW-93	IN		< 830	< 830	< 830	< 830	< 500	< 830	< 830	<u>3000</u>	<u>12000</u>	< 830	< 1700	
SW-93	IN		< 100	< 100	< 100	< 100	< 4	< 100	< 100	< 200	<u>2600</u>	< 100	< 200	
SW-93	IN		< 2500	< 2500	< 2500	< 2500	< 1000	< 2500	< 2500	<u>710</u>	<u>1800</u>	< 2500	< 5000	
SW-93	IN		< 2500	< 2500	< 2500	< 2500	<u>505</u>	< 2500	< 2500	<u>610</u>	< 2500	< 2500	< 5000	
SK-93	NY-N		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.5	<u>1.3</u>	< 0.1	< 0.14	
SK-93	NY-N		< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 250	<u>1900</u>	< 50	< 100	
		MAX	6.47	0	0	1	505	0	0	13000	12000		0	

Parts Washer Solvent Sludge

Physical Properties and TCLP Metals Analysis, ppm

LAB	SITE	Parameter Reg. Limit	pH <2; >12.5	SG na	FP < 140	As 5	Ba 100	Cd 1	Cr 5	Pb 5	Hg 0.2	Se 1	Ag 5
E-91	CL		9.2	1.019	<u>115</u>	< 5.0	4.5	<u>2.1</u>	1.6	<u>25.1</u>	0.016	< 0.25	< 0.5
S-92	CL				<u>101</u>	< 0.630	2.04	<u>1.74</u>	< 0.310	2.89	0.01	< 0.420	< 0.440
S-92	DE			1.47	> 200	< 0.50	0.53	0.66	0.26	<u>11.86</u>	< 0.002	< 0.30	< 0.45
S-92	HE			1.09	> 200	< 0.45	1.34	<u>1.3</u>	0.08	3.43	< 0.0008	< 0.55	< 0.10
G-93	FA				<u>105</u>	< 2.0	< 4.0	0.35	< 0.20	0.8	< 0.004	< 0.4	< 0.20
G-93	BI				<u>100</u>	< 2.0	< 4.0	0.6	< 0.20	0.9	< 0.004	< 0.4	< 0.20
E-93	NM					< 1.1	1.2	1	< 0.110	<u>20.1</u>	< 0.0040	< 0.053	< 0.11
SW-93	NJ-V		5.41	0.9	<u>113</u>	< 0.050	0.633	0.902	0.012	1.1	< 0.002	< 0.100	< 0.010
SW-93	TN-D		5.7	0.93	<u>122</u>	< 0.050	0.12	0.14	0.028	0.7	< 0.002	< 0.100	< 0.010
SW-93	GA-m		4.4	0.81	<u>125</u>	< 0.050	0.23	0.159	0.006	4.3	< 0.002	< 0.100	< 0.010
SW-93	GA-N		7.32	0.81	<u>130</u>	< 0.050	0.521	0.19	0.018	2.4	< 0.002	< 0.100	< 0.010
SW-93	WV-N		7.19	0.8	<u>120</u>	< 0.050	0.064	0.056	< 0.005	0.089	< 0.002	< 0.100	< 0.010
SW-93	WV-N		7.54	0.8	<u>122</u>	< 0.050	0.036	0.022	< 0.005	< 0.05	< 0.002	< 0.100	< 0.010
SW-93	WV-N		6.77	0.84	<u>129</u>	< 0.050	3	1.2	0.016	0.445	< 0.002	< 0.100	< 0.010
SW-93	WV-N		6.21	0.81	<u>120</u>	< 0.050	0.075	0.037	< 0.005	0.307	< 0.002	< 0.100	< 0.010
SW-93	KS-E		8.37	0.98	<u>120</u>	< 0.050	0.227	<u>1.4</u>	0.012	<u>45</u>	< 0.002	< 0.100	< 0.010
SW-93	GA-C		7.32	1.08	<u>114</u>	< 0.050	1.846	0.497	0.033	0.919	< 0.002	< 0.100	< 0.010
SW-93	GA-M		6.8	1.12	<u>118</u>	0.194	0.885	0.439	0.061	0.464	< 0.002	< 0.100	< 0.010
SW-93	WV-W		9.4	0.78	<u>115</u>	< 0.050	0.1	0.024	0.007	0.236	< 0.002	< 0.100	< 0.010
SW-93	GA-G		7.28	0.83	<u>93</u>	< 0.050	0.747	0.761	0.062	0.317	< 0.002	< 0.100	< 0.010
SW-93	TN-N		6.68	1.4	<u>120</u>	< 0.050	0.245	0.307	0.037	0.447	< 0.002	< 0.100	< 0.010
SW-93	TN-K		6.48	0.9	<u>122</u>	< 0.050	1.2	0.573	0.123	3.5	0.055	< 0.100	< 0.010
SW-93	NJ-N		6.91	1.343	<u>116</u>	< 0.050	0.435	0.618	0.307	2.9	< 0.002	< 0.100	< 0.010
SW-93	CL		9.27	1.1	<u>114</u>	< 0.050	0.11	0.054	0.009	0.29	< 0.002	< 0.100	< 0.010
SW-93	CL		8.26	0.92	<u>119</u>	< 0.050	0.054	0.07	0.018	0.079	< 0.002	< 0.100	< 0.010
SK-93	NY-N		7.84	0.93	<u>114</u>	< 0.45	1.468	<u>3.653</u>	0.741	<u>14.85</u>	0.0015	< 0.550	< 0.10
SW-93	TN-N		6.4	0.73	<u>116</u>	0.050	1.2	<u>1.1</u>	0.159	1.9	< 0.002	< 0.100	< 0.010
SW-93	TN-N		8.69	1.2	166	< 0.05	0.95	0.48	0.46	<u>6.15</u>	0.006	< 0.100	0.012
SK-93	RE-C		7.41	0.88	> 200	< 0.45	0.331	0.7755	< 0.050	1.379	< 0.0008	< 0.550	< 0.10
		MAX	9.4	1.47	166	0.194	4.5	3.653	1.6	45	0.055	0	0.012
		MIN	4.4	0.73	93	0.194	0.036	0.022	0.006	0.079	0.0015	0	0.012

Parts Washer Solvent Sludge

TCLP Volatiles Analysis, ppm

LAB	SITE	Parameter Reg. Limit	benzene 0.5	CCl4 0.5	Clbenz 100	CHCl3 6	1,4-DCIB 7.5	1,2-DCA 0.5	1,1-DCE 0.7	MEK 200	PCE 0.7	TCE 0.5	VChloride 0.2
E-91	CL		< 5000	< 5000	< 5000	< 5000	< 1000	< 5000	< 5000	< 10000	< 5000	< 5000	< 10000
S-92	CL		< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	2.6	0.48	< 0.100	< 0.140
S-92	DE		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.5	<u>3.5</u>	< 0.1	< 0.14
S-92	HE		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5	0.6	< 0.5	< 0.7
G-93	FA		< 60	< 60	< 60	< 60	< 120	< 60	< 60	< 250	<u>710</u>	< 60	< 120
G-93	BI		< 60	< 60	< 60	< 60	< 120	< 60	< 60	< 250	<u>100</u>	< 60	< 120
E-93	NM		< 38	< 38.6	< 38	< 38	< 18	< 38	< 38	< 77.1	< 38.7	< 38	< 77
SW-93	NJ-V		< 0.250	< 0.250	< 0.250	< 0.250	< 0.50	< 0.250	< 0.250	< 0.500	<u>0.85</u>	< 0.250	< 0.500
SW-93	TN-D		< 0.1	< 0.1	< 0.1	< 0.1	< 2.0	< 0.1	< 0.1	< 0.2	0.15	< 0.1	< 0.2
SW-93	GA-m		< 0.025	< 0.025	< 0.025	< 0.025	< 0.10	< 0.025	< 0.025	< 0.050	0.054	< 0.025	< 0.050
SW-93	GA-N		< 0.025	< 0.025	< 0.025	< 0.025	< 0.020	< 0.025	< 0.025	< 0.050	0.13	< 0.025	< 0.050
SW-93	WV-N		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	<u>15</u>	< 50.0	< 1.0	< 1.0	< 50.0
SW-93	WV-N		< 0.250	< 0.250	< 0.250	< 0.250	< 10	< 0.250	< 0.250	1	<u>2</u>	< 0.250	< 0.250
SW-93	WV-N		< 0.025	< 0.025	< 0.025	< 0.025	< 0.100	< 0.025	< 0.025	< 0.500	0.39	< 0.025	< 0.500
SW-93	WV-N		< 0.025	< 0.025	< 0.025	0.23	1.9	< 0.025	< 0.025	< 0.500	0.66	< 0.025	< 0.500
SW-93	KS-E		0.068	< 0.050	< 0.050	< 0.050	<u>10</u>	< 0.050	< 0.050	1.4	0.55	0.12	< 0.100
SW-93	GA-C		0.066	< 0.025	< 0.025	< 0.025	< 10	< 0.025	< 0.025	0.41	0.26	< 0.025	< 0.050
SW-93	GA-M		0.043	< 0.025	< 0.025	< 0.025	< 10	< 0.025	< 0.025	< 0.050	0.23	< 0.025	< 0.050
SW-93	WV-W		0.094	< 0.025	< 0.025	< 0.025	< 40	< 0.025	< 0.025	< 0.050	<u>0.77</u>	0.046	< 0.050
SW-93	GA-G		0.08	< 0.025	< 0.025	< 0.025	< 2.0	< 0.025	< 0.025	< 0.050	0.15	< 0.025	< 0.050
SW-93	TN-N		0.1	< 0.05	< 0.05	< 0.05	< 2.0	< 0.05	< 0.05	0.51	0.28	< 0.05	< 0.10
SW-93	TN-K		< 10	< 10	< 10	< 10	< 0.100	< 10	< 10	49.1	< 10	< 10	< 20
SW-93	NJ-N		< 5.0	< 5.0	< 5.0	< 5.0	< 1.0	< 5.0	< 5.0	23	< 5.0	< 5.0	< 10
SW-93	CL		< 0.25	< 0.25	< 0.25	< 0.25	< 2.0	< 0.25	< 0.25	1.5	0.6	< 0.25	< 0.50
SW-93	CL		< 5.0	< 5.0	< 5.0	< 5.0	< 10	< 5.0	< 5.0	< 10	<u>7.1</u>	< 5.0	< 10
SK-93	NY-N		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	0.5	<u>1.3</u>	< 0.1	< 0.14
SW-93	TN-N		< 0.05	< 0.05	< 0.05	< 0.05	< 2	< 0.05	< 0.05	< 0.10	0.1	0.074	< 0.10
SW-93	TN-N		< 12.5	< 12.5	< 12.5	< 12.5	< 200	< 12.5	< 12.5	< 25	< 12.5	<u>20</u>	< 25
SK-93	RE-C		< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.500	< 0.100	< 0.100	< 0.140
		MAX	0.1	0	0	0.23	10	0	15	49.1	710	20	0
		MIN	0.043	0	0	0.23	1.9	0	15	0.41	0.054	0.046	0

Attachment II.A.6

Waste Analysis Plan

ATTACHMENT II.A.6

WASTE ANALYSIS PLAN

General

Safety-Kleen provides solvent distribution, collection, and reclamation services to companies that are primarily engaged in automobile repair, industrial maintenance and dry cleaning services. 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, recycled fluids. The dirty fluids are returned to Safety-Kleen where they are recycled and subsequently reused by their customers. Approximately two-thirds of the cleaning fluids provided as product by Safety-Kleen has been used before and subsequently reclaimed. Safety-Kleen's customers are typically small quantity generators who operate businesses which generate only a few hazardous waste streams. These factors help ensure 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, as discussed earlier in the Facility Description (Attachment I.D.2), the materials collected at the Service Center 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 all materials before returning them to the service centers. 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 non-conforming material must not be accepted until a full analysis 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:

1. Limiting the solvents stored to those compatible with one another and their containers;
2. Determining the customer's type of business (i.e., his Standard Industrial Classification (SIC) code is recorded) and the purpose for which he will use the machine;
3. Training customers to use the machines properly;

4. Training employees to inspect spent solvent and determine whether it is acceptable;
5. Indicating on the service document, every time waste is collected, whether the spent solvent meets Safety-Kleen's acceptance criteria;
6. Marking each container with the customer's name, address, and EPA I.D. number (if required). This information remains on containerized waste until it is accepted at the reclamation facility;
7. Keeping a record of each incoming and outgoing shipment in the operating log at each facility;
8. Demonstrating the chemical and physical homogeneity of the wastes by sampling and analyzing a representative portion of individual generator waste streams on an ongoing annual basis; and
9. Routine analysis of the wastes received at the Recycle Centers.

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

1. The name, address, and EPA I.D. number of the facility to which the waste is being shipped;
2. The customer's name, address, and EPA I.D. number (if required); and
3. 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 must complete an acceptance criteria checklist each time a waste is picked up. Finally, environmental activity reviews may be utilized to guard against the addition of other wastes into the generator's waste.

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 he will dispose of the waste himself or will require Safety-Kleen's assistance. If he requests Safety-Kleen's assistance, a sample will be drawn using a Coliwas[®] 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 solvents, polychlorinated biphenyls (PCBs), flash point, etc.). If the waste is acceptable at the branch, it will be relabeled and manifested appropriate 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

Safety-Kleen visually inspects each container of waste when it is collected 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 at the Florida facilities as described in Attachment II.A.5. Safety-Kleen has established specific criteria for wastes 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 wastes 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 Safety-Kleen 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 generator will be responsible for securing an alternate means of disposal and Safety-Kleen will attempt to reconcile the discrepancy with the generator (e.g., telephone conversations). If the discrepancy is not resolved within 15 days after receiving the waste, Safety-Kleen will immediately submit to the department a letter describing the discrepancy and attempts to reconcile it, and it will submit a copy of the manifest or shipping paper at issue, in accordance with 40 Code of Federal Regulations (CFR) 264.72.

Waste Specific Criteria

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

Spent Parts Washer Solvent (Parts Cleaner 105, Premium Solvent, and Actrel®)

The acceptance criteria for determining by visual inspection whether spent parts washer solvent has been contaminated are volume and color, the most significant of which is volume. Safety-Kleen places clean parts washer solvent in 5-, 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 5, 10, and 19 gallons of waste, respectively, at the time of waste pick-up since those volumes are equal to the respective product amounts in the containers. If the volume of waste in a given container exceeds the specified level, the Safety-Kleen service representative will sample the waste for laboratory testing as described above, or will reject the waste.

The spent parts washer solvent is also visually inspected for its color. Unused parts washer solvent (Parts Cleaner 105 and Premium Solvent) has a greenish tint. The Actrel® parts cleaner is colorless. As the solvent (Parts Cleaner 105, Premium Solvent, and Actrel®) is used, it turns color. The specific color which the solvent turns is dependent upon the type of equipment being cleaned. For example, solvent used at automotive shops turns brown or black, while solvent used by silk screeners will turn 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 will sample the waste for possible contamination as described above, or 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 will be collected and analyzed for contamination following the procedures described above or the 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 brown 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 will either sample the waste for possible contamination as described above, or reject the container of waste.

Dry Cleaner Wastes

Dry cleaner wastes consist of spent filter cartridges, powder residue, and still bottoms:

Spent Filter Cartridges

Spent filter cartridges are placed in either a 15-gallon ("split 30") container which holds three cartridges or a 16-gallon container which holds either one jumbo filter cartridge or two smaller filter cartridges. It is obvious to the 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 have a 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 will sample the waste for contamination in accordance with the procedures described above, or 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 the consistency of a paste. If there is too much liquid in the container, the waste will 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 greyish-black. If the residue is not greyish-black in color, the service representative will sample the waste for contamination in accordance with the procedures described above, or 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 will be sampled for contamination in accordance with the procedures described above, or 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 will sample the waste for contamination in accordance with the procedures described above, or will reject the waste.

Paint Wastes

Safety-Kleen handles both lacquer thinner waste generated from the paint gun cleaning process and paint waste:

Lacquer Thinner Waste

The significant criterion for determining whether lacquer thinner waste will be accepted is volume. The solvent is provided to customers in five-gallon pails. The paint gun cleaning machine operates as a closed system whereby there should never be a combined volume of more than 7.5 gallons of solvent in the two collection pails.

The solvent is pumped from a tube in a left hand pail (facing the machine) through the machine into a right hand pail. The tube in the left hand pail extends exactly half way into the pail (i.e., to the 2.5 gallon mark). The left hand pail starts with five gallons of clean solvent which will be pumped out as the machine is used to clean the spray guns. This process will continue until the left hand pail contains 7.5 gallons of solvent. Any solvent above 7.5 gallons remaining in the left hand pail at the time of servicing will be pumped through the machine into the right hand pail by the Safety-Kleen service representative. Therefore, when the machine is serviced, the right hand pail will always contain five gallons of solvent. If a service representative discovers more than a total of 7.5 gallons of solvent in the two pails or there is an overflow from the right hand pail, the waste will 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 service representative will insert a three-foot-long glass tube into the container. The tube should glide easily down to the bottom of the container. If there is resistance to the insertion of the glass tube, it is assumed that the level of solids is in excess of 30 percent and the service representative will reject the waste.

The contents of the glass tube are also visually examined for consistency and water content. The material should be a "free flowing" liquid, but should not contain a significant amount of water. If there is more than approximately 10 inches of water in the three-foot tube (the water and paint will separate in the tube and thus can be measured), the waste will be rejected.

Antifreeze Waste

Spent antifreeze is collected in carboys or containers at a customer's place of business until it is picked up by Safety-Kleen and pumped into a tanker truck. Prior to transferring the spent antifreeze into the tanker truck, the Safety-Kleen service representative is responsible for visually inspecting the waste. Spent antifreeze is typically yellowish green to blue in color with traces of orange, red, or black discoloration due to ferric oxide (i.e., rust). A slight sheen may be present on the surface of the spent antifreeze due to the presence of oils or other petroleum products. Sediment (brownish or black) may collect in the carboy due to particulate matter from vehicle engines, rust, dirt, or other matter.

If the spent antifreeze does not meet the criteria described above, the Safety-Kleen service representative may collect a sample of the waste for analysis or request that the customer analyze the waste.

Onsite Environmental Activity Review Program

Based on historical operating and analytical records, Safety-Kleen has determined that the characteristics of its customer's wastes (particularly the last 10 years) reflect that there has, in fact, been a continuing reduction in the trace levels of characteristically

toxic constituents in these wastes. Therefore, in concert with the sampling described in this waste analysis plan, Safety-Kleen may conduct reviews of customer's waste streams. This review, in addition to the analytical baseline of information, will confirm that the hazardous waste streams managed at the Service Centers under conditions of the Part B Permit do not change from year to year. Annual process descriptions may be performed for Large Quantity Generators (LQGs) and Small Quantity Generators (SQGs) that generate these wastes.

If a review occurs, it will be performed at the customer's site by the Safety-Kleen sales representative during their regular service calls. The Safety-Kleen representative will meet with a customer representative who is knowledgeable of the Safety-Kleen services used at the facility. The Safety-Kleen representative will conduct an inspection of the facility and interview the customer. The inspection and interview will be used to generate: a description of the customer's processes, an inventory of waste streams, the principal product(s) or service(s), and the purpose for which Safety-Kleen solvents are used. This information will be used to complete a review document which will be certified and signed by the customer's representative and the Safety-Kleen representative. A copy of the completed review document will be kept on file at the Service Center and copy will be provided to the customer.

Waste Analyses at the Recycle Facility

Analyses performed at the recycle facilities are undertaken to safeguard the recycling process and to assure the product quality. In addition, each waste stream 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 facility related to the hazardous materials returned from the service center:

- Table II.A.6-1 Parameters and Rationale for Hazardous Waste Identification
- Table II.A.6-2 Parameters and Test Methods
- Table II.A.6-3 Methods Used to Sample Hazardous Wastes
- Table II.A.6-4 Frequency of Analysis

In addition to the aforementioned analyses, TCLP analyses for all compounds, except pesticides, will be conducted every five years on all characteristic hazardous waste streams (example; used parts washer solvent and 699 IC). Any compounds which are positively detected in the waste stream will be added to the parameter list for that waste stream in Table II.A.6-1.

TABLE II.A.6-1

PARAMETERS AND RATIONALE
FOR HAZARDOUS WASTE IDENTIFICATION

Hazardous Waste	Parameter ^a	Rationale
1. Used Immersion Cleaner (6991C)	TCLP	May contain these compounds
2. Used Parts Washer Solvent	Flash Point TCLP	Ignitable characteristics D001; may contain these compounds
3. Parts Washer Solvent Tank Bottom Sludge and Free Water	TCLP Flash Point	The sludge and free water may contain these compounds and the sludge has a flash point of 105° F (D001)
4. Parts Washer Solvent Dumpster Mud	TCLP Flash Point	The sludge and free water may contain these compounds and the sludge has a flash point of 105° F (D001)
5. Dry Cleaning Wastes (Perchloroethylene)	Perchloroethylene TCLP	Contain ingredient of F002 or contains a hazardous constituent.
6. Paint Wastes	Toluene, Xylene, Methyl ethyl ketone, Methyl isobutyl ketone, Acetone, Isopropanol, Methanol, Ethanol, Normal butyl acetate, Isobutyl acetate, Cadmium, Chromium, Lead	Contains these components: F003, F005, D001, D006, D007, and D008

NOTE:

^a TCLP Waste Codes: D004-D011, D018, D019, D021-D030, D032-D043.

TABLE II.A.6-2

PARAMETERS AND TEST METHODS

Parameter	Test Method	Reference
pH	pH Meter	EPA 9045/SK9906
Flash Point	Tag closed cup tester	EPA 1030/SK9401
TCLP	Toxicity Characteristic Leaching Procedure	40 CFR 261, Appendix II
Hydrocarbons and Volatile Organics	Gas Chromatography (GC)	Modified Methods Based on "Test Methods for Evaluation of Solid Waste, Physical/Chemical Methods," SW-846, USEPA and ASTM Standards
Specific Gravity	Meter	ASTM D 891/SK9903

TABLE II.A.6-3

METHODS USED TO SAMPLE HAZARDOUS WASTES

Hazardous Waste	Reference for Sampling	Sampler	Description of Sampling Method
1. Used Immersion Cleaner (6991C)	Sampling a drum "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	Representative composite sample using drum sampler
2. Used Parts Washer Solvent	Sampling a tank "Samplers and Sampling Procedures for Hazardous Waste Streams," EPA/600/2-80/018	Same as 1	For tanks—Bomb sampler (similar to weighted bottle sampler)
3. Parts Washer Solvent, Tank Bottom Sludge, and Free Water	Same as 2	Same as 2	Same as 2
4. Parts Washer Solvent Dumpster Mud	Same as 1	Same as 1	Same as 1
5. Dry Cleaning Wastes (Perchloroethylene)	Same as 1	Same as 1	Same as 1
6. Paint Wastes	Same as 1	Same as 1	Same as 1

TABLE II.A.6-4

FREQUENCY OF ANALYSIS

Hazardous Waste	Frequency ^a
1. Used Immersion Cleaner 699	Gas chromatograph annually TCLP annually
2. Used Parts Washer Solvent	Gas chromatograph annually Flash point annually TCLP annually
3. Parts Washer Solvent, Tank Bottom Sludge, and Free Water	Gas chromatograph annually TCLP annually
4. Parts Washer Solvent Dumpster Mud	Gas chromatograph annually TCLP annually
5. Dry Cleaning Wastes (Perchloroethylene)	Gas chromatograph annually TCLP annually
6. Paint Wastes	Gas chromatograph annually TCLP annually

NOTE:

^a 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.

Attachment II.A.7

*Manifest System, Recordkeeping,
and Reporting*

ATTACHMENT II.A.7

MANIFEST SYSTEM, RECORDKEEPING, AND REPORTING

Procedure for Recordkeeping

Inasmuch as the parts washer solvent and immersion cleaner solvents are commercial products leased to the customer, shipments of the clean and used solvents and equipment are handled by invoices.

Quantities of clean solvents received from and used solvents shipped to the recycle center are always manifested as required. Shipments of parts washer solvent dumpster mud will also be manifested accordingly. FRS wastes are handled as transfer wastes and will be manifested accordingly (i.e., manifests are not terminated at the service center). The handling of FRS wastes as transfer wastes includes the provision to conduct truck-to-truck transfer of wastes. Required records will be kept at the service center and the recycle center until closure of the facility.

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 (CFR).

Manifest System

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.

An operating log which contains the information required under 40 CFR 264.73 will be maintained and all records and logs will be available at the facility, in accordance with 40 CFR 264.74.

Annual reports will be prepared and submitted by Safety-Kleen, and these records will also be available at the facility for review.

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 set 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 268.32 or RCRA section 3004(d). The notice will include the following information:
 - EPA Hazardous Waste Number; and
 - The corresponding treatment standards and all applicable prohibitions set forth in 40 CFR 268.32 or RCRA Section 3004(d).

Further, the 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."

Section 264.74 of 40 CFR 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.

A biennial report will be submitted to the Regional Administrator and/or FDEP by March 1 during each even numbered year (1990 being the first year) on EPA form 8700-13B. The report will cover facility activities during the previous calendar year and will include:

- The EPA identification number, and address of the facility;
- The calendar year covered by the report;
- The method of treatment, storage, or disposal for each hazardous waste;
- The most recent closure cost estimate under 40 CFR 264.142 and the most recent contingent post-closure cost estimate under 40 CFR 264.144; and
- A certification signed by the owner or operator of the facility or the authorized representative.

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. Printing the Notice language on the manifest such as for core-business customers to branch shipments; or
2. Special forms for each regularly handled waste types (e.g., parts washer solvent, immersion cleaner, and perchloroethylene); or
3. A general form that must be completed for unique or non-standard waste streams.

The Notice is required paperwork for the streams handled by Safety-Kleen. Shipments lacking the proper Notice will not be accepted by any Safety-Kleen facility. When a shipment with the proper 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.

Part II B

Containers

Attachment II.B.1

Containment System

ATTACHMENT II.B.1

CONTAINMENT SYSTEM

The container storage areas consist of two areas, the container storage area and the Fluid Recovery Service (FRS) or transfer waste area, both located in the warehouse. These areas are shown in Figure II.B.1-1.

The container storage area is a approximately 78' x 48' concrete floor with a containment trench with a containment capacity of 270 gallons. The sloped floor accounts for a containment capacity of 2,323.7 gallons. Maximum storage capacity for the warehouse is 25,937 gallons of which 6,912 gallons may be waste. Waste allowed for storage is immersion cleaner, dry cleaning solvent, parts washer solvent dumpster mud, tank bottoms, and paint waste. The remaining storage capacity (25,937 less 6,912 gallons) will be used for storage of fresh products and transfer wastes.

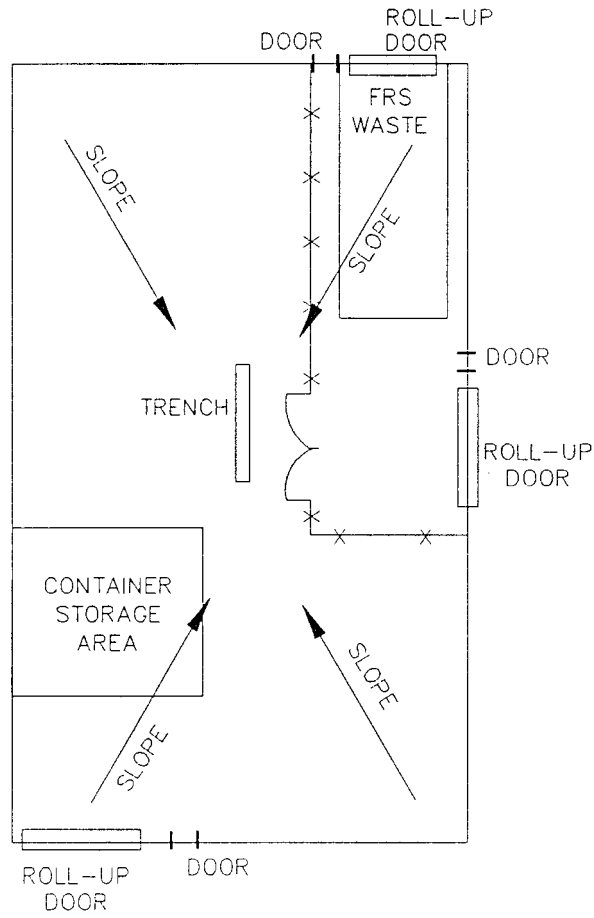
FRS wastes may be stored in the northeast portion of the warehouse. Since FRS wastes are transfer wastes only, they are not required to have containment.

The containment system has been sealed with an impermeable coating which is free of cracks. A stainless steel liner is provided for the trench. The liner has been attached to existing trench supports to create a seal. Spills are removed by a hand-held, portable electric pump (the COMS pump), wet-dry vacuum cleaner, or sorbent materials. The capacity of the containment system is designed to be greater than 10 percent of the total liquid storage capacity in the container storage area (Figure II.B.1-2). 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 recycle facility for recycling/reclamation. The recovered materials that can not be effectively reclaimed at the recycle facility will be, in turn, sent to a licensed facility for disposal.

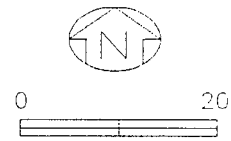
The floor has intentional sloping. Any spill which might occur would be directed toward the containment trench and/or sump. Only in the event that the spill were to exceed the containment capacity of the trench and sump would spilled wastes be able to extend beyond the containment area. Once outside the containment area the wastes would continue to be on a concrete surface. This is the same concrete surface which serves to protect soils and ground water from contamination due to spills occurring during loading/unloading. The concrete area around the garage door (loading/unloading) area has no intentional slope. Small spills would puddle, while large spills could be manually directed to the containment trench.

Sikagard® 62 has been used historically to coat the containment area floors. When recoating occurs, an epoxy Novalak® resin compound will be used. The manufacturer states that this product, when properly applied, is capable of withstanding the products handled by Safety-Kleen.

Figure II.B.1-1
 Container Storage Area
 Safety-Kleen Corp. Facility
 Tallahassee, Florida



— x — x — FENCE



APPROXIMATE SCALE IN FEET

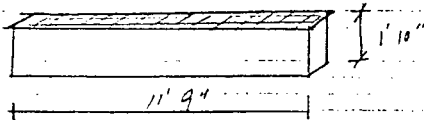
Project S-K TallahasseeW.O. No. 13112.29 Sheet 1 of 3Subject Available Storage Capacity CalculationsBy DSDate 7/14/92Chkd by VHDate 7/14/92

I Container Storage Area (Figure II, B. 1-2)

Total storage volume includes Trench of sloped floor

(a) Trench

1'8 1/8"



$$V_T = (11.75)(1.68)(1.83) \\ = 36.13 \text{ ft}^3 (7.48 \frac{\text{gal}}{\text{ft}^3}) = 270 \text{ gal}$$

(b) Sloped Floor (3" slope):

Assume 3" depth of pool (h)

$$\text{Vol. @ 3"} (V_2) = h (A_1^2 + A_2^2 + A_1 A_2)^{1/2} / 3$$

where, A_1 = surface area of Trench drain

A_2 = Surface area of pool @ 3" depth

$$A_1 = (11'9")(1'8'1/8") \\ = (11.75')(1.68') = 19.71 \text{ ft}^2$$

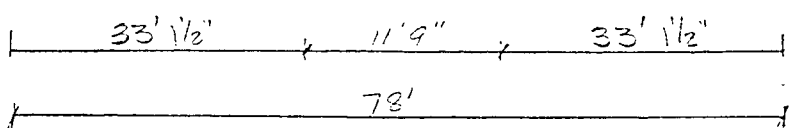
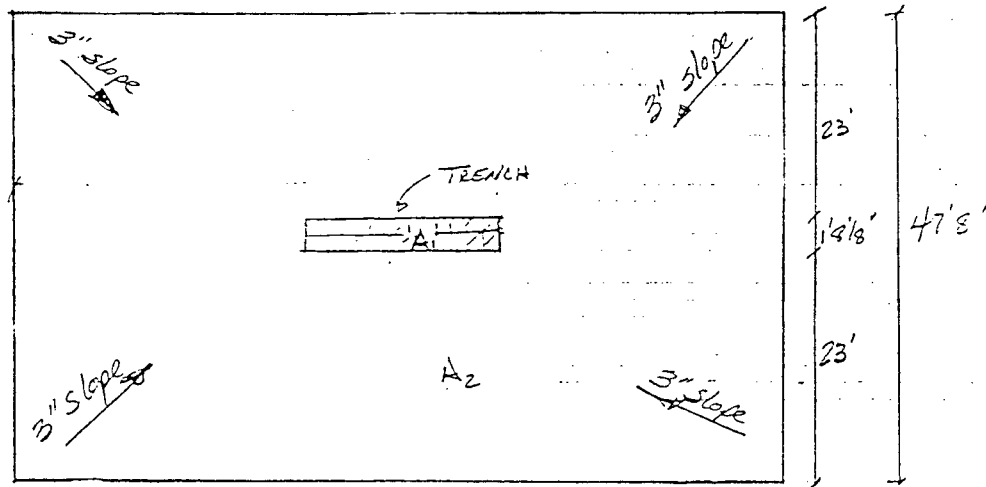
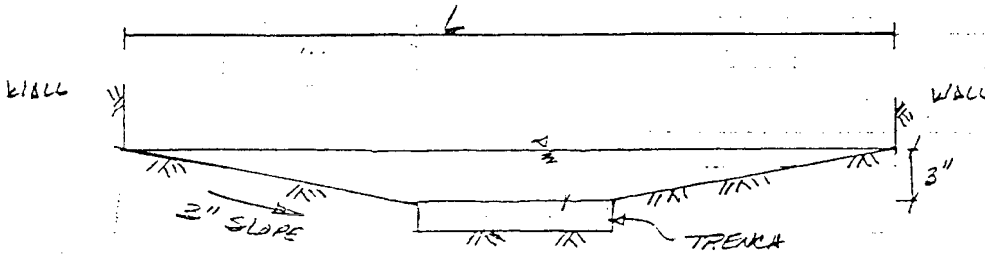


Project S-K Tallahassee
Subject Available Storage Capacity

W.O. No. 13113.39 Sheet 2 of 3
By ES Date 7/14/92
Chkd by VH Date 7/14/92

I. Container Storage Area (cont):

$A_2 =$ surface area of pool @ 3" depth (ft)



$$A_2 = (78')(47'8") = (78')(47.67') = 3718.0 \text{ ft}^2$$

$$\text{Vol @ 3" depth} = \frac{3}{12} \left[(19.71)^2 + (3718.0)^2 + (19.71)(3718.0) \right] / 3$$
$$= 310.66 \text{ ft}^3 (7.48 \text{ gal/ft}^3)$$

$$V_s = 2323.7 \text{ gal}$$

Project S-K Tallahassee
Subject Available Storage Capacity

W.O. No. 13112.29 Sheet 3 of 3
By DS Date 7/14/92
Chkd by VH Date 7/14/92

I. Container Storage Area (cont.)

$$\text{Available storage volume (V)} = V_1 + V_2$$

$$\begin{aligned} V &= 270 \text{ gal} + 2323.7 \text{ gal} \\ &= 2593.7 \text{ gal} \end{aligned}$$

∴ Allowable storage capacity = 25937 gal
w/ maximum single container ≤ 2594 gal

Note: Dimensions of container storage area building taken from Construction Plans.

The container storage areas for the spent solvents and the paint waste area has a total waste capacity of 6,912 gallons. The types and numbers of each container may vary. However, the total volume of waste stored will never exceed the maximum volume of 6,912 gallons.

CONTAINER MOVEMENT

In the container storage area, containers are handled with a hand-truck that is free of sharp points and stacked by hand. Every time a container 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. Some route trucks are equipped with an electric hoist. This hoist is used in the loading/unloading operation to minimize chances for spillage and/or employee injury. Trucks used for shipping containers between the recycle center and service center have lift gates for container loading/unloading. In the warehouse area, the immersion cleaner, parts washer solvent dumpster mud containers, and FRS wastes are moved with two-wheel hand trucks and stacked by hand, and the dry cleaning waste containers are moved by a pallet jack. The wastes will be elevated on pallets to eliminate the possibility of containers standing in spilled solvent.

Containers can be stacked two high or six feet, whichever is higher. The specific locations of various waste and product types have not been identified since the wastes are compatible with one another. For the ease of inventory control of the wastes will be grouped.

Attachment II.B.2

Waste Compatibility

ATTACHMENT II.B.2

WASTE COMPATIBILITY

The solvents stored at this facility are compatible with each other and with other materials handled at this facility with respect to reactivity and therefore do not require special segregation procedures. However, the wastes are the primary source of feed stock for regenerating the clean solvents. For ease of inventory control and product integrity, separation and grouping of both used and unused solvents is a standard practice at the operations center.

All material at the facility is managed in accordance with local fire protection code and fire department recommendation.

Attachment II.B.3

Waste Segregation

ATTACHMENT II.B.3

WASTE SEGREGATION

Procedure for Segregating Waste Types

The used solvents are compatible with each other and with other materials handled at this facility with respect to reactivity and therefore do not require special segregation procedures. However, the wastes are the primary source of feed stock for regenerating the clean solvents. For ease of inventory control and product integrity, separation and grouping of both used and fresh solvents is a standard practice at the facility.

All materials are managed in accordance with the local fire protection code and fire department recommendations. Eighty-five gallon overpack containers are used for the management of containers whose integrity has been compromised.

The immersion cleaner is always contained in partially filled, 16-gallon, covered containers before, during, and after its use. Until received at the recycle facility, the immersion cleaner is never transferred to another container. The containers containing the used immersion cleaner are returned to the facility and stored in the designated container storage areas before shipment to the recycle center. Immersion Cleaner #609 is managed as a transfer waste.

The dry cleaning wastes are contained in 5-, 16-, split 30 (also known as 15-gallon), and 30-gallon containers. The liquids are in polyethylene containers. Filters are in steel containers. These containers are managed similar to the used immersion cleaner containers and contents within the containers will not be removed or processed at the facility. Non-perchloroethylene dry cleaning wastes are managed as transfer wastes.

The parts washer solvent are collected in 5-, 16- and 30-gallon containers. These containers are then emptied into the dumpsters in the return/fill shelter. Spent antifreeze is packaged in 30-gallon steel containers, and the containers are not opened at the facility.

Paint wastes consist of various lacquer thinners and paints. The waste is collected in containers at the customer's place of business, and the container is then palletized and stored in the paint waste shelter.

Fluid Recovery Service (FRS) wastes received at the facility are classified as characteristic wastes (D-waste codes), non-specific source wastes (F-waste codes), listed wastes from specific sources (K-wastes), commercial chemical products, manufacturing intermediates or off-specification chemical commercial products (U-waste codes). Most of the time, a waste stream will be some combination of specific components, and be categorized as a D- or F- waste. Table II.A.5-1 provides a list of the EPA waste codes managed at the facility as transfer wastes under the FRS program.

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 Department of Transportation (DOT) shipping container specifications. The DOT specifications for packaging are performance-oriented packaging criteria. DOT no longer specifies package construction such as gauge of steel, type of weld, etc. Because there are no longer any specifications, there will no longer be the specification numbers such as 17E or 17H on the containers. The new DOT criteria only specify a performance standard that the package must meet to become acceptable for transport of a hazardous material/waste.

Wastes are stored in polyethylene and steel containers. Since none of the waste handled by Safety-Kleen reacts with metal or polyethylene, compatibility is assured. Immersion cleaner and dry cleaning waste containers are never opened at the branch, and none of the wastes are incompatible.

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 remote areas (e.g., the office or locker room), separate from any solvent. The parts washer solvent handling area and the aboveground storage tanks are separate from the warehouse building 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:*
 - a. *become subject to extreme heat or pressure, fire or 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.
 - b. *produce uncontrolled toxic mists, fumes, dusts or gases in quantities sufficient to threaten human health*--The vapor pressure of parts washer solvent is low (2 mm) 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 not handled at this facility and the solvent vaporization will be minimal under normal working conditions.
 - c. *produce uncontrolled fires or gases in quantities sufficient to pose a risk of fire or explosion*--See "a" above and "d" below.
 - d. *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 must be checked* once per week and tested by the fire extinguisher company once per year.

External Factors

The design of the installation 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 and fill station is roofed to eliminate the possibility of rain or snow entering the dumpsters. No opportunity is foreseen to affect the facility with snow, cold weather, or stormwater.

Attachment II.B.4

Container Management

ATTACHMENT II.B.4

CONTAINER MANAGEMENT

The immersion cleaner is always contained in partially filled, 16-gallon, covered containers before, during, and after it use. The #609 and #699 immersion cleaners are housed in 16-gallon containers. Until received at the recycle facility, the immersion cleaner is never transferred to another container. The containers containing the used immersion cleaner are returned to the facility and stored in the designated container storage areas before shipment to the recycle facility.

The dry cleaning wastes are contained in 16-, split 30- (also known as 20-gallon), and 30-gallon containers. The perchloroethylene from dry cleaning operations is collected in 16-gallon polyethylene containers. The dry cleaning filters are in split 30- (also known as 20-gallon) or 30-gallon steel containers. These containers are managed similarly to the used immersion cleaner containers, and contents within the containers will not be removed or processed at the facility.

The spent antifreeze is packaged in 30- or 55-gallon steel containers which are not opened at the facility. Spent antifreeze may also be kept in bulk in a tanker truck parked on a paved surface within the service center.

The parts washer solvent is collected in 5-, 16-, and 30-gallon containers which are poured into the dumpsters. 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 Department of Transportation (DOT) shipping container specifications.

Paint wastes consist of various lacquer thinners and paints. The waste is collected in containers at the customer's place of business and the containers will be palletized and stored in the container storage area of the warehouse.

Fluid Recovery Service (FRS) wastes received at the facility are classified as characteristic wastes (D-waste codes), non-specific source wastes (F-waste codes), listed wastes from specific sources (K-wastes), commercial chemical products, manufacturing intermediates or off-specification chemical commercial products (U-waste codes). Most of the time, a waste stream will be some combination of specific components, and be categorized as a D- or F- waste. Table II.A.5-1 provides a list of the Environmental Protection Agency (EPA) waste codes managed at the facility under the FRS program. The FRS wastes will be managed as transfer waste. The manifest will not be terminated at the Service Center. The management of FRS wastes as transfer wastes includes the provision to conduct truck-to-truck transfer of the FRS wastes. Truck-to-truck transfers are accomplished within two hours.

Wastes are stored in polyethylene and steel containers. Since none of the wastes handled by Safety-Kleen react with metal or polyethylene, compatibility is assured. Immersion cleaner and dry cleaning waste containers are never opened at the branch, and none of the wastes are incompatible. Eighty-five gallon salvage containers are used for the management of containers whose integrity has been compromised. The containers used to store wastes are listed on Table II.B.4-1.

TABLE II.B.4-1

**SAFETY-KLEEN CORP.
WASTE STREAMS AND CONTAINER SIZES**

Waste Stream	Container Sizes (gallons)	Construction Material of Container
Parts Washer Solvent Dumpster Mud/ Tank Bottoms	5	Polyethylene
	16	Steel
	30	Steel
Dry Cleaner	5	Steel
	15	Steel or Polyethylene
	16	Steel or Polyethylene
	30	Steel or Polyethylene
Immersion Cleaner	16	Steel
Paint Waste	5	Steel
	16	Steel
Ethylene Glycol	30	Steel
	55	Steel
Fluid Recovery Service Wastes	30	Steel or Polyethylene
	55	Steel or Polyethylene

NOTE:

An 85-gallon overpack container may be used with any of the waste streams.

Attachment II.B.5

Container Inspection

ATTACHMENT II.B.5

CONTAINER INSPECTION

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

The Branch Manager, using the inspection log (Figure II.B.5-1 or similar, identical to Figure II.C.11-1), inspects the facility weekly for security (gates and locks) and any evidence of sticking, corrosion, or uncommon activity. The facility fence is checked weekly for deterioration, gaps under the fence, and broken wire ties. The Weekly Inspection log for safety and emergency equipment is shown in Figure II.B.5-2 (or similar).

Figure II.B.5-3, or similar, presents the Daily Inspection log for the Container Storage Area. Daily inspections of containers consist of the following:

- Physically examine the container storage area to verify that leaks have not occurred since the last inspection.
- Verify that containers have not been damaged or rusted to the point of near leakage.
- Replace or adjust damaged, missing, or loose fasteners.
- Examine and verify that all container identification, dates, loading data, and hazardous waste labels are attached and current.

Daily inspection of containment consist of the following:

- Inspect containment areas to detect signs of deterioration and failure of the containment system such as cracks, breakage, settlement, and spillage.
- Check container placement and stacking for appropriate aisle space, height, and stability of stacks.

INSPECTION LOG SHEET FOR: Weekly Inspection of SAFETY AND EMERGENCY EQUIPMENT
SECURITY DEVICES AND MISCELLANEOUS EQUIPMENT

INSPECTOR'S NAME/TITLE: _____

INSPECTOR'S SIGNATURE: _____

DATE OF INSPECTION (Month/Day/Year): _____

TIME OF INSPECTION: _____

SAFETY AND 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 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 Protection Equipment: A N

If "N" circle appropriate problem: inadequate supply of aprons, gloves, glasses, respirator, other: _____

SECURITY DEVICES:

Gates and Locks: A N

If "N" circle appropriate problem: sticking, corrosion, lack of 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, distortion, deterioration, excess debris, liquids in unit, other: _____

OBSERVATIONS, COMMENTS, DATE, AND NATURE OF ANY REPAIRS: _____

A = Acceptable
N = Nonacceptable

Attachment II.B.6

Container Closure Plan

Revision - 09/15/94

ATTACHMENT II.B.6

CONTAINER CLOSURE PLAN

The Closure Plan for the container storage area is incorporated into the Closure Plan for the entire facility presented in attachment II.K.1.

Attachment II.B.7

Financial Assurance for Closure

ATTACHMENT II.B.7

FINANCIAL ASSURANCE FOR CLOSURE

Safety-Kleen Corp. is the operator of the Tallahassee, Florida Service Center. The cost for closure of the facility as estimated is assured through the use of the financial test specified in Subpart B of 40 CFR Part 270 (see attachment II.A.2). Attachment II.A.2 shows the letter from the Chief Financial Officer of Safety-Kleen Corp. to demonstrate the financial responsibility for closure through the financial test. The closure cost estimate is included in attachment II.K.1.

PART II C

Tank Systems

Attachment II.C.1

Engineering Assessment of System

ATTACHMENT II.C.1

ENGINEERING ASSESSMENT OF TANK SYSTEM

An engineering assessment of the tank system has been prepared by TERA, Inc. and will be included herein as soon as available. This assessment will include an evaluation of the structural integrity and suitability of the tank system for handling hazardous waste as required under 40 CFR 264.191 and 264.192.

This assessment includes a diagram of the piping, instrumentation, and process flow for each tank system and a description of the materials and equipment used to provide external corrosion protection as required under 40 CFR 264.192(a)(3)(ii). Containment capacity is also confirmed.

Attachment II.C.2

Tank System Specifications

ATTACHMENT II.C.2

TANK SYSTEM SPECIFICATIONS

The facility consists of three aboveground steel tanks (Figure II.C.2-1). Used parts washer solvent (Parts Washer 105, Premium Solvent, and Actrel®) contained in returned drums from the customers are transferred via the wet dumpster into a 15,000-gallon tank, awaiting bulk shipment to the recycle center. One 15,000-gallon tank is used to store fresh parts washer solvent (parts cleaner 105 or premium solvent). The other 15,000-gallon tank may be used for product solvents, oily waste water, or other nonhazardous wastes.

Material Compatibility

The material stored in the tanks at this facility is parts washer solvent. The material is compatible with the mild steel tank structure. In fact, petroleum products are often used as a light hydrocarbon coating to prevent rusting of metal parts. Parts Washer 105 and Premium Solvent consist primarily of mineral spirits (petroleum naphtha). The Actrel® solvent consists primarily of a paraffinic compound with C₁₂ - C₁₄ chains. As with all petroleum storage vessels, water will accumulate over time due to condensation. The parts washer solvent has a specific gravity less than water and the water will accumulate in the bottom of the tank. There is the potential for corrosion of the tank at the parts washer solvent/water interface. Experience, however, has shown that the corrosion potential at the interface is minimal when compared to the potential for corrosion from soil conditions.

Operation Procedures

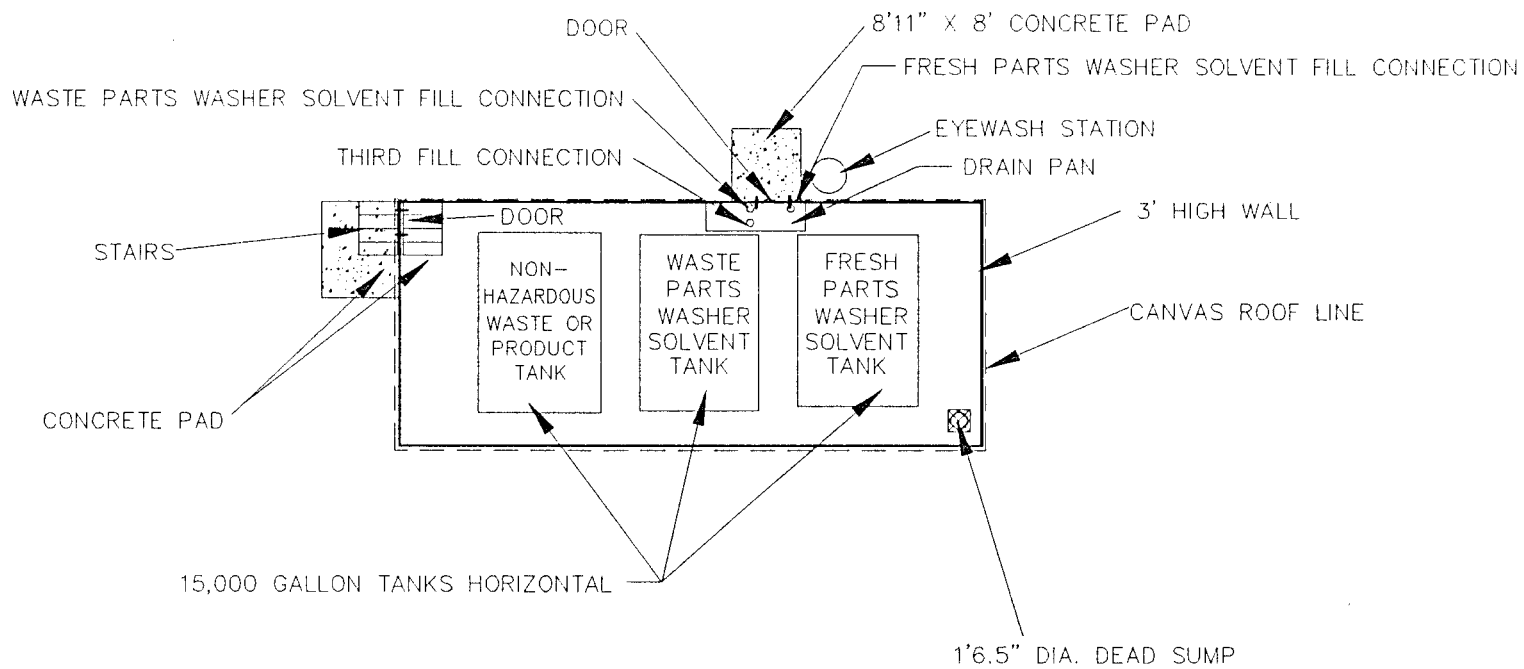
Parts Washer Solvent

Spent parts washer solvent from parts washers is accumulated in the 15,000-gallon aboveground storage tank by transfer through the return and fill station. Containers of spent solvent are poured into the dumpsters (barrel washers) in the return and fill station, and material in the dumpster are pumped into the storage tank for spent solvent. The return and fill station has secondary containment.

The barrel washer is located within the parts washer solvent return and fill area in the warehouse. The drawings (Figures II.C.2-2(a) through II.C.2-2(j)) provide detailed information on the barrel washers.

Used solvent is returned from customers via containers and poured into the barrel washers. The container is then be placed on roller brushes contained within the barrel washer. As the machine is turned on, the container rotates on the brush and the outside of the container is cleaned. There is also a nozzle that sprays a stream of solvent into the bottom of the container to clean the inside of the barrel. The machine is turned off and the container removed. The procedure takes approximately five seconds per container. The container will then be refilled using a pump and nozzle

Figure II.C.2-1 Tank Farm Safety-Kleen Corp. Facility Tallahassee, Florida



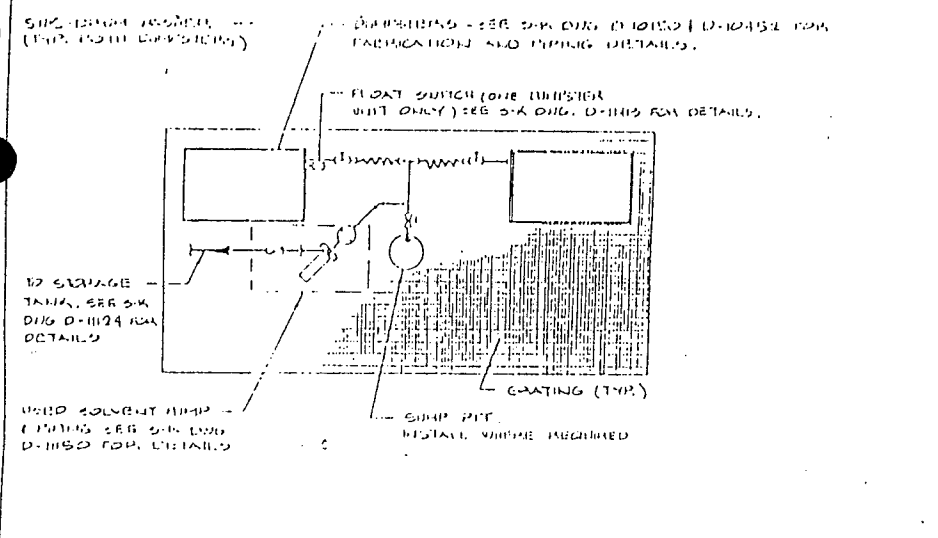
NOTE: THIS IS AN ENCLOSED BUILDING



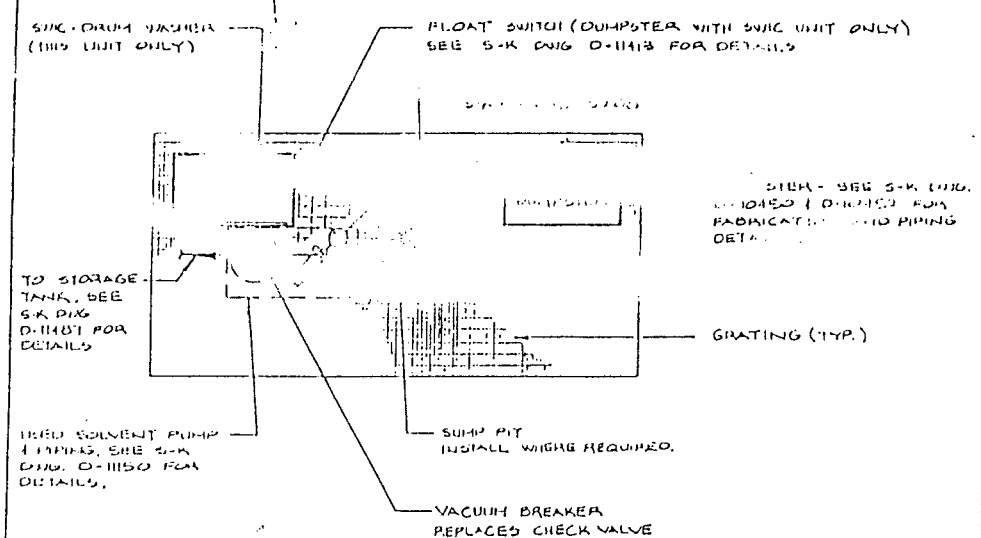
APPROXIMATE SCALE IN FEET

REVISED 08/15/94

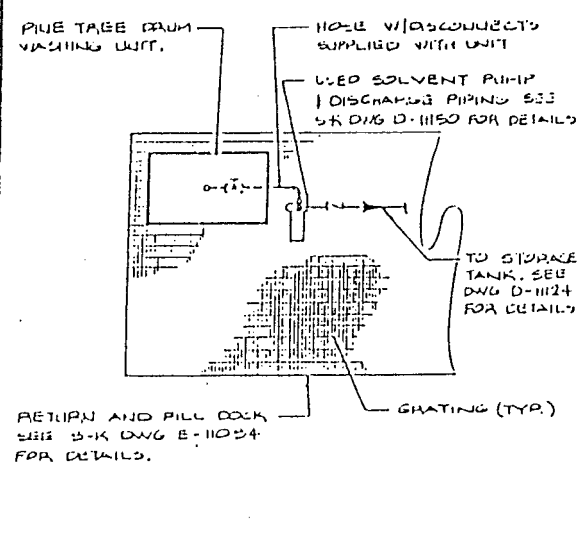




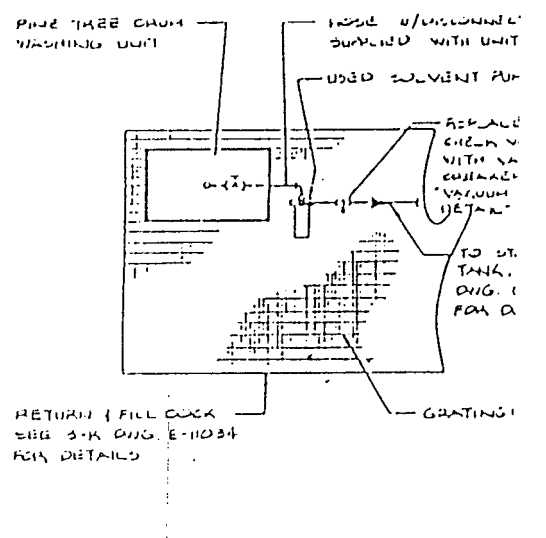
DOUBLE SWIC INSTALLATION
W/ ABOVE GROUND STORAGE



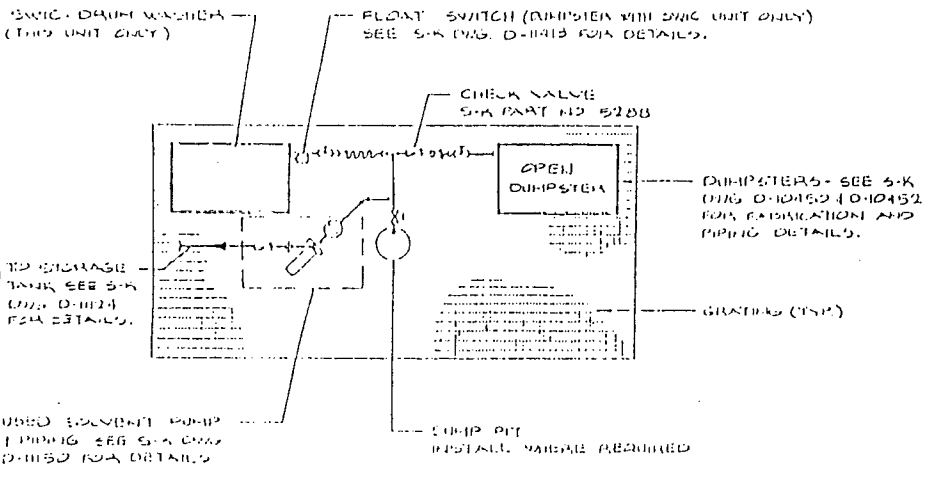
SINGLE SWIC INSTALLATION
W/ UNDERGROUND STORAGE



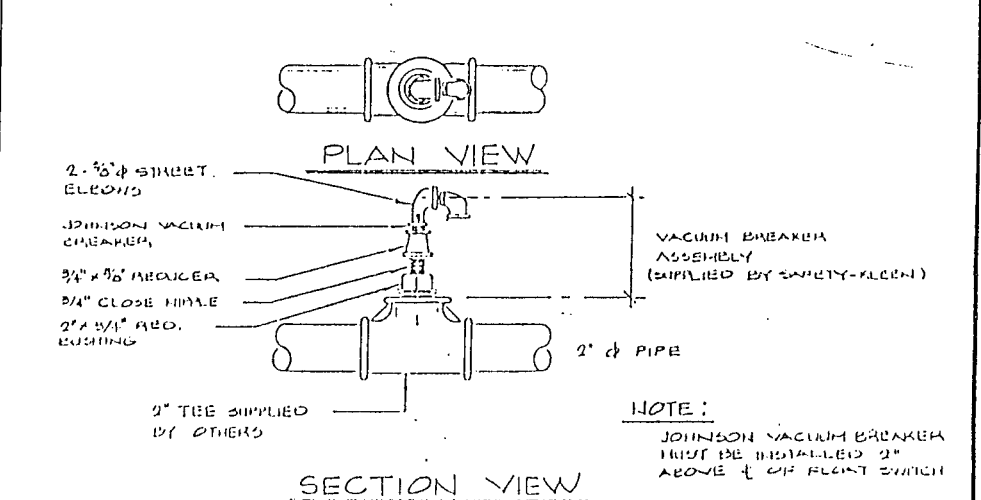
PINE TREE INSTALLATION
W/ ABOVE GROUND STORAGE



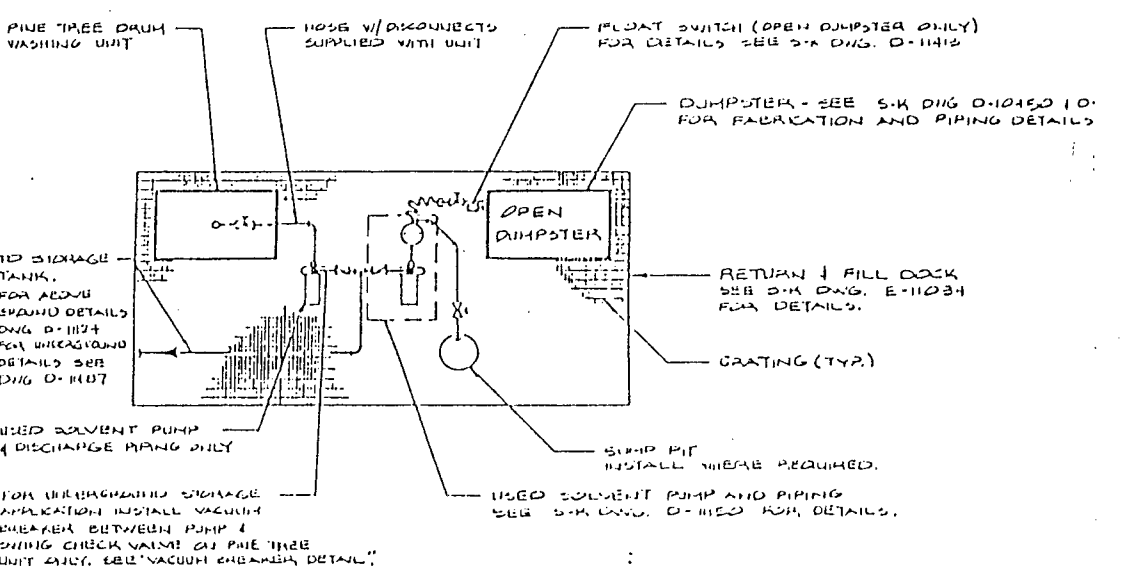
PINE TREE INSTALLATION
W/ UNDERGROUND STORAGE



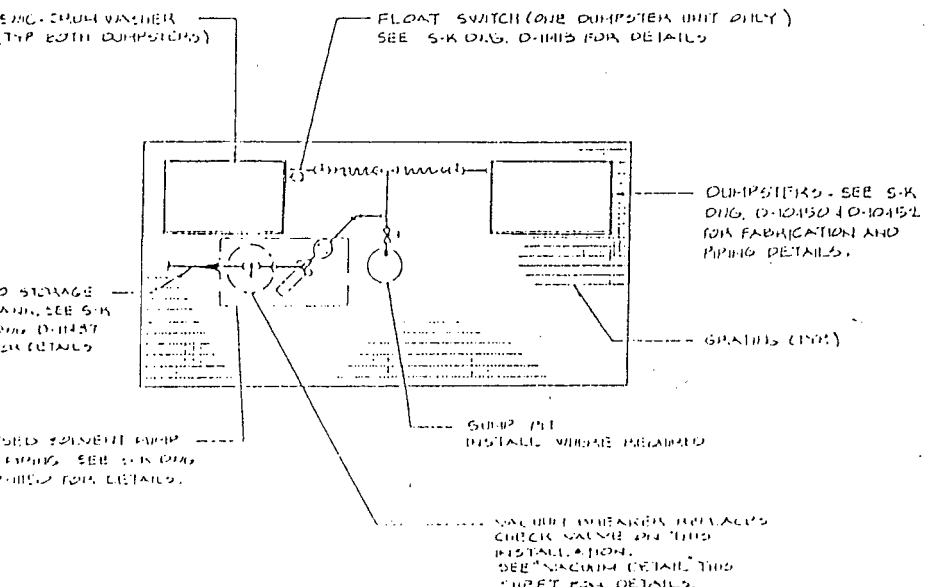
SINGLE SWIC INSTALLATION
W/ ABOVE GROUND STORAGE



VACUUM BREAKER DETAIL



PINE TREE AND OPEN DUMPSTER INSTALLATION
FOR ABOVE GROUND & UNDERGROUND STORAGE



DOUBLE SWIC INSTALLATION
W/ UNDERGROUND STORAGE

Figure II.C.2-2(b)

TYPICAL DRUM WASHER SCHEMATIC				
SAFETY-KLEEN CORP.				
NO.	DESCRIPTION	BY	CHKD.	DATE

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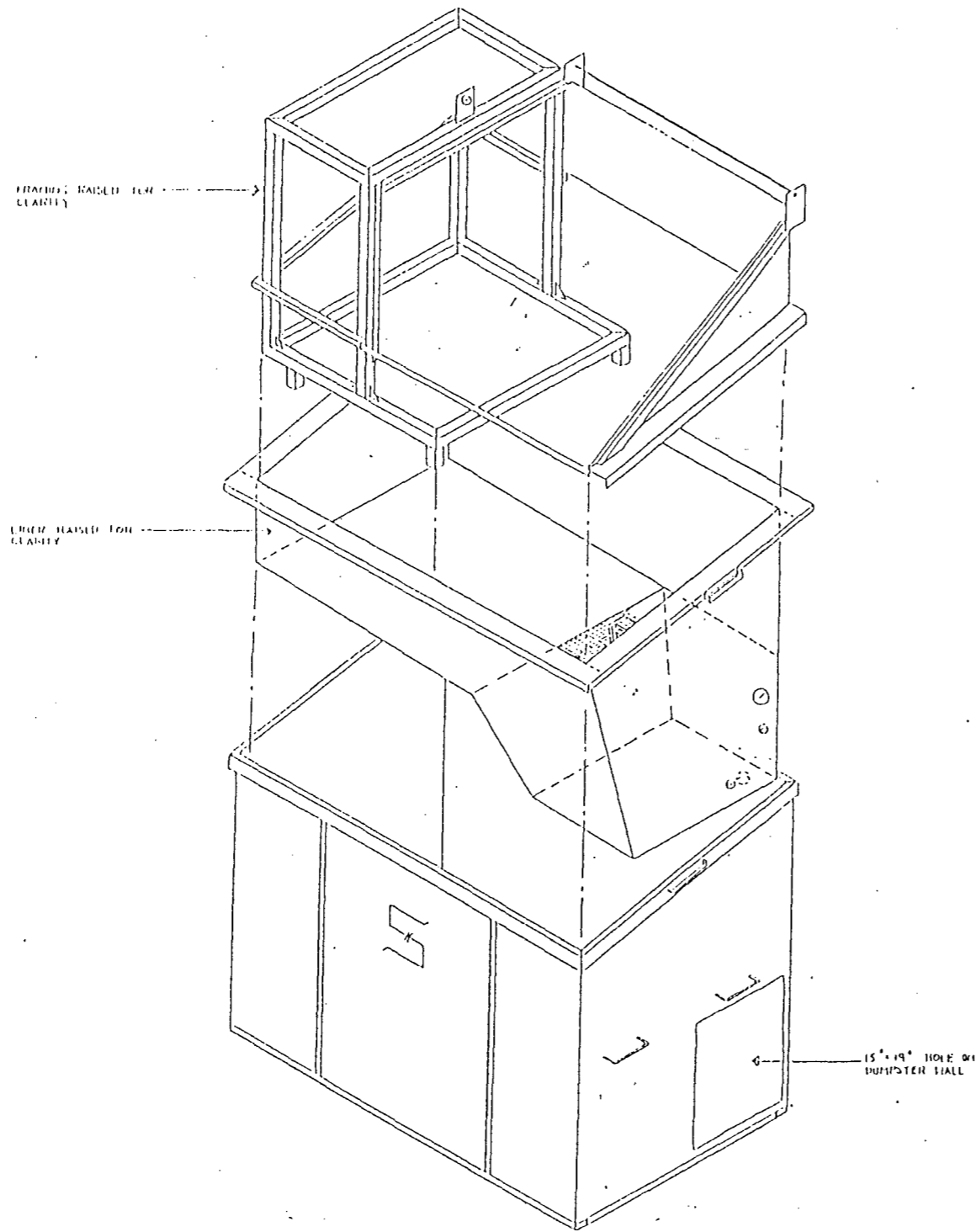


Figure II.C.2-2(c)

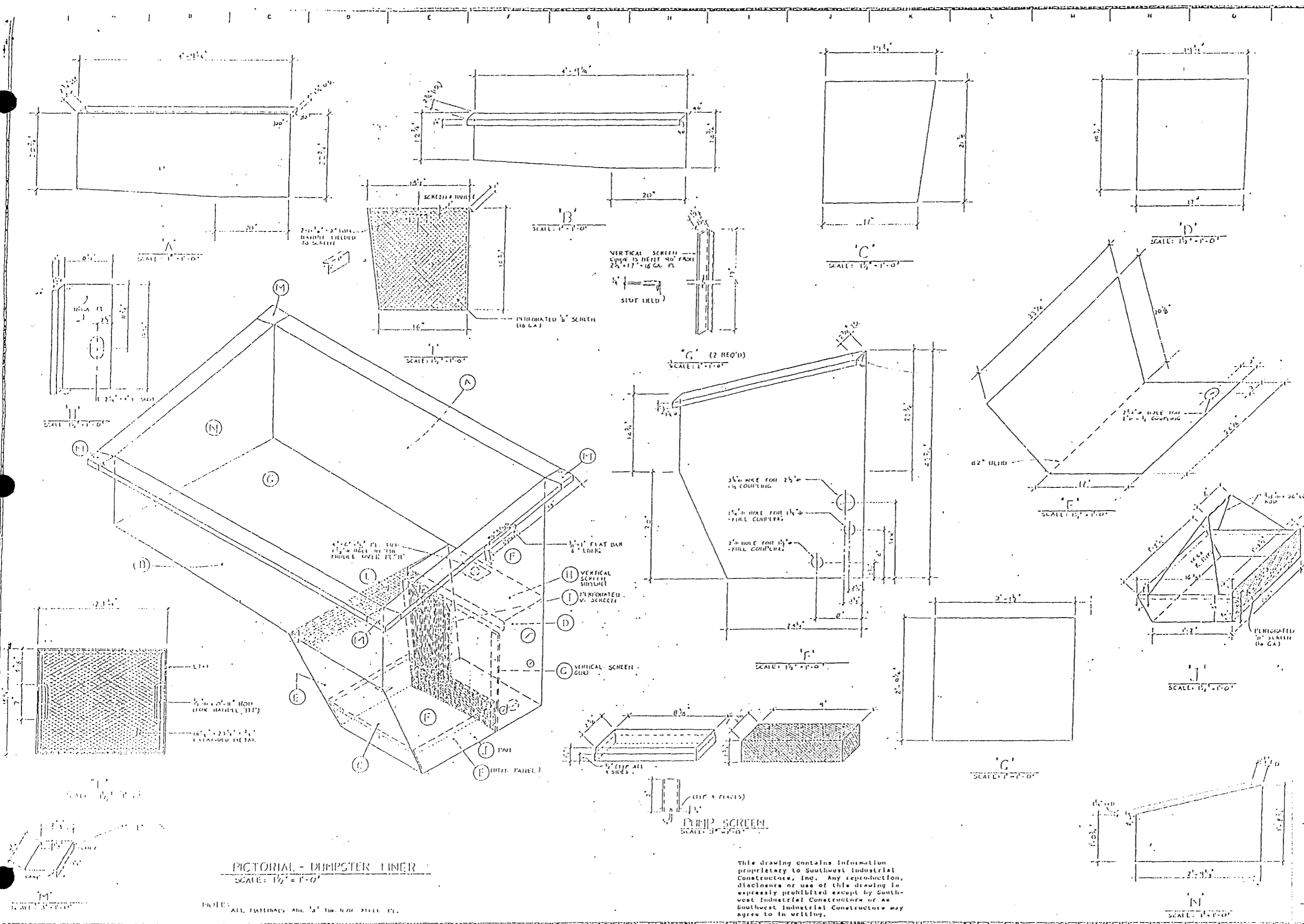
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SOUTHWEST INDUSTRIAL
CONSTRUCTORS, INC.

DATE: 1/14/70
 DRAWN:
 REV. A1.1
 CDR:

SAFETY-KLEEN
DRUM WASHER

—



SOUTHWEST INDUSTRIAL CONSTRUCTORS, INC.

DATE: 1/14/40

BY: [Signature]

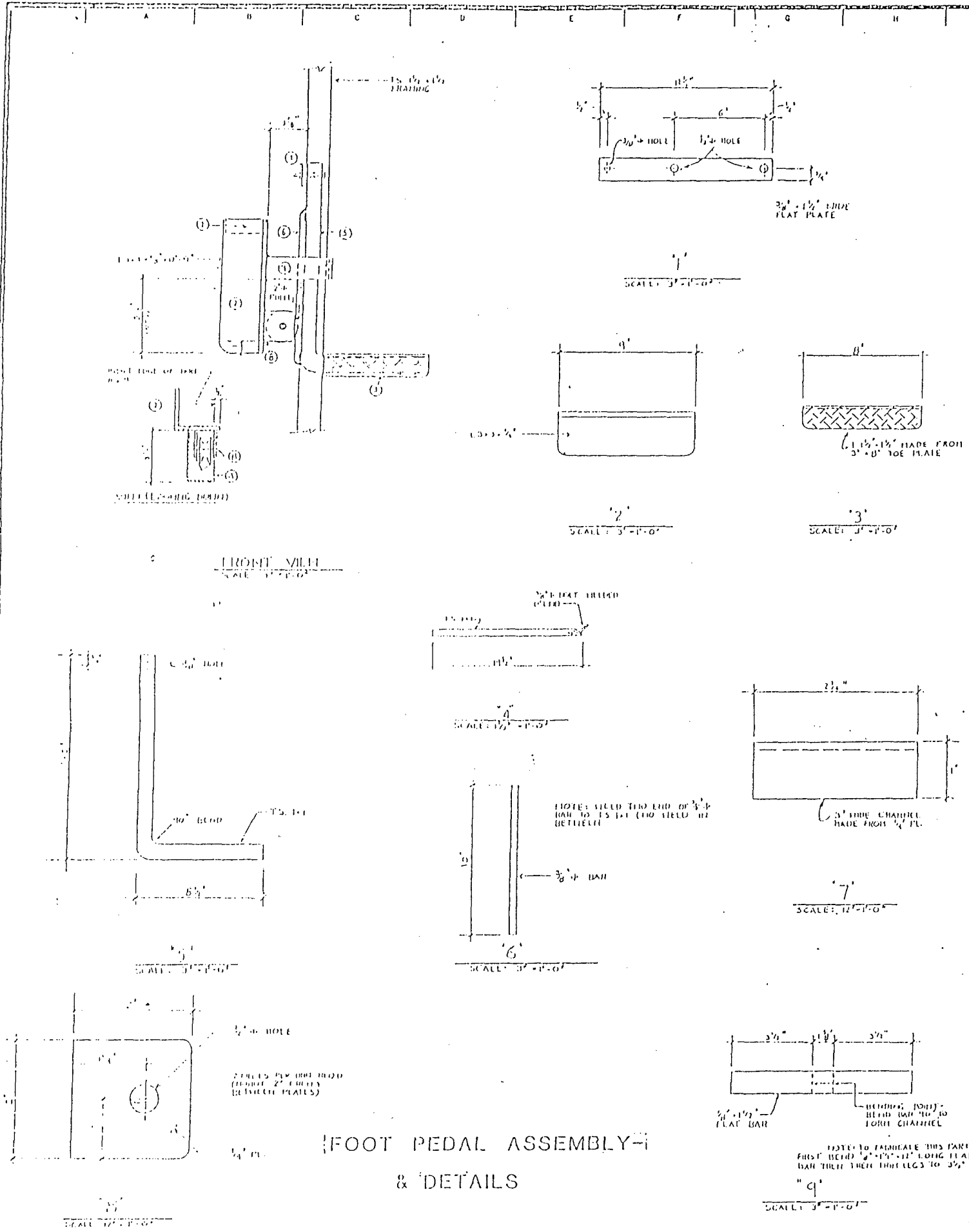
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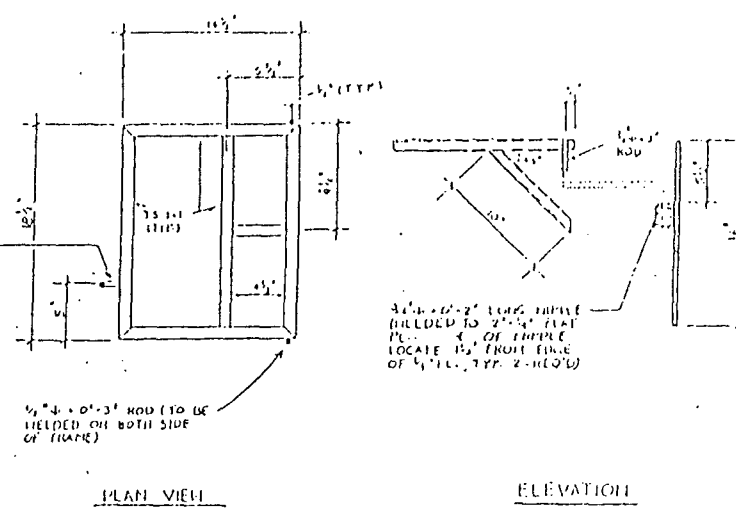
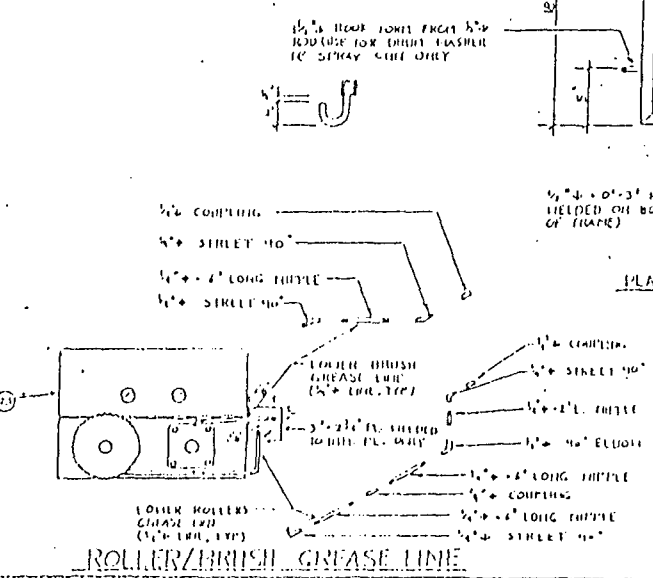
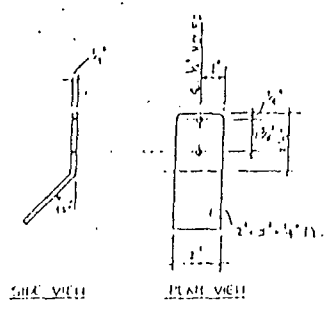
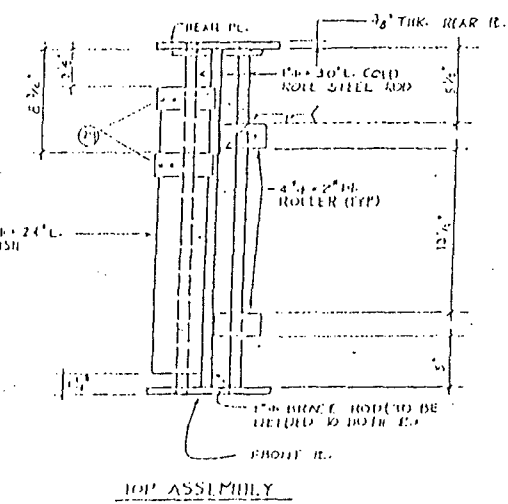
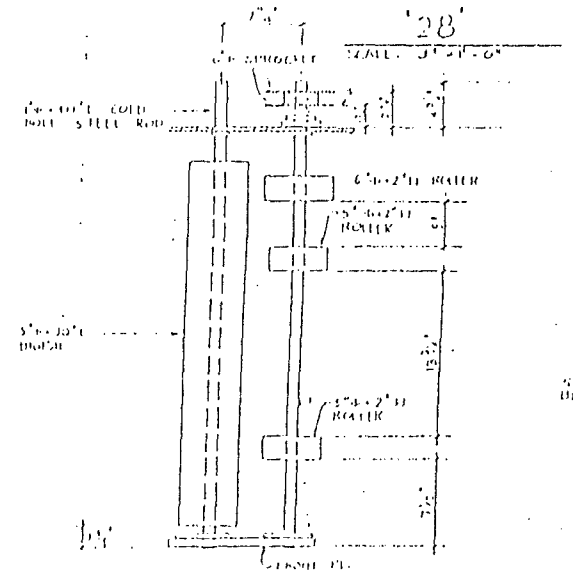
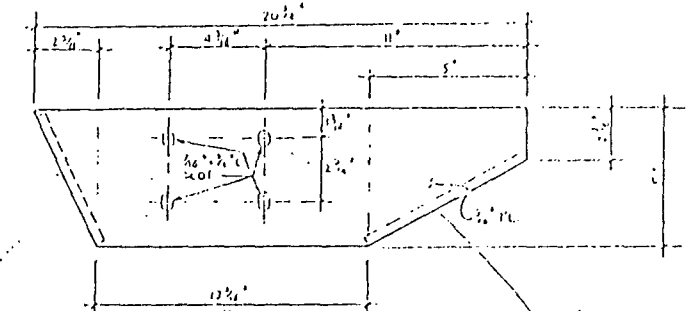
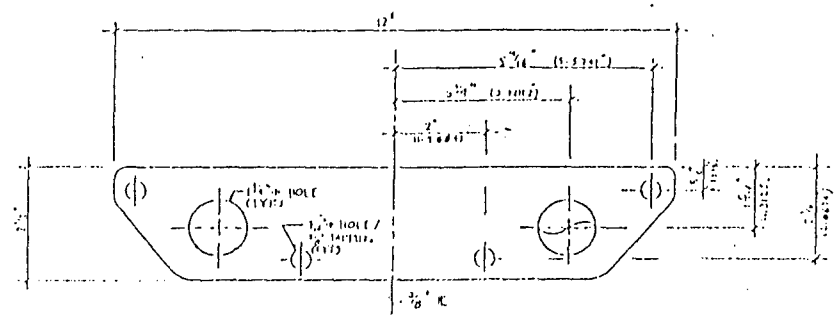
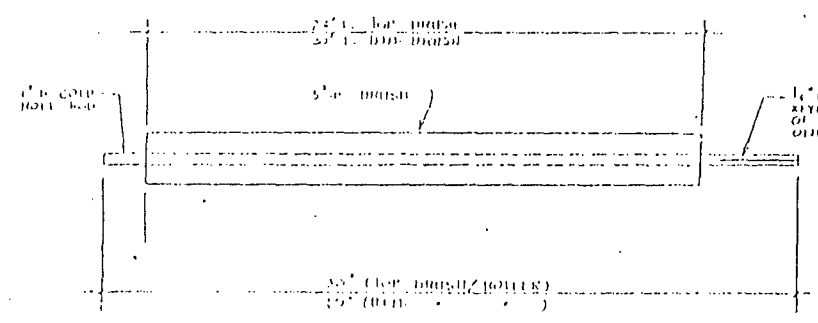
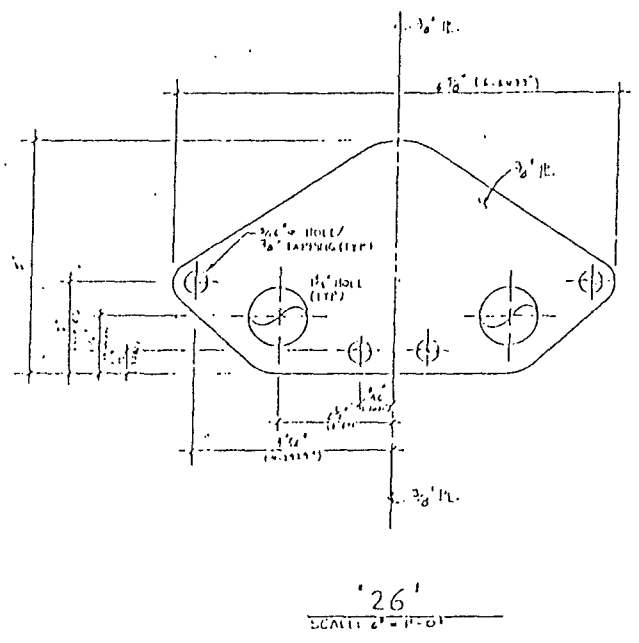
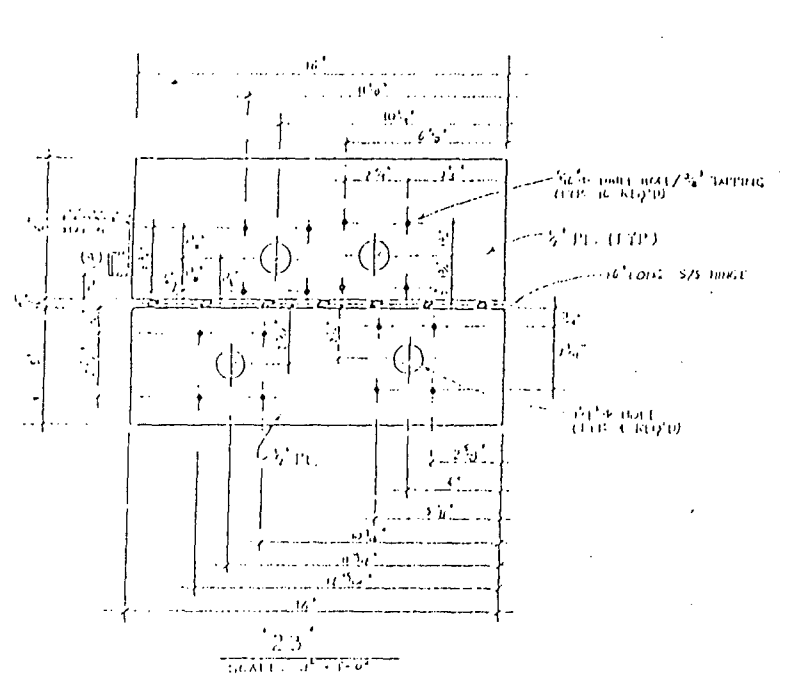
APP: [Signature]

SAFETY - KLEEN DRUM WASHER

12

Figure II.C.2-2(d)





SOUTHWEST INDUSTRIAL
CONSTRUCTORS, INC.

DATE: 1/11/70
DRAWN BY: ALI
CHECKED BY:

SAFETY KLEEN
DRUM WASHER

4

Figure II.C.2-2(f)

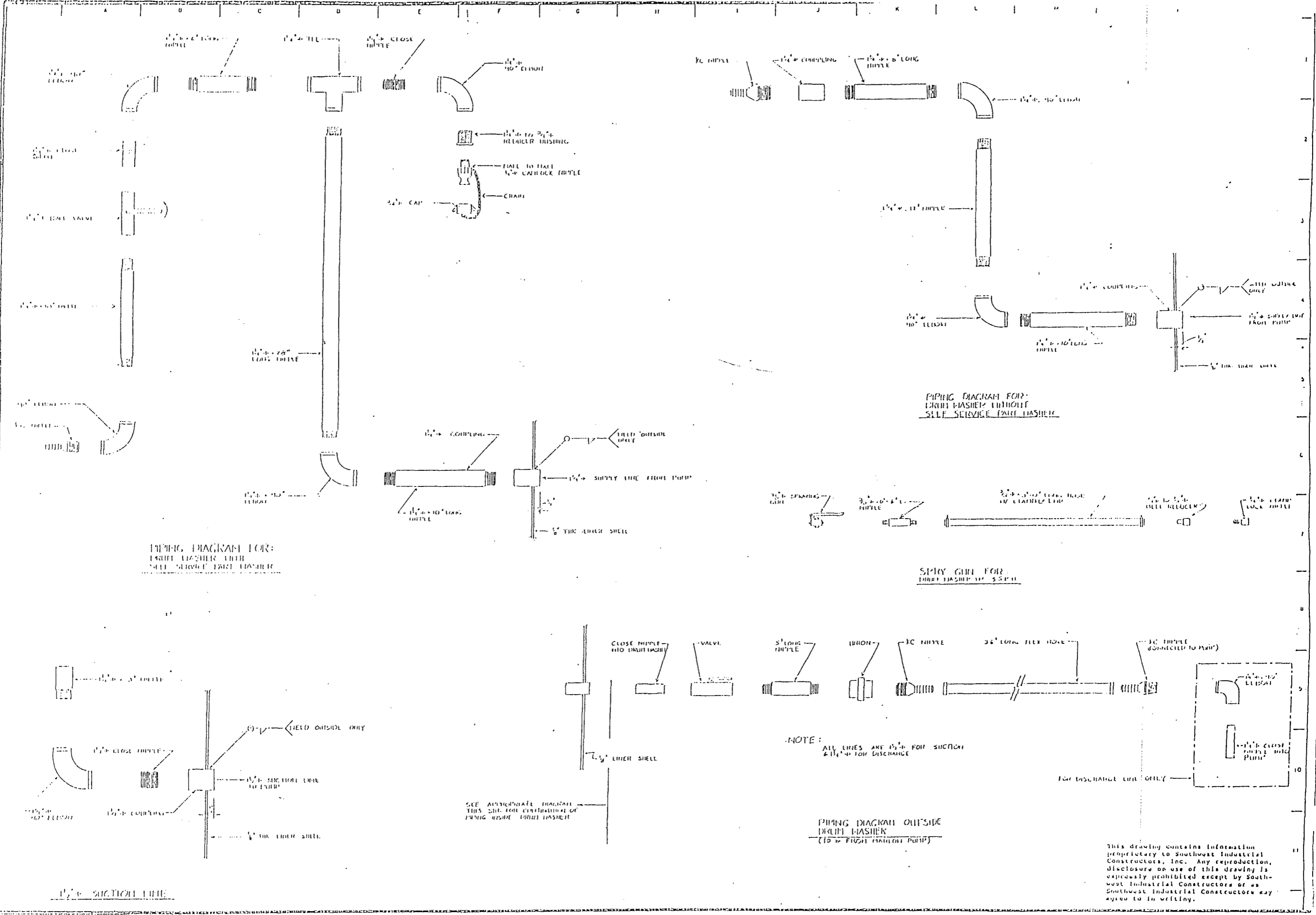
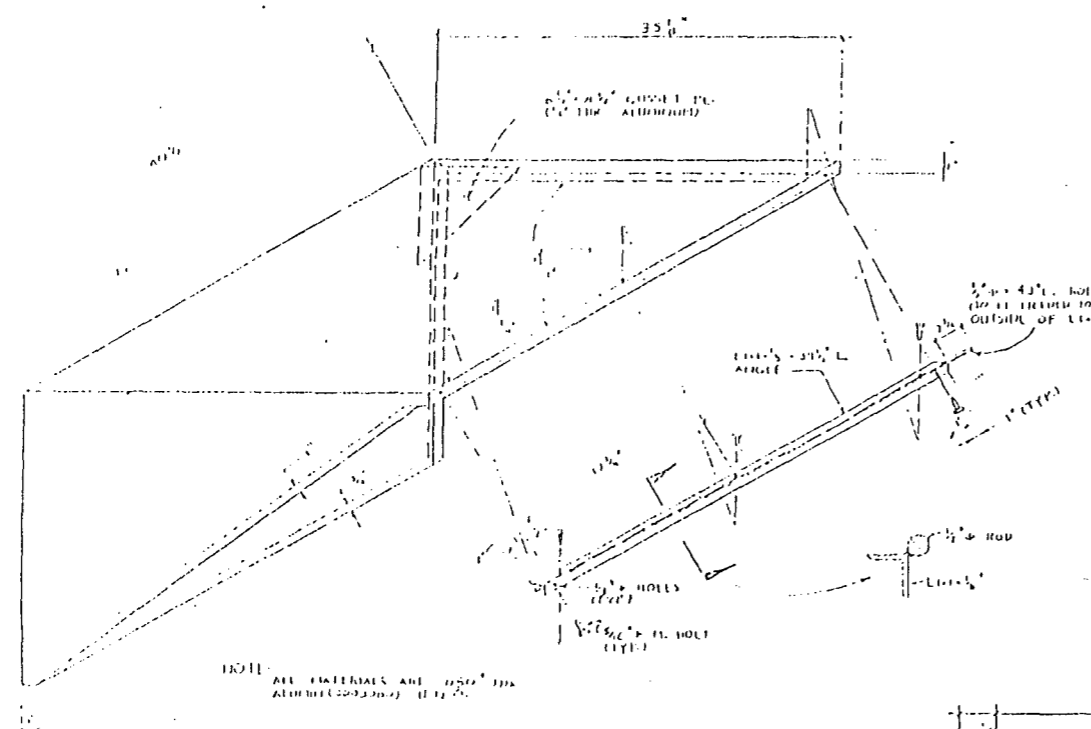
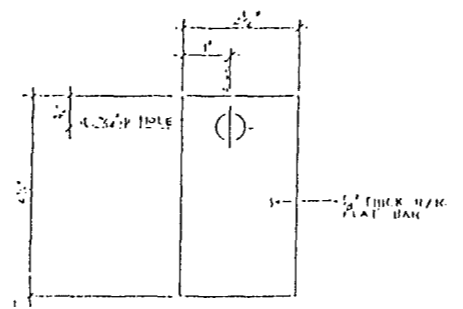


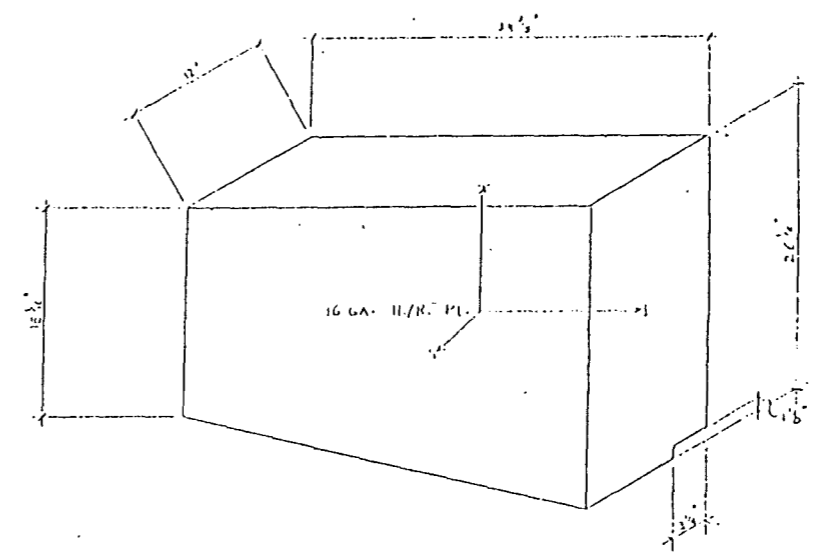
Figure II.C.2-2(h)



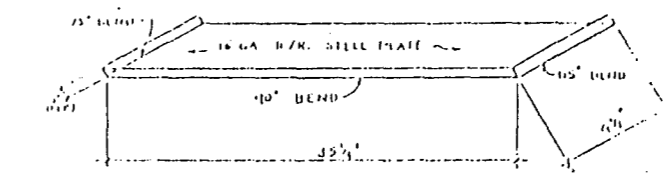
DRIVE FAULTER HOOD
SCALE: 1/2" = 1'-0"



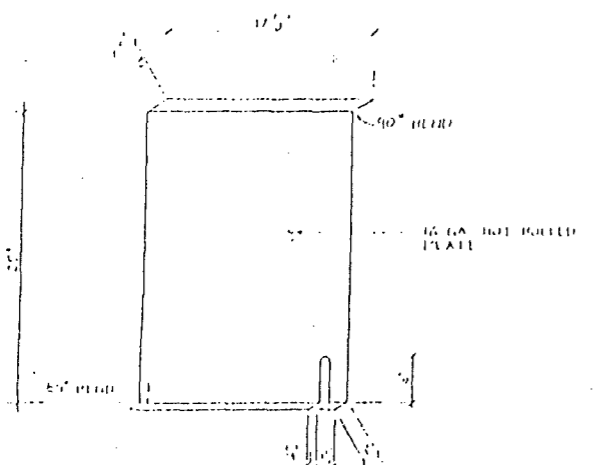
HINGE BRACKET
SCALE: 1/2" = 1'-0"



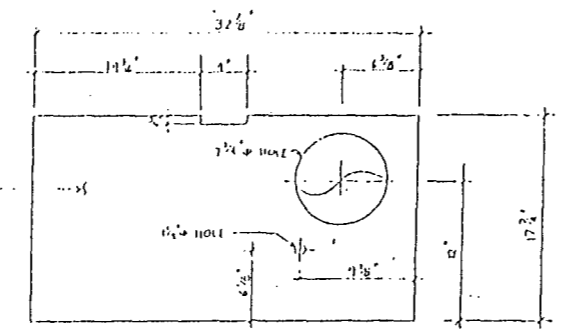
MOTOR COVER
SCALE: 1/2" = 1'-0"



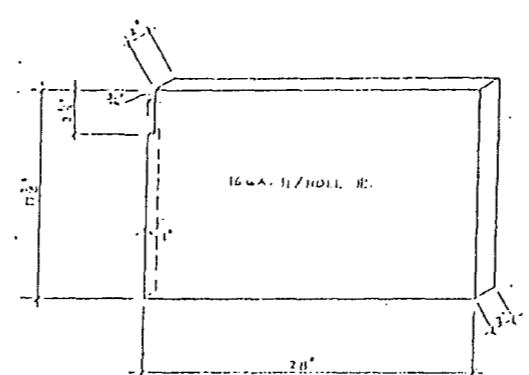
BOTTOM PAN FOR MOTOR COVER
SCALE: 1/2" = 1'-0"



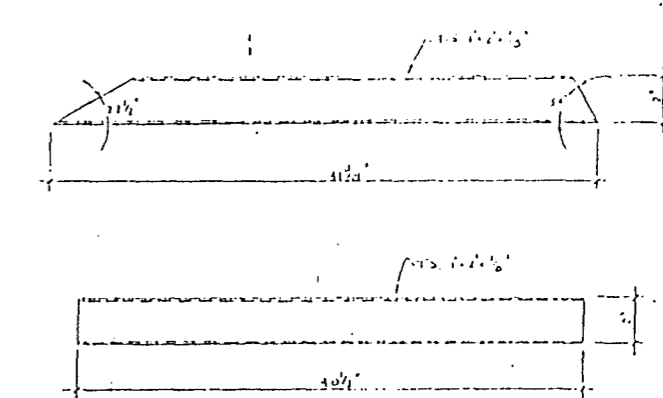
CABINET FRONT
SCALE: 1/2" = 1'-0"



CABINET TOP
SCALE: 1/2" = 1'-0"



CABINET BACK
SCALE: 1/2" = 1'-0"



HOOD STIFFENER
11-75

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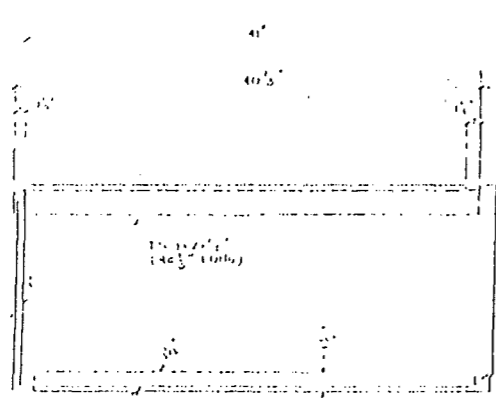
SOUTHWEST INDUSTRIAL
CONSTRUCTORS, INC.

DATE: 1/1/50
APP'D:
DWG. NO. 11-75
SHEET NO.

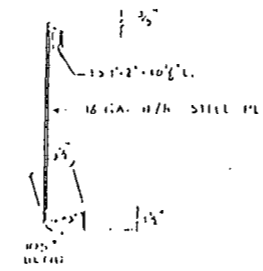
SAFETY-KLEEN
DRUM WASHER

7

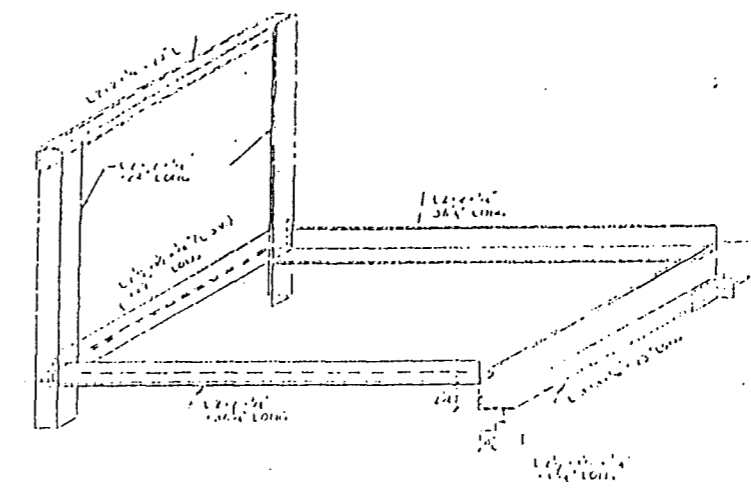
Figure II.C.2-2(i)



FRONT HOOD SUPPORT

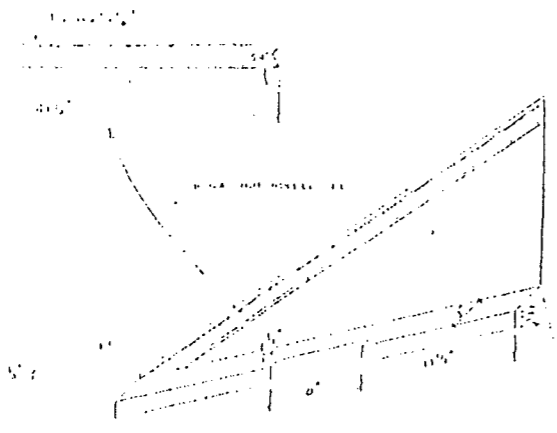


SIDE VIEW

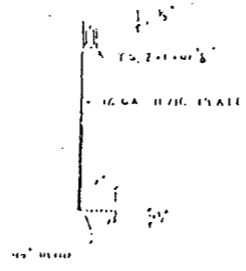


TEMP. SUPPORTING FRAME FOR LINER

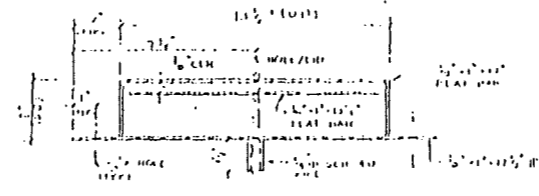
FRONT HOOD SUPPORT
SCALE: 1/2" = 1'-0"



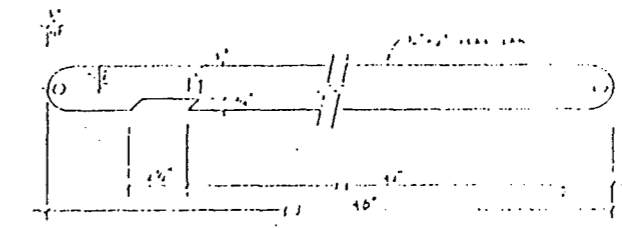
FRONT VIEW



ELEVATION

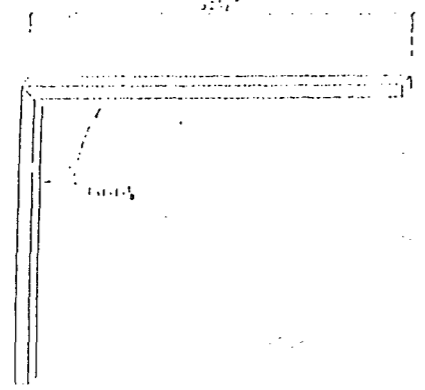


SAFETY LATCH

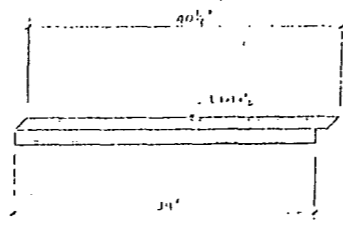


COVER BRACE STEEL
TOP 2-1/2" DIA. PER DRUM WASHER

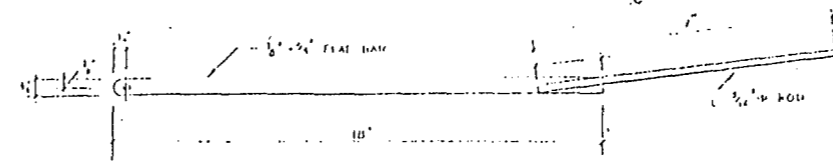
SIDE HOOD SUPPORT
SCALE: 1/2" = 1'-0"



REAR HOOD SUPPORT



FRONT HOOD BRACE



SCALE: 3/4" = 1'-0"

SOUTHWEST INDUSTRIAL
CONSTRUCTORS, INC.

DATE: 1/15/50
BY: [Signature]
CHK: ALL
APP: [Signature]

SAFETY-KLEEN
DRUM WASHER

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Figure II.C.2-2(j)

(Figure II.C.2-3(a)) similar to a gasoline pump. The waste parts washer solvent is pumped to the tank (Figure II.C.2-3(b)).

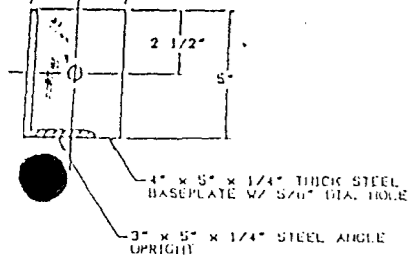
The used solvent goes to a sump in the bottom of the barrel washer and is automatically pumped to the used parts washer solvent storage tank. There is a basket in the sump that collects sludge. At least once each working day this basket is removed, the sludge removed, and placed into a sludge container. Each dumpster has four satellite accumulation containers. These containers are labeled as "Waste Sludge," "Glass/Metal," and "Rags/Absorbents." The Actrel® filters may be added to the "Waste Sludge" container. The containers remain covered except when wastes are being added. Once full the containers are moved into the container storage area for later shipment to a Safety-Kleen recycle center for disposal or recycling. In addition to the sludge containers there is also one satellite accumulation container (approximately five gallons) connected to the drain pan which is in front of each barrel washer. This container collects any spillage which falls into the drain pans. These containers are periodically emptied into the barrel washers in order to add the waste parts washer solvent to the bulk waste parts washer solvent tank.

Tank Design

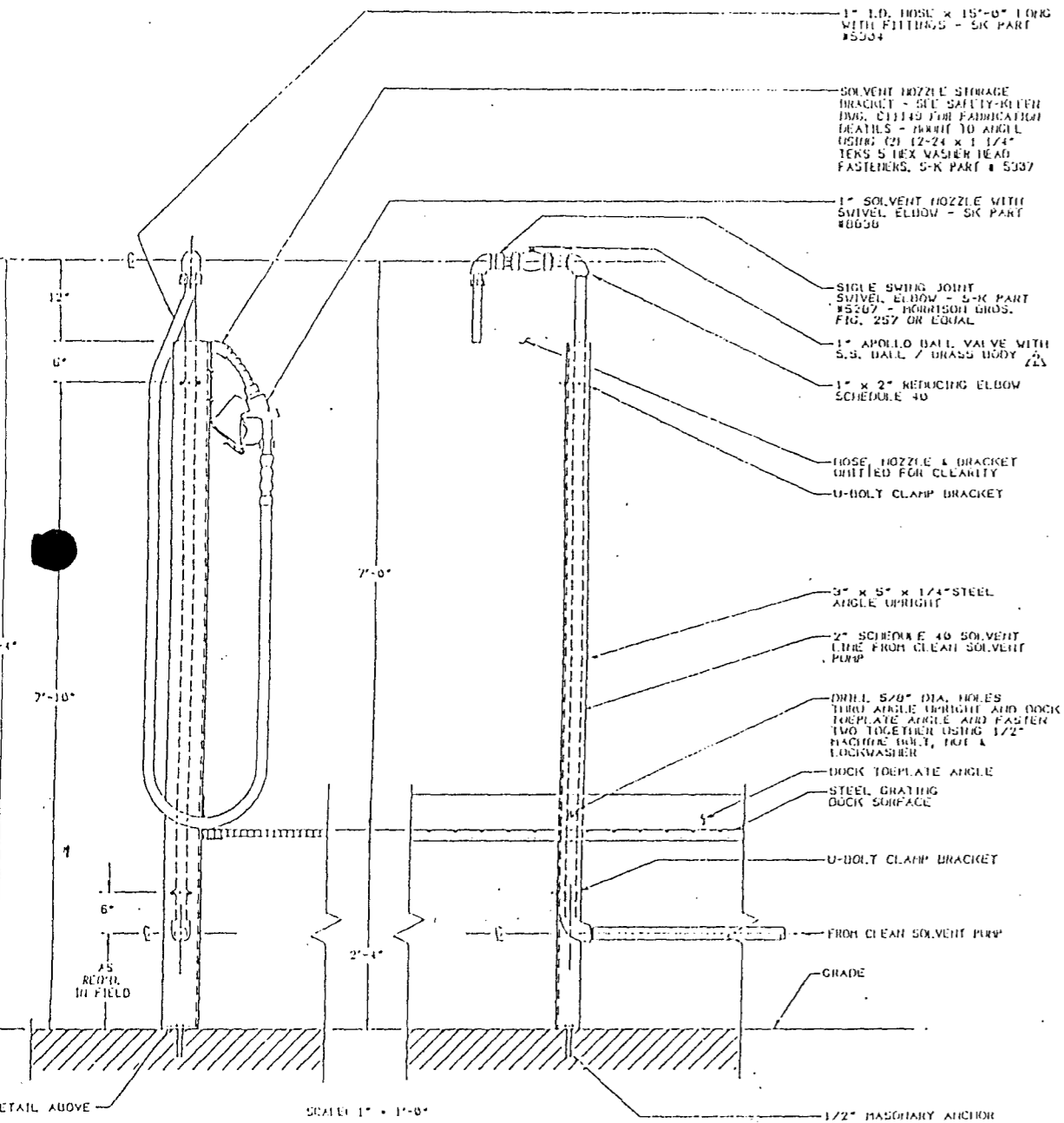
The tanks are designed and constructed to be compatible with the materials stored in them. Typical construction and installation standards for the aboveground tanks are shown in Figures II.C.2-4(a) through II.C.2-4(d). While these figures show both a 15,000- and 20,000-gallon parts washer solvent tank, the same design and installation specifications apply to the 15,000-gallon used parts washer solvent tank. All tanks are vented in accordance with National Fire Protection Association (NFPA) standards, and the tanks are equipped with high-level alarms. A sample design and installation of the tank alarm system is shown in Figures II.C.2-5(a) through II.C.2-5(d). The exact brand of tank alarm equipment used is equivalent to those shown. The tank seams are lapped with full fillet welds. The weld is done with an E70 electrode and can withstand a 4-psi air pressure test (which is performed by the manufacturer) in accordance with Underwriters Laboratories standards. All tanks were new and unused at the time of installation.

All tanks are aboveground, underlain by a 25' x 59.5' concrete slab with 3' concrete walls. The tank farm is fully enclosed. Therefore, no surface run-on or precipitation will be in contact with the wastes stored in the tank farm and no run-off collection and management system will be deemed necessary. The slab and walls are sealed with a chemical resistant coating. Level gauges (Figure II.C.2-5(a)) are used to measure liquid levels in tanks and float switch-activated automatic high level alarms (which consist of a strobe light and siren) will signal the tank's being 95 percent full. The exact brand of level gauges in use are at least equivalent to those shown in Figure II.C.2-5(a). This alarm allows an operator more than two minutes to stop operations and avoid overfilling the tank. In addition, the gauges of the tank must be read before filling and before and during the filling of a tanker truck (the available volume of which must be noted prior to emptying the tank) to prevent overfilling of the truck or tank. A tank truck pump equipped with a suction pump is used to withdraw used parts washer solvent and spent ethylene glycol from the tank. No other equipment or standby equipment is used in the operation of the aboveground tanks. The secondary

NOTE:
SURPLUS HOSE LENGTH CAN BE COILED & STORED ON ARM PROVIDED AT SIDE OF NOZZLE STORAGE BRACKET.

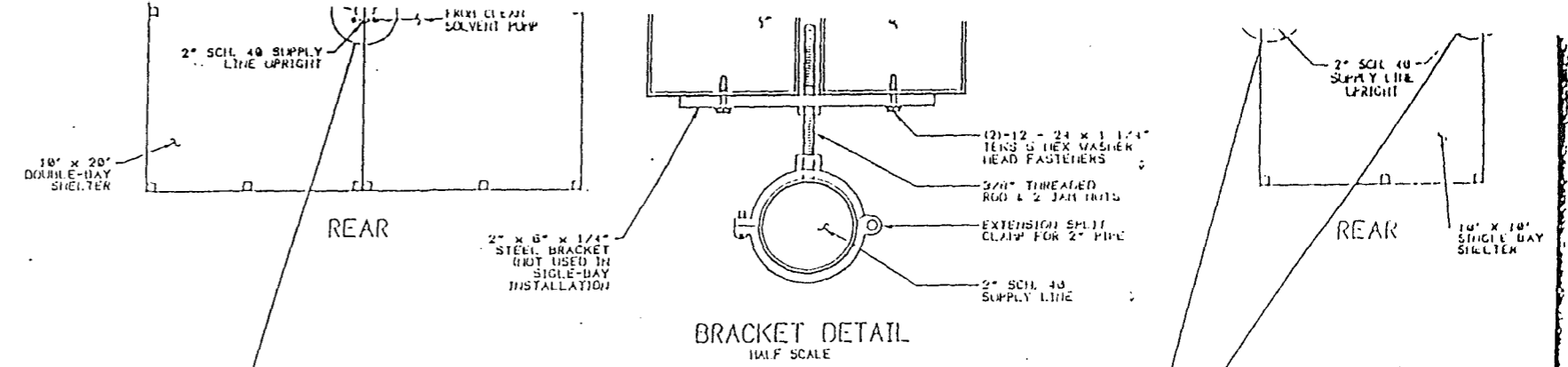


SEPLATE DETAIL
SCALE: 3" = 1'-0"

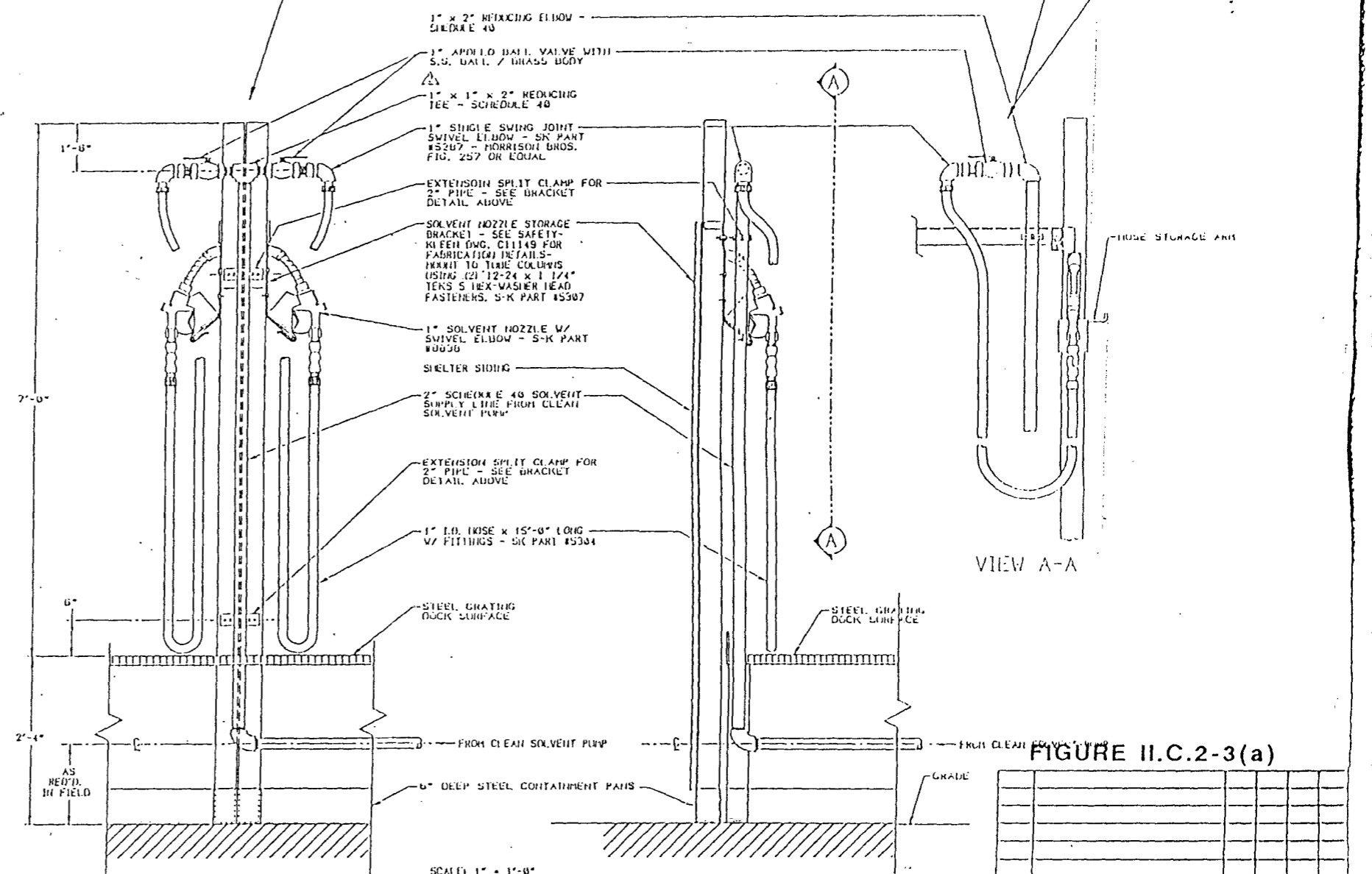


FRONT VIEW
RIGHT SIDE VIEW
SCALE: 1" = 1'-0"

INSTALLATION FOR STANDARD BUILDING PLAN



BRACKET DETAIL
HALF SCALE



DOUBLE OR MULTIPLE BAY INSTALLATION
SINGLE BAY INSTALLATION
SCALE: 1" = 1'-0"

- NOTES:**
- ① ALL ITEMS WITH SAFETY-KLEEN PART NO. REFERENCES WILL BE SUPPLIED TO CONTRACTOR.
 - ② THIS DRAWING CONTAINS INFORMATION PROPRIETARY TO SAFETY-KLEEN CORP. ANY REPRODUCTION, DISCLOSURE OR USE OF THIS DRAWING IS EXPRESSLY PROHIBITED EXCEPT BY SAFETY-KLEEN OR AS SAFETY-KLEEN MAY AGREE IN WRITING.
 - ③ THIS DRAWING SUPERSEDES SAFETY-KLEEN DRAWINGS C10219 & C10301.
 - ④ SEE INDIVIDUAL SERVICE CENTER PLANS FOR LOCATION OF THESE DETAILS.

FIGURE II.C.2-3(a)

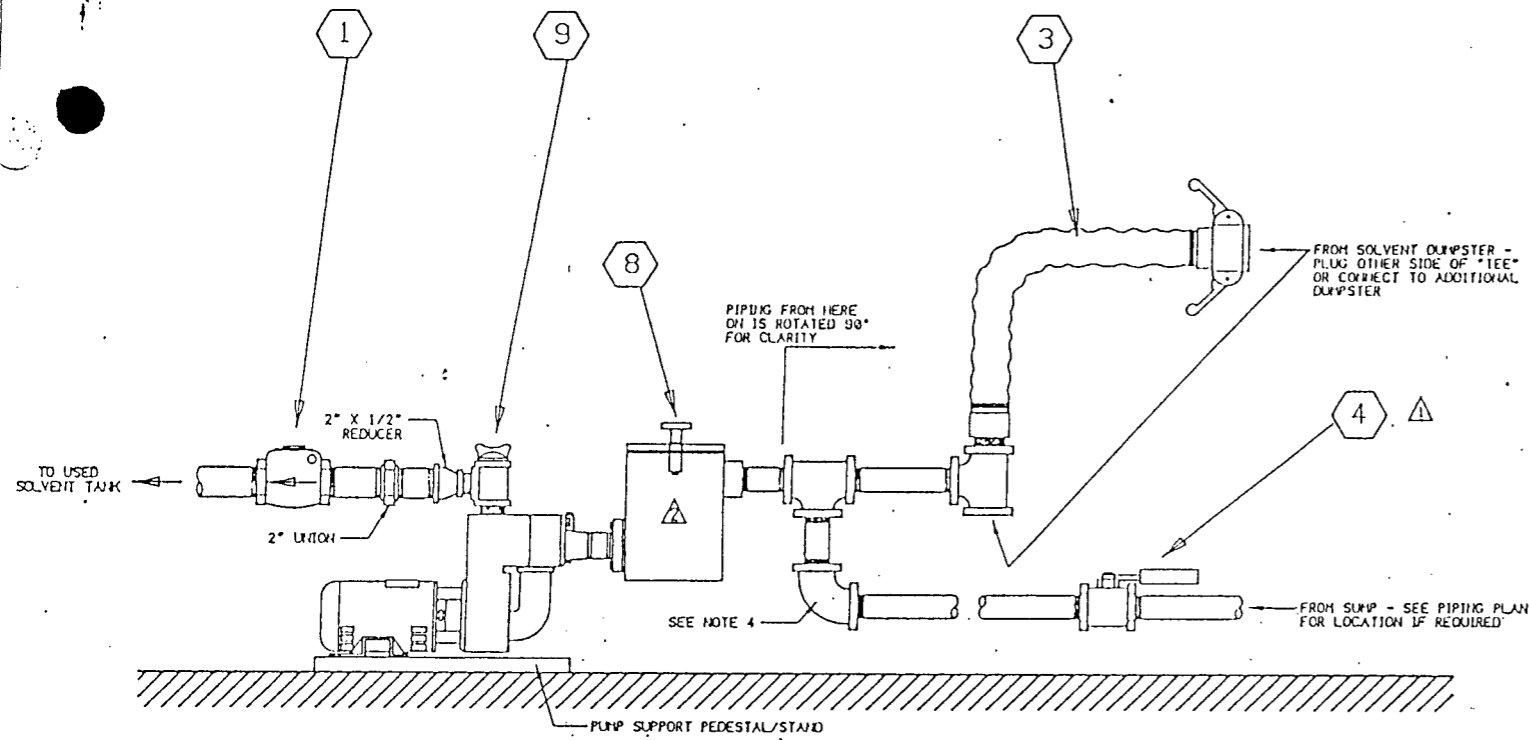
NO.	DESCRIPTION	REV.	DATE
2	ADDED BALL VALVE	NO	4/15
1	ADDED HOSE & WASHING HOLES	W.F.	4/73
101	ISSUED FOR CONSTRUCTION	BT	4/73

TITLE
SOLVENT DISPENSER TREE
INSTALLATION DETAILS

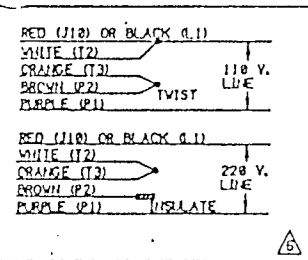
SAFETY-KLEEN CORP.
777 EAST 104TH AND 104TH ST. DES MOINES, IOWA 50314

DATE	BY	SCALE	DATE
1/10/73	AS SHOWN	1/4" = 1'-0"	2/7/73

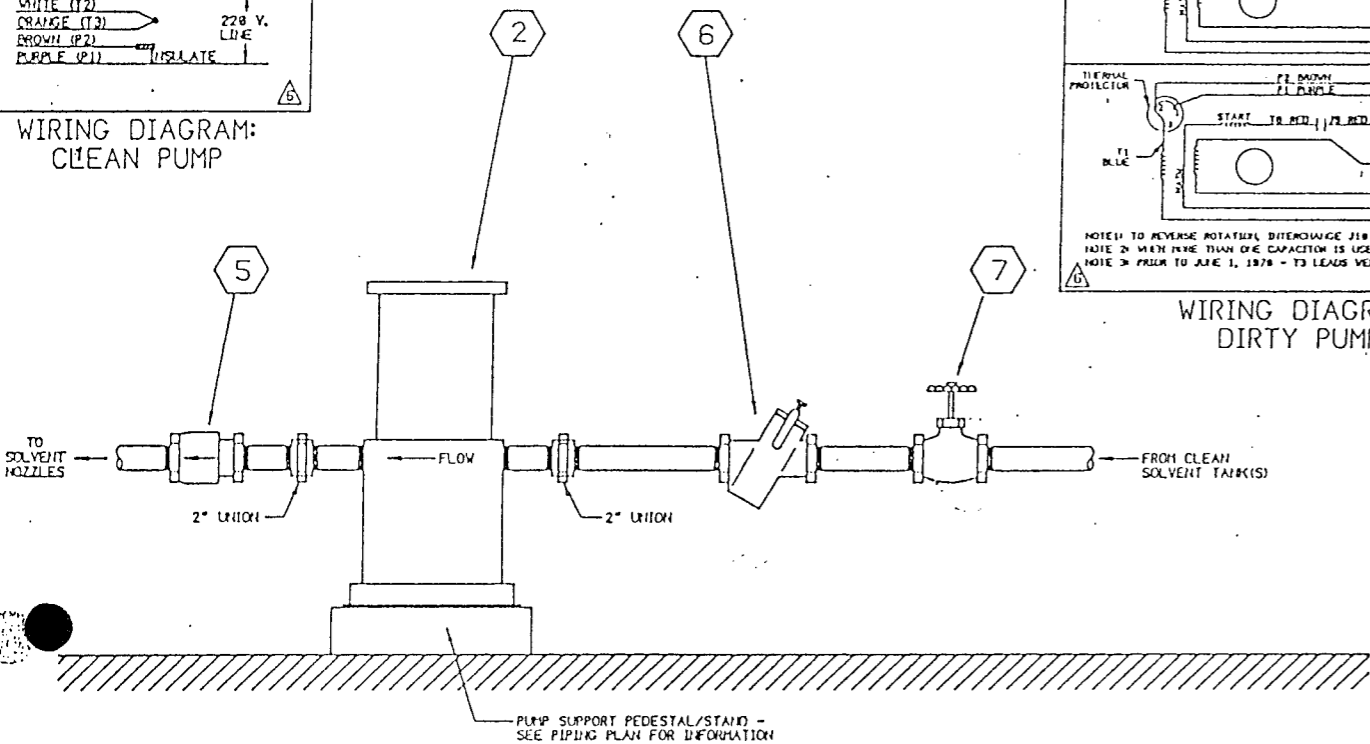
FOR SERVICE CENTER BRANCH
011223



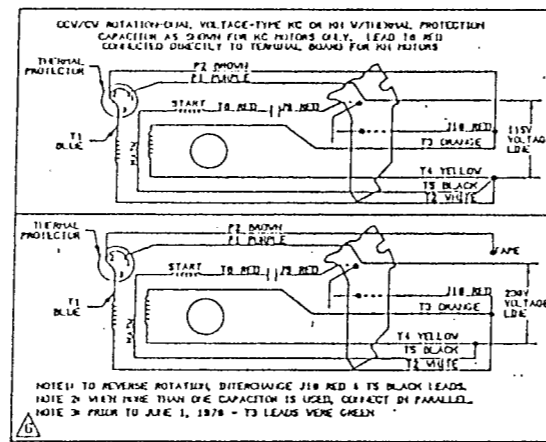
USED SOLVENT PUMP INSTALLATION



WIRING DIAGRAM: CLEAN PUMP



CLEAN SOLVENT PUMP INSTALLATION

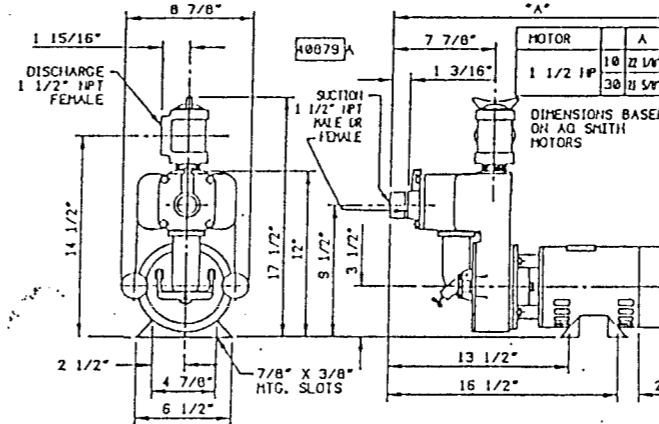


WIRING DIAGRAM: DIRTY PUMP

EQUIPMENT / FIXTURE SCHEDULE				
MARK	SIZE	DESCRIPTION	S-K PART NO.	REMARKS
1	2"	2" BRONZE CHECK VALVE - MORRISON BROS. FIG. 246-A	5288	
2	2"	2" HARLOW PUMP - 20 EYP 18A 1 1/2" EXPLOSION PROOF MOTOR W/JUNCTION BOX - VITON FITTED	5240	SEE SPECIFICATION DETAILS ON SAFETY-KLEEN DWG. A11118 BELOW
3	2"	2" DUMPSTER HOSE ASSEMBLY	5234	SEE SAFETY-KLEEN DWG. D10452 FOR DETAILED INFORMATION
4	2"	2" APOLLO BALL VALVE - BRONZE BODY W/STAINLESS STEEL BALL & TRIM, TEFLOON SEALS & CONRACO SPRING LOADED SELF CLOSING DEADMAN HANDLE	5272	
5	2"	2" BACK PRESSURE VALVE VERTICAL TYPE WITH 6 PSI SPRING SETTING - MORRISON BROS. FIG. 158-B/PR (15 P.S.L. DPE10)	5268	FOR ABOVEGROUND TANK INSTALLATION ONLY
6	2"	2" LINE STRAINER W/TOP CLEAN-OUT W/120 MESH MORRISON BROS. FIG. 286	5269	
7	2"	2" BRONZE GATE VALVE MORRISON BROS.	5236	
8	2"	2" HARLOW SUCTION STRAINER ASSEMBLY MODEL 2810X W/STAINLESS STEEL BASKET W/110 PERFORATIONS	5313	FLANGED DISCHARGE PORT OF STRAINER SERVES AS UNION ON SUCTION SIDE OF PUMP
9	1 1/2"	1 1/2" HARLOW PUMP - 1 1/2"IR49EC, SINGLE PHASE, EXPLOSION PROOF, BUNA FITTED, SELF PRIMING CENTRIFUGAL	5330	SEE DETAIL BELOW LEFT

PUMP UNITS WITH OPEN MOTORS
1 1/2"IR49EC

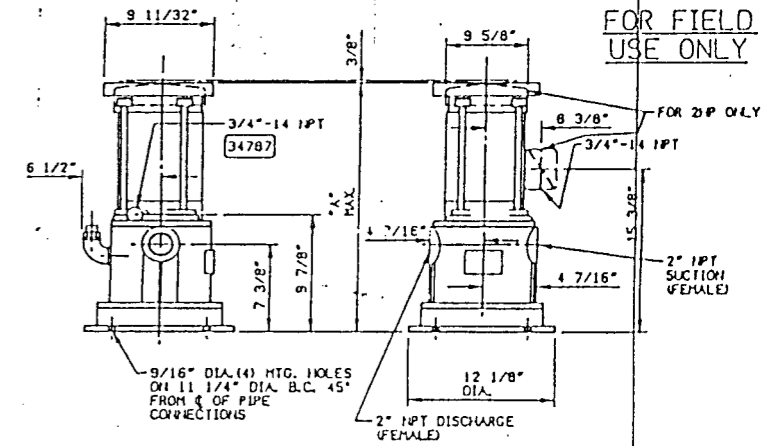
DWGS BASED ON "AO SMITH" MOTORS



ALL DIMENSIONS SHOWN IN INCHES
THESE DIMENSIONS NOT TO BE USED FOR CONSTRUCTION PURPOSES WITHOUT FURNAL FACTORY APPROVAL.

GENERAL NOTES

- THIS DRAWING SUPERCEDES SAFTY-KLEEN CORP. DRAWING A1118
- SEE INDIVIDUAL SERVICE CENTER SITE & PIPING PLANS FOR LOCATIONS & ARRANGEMENT OF THESE DETAILS.
- FOR UNDERGROUND TANK INSTALLATIONS, A 90° CHECK VALVE MORRISON BROS. FIG. 137 OR APPROVED EQUAL SHOULD BE INSTALLED AT TOP OF TANK ON CLEAN PUMP SUCTION LINE (CLEAN TANKS ONLY).
- ALL PIPING TO BE 2" SCHEDULE 40 GALVANIZED UNLESS OTHERWISE SPECIFIED. ALL CHANGES OF DIRECTION IN DIRTY SOLVENT PIPING TO BE ACCOMPLISHED USING EITHER (2)-45° ELBOWS OR (1)-LONG RADIUS 90° ELBOW.
- THIS DRAWING CONTAINS INFORMATION PROPRIETARY TO SAFETY-KLEEN CORP. ANY REPRODUCTION, DISCLOSURE OR USE OF THIS DRAWING IS EXPRESSLY PROHIBITED EXCEPT BY SAFETY-KLEEN OR AS SAFETY-KLEEN MAY AGREE IN WRITING.
- ALL ITEMS WITH SAFETY-KLEEN PART NO. REFERENCES WILL BE SUPPLIED TO CONTRACTOR.



GENERAL NOTES

- MODEL TO BE USED BY SAFETY-KLEEN CORP. - MODEL 20 EYP-10A, 1 1/2" - 2" WITH EXPLOSION PROOF MOTOR W/JUNCTION BOX & VITON FITTED, SINGLE PHASE 60 CYCLE 115/230V.
- SEE INDIVIDUAL SERVICE CENTER SITE PLANS FOR LOCATION OF THE INSTALLATION.

S-K PART NO.	G.E. EXPL. PROOF MOTORS			
	HP	PHASE	CYCLE	A
5240	1	60	20 13/32"	115/230

FIGURE 11.C.2-3(b)

NO.	DESCRIPTION	BY	CHKD	DATE
1	ADDED V.O.'S FOR CLEAN & USED PUMPS	RD		
2	ADDED NEW PUMP FOR DIRTY SOLVENT TO VITON TANK, ACROSS PUMP SPEC'S	RD		
3	ADDED NOTE 6	VLJ		
4	ADDED PUMP SPEC'S - DVG A11118	VLJ		
5	ADDED ITEM 1 & ADDED TO NOTE 1	VLJ		
6	DIMAGED ITEM 1 TO REV TYPE VALVE	VLJ		

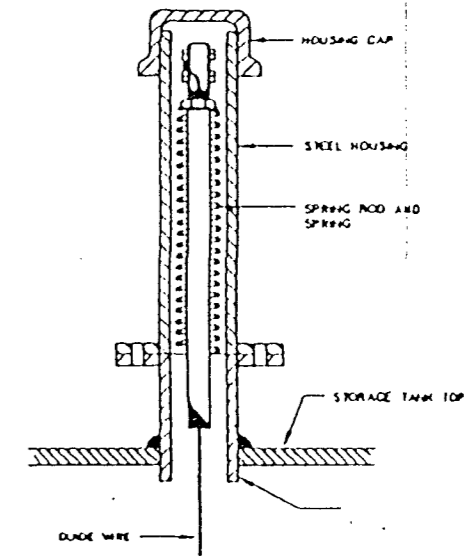
TITLE
SOLVENT PUMP PIPING
INSTALLATION DETAILS

SAFETY-KLEEN CORP.
777 8th Street, Kansas City, Missouri 64101

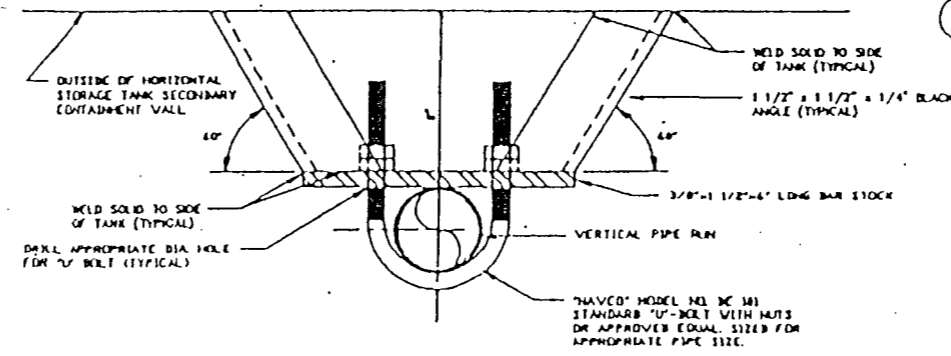
PROJ. ENG. APPR. OPERATIONS APPR. SCALE: 1/16" = 1'-0" DRAWING NO. 115/230-100

DATE: 2/24/89
FOR SERVICE CENTER DRAWING: D11150

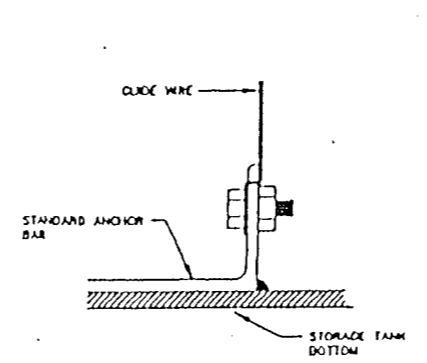
EQUIPMENT SCHEDULE VAREC AUTOMATIC TANK GAUGE 2500 SERIES		
MARK	PART DESCRIPTION	REMARKS
①	GAUGE HEAD, IRON HOUSING AND SHEAVES, 304 S.S. TRM	
②	GAUGE TAPE, 316 STAINLESS STEEL	
③	TOP GUIDE WIRE ANCHOR, STEEL HOUSING & SPRING ROD, CAD PLATE STEEL SPRING	SEE DETAIL 4
④	GAUGE FLOAT, 316 S.S. HOLLOW SHELL WELDED	
⑤	TAPE PASTER, 316 STAINLESS STEEL	
⑥	BOTTOM GUIDE WIRE ANCHOR, STEEL	SEE DETAIL 2
⑦	SHEAVE ELBOW, IRON HOUSING, 316 S.S. TRM, TEFYON BEARING	
⑧	GUIDE WIRE, 316 STAINLESS STEEL	



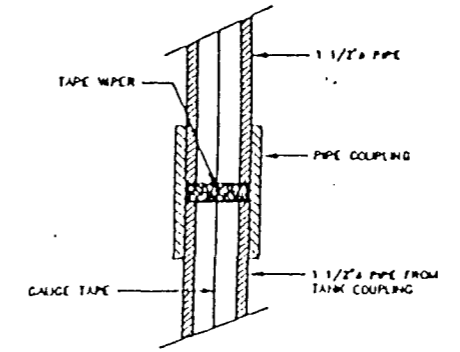
④ TOP GUIDE WIRE ANCHOR DETAIL
SCALE: NONE



① VERTICAL PIPE SUPPORT DETAIL
NOTE: SIMILAR DETAIL TO BE USED FOR SUPPORTING PIPE RUNS ACROSS TANK TOPS.
NOTE: PART 'U'-BOLT & NUTS, BARSTOCK, & ANGLES PER TANK PAINTING SPECS.
SCALE: NONE



② BOTTOM GUIDE WIRE ANCHOR DETAIL
SCALE: NONE



③ TAPE WIPER DETAIL
SCALE: NONE

FIGURE II.C.2-5(a)

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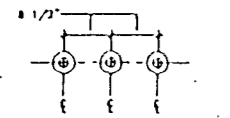
- SEE TANK/ARM PIPING PLAN FOR ACTUAL TANK GAUGE LOCATION.
- TANK GAUGE TO BE INSTALLED PER VAREC 2500 SERIES LOW PRESSURE AUTOMATIC TANK GAUGE INSTRUCTION MANUAL.
- PIPING FOR VAREC TANK GAUGE TO BE SCHEDULE 40 GALVANIZED, SUPPORTED EVERY 8'-0" MAXIMUM AND ALL EXPOSED NON-PROTECTED STEEL IS TO BE PAINTED PER SPECS.
- RETROFIT THE EXISTING 8000 GALLON TANK FOR THE REQUIRED TANK COUPLINGS.

QUESTEC
CORPORATION
10000 W. 10th Ave., Suite 100, Denver, CO 80202

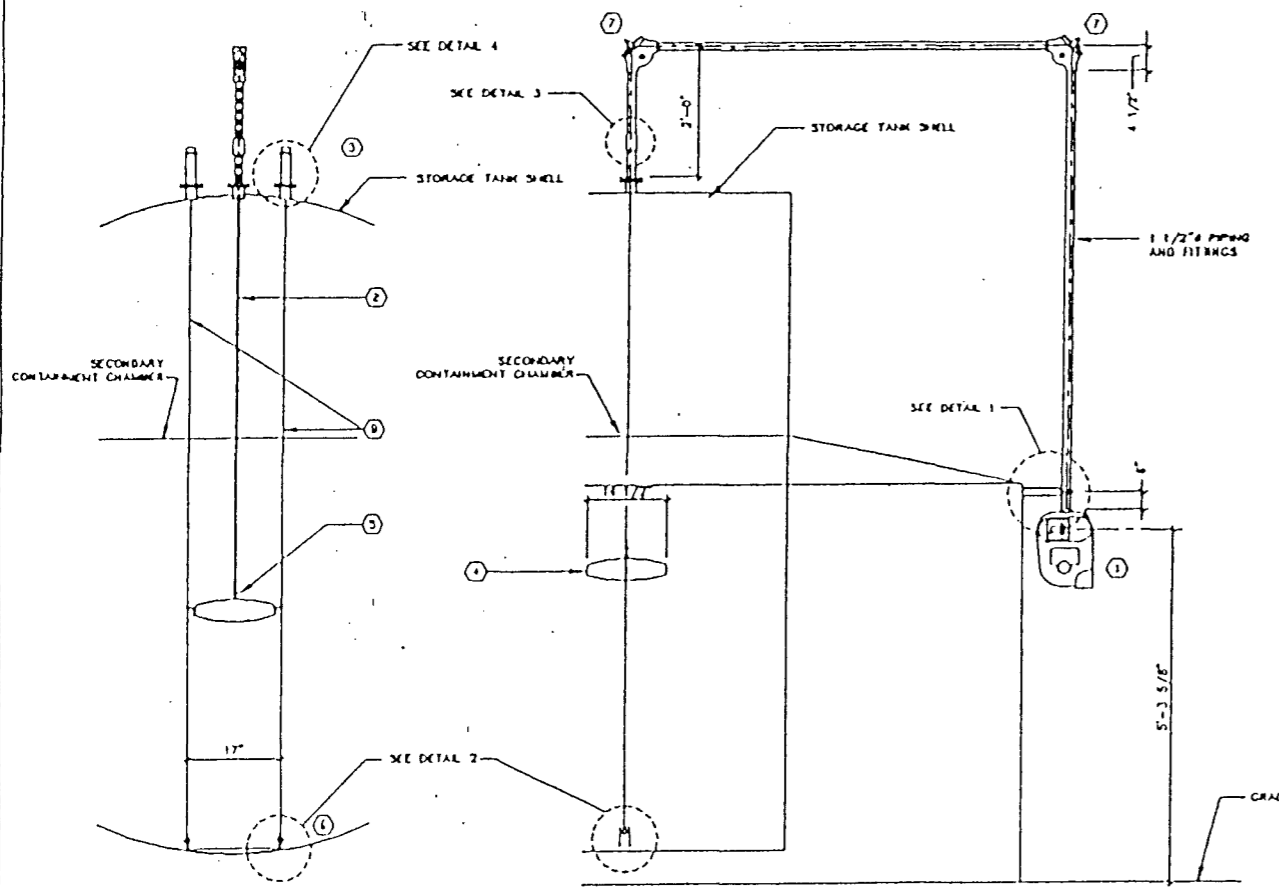
VAREC GAUGE DETAILS FOR HORIZONTAL TANK

SAFETY-KLEEN CORP.
777 W. FIFTH AVE. 11TH FL. DENVER, CO 80202 PHONE 786-6444

SCALE	BY	CHKD	FILE APPR	OP. APPR	DATE
AS SHOWN	Quinn				2-11-82
SERVICE CENTER LOCATION	SC. LANG. REV. NO.	619302-3500-00		3-11-80	
REVISE					



HOLE LAYOUT IN STORAGE TANK ROOF

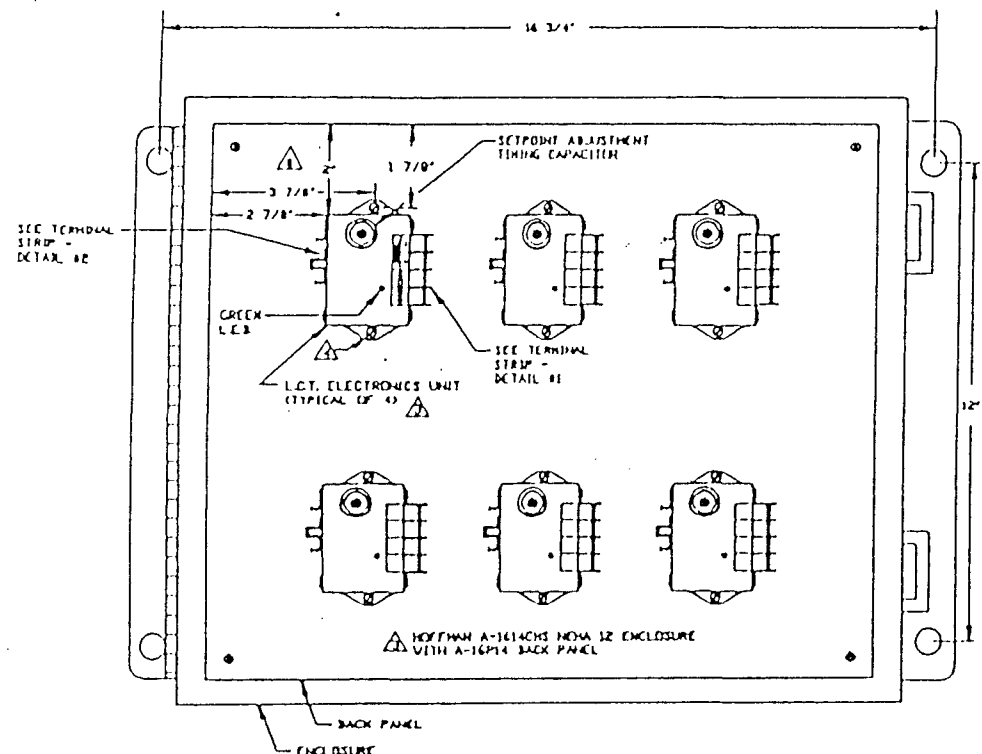


HORIZONTAL STORAGE TANK GAUGE INSTALLATION DETAILS
SCALE: NONE

3-21-82 5:00PM 2500-0.DWG

CALIBRATION PROCEDURE FOR ELECTRONICS UNIT

1. VERIFY THAT THE LIQUID IS NOT COVERING THE PROBE. THIS CAN BE DONE BY CHECKING THE READING ON THE TANK'S TAPE GAUGE. IF THE TANK IS LESS THAN FULL, THE PROBE WILL NOT BE IMMERSED IN LIQUID.
2. THE CALIBRATION SHOULD BE PERFORMED WITH ALL SYSTEM ELECTRICAL CONNECTIONS COMPLETE. ANY CHANGE IN ELECTRICAL CONNECTIONS AFTER CALIBRATION INVALIDATES THE CALIBRATION. NEATLY DRESS ALL WIRING. ALL SLACK IN THE WIRES SHOULD BE PUSHED DOWN INSIDE THE CONDUIT, WITHOUT STRADDLING THE WIRES. THIS PROTECTS THE WIRES FROM DAMAGE WHEN THE CAP OF THE CONDUIT IS SCREWED ON. ALSO, IF THE WIRES ARE LYING TOO HIGH IN THE CONDUIT, STRAY CAPACITANCE FROM THE METAL CAP CAN ALTER THE OPERATING POINT OF THE ELECTRONICS UNIT.
3. USING THE PLASTIC TUNING WRENCH SUPPLIED WITH THE ELECTRONICS UNIT, TURN THE TUNING CAPACITOR TO THE FULLY COUNTERCLOCKWISE POSITION. THEN SLOWLY TURN THE TUNING WRENCH CLOCKWISE UNTIL THE GREEN LIGHT ILLUMINATES. THIS IS THE OPERATING POINT OF THE SENSOR. IDENTIFY EXACTLY THIS OPERATING POINT.
4. TO CHECK HYSTERESIS OF THE ELECTRONICS UNIT, TURN THE TUNING CAPACITOR CLOCKWISE UNTIL THE GREEN LIGHT TURNS OFF. COUNTERCLOCKWISE TRAVEL SHOULD BE NO MORE THAN 1/8 TURN. IF HYSTERESIS IS GREATER THAN THIS, CONTACT ENGINEER.
5. RETURN THE TUNING CAPACITOR TO EXACTLY THE POSITION OF THE OPERATING POINT AND THEN TURN THE TUNING WRENCH CLOCKWISE EXACTLY ONE-1/4 TURN. ADDITIONAL TURN (1/4 TURN) THE GREEN LIGHT SHOULD REMAIN ILLUMINATED. REMOVE THE TUNING WRENCH CAREFULLY. SCREW THE CAP ON THE CONDUIT.
6. PROVIDE ENGINEER WITH WRITTEN VERIFICATION THAT CALIBRATION PROCEDURE WAS FOLLOWED. IDENTIFY THE TANK, DOCUMENT HYSTERESIS, NAME OF COMPANY AND INDIVIDUAL THAT PERFORMED PROCEDURE, AND DATE OF CALIBRATION.



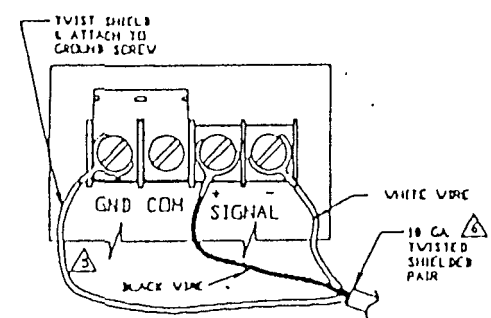
L.C.T. REMOTE ELECTRONICS CONTROL CABINET
SCALE: 1/2" = 1'-0"

FIGURE II.C.2-5(b)

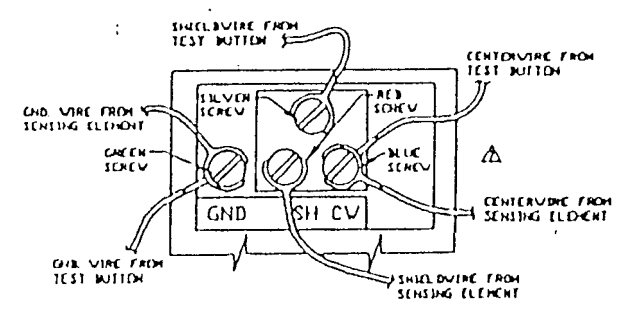
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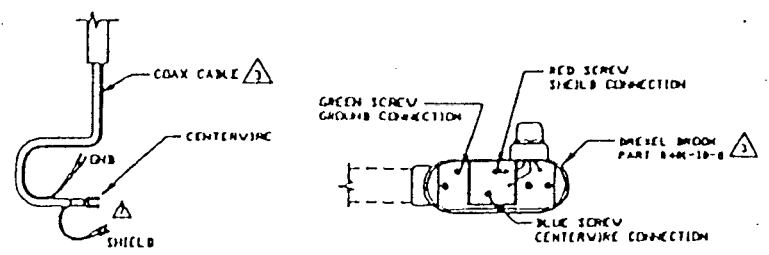
1. USE PROPER INSULATED SPARE TERMINAL LUG TO MATCH CONDUCTOR SIZE & TERMINAL SCREW SIZE. F & I BY CONTRACTOR.
 2. INSTALL STAR WASHERS ON EVERY TERMINAL SCREW AT LCT SENSING ELEMENT, LCT ELECTRONICS UNIT, AND PUSH-TO-TEST SWITCH. F & I BY CONTRACTOR.
- ⚠ SUPPLIED BY SAFETY-KLEEN
 - ⚠ LOCATE ELECTRONIC UNITS AS SHOWN AND MARK LOCATION OF CONNECTING LUGS ON BACK PANEL. DRILL HOLES THROUGH PANEL FOR 1/2" DIA. BOLTS. INSTALL EACH ELECTRONIC UNIT 1/2" x 1 1/2" x 3/4" BOLTS THROUGH BACK SIDE OF PANEL AND TIGHTEN.
 - ⚠ UNRAVEL METALLIC BRAID FROM THE 2 INSULATED WIRES & SEPARATE TO A LENGTH OF ABOUT 3". TWIST BRAID & CRIMP ON AN 18-22 GA. TERMINAL SPARE LUG. TAPE Braid WITH ELECTRICAL TAPE TO PREVENT SHORTING SIGNAL LEAD WIRES. (USE 34 OR 36 GA. EQUAL)
 - ⚠ STRIP ABOUT 3/16" - 3/8" INSULATION OFF EACH WIRE. CRIMP AN 18-22 GA. TERMINAL SPARE LUG ON EACH.
 - ⚠ SEE DWG. NO. 4342 FOR CABLE TERMINATION PROCEDURE.
 - ⚠ LOCATION DIMENSIONS ARE TYPICAL FOR LCT ELECTRONICS UNITS.



TERMINAL STRIP DETAIL #1
SCALE: 1/2" = 1'-0"



TERMINAL STRIP DETAIL #2
SCALE: 1/2" = 1'-0"



PUSH-TO-TEST BUTTON WIRING DETAIL
SCALE: 1/2" = 1'-0"

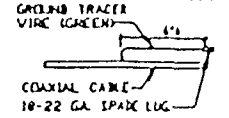
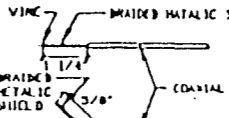
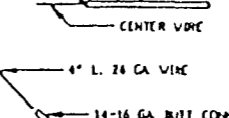
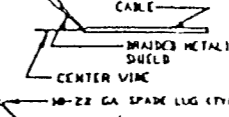
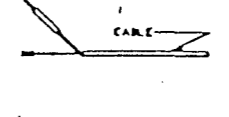
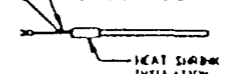
NO.	DESCRIPTION	BY	OW	APP'D	DATE

L.C.T. ELECTRONICS CONTROL CABINET DETAILS

SAFETY-KLEEN CORP.

777 W. 130th St. Cleveland, Ohio 44115
 SCALE: AS SHOWN
 SERVICE CENTER LOCATION: 619302-4503-00
 DATE: 3-11-82
 SHEET NO: 16

TERMINATIONS OF COAXIAL CABLE

- CUT CABLE TO REQUIRED LENGTH PLUS 9". STRIP THE GROUND TRACER WIRE AWAY FROM THE COAX TO A LENGTH OF ABOUT 6". STRIP ABOUT 1/4" OF INSULATION FROM THE END OF THE WIRE. CRIMP AN 18-22 GA. SPADE TERMINAL LUG ONTO THE GROUND WIRE.
 
- TRIM OUTER INSULATION BACK 1 1/4", CUTTING DOWN TO BUT NOT INCLUDING BRAIDED METALLIC SHIELD.
 
- UNRAVEL THE METALLIC BRAID FROM THE CENTER WIRE. INSULATING TWIST THE BRAID TIGHTLY TOGETHER. CUT THE TWISTED BRAID TO A LENGTH OF ABOUT 5/8".
 
- USING A 14-16 GA. CRIMP-ON BUTT CONNECTOR ATTACH A 4" PIECE OF 28 GA. STRIPPED INSULATED WIRE TO THE TWISTED BRAID. IN ORDER TO MAKE A STRONG CONNECTION WITH THE LARGER GAUGE OF THE BUTT CONNECTOR, A 3/8" STRIPPED LENGTH OF THE 28 GA. WIRE SHOULD BE TWISTED AND THEN FOLDED BACK UPON ITSELF BEFORE INSERTION INTO THE BUTT CONNECTOR. CRIMP AN 18-22 GA. SPADE TERMINAL LUG ONTO THE OTHER END OF THE 4" WIRE.
 
- TRIM ABOUT 1/4" OF THE INNER PLASTIC INSULATION TO EXPOSE THE CENTER WIRE. SLIP AN 18-22 GA. SPARK TERMINAL LUG OVER THE BASE. CENTER WIRE SO THAT THE INSULATION OF THE SPARK LUG BOTTOMS OUT ON THE INNER INSULATION AND THE TIP OF THE WIRE SHOWS AT THE LUG END. CRIMP THE LUG AND TRIM ANY EXCESS CENTER WIRE.
 
- SLIP 1" OF 1/2" DIAMETER HEATSHRINK INSULATION OVER CABLE ENDS SO THAT ALL METALLIC BRAID IS WELL COVERED. HEAT THE INSULATION UNTIL IT SHRINKS AND TIGHTLY GRIPS THE CABLE. (DRY HEAT SOURCE OF 200-250 DEGREES NEEDED. A PROPANE TORCH WITH A LOW LEVEL FLAME IS RECOMMENDED.)
 

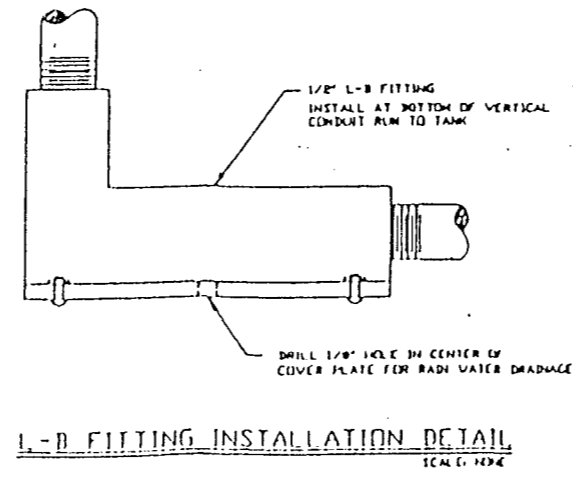
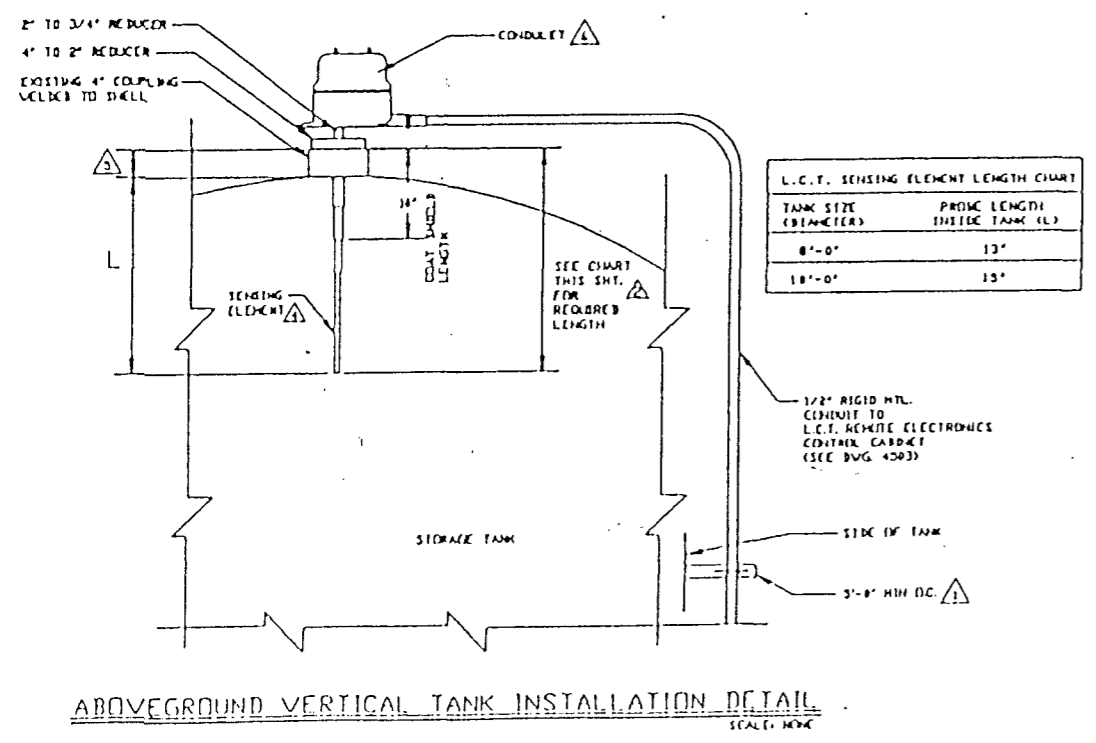
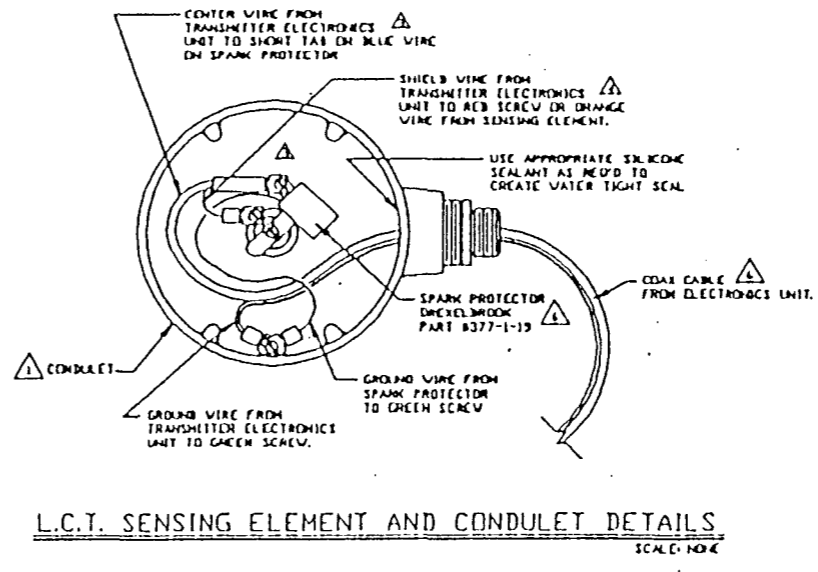
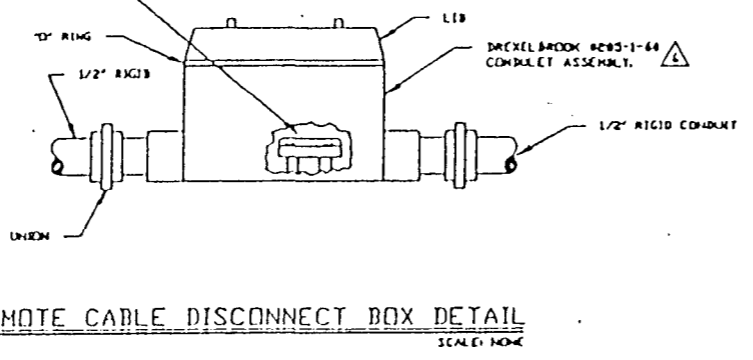
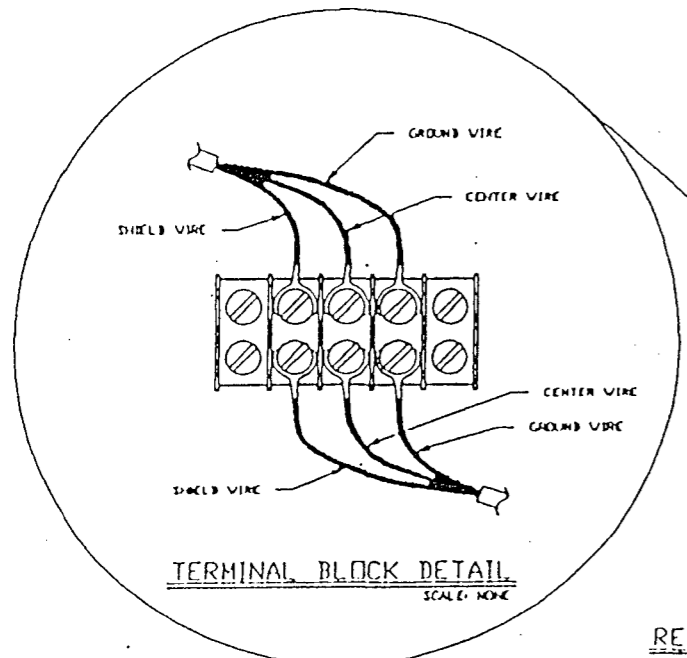
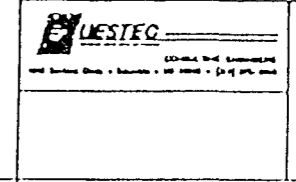


FIGURE II.C.2-5(c)

GENERAL NOTES

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- CONTRACTOR TO SUPPLY & INSTALL CONDUIT SUPPORTS AND BRACKETS AS REQUIRED.
- CALCULATIONS FOR LENGTH OF PROBE INSIDE OF TANK ARE SET TO ACTIVATE THE ALARM AT THE 95% VOLUME LEVEL.
- BLUE WIRE REPLACES SHORT TAB ON OLDER TYPE SPARK PROTECTORS WHICH MAY BE FOUND IN THE FIELD.
- ORANGE WIRE REPLACES RED SCREW ON OLDER TYPE SENSING ELEMENTS WHICH MAY BE FOUND IN THE FIELD.
- CONTRACTOR TO FIELD VERIFY THE HEIGHT OF THE COUPLING. THE CONTRACTOR SHALL ADJUST THE LENGTH OF THE PROBE TO ACHIEVE THE INDICATED LENGTH (L) INSIDE THE TANK. THE PROBE CAN BE CUT OR WELDED AS REQUIRED. THE MATERIAL IS 304 STAINLESS STEEL 3/8" DIAMETER.
- SUPPLIED BY SAFETY-KLEEN.

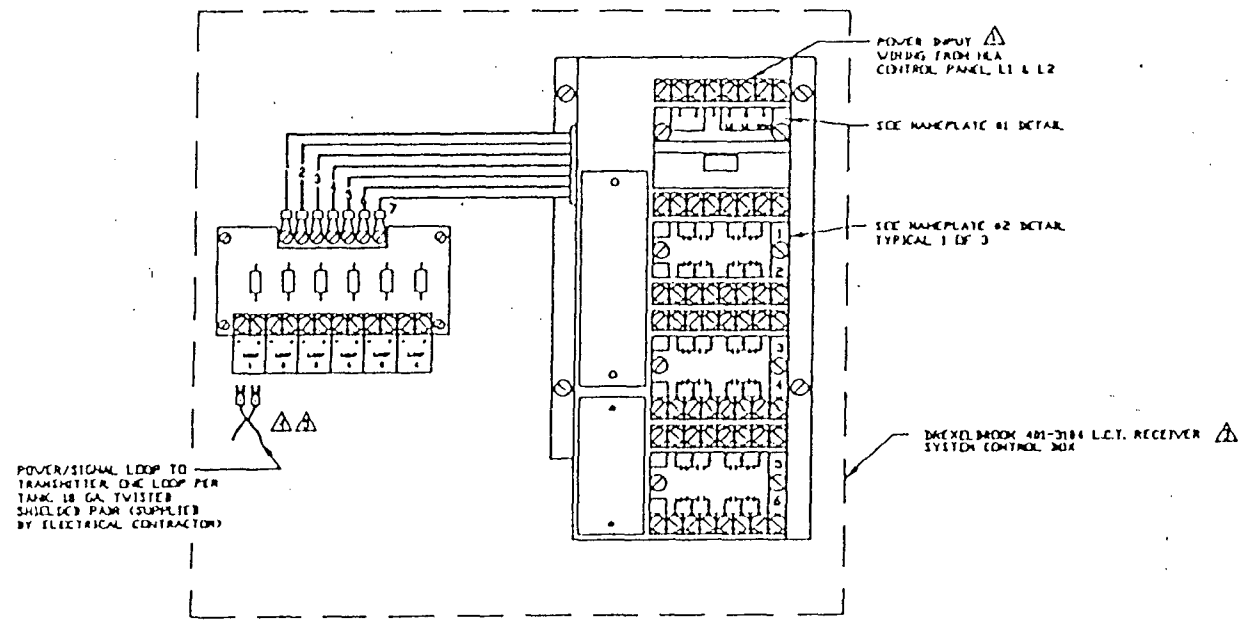


FILE
HILA SENSOR TO REMOTE TRANSMITTER DETAILS
HORIZONTAL TANK

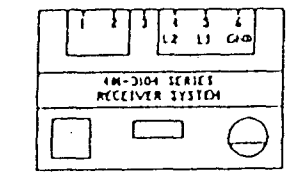
SAFETY-KLEEN CORP.
777 DE THOMAS ROAD, DEERFIELD BEACH, FLORIDA 33442-4000

SCALE	BY	CHKD	P.E. APPR	DP APPR	DATE
AS SHOWN	Quantity				2-11-83
SERVICE CENTER LOCATION			NO. DRAWING NO.	SHEET NO.	
			619302-4502-00	15	

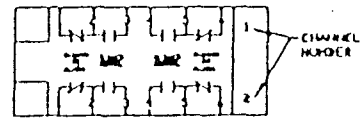
4-1-82 2:30pm



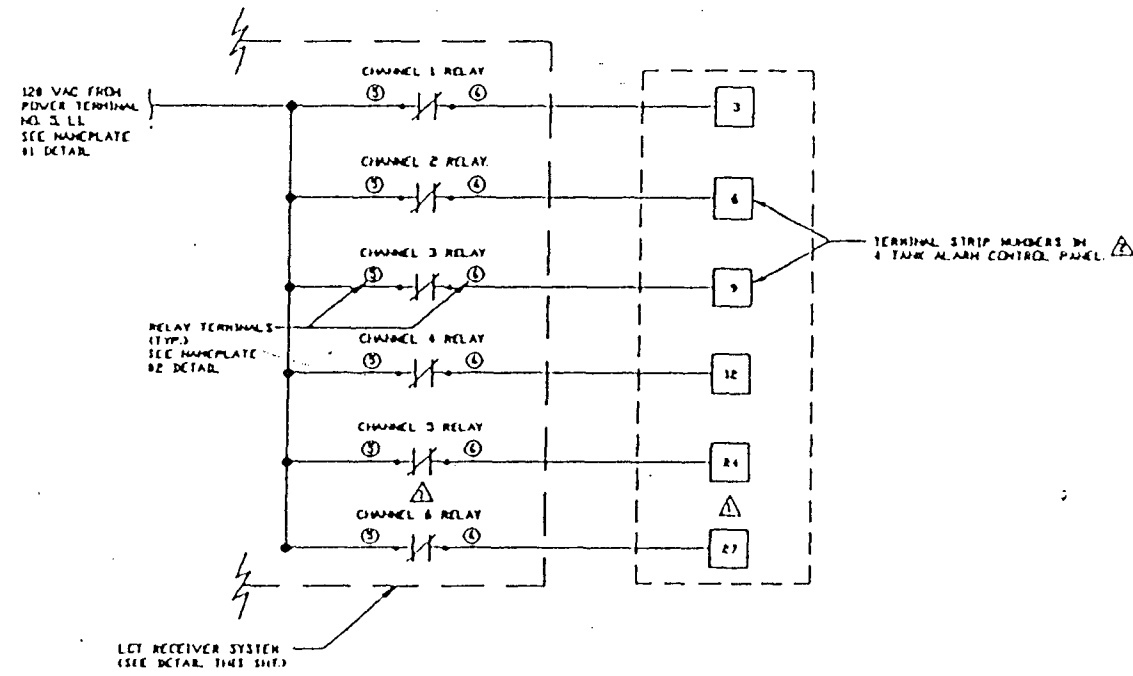
LCT RECEIVER SYSTEM COMPONENT LAYOUT DETAIL
SCALE: NONE



NAMEPLATE #1 DETAIL
SCALE: NONE



NAMEPLATE #2 DETAIL, TYP.
SCALE: NONE

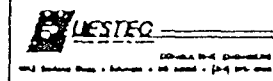


WIRING DETAILS TO ALARM CONTROL PANEL
SCALE: NONE

FIGURE II.C.2-5(d)

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- DO NOT USE CHANNELS 5 AND 6 FOR A PAK TANK ARM.
- SEE DWG. NO. 4504 & 4507.
- SUPPLIED BY SAFETY-KLEEN.
- UNRAVEL METALLIC BRAID FROM THE 2 INSULATED WIRES & SEPARATE TO A LENGTH OF ABOUT 2". UNRAVEL METALLIC BRAID FROM THE 2 INSULATED WIRES & SEPARATE TO A LENGTH OF ABOUT 2". TWIST BRAID & CRIMP ON AN 18-22 GA. TERMINAL SPARE LUG TAPE BARE BRAID WITH ELECTRICAL TAPE TO PREVENT SHORTING SIGNAL LOOP WIRES (USE OR 331 OR EQUAL).
- STRIP ABOUT 3/16" - 3/8" INSULATION OFF EACH WIRE. CRIMP AN 18-22 GA. TERMINAL SPARE LUG ON EACH.



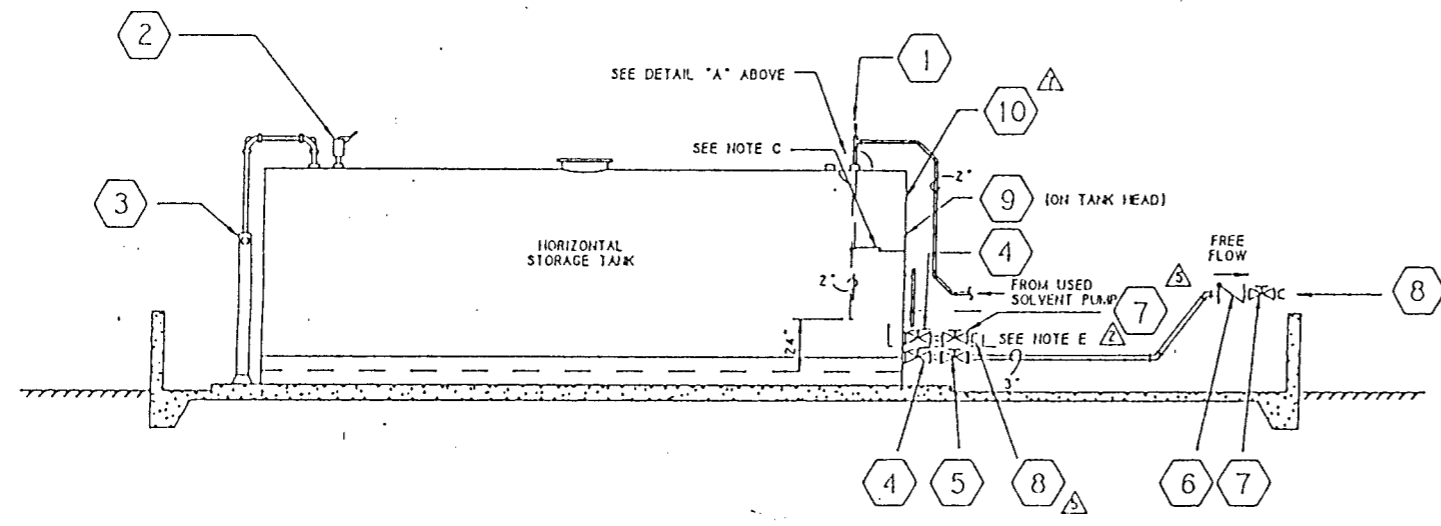
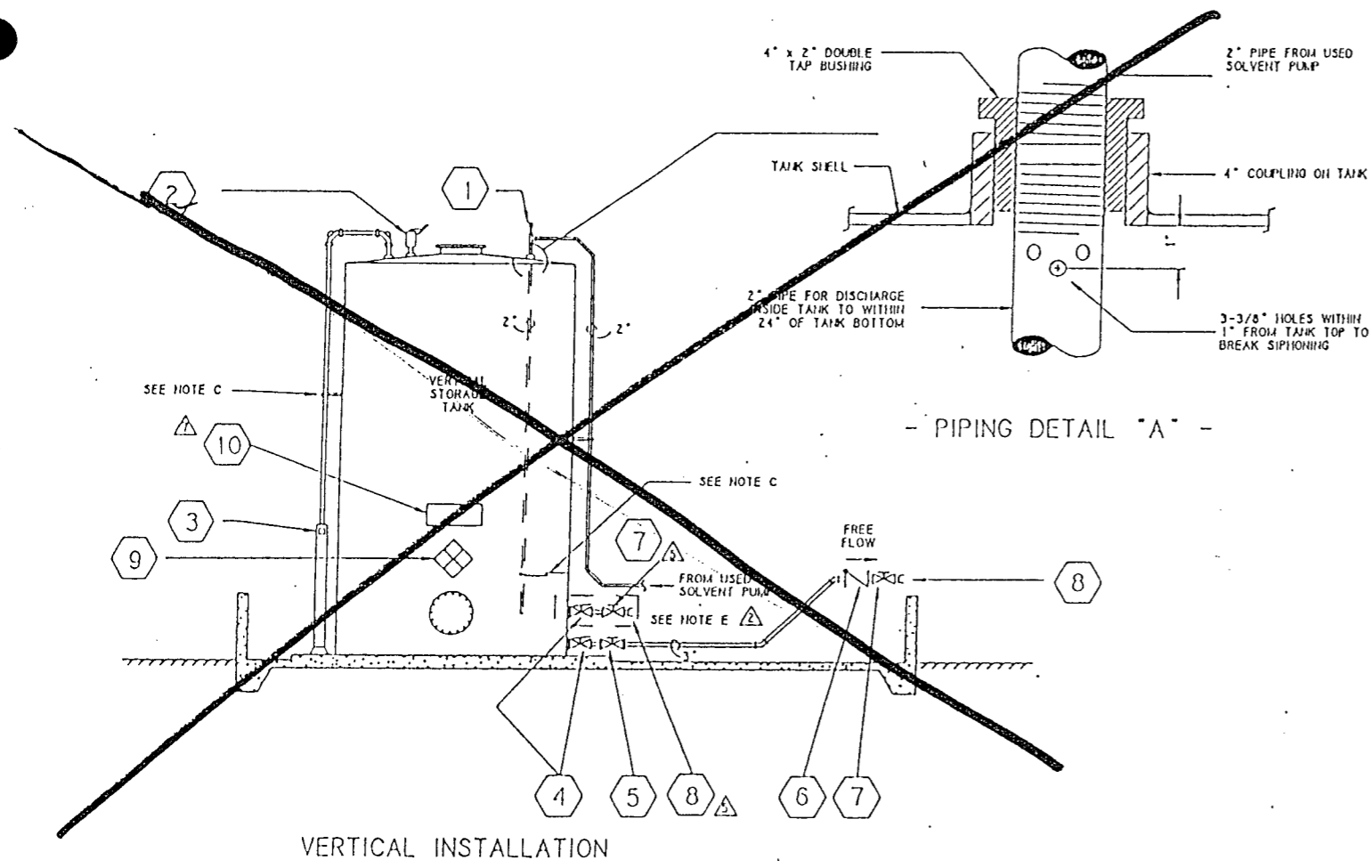
NO.	DESCRIPTION	BY	CHK	APPR	DATE

L.C.T. HLA RECEIVER SYSTEM DIAGRAM

S SAFETY-KLEEN CORP.
777 W. FIFTH AVE. ST. LOUIS, MO. 63102-4504

SCALE	BY	CHKD	DATE
AS SHOWN			3-11-71
NO. OF SHEETS	DESCRIPTION	NO. OF SHEETS	DATE
17		619.302-4504-00	

11-1-71 3:30pm



NOTE: WHEN HORIZONTAL TANKS ARE USED A 3" HIPPLE IS REQUIRED BETWEEN THE INTERNAL EMERGENCY & GATE VALVE

- EQUIPMENT/FIXTURE SCHEDULE -

MARK	SIZE	DESCRIPTION	SK PART NO.	REMARKS
1	3/8"	3/8" AUTOMATIC VACUUM BREAKERS MORRISON BROS. FIG. 134-A	5274	---
2	3"	3" SCREWED PRESSURE/VACUUM VEHT MORRISON BROS. FIG. 548 (2 OZ. PRESSURE - 1 OZ. VACUUM)	5339	---
3		TANK GAUGE - MOORMAN BROS. MODEL NO. 7-5	5277	SEE INSTALLATION DETAILS ON SAFETY-KLEEN DWG. A10243
4	3"	3" INTERNAL EMERGENCY VALVE MORRISON BROS. FIG. 272-1K0 W/212°F FUSIBLE LINK	5267	SEE INSTALLATION DETAILS ON SAFETY-KLEEN DWG. C11302
5	3"	3" DUCTILE IRON GATE VALVE W/ROUND FLANGED ENDS - MORRISON BROS. FIG. 234-D1	5276	SEE INSTALLATION DETAILS ON SAFETY-KLEEN DWG. C11302
6	3"	3" BRONZE CHECK VALVE - MORRISON BROS. FIG. 246-A	5266	---
7	3"	3" BRONZE GATE VALVE - MORRISON BROS. FIG. 235-B LOCKING TYPE	5265	---
8	3"	3" ALUMINUM CAM-LOCK QUICK COUPLING - MORRISON BROS. MALE ADAPTOR PART F W/DUST CAP & CHAIN	5264	COUPLING TO BE INSTALLED SIX (6) INCHES ABOVE DIKE WALL
9	---	HFPA MATERIAL IDENTIFICATION PLACARD	2452	DISPLAY IN PLAIN SIGHT ABOVE DIKE WALL
10	---	"COMBUSTIBLE-KEEP FIRE AWAY" SIGN	61207	DISPLAY IN PLAIN SIGHT ABOVE DIKE WALL

- GENERAL NOTES -

- (A) THIS DRAWING SUPERCEDES SAFETY-KLEEN CORP. DRAWINGS C10235 & C10236.
- (B) SEE INDIVIDUAL SERVICE CENTER SITE PLANS FOR DIKE DIMENSIONS AND RELATED INFORMATION AND ALSO LOCATION AND ARRANGEMENT OF THESE PIPING DETAILS.
- (C) ALL PIPING TO BE SCHEDULE 40 GALVANIZED AND BE SUPPORTED EVERY (8) RUNNING FEET - CONTRACTOR TO SUPPLY ALL BRACKETS, CLAMPS, ETC. AS REQUIRED FOR SUPPORTING PIPE - ALL EXPOSED THREADS AT JOINTS TO BE PAINTED WITH A RUST RESISTANT EXTERIOR GRADE PAINT. PIPING SUPPORT HARDWARE TO BE UNISTRUT-BRAND OR APPROVED EQUIVALENT.
- (D) ALL DIRECTION CHANGES IN DIRTY SOLVENT LINES TO BE MADE USING A COMBINATION OF 45° ELBOWS OR LONG SWEEP 90° ELBOWS.
- (E) THIS INSTALLATION TO BE MADE WHERE NEW TANKS ARE TO BE INSTALLED AT ANY LOCATIONS PRONE TO FREEZING. SEE INSTALLATION DETAILS ON SAFETY-KLEEN DWG. C11302.
- (F) ALL ITEMS WITH SAFETY-KLEEN PART NO. REFERENCES WILL BE SUPPLIED TO CONTRACTOR.

NO.	DESCRIPTION	BY	CHKD	APPR	DATE
1	ADDED NOTE	C.S.			8/13/88
2	CHANGED PART NO. 5273 TO 5339	J.B.H.			5/2/88
3	ADDED "COMBUSTIBLE" SIGN	R.D.			3/27/88
4	REV. GEN. NOTES NO. SYSTEM TO LETTERS	C.S.			3/26/87
5	REMOVED 3" PLUM-ADDED VALVE/CAM-LOCK	W.L.J.			3/22/85
6	ADDED ITEM 5 TO SCHEDULE L DWG.	W.L.J.			11/5/81
7	ADDED NOTE F	W.L.J.			10/23/84
8	REVISED DETAIL H NOTE E 3RD ON DWG.	W.L.J.			12/5/83
9	ADDED NOTE E TO NOTES L TO (PG.	W.L.J.			8/28/83

FIGURE II.C.2-4(a)

8-24-89 P80

USED SOLVENT STORAGE TANK INSTALLATION DETAILS

SAFETY-KLEEN CORP.

777 SW THURMAN ROAD, BURLINGAME, CALIF. 94010 PHONE 310/681-8445

PROJ. NO.	DATE	OPERATIONS APPR.	SCALE	DRAWN	DATE
			NTS	W.L.J.	8/31/83

FOR BRAN SERVICE OF 1124

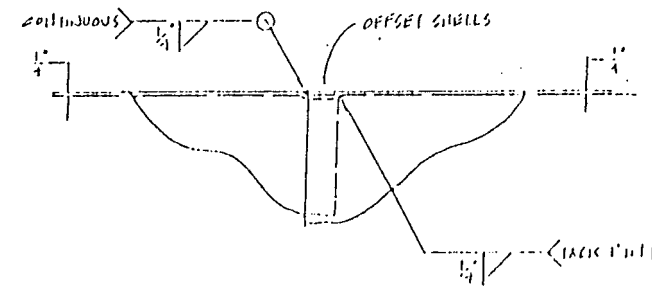
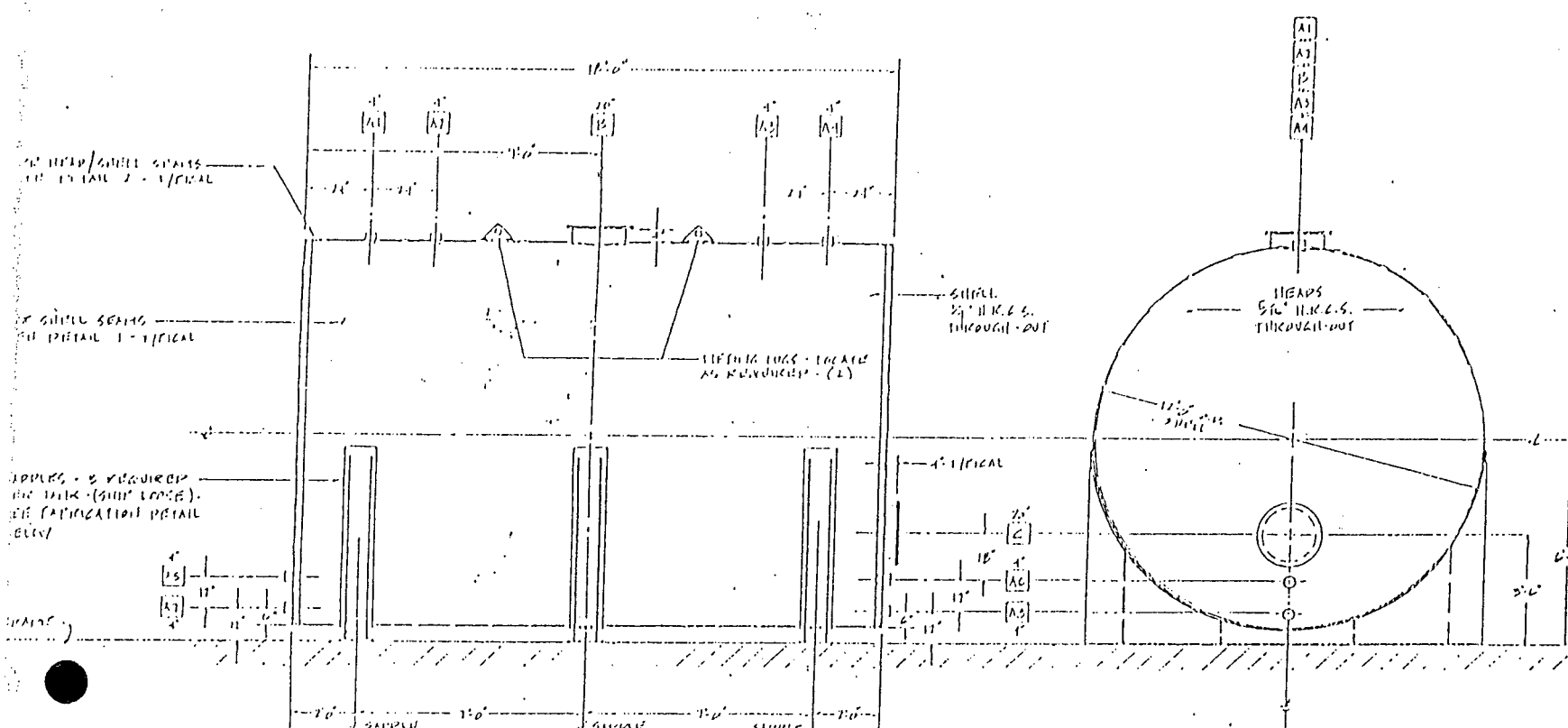
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- SIDE ELEVATION -

SCALE: 3/8" = 1'-0"

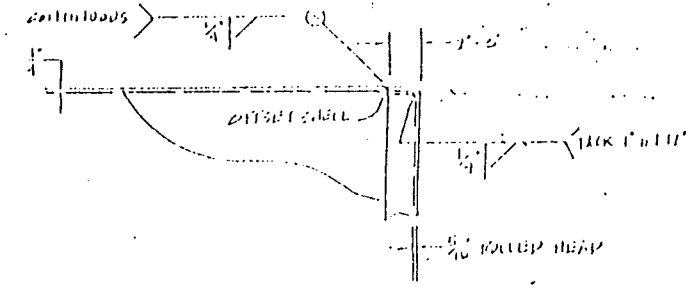
- END VIEW -

SCALE: 3/8" = 1'-0"



- DETAIL 1 -

1/8\"/>

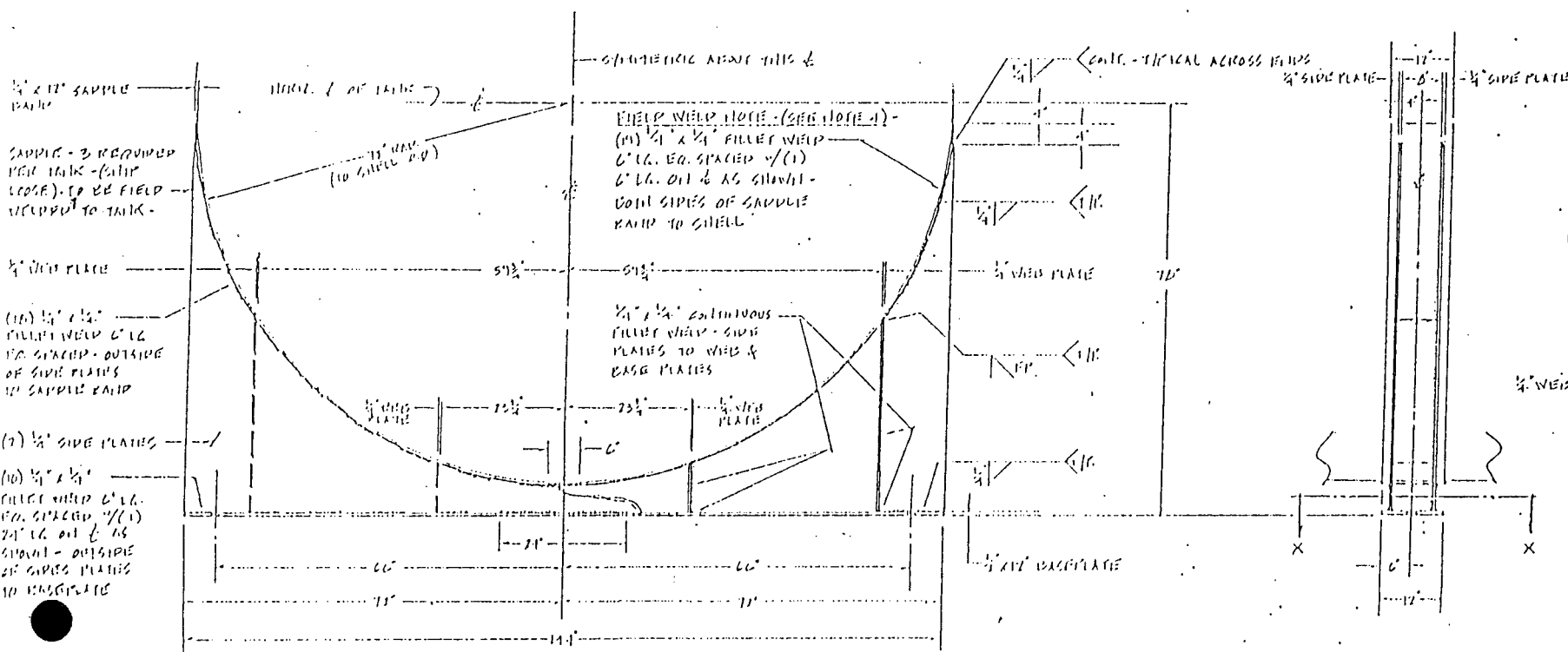


- DETAIL 2 -

1/8\"/>

- FITTING & FIXTURE SCHEDULE -

MARK	QUANTITY	SIZE/THICK.	DESCRIPTION	REMARKS
(A)	8	4\"/>		
(B)	1	20\"/>		
(C)	1	20\"/>		



- SAIDLE ELEVATION -

SCALE: 3/4\"/>

- R. SIDE -

- X-X -

SCALE: 1/2\"/>

- NOTES -

- DESIGN, FABRICATION, & TESTING SHALL MEET OR EXCEED THE MINIMUM REQUIREMENTS OF UNDERWRITERS LABORATORIES STANDARD UL-147 FOR CONSTRUCTION OF STEEL ATMOSPHERIC AIRBORNE STORAGE TANKS FOR FLAMMABLE & COMBUSTIBLE LIQUIDS.
- EXTERNAL SURFACE FINISH SHALL BE IN ACCORDANCE WITH STEEL STRUCTURE PAINTING COUNCIL CODE 1 SSPC-SP3 (SURFACE PREPARATION SPECIFICATION NO. 2).
 - REMOVE LOOSE RUST & FINE SCALE OF PASTIC TOOL WHEN EXISTING & ADEQUATE 5/8\"/>
- FOLLOWING SURFACE PREPARATION APPLY (1) COAT OF RED OXIDE PRIMER & (2) COATS ALKYL ENAMEL PAINTS WHICH STRUCTURAL STEEL MOBIL 10-W-4 OR EQUIVALENT - MINUM 10-24 HOURS BETWEEN COATS TO INSURE PROPER BONDING.
- SADDLES WILL BE FIELD WELDED TO TANKS BY CONTRACTOR PER SHOWN DIMS. IN SHOWN ELEVATION AT 100% CONTRACTOR TO VERIFY TANK/SADDLE THROUGH SHELL AREAS PER NOTES 2 & 3 ABOVE.

Figure II.C.2-4(b)

SAATCHI-INGEN CORP.
 15,000 GAL. HORIZONTAL STEEL
 ATMOSPHERIC STORAGE TANKS

DATE	10/1/21
BY	SAATCHI-INGEN
NO.	1211605

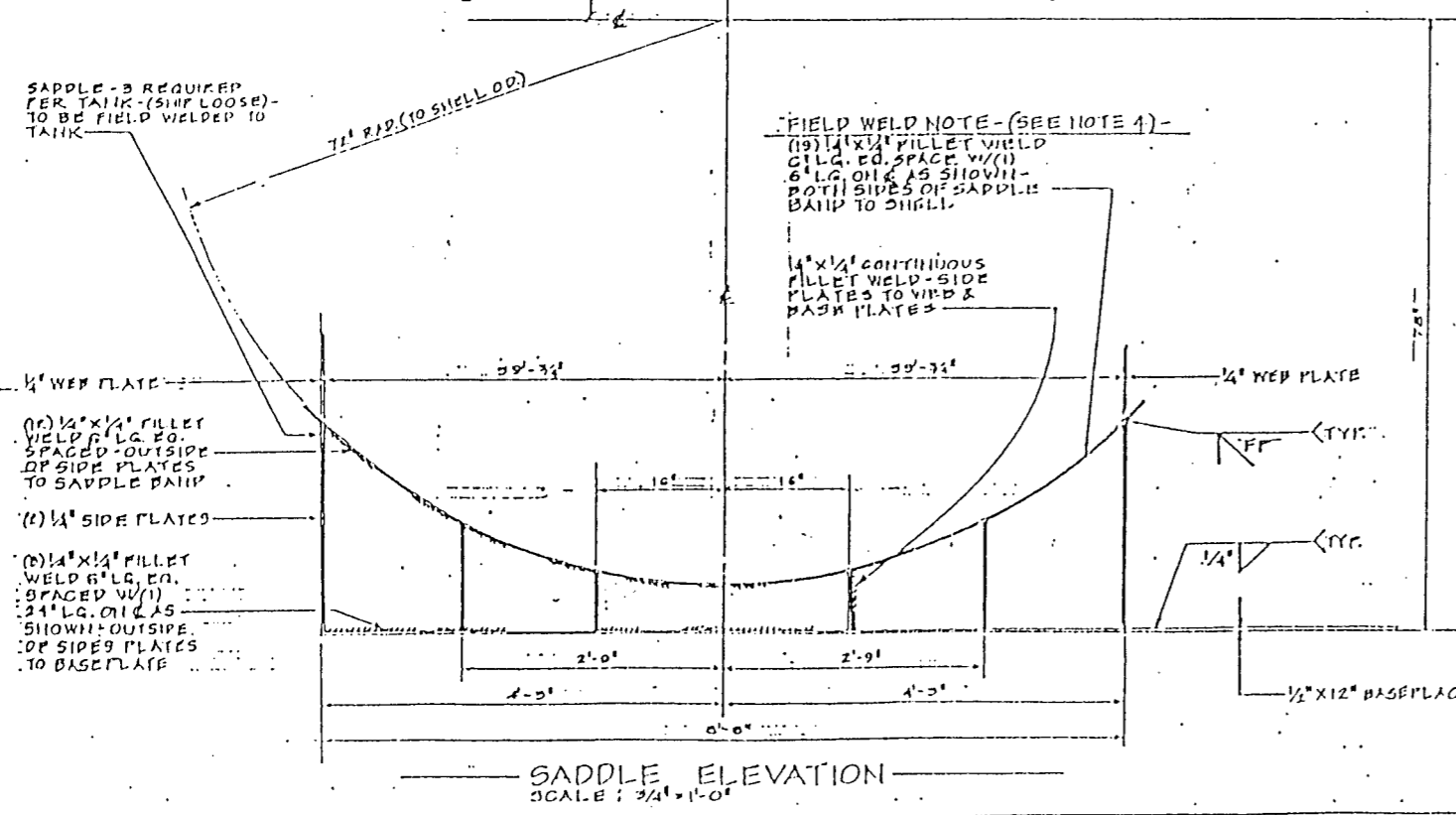
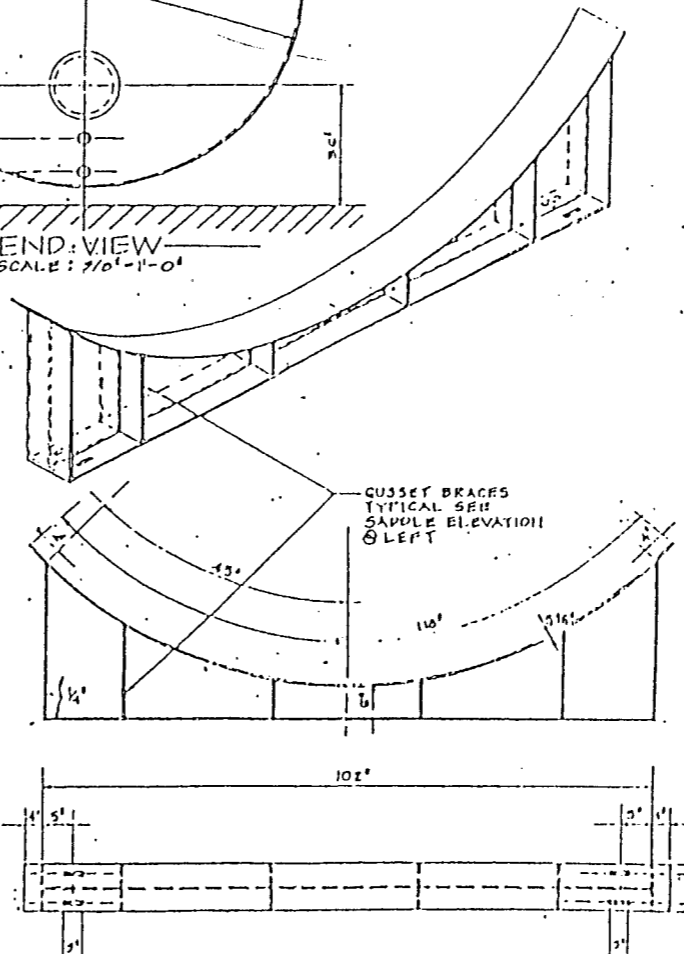
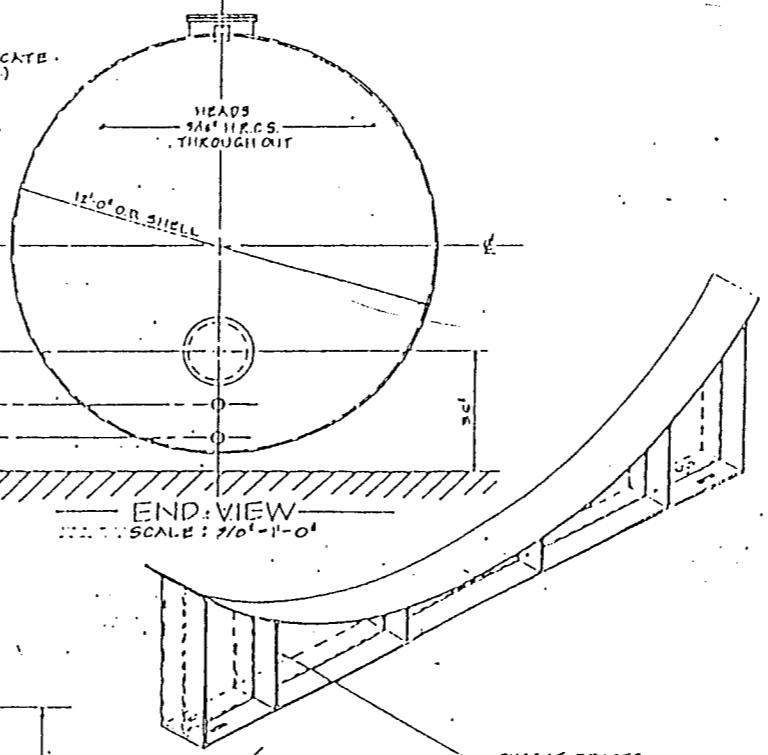
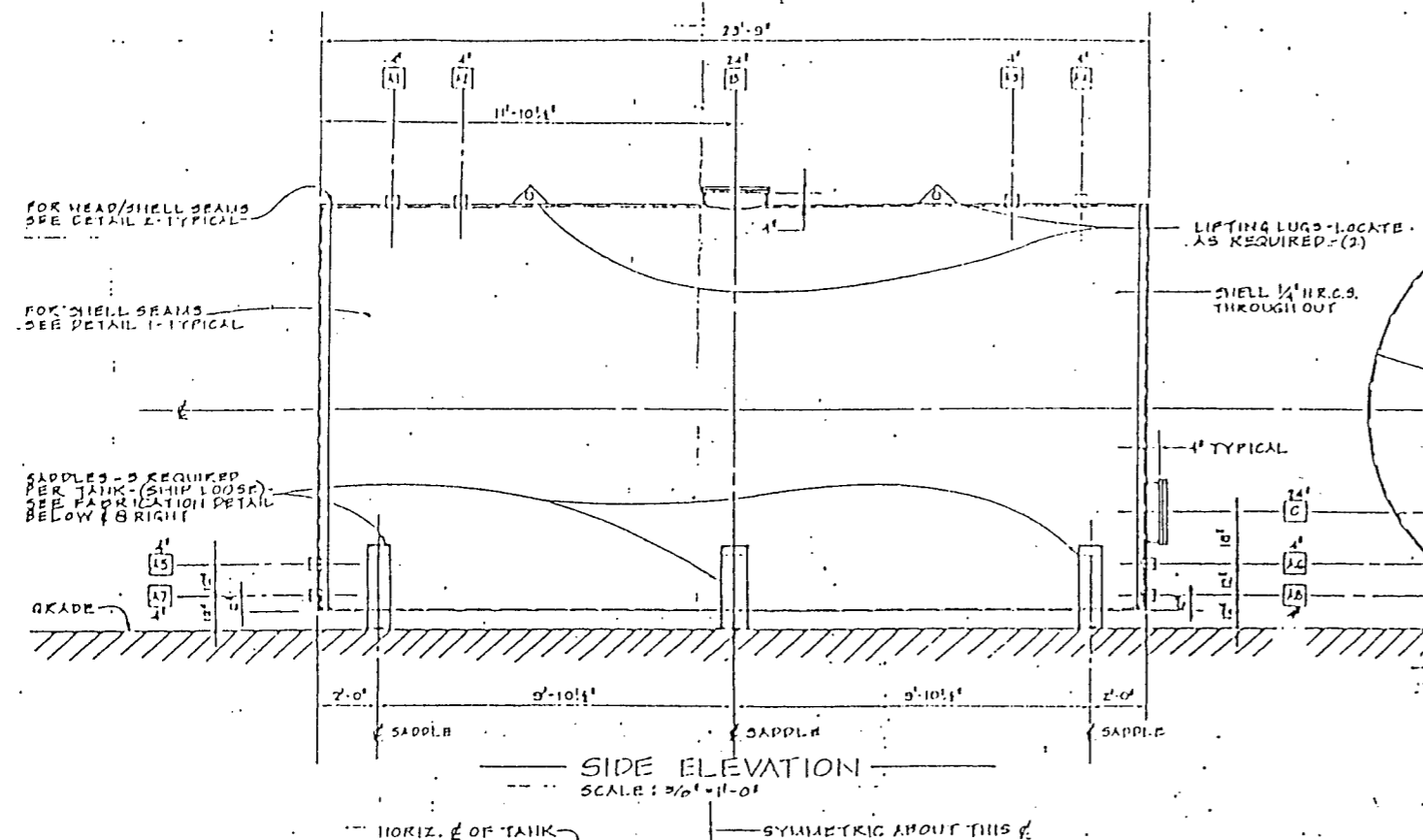
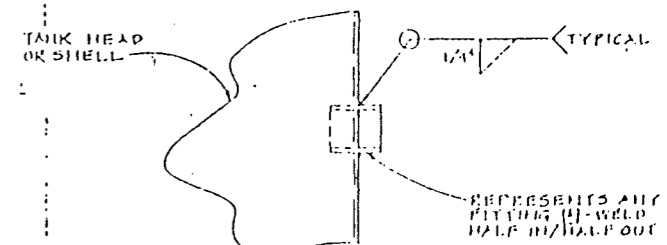
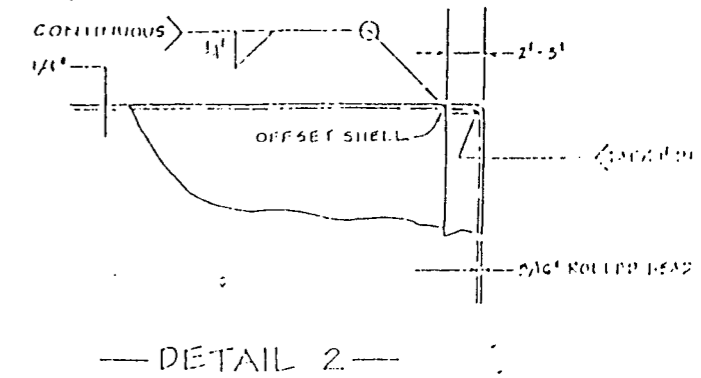
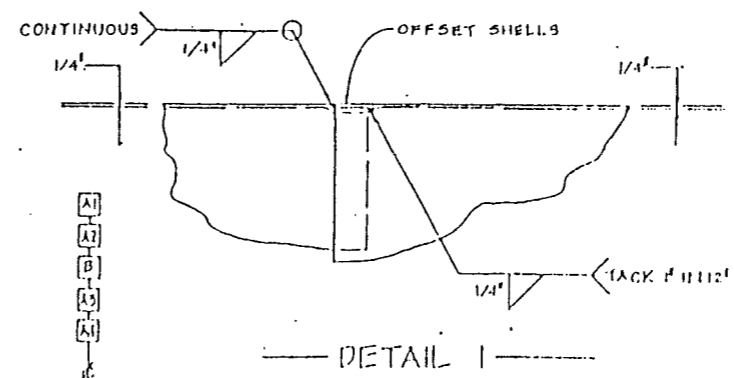


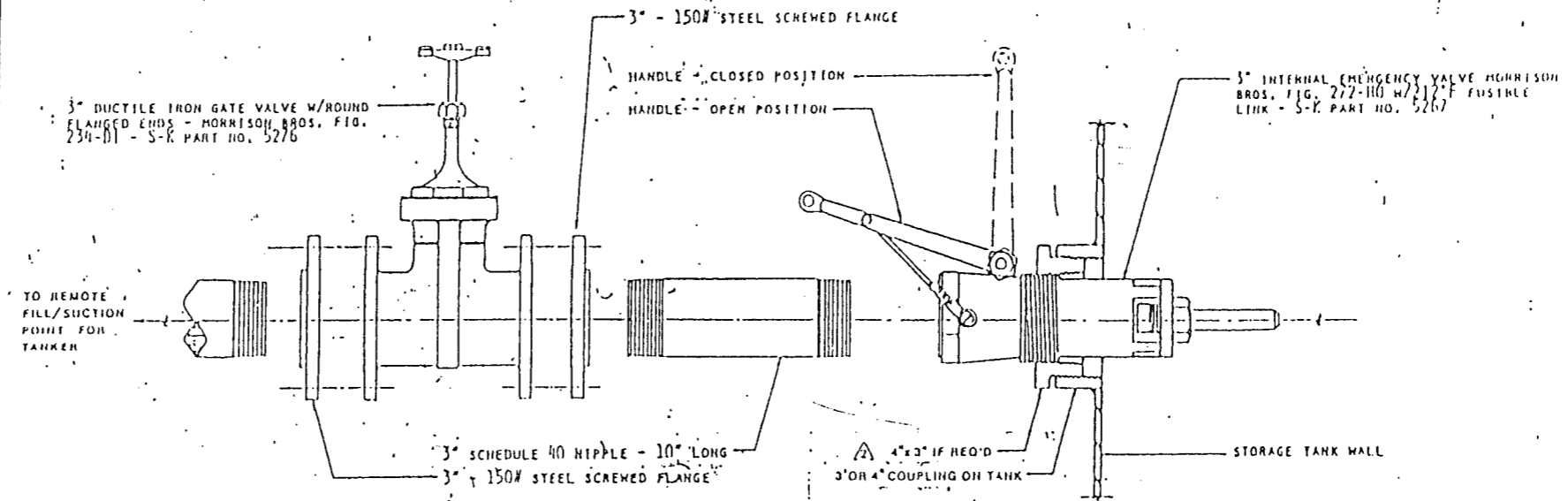
FIGURE II.C.2-4(c)

- FITTING & FIXTURE SCHEDULE -

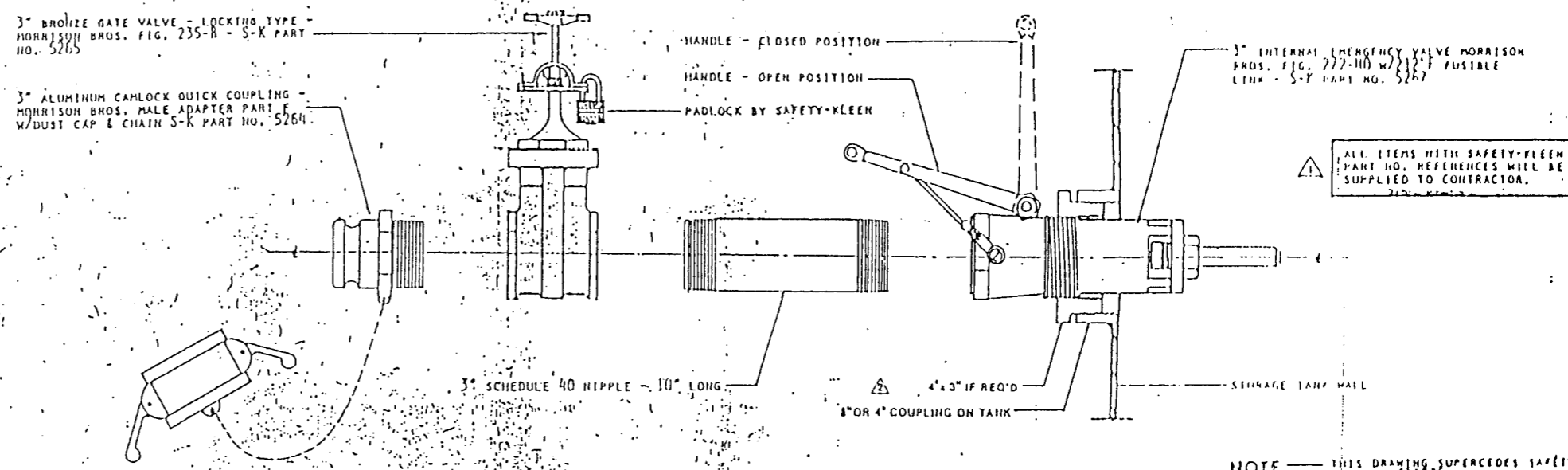
QTY	QTY	SIZE RATIO	DESCRIPTION	REMARKS
(A)	8	4"x11"	SCREWED FULL COUPLING	
(B)	1	24" STD	24" MANWAY	CEMENT GASKET TO COVER INSTALLATION - SHOULD BE DONE & THIS IS TO PERMIT EMERG. RELIEF VENTING
(C)	1	24" STD	24" MANWAY (COMPLETE)	INSTALL GASKET & SIMILAR BOLTS - TIGHTEN ALL FULLY

- NOTES
- DESIGN, FABRICATION & TESTING SHALL MEET OR EXCEED THE MINIMUM REQUIREMENTS OF UNDERWRITERS LABORATORIES STANDARD UL 142 FOR CONSTRUCTION OF STEEL ABOVEGROUND ATMOSPHERIC STORAGE TANKS FOR FLAMMABLE & COMBUSTIBLE LIQUIDS - 4. BE 50 LABELER.
 - EXTERIOR SURFACE FINISH ONLY TO BE PREPARED IN ACCORDANCE WITH STEEL STRUCTURE PAINTING COUNCIL CODE # 551C - 51'S (SURFACE PREPARATION SPECIFICATION NO. 3).
A) REMOVE LOOSE RUST & MILL SCALE BY POWER TOOL VIBR. BRUSHING & ABRADING &/OR SANDBLASTING.
 - FOLLOWING SURFACE PREPARATION APPLY (1) COAT OF PRIMER & (2) COAT'S ALKYL BASE GLOSS WHITE STRUCTURAL CHAMEL NOML. 11-W-4 OR EQUIVALENT - ALLOW 16-24 HOURS BETWEEN COATS TO INSURE PROPER SEALING.
 - SADDLES WILL BE FIELD WELDED TO TANKS BY CONTRACTOR. WELDING SPECS IN SADDLE ELEVATION AT LEFT - CONTRACTOR REPAIR TANK/SADDLE FINISH @ WELD AREAS PER NOTES 2 & 3.

Safety-Wilco Corp.
20,000 GALLON HORIZONTAL ST. ABOVEGROUND STORAGE TANK
2-4-00
JWK
for STANDARDIZED FABRICATION
D12



— STANDARD INSTALLATION FOR PIPING OF ALL STORAGE TANKS —



⚠ ALL ITEMS WITH SAFETY-KLEEN PART NO. REFERENCES WILL BE SUPPLIED TO CONTRACTOR.

— ADDITIONAL INSTALLATION FOR PIPING OF NEW TANKS FOR STORAGE OF USED SOLVENT —
(FOR LOCATIONS PRONE TO FREEZING ONLY - SEE SAFETY-KLEEN DRAWING D11124 —)

NOTE — THIS DRAWING SUPERCEDES SAFETY-KLEEN DRAWING C11036

Safety-Kleen Corp.
EMERGENCY & GATE VALVE INSTALLATION DETAILS
 FOR SERVICE CENTER BRANCH CONSTRUCTION & OR IMPROVEMENTS

NO.	SCALE
REV	DATE
BY	DATE

C1130

ADDED CLARIFICATION	RD
ADDED NOTE	WJ
DESCRIPTION	BY

FIGURE II.C.2-4(d)

Revision - 09/15/94

containment under the tanks and return/fill station must be cleaned within 24 hours of a spill.

"No smoking" signs will be posted on the entrances to the tank farm and return/fill station.

Attachment II.C.7

Tank System Secondary Containment

ATTACHMENT II.C.7

TANK SYSTEM SECONDARY CONTAINMENT

Tank Farm Containment

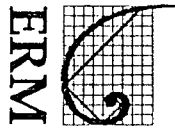
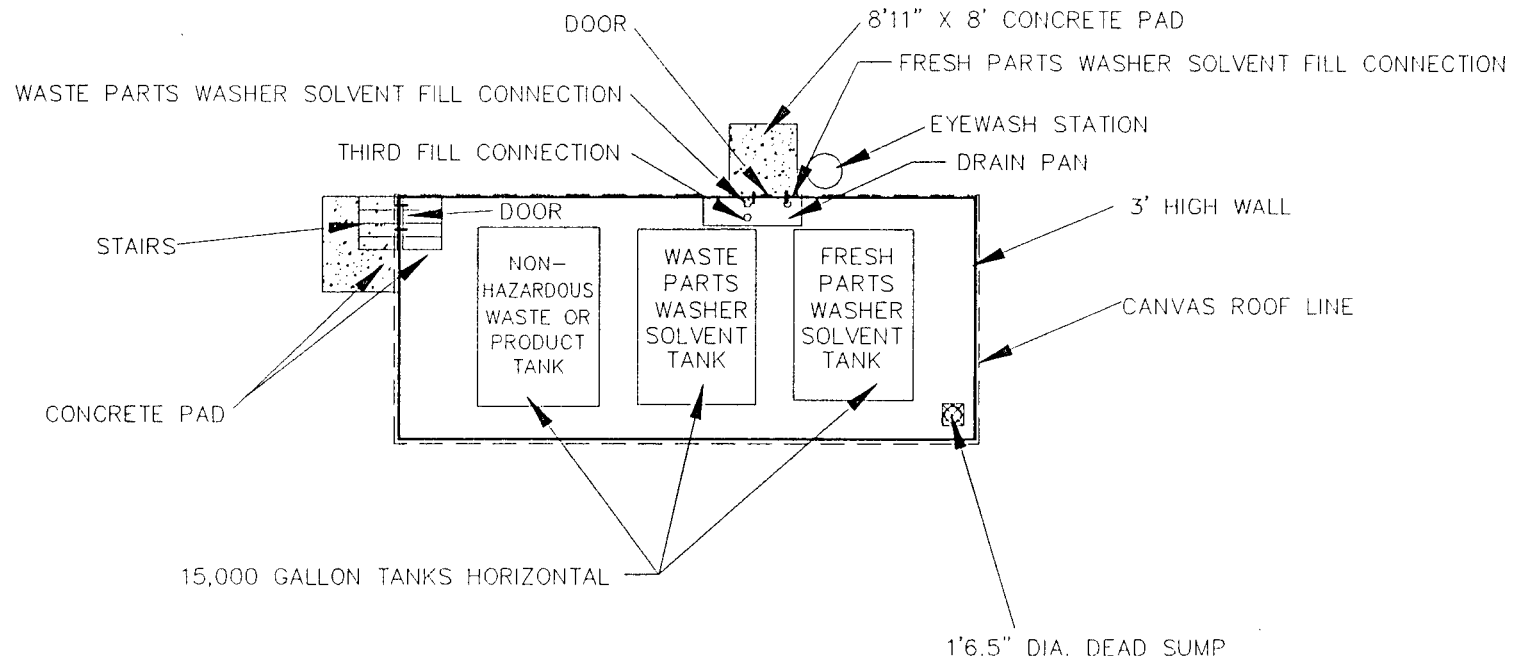
All three tanks are aboveground and are underlain by a approximately 25' x 59.5' concrete slab with 3' concrete walls. The slab and walls are sealed with a chemical resistant coating. All of the tanks are covered by a canvas roof. Total containment capacity for the tank farm is 27,700 gallons which is more than adequate to contain the contents if one of the 15,000-gallon tanks ruptures. The layout of the tank storage farm is provided in figure II.C.7-1. Containment calculations are presented in figure II.C.7-2.

Return/Fill Containment

The return/fill shelter is located on the east side of the main building (figure II.C.7-3). The barrel washer is located on a raised grating which measures 19' 6" x 24' 3". The area is underlain by a concrete slab which measures 22' x 24' 9". Maximum storage capacity is 10,130 gallons. The entire area is coated with a chemical resistant coating which is compatible with the products Safety-Kleen handles. The area is designed so that the route trucks can be backed inside the building and the garage doors shut so that no precipitation can get into the return/fill shelter containment area. The containment capacity for the return/fill shelter is 1,013 gallons. The containment calculations are presented in figure II.C.7-4.

13112.29 31129TFA 081894-7

Figure II.C.7-1 Tank Farm Safety-Kleen Corp. Facility Tallahassee, Florida



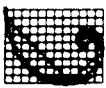
NOTE: THIS IS AN ENCLOSED BUILDING



APPROXIMATE SCALE IN FEET

REVISED 08/15/94

CAR



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Environmental Resources Management

FIGURE II.C.7-2

Project SK-Tallahassee
Subject Available Storage Capacity
Tank Farm Area

W.O. No. 1311330.29 Sheet 1 of 2
By DS Date 9/16/94
Chkd by R2/Per Date 9/16/94

III Tank Farm Storage Capacity

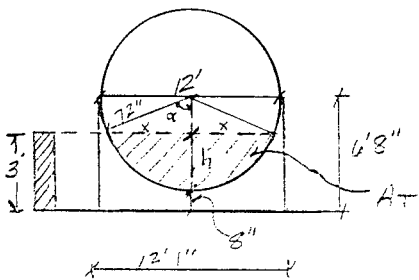
1. Containment Area Volume (V_c) Availability

$$\begin{aligned}
 V_c &= L \times W \times H \\
 &= (59'-12") (25') (3') (7.48 \text{ gal/ft}^3) \\
 &= 33,122 \text{ gal}
 \end{aligned}$$

2. Tanks (Qty = 3 tanks @ 15,000 gal each)

(a) Assuming 1 ruptured tank & 2 intact tanks.

Calculate displaced containment volume by 2 intact tanks (below 3' containment wall).



$$\cos \alpha = \frac{6'8" - 3'}{72"} \quad \therefore \alpha = 52.33^\circ$$

$$\sin \alpha = \frac{x}{72} \quad \therefore x = 57 \text{ in.}$$

$$\text{and } 2x = 9.5 \text{ ft}$$

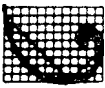
$$A_T = \frac{h}{65} (3h^2 + 4s^2)$$

$$= \frac{2.33}{6(9.5)} [3(2.33)^2 + 4(9.5)^2]$$

$$= 15.4 \text{ ft}^2$$

$s = 2x$
 $h =$ depth of liquid below wall
 $= 3' - 8" = 2.33'$

$$\begin{aligned}
 V_T &= 2(15.4)(17'3") (7.48 \text{ gal/ft}^3) \\
 &= 3974 \text{ gal}
 \end{aligned}$$



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Environmental Resources Management

Project

Sk Tallahassee

Subject

Available Storage Capacity
Tank Farm Area

W.O. No. 1311330.29

Sheet 2 of 2

By DS

Date 9/16/94

Chkd by RLP

Date 9/16/94

FIGURE II.C.7-2 (CONT.)

III Tank Farm Capacity (cont)

2(b) Calculate volume displaced by tank saddles (V_{TS})

Qty: 3 saddles per tank, Assume 0.5' thick

$$\begin{aligned}
 V_{TS} &= 3 [(Length \times height) - A_T] \times width \\
 &= 3 [(12'1") (3') - 15.4] (0.5') (7.48 \text{ gal/ft}^3) \\
 &= 234 \text{ gal}
 \end{aligned}$$

For 3 Tanks:

$$V_{TS} = 3 (234 \text{ gal}) = 702 \text{ gal}$$

3. Calculate volume of Sump (V_s); Qty = 1

$$\begin{aligned}
 V_s &= \pi \frac{d^2}{4} (h) & d = \text{diameter} &= 1'6\frac{1}{2}" \\
 &= \pi \frac{(1'6\frac{1}{2}")^2}{4} (1'6\frac{1}{2}") & h = \text{depth} &= 1'6\frac{1}{2}" \\
 &= 2.88 \text{ ft}^3 (7.48 \text{ gal/ft}^3) = 22 \text{ gal}
 \end{aligned}$$

$$\text{Total Available Storage (V)} = V_c - V_T - V_{TS} + V_s$$

$$V = 33,122 - 3974 - 702 + 22$$

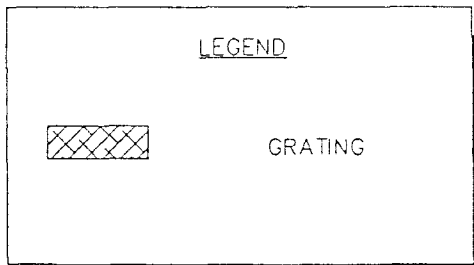
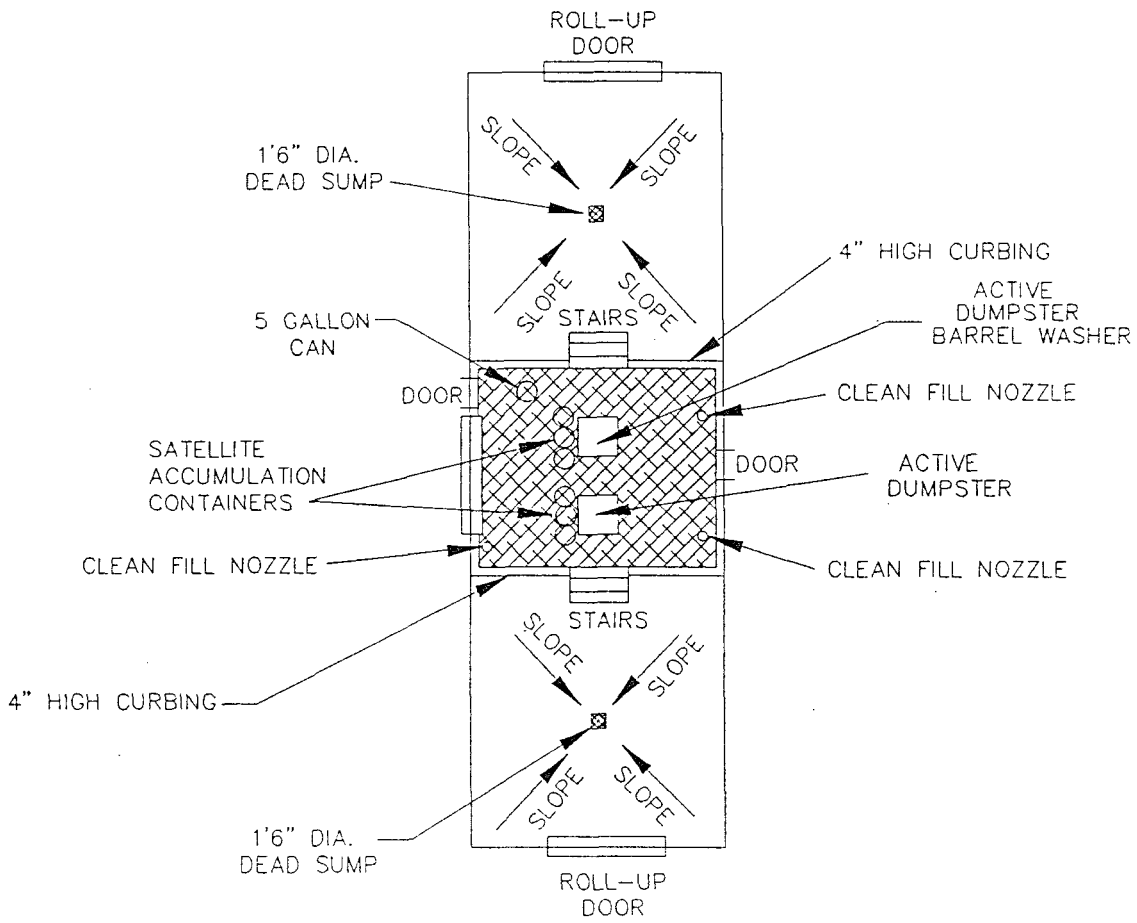
$$V = 28,468 \text{ gal}$$

Conclusion

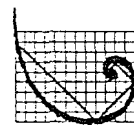
$V = 28,468 \text{ gal}$ exceeds single tank capacity (15,000 gal)

Note: Tank farm is enclosed \therefore precipitation not included.

Figure II.C.7-3
Return/Fill Shelter
Safety-Kleen Corp. Facility
Tallahassee, Florida



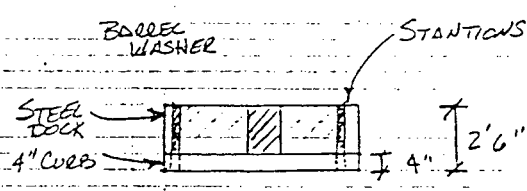
REVISED 03-10-93



II. RETURN/FILL SHELTER (FIGURE II.C.7-3)

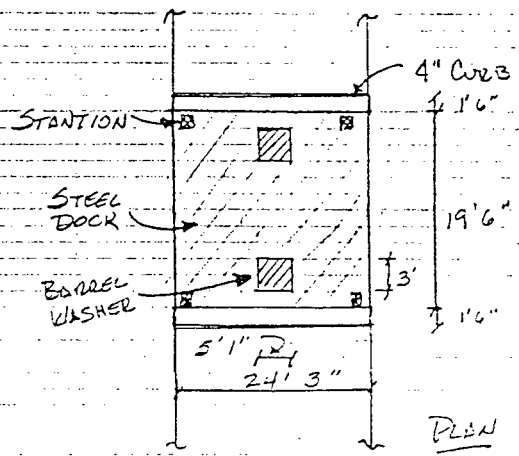
1. Below Grate (Curbed Area)

$$\begin{aligned}
 V_{BG} &= (19'6" + 1'6" + 1'6") (24'3") (4") \\
 &= (22.5') (24.25') (0.33') \\
 &= 180.06 \text{ ft}^3 (7.48 \text{ gal/ft}^3) \\
 &= 1,344.82 \text{ gal}
 \end{aligned}$$



2. Barrel Washers (Qty = 2):

$$\begin{aligned}
 V_{BW} &= 2(5'1") (3') (4") \\
 &= 2(5.08') (3') (0.33') \\
 &= 10.07 \text{ ft}^3 (7.48 \text{ gal/ft}^3) \\
 &= 75.29 \text{ gal}
 \end{aligned}$$



3. Stations
(a) Iron (Qty = 50)

$$\begin{aligned}
 V_{SI} &= 50(1'9\frac{3}{4}" (4") (4") \\
 &= 50(1.81)(0.33)(0.33) \\
 &= 9.87 \text{ ft}^3 (7.48 \text{ gal/ft}^3) \\
 &= 73.82 \text{ gal}
 \end{aligned}$$

(b) Concrete (Qty = 8)

$$\begin{aligned}
 V_{SC} &= 8(1'10") (5'1\frac{1}{2}" (4") \\
 &= 8(1.83')(5.04')(0.33') \\
 &= 24.65 \text{ ft}^3 (7.42 \text{ gal/ft}^3) \\
 &= 184.37 \text{ gal}
 \end{aligned}$$





Project S-R Tallahassee

W.O. No. 13112.29

Sheet 2 of 2

Subject Available Storage Capacity Calcul

By DS

Date 7/14/92

Chkd by VH

Date 7/14/92

RETURN/FILL AREAS (CONT)

Available storage in Return/Fill shelter (V):

$$V = V_{35} - V_{3W} - V_{SI} - V_{SC}$$

$$= 1346.82 \text{ gal} - 75.29 \text{ gal} - 73.82 \text{ gal} - 184.37 \text{ gal}$$

$$V = 1013.34 \text{ gal} \approx 1013 \text{ gal}$$

∴ Allowable storage capacity = 10,130 gal
w/ no single container > 1,013 gal

Note: Return/Fill area is completely enclosed, therefore, the reduction of storage capacity by the rainfall volume is not applicable.



Attachment II.C.9

Controls and Spill Prevention

ATTACHMENT II.C.9

CONTROLS AND SPILL PREVENTION

The facility consists of three aboveground steel tanks (Figure II.C.2-1). Used parts washer solvent contained in returned drums from the customers is transferred via the wet dumpster into a 15,000-gallon tank, awaiting bulk shipment to the recycle center. Another 15,000-gallon tank is used to store fresh parts washer solvent. The remaining 15,000-gallon tank will be used for product solvents, oily waste water or other nonhazardous waste.

Parts washer solvent is compatible with the mild steel tank structure. In fact, petroleum products are often used as a light hydrocarbon coating to prevent rusting of metal parts. Parts Cleaner 105 and Premium Solvent consist primarily of mineral spirits (petroleum naphtha). The Actrel® solvent consists primarily of a paraffinic compound with C₁₂ - C₁₄ chains. As with all petroleum storage vessels, water will accumulate over time due to condensation. The parts washer solvent has a specific gravity less than water and the water will accumulate in the bottom of the tank. There is the potential for corrosion of the tank at the parts washer solvent/water interface.

Parts Washer Solvent

Spent parts washer solvent from parts washers is accumulated in the 15,000-gallon aboveground storage tank by transfer through the return and fill station. Containers of spent solvent are poured into the dumpster (barrel washer) in the return and fill station, and material in the dumpster is pumped into the storage tank for spent solvent. The return and fill station has secondary containment.

The barrel washer is located within the parts washer solvent return and fill shelters. The drawings (Figures II.C.2-2(a) through II.C.2-2(j)) provide detail information on the barrel washer.

The sludge containers are satellite accumulation containers. These containers are labeled as "Waste Sludge," "Glass/Metal," and "Rags/Absorbents." The Actrel® filters may be added to the "Waste Sludge" container. The containers remain covered except when wastes are being added. Once full the containers are moved into the container storage area for later shipment to a Safety-Kleen recycle center for disposal or recycling. In addition to the sludge containers there is also one satellite accumulation container (approximately five gallons) connected to the drain pan which is in front of each barrel washer. This container collects any spillage which falls into the drain pans. These containers are periodically emptied into the barrel washers in order to add the waste parts washer solvent to the bulk waste parts washer solvent tank.

Tank Design

The tanks are designed and constructed to be compatible with the materials stored in them. Typical construction and installation standards for the aboveground tanks are discussed in Attachment II.C.2. All tanks are vented in accordance with National Fire Protection Association (NFPA) standards, and the tanks are equipped with high level-alarms.

All tanks are aboveground and underlain by a 25' x 59.5' concrete slab and surrounded by a 3' high concrete wall and covered by a canvas roof. Therefore, no surface run-on or precipitation would be in contact with the washes stored in the tank farm, and no run-off collection and management system will be deemed necessary. The slab and walls are sealed with a chemical resistant coating compatible with the materials stored. Level gauges (Figure II.C.2-5(a)) are used to measure liquid levels in tanks and float switch-activated automatic high level alarms (which consist of a strobe light and siren) signal the tank being 95 percent full. The exact brand of level gauges in use is at least equivalent to those shown in Figure II.C.2-5(a). This alarm allows an operator more than two minutes to stop operations and avoid overfilling the tank. In addition, the gauges of the tank are read before filling and before and during the filling of a tanker truck (the available volume of which must be noted prior to emptying the tank) to prevent overfilling of the truck or tank. A tanker truck equipped 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 aboveground tanks. The secondary containment under the tanks and return/fill station are cleaned within 24 hours of a spill.

Attachment II.C.10

Tank System Inspections

ATTACHMENT II.C.10

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

The Resource Recovery Branch Manager or his designee inspects the facility each operating day (daily) for security (gates and locks) using the inspection log (figure II.C.10-1 or similar) and notes any evidence of sticking, corrosion, or uncommon activity. The facility fence is checked weekly for deterioration, gaps under the fence, and broken wire ties. The Weekly Inspection Log for Safety and Emergency Equipment is shown in figure II.C.10-2 or similar form.

Figure II.C.10-3 or similar form presents the daily inspection log for the tank system. Daily inspections of tanks and dumpsters consist of the following:

- Physically examine the tank area to verify that no leaks have occurred since the last inspection.
- Verify that no tanks have been damaged and rusted to the point of near leakage.
- Examine and verify that all tank identification, dates, loading data, hazardous waste labels are attached and current.

Daily inspections of containment areas consist of the following:

- Physically examine containment areas to detect signs of deterioration and failure of the containment system such as cracks, breakage, settling, and spillage.

In addition to daily inspections, the tank is inspected once every five years by a Professional Engineer registered in Florida. A general structural inspection, hydraulic test of the tank, internal inspection, and wall thickness inspection is made.

INSPECTION LOG SHEET FOR: Weekly Inspection of SAFETY AND EMERGENCY EQUIPMENT
SECURITY DEVICES AND MISCELLANEOUS EQUIPMENT

INSPECTOR'S NAME/TITLE: _____

INSPECTOR'S SIGNATURE: _____

DATE OF INSPECTION (Month/Day/Year): _____

TIME OF INSPECTION: _____

SAFETY AND 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 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 Protection Equipment: A N

If "N" circle appropriate problem: inadequate supply of aprons, gloves, glasses, respirator, other: _____

SECURITY DEVICES:

Gates and Locks: A N

If "N" circle appropriate problem: sticking, corrosion, lack of 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, distortion, deterioration, excess debris, liquids in unit, other: _____

OBSERVATIONS, COMMENTS, DATE, AND NATURE OF ANY REPAIRS: _____

A = Acceptable
N = Nonacceptable

INSPECTION LOG SHEET FOR: Daily Inspection of STORAGE TANK SYSTEM

INSPECTOR'S NAME/TITLE: _____

INSPECTOR'S SIGNATURE: _____

TRANSFER PUMPS AND HOSES

Pump Seals A* N A N A N A N A N

If "N" circle appropriate problem: leaks, other: _____

Motors A N A N A N A N A N

If "N" circle appropriate problem: overheating, other: _____

Fittings A N A N A N A N A N

If "N" circle appropriate problem: leaks, other: _____

Valves A N A N A N A N A N

If "N" circle appropriate problem: leaks, sticking, other: _____

Hose Connections and Fittings A N A N A N A N A N

If "N" circle appropriate problem: cracked, loose, leaks, other: _____

Hose Body A N A N A N A N A N

If "N" circle appropriate problem: crushed, cracked, thin spots, leaks, other: _____

RETURN AND FILL STATION

Wet Dumpster A N A N A N A N A N

If "N" circle appropriate problem: excess sediment buildup, leaks, rust, split seams, distortion, deterioration, excess debris, other: _____

Secondary Containment A N A N A N A N A N

If "N" circle appropriate problem: excess sediment/liquid, leaks, deterioration, distortion, excess debris, other: _____

Loading/Unloading Area A N A N A N A N A N

If "N" circle appropriate problem: cracks, ponding/wet spots, deterioration, other: _____

OBSERVATIONS, COMMENTS, DATE, AND NATURE OF ANY REPAIRS: _____

*A = ACCEPTABLE
N = NOT ACCEPTABLE

Attachment II.C.12(a)

Tank System Closure Plan

Revision - 09/15/94

ATTACHMENT II.C.12(a)

TANK SYSTEM CLOSURE PLAN

The Closure Plan for the tank farm is incorporated into the Closure Plan for the entire facility presented in attachment II.K.1.

Attachment II. C.12(b)

*Tank System Contingent
Post-Closure Plan*

ATTACHMENT II.C.12(b)

TANK SYSTEM CONTINGENT POST-CLOSURE PLAN

At the present time, Safety-Kleen intends at the time of closure to remove or decontaminate all tank system components and associated containment systems. If at a subsequent time or at the time of the closure permit application, it is determined 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 developed and submitted to the Agency.

Attachment II.C.13

*Response to Leaks and Disposition of
Unfit-for-Use Tank Systems*

ATTACHMENT II.C.13

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 be reinstated until the tank system has been inspected, repaired, and declared fit for use.

In order to prevent further releases, 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 to the environment require notification to the Regional Administrator and FDEP. The reporting requirements identified in the Contingency Plan will satisfy this requirement.

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 is not available within 30 days, it must be submitted as soon as available.
4. Proximity to downgradient drinking water, surface water, and populated areas; and
5. Description of response actions taken or planned.

Repair or Closure

If the integrity of the containment system has not been damaged, then 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, then 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 provide 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, then the component must satisfy the requirements for new tank systems and components.

All major repairs must be certified by an independent, qualified, 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, then the tank system must be closed in accordance with the Closure Plan.

Part II K

Closure

Attachment II.K.1

Closure Plan

ATTACHMENT II.K.1

CLOSURE PLAN

Closure Introduction

The Safety-Kleen Corp. has constructed each service center with the intent that each will be a long-term facility for the distribution of Safety-Kleen products. Based on current business and projected facility conditions, this facility is expected to remain in operation until the year of 2025.

In the event that some presently unforeseen circumstance(s) would result in the discontinuance of operations and permanent closure or sale of the facility, the following closure plan is designed to identify the steps necessary to completely close the facility at any point during its intended life, and should be used for tanks, container storage area, and equipment.

It is intended that all closures will be complete and final with removal of waste and decontamination of the facility and associated equipment, in order to eliminate need for maintenance after closure and chance of escape of hazardous waste constituents into the environment.

Procedures described in this closure plan are also applicable to cleaning up of spills and repairing/decontamination of facility or equipment.

An anticipated Closure Schedule is presented in Figure II.K.1-1. At the present time, a Closure Permit will be required to close the facility. An anticipated maximum waste inventory for the container storage areas and the tank system of the facility is presented in the following section.

Facility Data

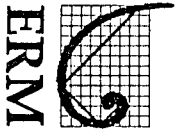
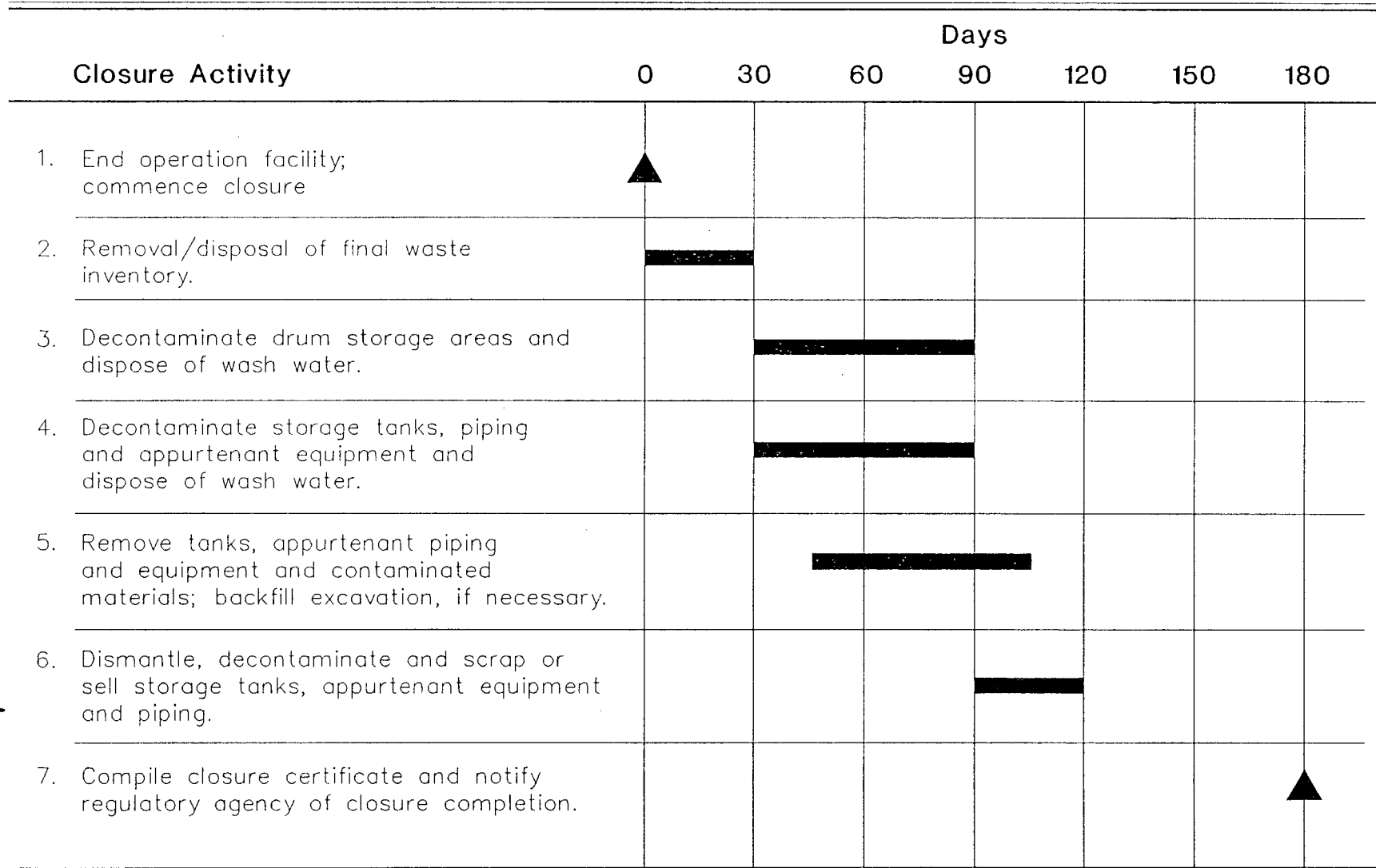
Waste Management Facility Descriptions

Aboveground Storage Tanks: Three 15,000-gallon aboveground tanks are in use at the facility. One each is used for spent and fresh parts washer solvent and the third is used for storing product solvents, oily waste water, or other nonhazardous wastes. A concrete slab measuring 25' x 59.5' supports all three tanks, and there is a three-foot wall completely surrounding the tank farm.

Container Storage Areas: Two areas are used for container storage. The container storage area is located inside the warehouse and has a trench which provides an adequate containment volume of 270 gallons. The transfer wastes do not require containment. The temporary storage of transfer wastes is located in the warehouse.

Return/Fill Shelter: The return/fill shelter is used for cleaning out the containers of spent parts washer solvent and refilling them with fresh material. The shelter has containment in the form of subsurface concrete floor with curbing which provides a

**Figure II.K.1-1
 Typical Closure Schedule
 Safety-Kleen Corp. Facility
 Tallahassee, Florida**



containment capacity of 1,242 gallons. There are two dumpsters. These dumpsters are not intended for storage but can hold a maximum of 504 gallons.

Maximum Inventory of Waste

- A. Used Parts Washer Solvent: 15,000 gallons
- B. Containerized Wastes: 6,912 gallons. This amount includes any combination of 5, 16, 30, split-30 (also known as 20-gallon) and/or 55-gallon containers.
- C. Dumpsters (Used Parts Washer Solvent and Dumpster Mud): 504 gallons.

Closure Procedure

Phase I - Open the Tank

- Access to aboveground tanks is obtained by removing man-ways.
- Prior to opening the tanks, the personnel should have full-face respiratory protection and protective clothing. Once the tanks have been opened they will be provided with positive ventilation. The tanks will then be inspected to determine the approximate quantity and physical conditions of the remaining material.

Phase II - Removing Waste and Cleaning Tank

- Before removing the waste from the tank, all piping and appurtenant equipment will be flushed first with clean parts washer solvent followed by detergent solution.
- The method to remove the waste material from the tanks will depend on the physical properties and quantities of that material. Prior to any person entering the tank, an effort will be made to remove as much liquid and sludge as possible.
- Subsequent to vacuuming the majority of the material from the tanks, it may be necessary to use a high pressure wash system using clean solvent and detergent solution to rinse residual material from the walls and bottom of the tanks. The evacuated material and the rinse solution will be returned to the recycle center for reclamation. The quantity of wash fluid used will be kept to a minimum in order to limit the amount of unnecessary material. The final rinsate will be analyzed for mineral spirits, volatile organic compounds, lead, and cadmium, using SW-846, to determine the effectiveness of decontamination. The tank will continue to be washed and rinsed until levels are below maximum contaminant levels (MCLs), or practical quantitation levels (PQLs) if MCLs are not available.

Rinsate will be removed using a vacuum tanker truck and will be disposed of as hazardous waste. It is anticipated that approximately 2,000 gallons of rinsate will require RCRA disposal.

- Storage tanks are considered confined spaces, i.e., spaces open or closed having a limited means of egress in which poisonous gases or flammable vapors might accumulate or an oxygen deficiency might occur.
- Confined space entry requires special operating procedures:
 - Tanks are to be washed, neutralized and/or purged (where flammable atmosphere is present) prior to being entered.
 - Supply valves must be closed and "tagged" and bleeder valves left open, or supply piping should be disconnected.
 - Pumps or motors normally activated by automatic controls shall be operated manually to be sure they have been disconnected. Instrument power switches should be tagged "OFF."
 - On tanks where flammable vapors may be present, all sources of ignition must be removed.
 - All tanks must be tested for flammable vapors, toxic gases or oxygen deficiency, in that order, as applicable. The results of such tests should be displayed on the job site.
 - In all tank entering situations, an Oxygen Deficiency Test shall be performed prior to tank entry.
 - Under circumstances where "hot work" (welding, burning, grinding, etc.) is to be performed in or on the vessel, a test for combustible gases shall be taken. This is referred to as a "flash test."
 - In most circumstances, flash tests and oxygen deficiency tests will be performed by the supervisor of the area in which the work is being performed.
 - Under any conditions where a possibility (no matter how remote) of toxic vapors being present in the tank to be entered exits, the supervisor will arrange to have the air tested.
 - A set of wristlets or a rescue harness and sufficient rope must be present at the job site to effect a rescue. Any other rescue equipment considered necessary must also be on the job site.

- Workers should wear a rescue harness if entering a tank with a large enough opening to easily effect a rescue. In tanks with small openings, only wristlets may be used. However, in cases where there are agitator shafts, containers, or other hazards in which the man's life-line would be entangled and the supervisor in charge feels that wearing the life-line may entrap a man and increase the hazard, the wearing of a harness or wristlets may be eliminated.
- A constant source of fresh air must be provided to ensure a complete change of air every few minutes. In cases of *short-term entry* for inspection or removal of objects, an air mask is recommended. In cases of *long-term entry* (generally for repair) the use of an air mover should be considered.
- When a ladder is required to enter a tank, the ladder must be secured and not removed while anyone is in the vessel. In cases where a rigid ladder could become an obstacle, a chain ladder may be used.
- Adequate illumination must be provided.
 - A flashlight or other battery operated light must also be available to provide illumination for a safe exit in the event of an electrical power failure.
 - In any tank used to store flammable liquids, explosion-proof lighting must be used.
- All electrical equipment to be used inside the tank must be in good repair and grounded.
- Others working in the immediate area shall be informed of the work being done and they shall inform the watcher or supervisor immediately of any unusual occurrence which may make it necessary to evacuate the tank.
- The "buddy" (standby observer) system:
 - Men working inside a confined space must be under the constant observation of a fully-instructed standby observer.
 - Before anyone enters the tank, the standby observer will be instructed by the person in charge of the entry that:
 - An entry authorization must be obtained from the person in charge by anyone entering the tank.
 - A rescue harness or wristlets must be on the job.

- The standby observer must know the location of the nearest telephone (with emergency numbers posted); safety eyewash/shower; fire extinguisher; and oxygen inhalator.
 - For all "hot work" inside a tank, the standby observer must be instructed how to shut down welding/burning equipment.
 - As long as personnel are inside the vessel, the standby observer must remain in continuous contact with the worker. *HE IS NOT TO LEAVE THE JOB SITE EXCEPT TO REPORT AN EMERGENCY.*
 - *UNDER NO CIRCUMSTANCES SHOULD THE STANDBY OBSERVER ENTER THE VESSEL.* If the worker(s) in the tank becomes ill or injured, the watcher is to put in effect the emergency plan described in the attached Standard Operating Procedure.
 - The standby observer still DOES NOT ENTER THE TANK until help is available.
 - After being instructed in his responsibilities, the standby observer will sign an instruction form indicating his understanding.
- Welding and burning within a tank:
 - All welding and burning equipment must be provided with a shutoff device under the control of the standby observer, and the standby observer must know how to shut off the equipment if it becomes necessary.
 - Welding and burning equipment will only be taken into a tank immediately prior to its use and must be removed from the tank immediately after the job is finished.
 - For all "hot work" inside a tank, a properly executed flame permit, if needed, must be displayed at the job site.
 - Standard welding and burning safety precautions will always be followed.

Phase III - Remove Tank

- Disconnect and cap all appurtenant piping.
- Disconnect and decontaminate all appurtenant pumping equipment.
- The vessels shall be removed and reused by Safety-Kleen or cut up and sold as scrap.
- The surface soil beneath the fill pipes and beneath each tank will be sampled and analyzed for volatile organic compounds, mineral spirits, lead, and cadmium.
- Contaminated soil, if it exists, shall be removed and properly disposed of. An additional work plan to determine the extent of contamination and remediation procedures will be submitted in this case.
- The secondary containment system will be disassembled. The construction materials will be tested with toxicity characteristic leaching procedure (TCLP) (pertinent constituents only). If the construction materials are classified as non-hazardous using TCLP, then they will be disposed of as a solid waste in a sanitary landfill. In the event the construction materials are identified as hazardous using TCLP, then the construction materials will be disposed of as a hazardous waste in accordance with RCRA regulations.

Phase IV - Backfilling and Regrading

- Backfill any excavation with previously excavated material with proper compaction.
- Add additional backfill with proper compaction if necessary. The material must be clean and easily compacted in place.
- Regrade the site to proper topography.
- Remove and dispose of nonusable debris.

Closure Procedure

Container Storage Areas

- The container storage area will house containers of used immersion cleaner, parts washer solvent dumpster mud, dry cleaning wastes, paint waste, industrial solvent, and/or spent ethylene glycol.
- At closure, all containers will be removed and transported to the recycle center with proper packaging, labeling, and manifesting where the contents in the containers will be reclaimed and the containers will be cleaned for reuse.

- The concrete floor and spill containment areas will be cleaned with detergent solution and the rinsate will be analyzed for mineral spirits, volatile organic compounds, lead, and cadmium, using SW-846 methods, to determine the effectiveness of decontamination. The area will continue to be washed and rinsed until levels are below MCLs, or if MCLs are not available, PQLs as specified in Appendix IX of 40 Code of Federal Regulations (CFR) 264.
- 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. It should be noted that wash water and rinsate will *not* be allowed to drain to any waterway. It is anticipated that approximately 350 gallons of rinsate will require RCRA disposal.
- The equipment 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 hose will be washed with a detergent solution to decontaminate it. The containers will be used to store the wastewater.

Solvent Return/Fill Shelter Area

- Closure of the solvent return receptacles (wet dumpster) will be made prior to the cleaning and removal of the storage tank.
- At closure, the sludge in the dumpsters ("dumpster mud") will be cleaned out and containerized, labeled, and manifested for proper disposal at permitted facilities.
- The dumpsters and the dock area will be cleaned with detergent solution and the rinsate analyzed for mineral spirits, volatile organic compounds, lead, and cadmium to determine the effectiveness of the decontamination. The area will continue to be washed and rinsed until levels are below detectable MCLs, or PQLs if MCLs are not available.
- The rinsing fluids will be discharged through the appurtenant piping system into the storage tank, which will be subjected to a separate closure procedure as described herein.
- The cleansed dumpster and dock structure will be reused by Safety-Kleen, or scrapped.
- The cleanup equipment and solutions disposal are the same as those listed earlier.

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 shall 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 must be amended within 60 days of the changes (see Figure II.K.1-1).
- Within 90 days of receiving the final volume of hazardous wastes, or 90 days after approval of the closure plan, if that is later, Safety-Kleen shall 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:

The activities required to comply with this paragraph will, of necessity, take longer than 90 days to complete; or

The following requirements are met:

- The facility has the capacity to receive additional wastes;
 - There is a reasonable likelihood that a person other than Safety-Kleen will recommence operation of the site;
 - Closure of the facility would be incompatible with continued operation of the site; and
 - Safety-Kleen has taken and will continue to take all steps to prevent threats to human health and the environment.
- Safety-Kleen shall complete closure activities in accordance with the approved closure plan and 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.
 - When closure is completed, Safety-Kleen shall submit to the agency a certification by an independent registered professional engineer that the facility has been closed in accordance with the specifications in the approved Closure Plan.
 - The closure cost estimate is provided in Table II.K.1-1.

TABLE II.K.1-1

**SAFETY-KLEEN TALLAHASSEE, FLORIDA
SERVICE CENTER
CLOSURE COST ESTIMATE**

1. TANK CLOSURE - Open, remove contents of, clean, remove, and dispose of one 15,000-gallon aboveground storage tank

Phase II - Remove Contents and Clean

- a. Ship contents to a reclaimer (approximately 14,250 gallons @ 95% capacity)

Crew:

3 truck drivers @ \$19.32/hr. x 8 hrs. \$ 463.68

1 15,000-gallon tank x 95% = 28,500 gal.
14,250 ÷ 5,000 gal/truck = 3 trucks

3 trucks x 80 miles x 1.75/loaded mile \$ 420.00

Reclamation cost (\$0.30/gal. x 14,250 gal.) \$ 4,275.00

- b. Clean tanks

Crew:

1 foreman @ \$36.25/hr. x 16 hrs.^a \$ 580.00

2 laborers @ \$23.10/hr. x 16 hrs.^a \$ 739.70

- c. Pressure washer (1 day @ \$400/day) \$ 400.00

- d. Disposal and transportation of wash water \$ 1,000.00
(2,000 gal. @ \$0.50/gal.)

- e. Transportation of waste water \$ 2,187.50
(1,250 miles x \$1.75/loaded mile)
(assumed nonhazardous)^b

- f. Analysis of 1 rinsate sample (1 per tank) \$ 200.00

TOTAL PHASE I \$10,265.38

^a Assumed all field labor to meet OSHA 1910.120 requirements and work in some level of personal protective equipment.

^b Assume approximately \$4.00/mile if hazardous materials.

TABLE II.K.1-1

**SAFETY-KLEEN TALLAHASSEE, FLORIDA
SERVICE CENTER
CLOSURE COST ESTIMATE**

Phase III - Remove and Dispose of Tank

a. Disconnect and remove appurtenant equipment

Crew:

1 foreman @ \$36.25/hr x 8 hrs.	\$ 435.00
4 laborers @ \$23.10/hr x 12 hrs.	\$ 1,108.80

b. Remove tank

Crew:

1 foreman	\$36.35/hr. x 10 hrs.	\$ 363.50
4 laborers	\$23.10/hr. x 10 hrs.	\$ 924.00
1 backhoe	\$250/day x 1 day	\$ 250.00
1 crane w/operator	\$800/day x 1 day	\$ 800.00
Transportation costs to disposal site		\$ 1,000.00

c. Decontaminate and remove secondary containment system

Crew:

1 foreman	\$36.25/hr. x 24 hrs.	\$ 870.00
3 laborers	\$23.10/hr. x 24 hrs.	\$ 1,663.20
1 backhoe	\$250/day x 2 days	\$ 500.00
1 jackhammer	\$150/day x 2 days	\$ 300.00
1 pressure washer	\$400/day x 1 day	\$ 400.00
Test rinsate	(2 @ \$200 each)	\$ 400.00
Remove and dispose of rinsate	\$0.50/gal. x 1,000 gal. (assumed nonhazardous)	\$ 500.00
Remove and dispose of concrete	\$50/ton x 70 tons (assumed nonhazardous)	\$ 3,500.00

TOTAL PHASE III **\$13,014.50**

TABLE II.K.1-1

**SAFETY-KLEEN TALLAHASSEE, FLORIDA
SERVICE CENTER
CLOSURE COST ESTIMATE**

Phase IV - Backfilling, Regrading, Soil Testing

a. Tests for soil contamination (1 per tank, 1 per pipe system)

2 samples x \$640.00/each	\$ 1,280.00
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b. Test backfill material (1 sample @ \$320)	\$ 320.00
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c. Regrading

Crew:

1 foreman	\$36.25/hr. x 8 hrs.	\$ 290.00
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1 laborer	\$23.10/hr. x 8 hrs.	\$ 184.00
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Front-end loader	\$400/day x 1 day	\$ 400.00
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Backfill (assume 20 CY required)	\$10/CY x 20 CY	<u>\$ 200.00</u>
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TOTAL PHASE IV	\$ 2,674.00
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Summary of Closure Costs for one 15,000-Gallon Tank

Phase II	\$10,265.38
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Phase III	\$13,014.50
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Phase IV	<u>\$ 2,674.00</u>
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TOTAL	\$25,953.88
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TABLE II.K.1-1

**SAFETY-KLEEN TALLAHASSEE, FLORIDA
SERVICE CENTER
CLOSURE COST ESTIMATE**

Phase V - CLOSURE OF CONTAINER STORAGE AREA -

Remove and return containers to a reclaimer,
clean the container storage area,
and dispose of wash water generated

a. 3 truck drivers @ \$19.32/hr. x 8 hrs.	\$ 463.68
3 trucks @ \$750.00 lump sum	\$ 750.00
Hauling cost - 180 miles	\$ 1,000.00
b. Clean drum storage area	
Crew:	
1 foreman @ \$36.25/hr. x 10 hrs.	\$ 362.50
1 laborer @ \$23.10/hr. x 10 hrs.	\$ 231.00
c. Dispose of wash water - 700 gal. x \$0.50/gal.	\$ 350.00
350 gal. (RCRA disposal) @ \$1.50/gal	\$ 525.00
d. Dispose of used solvents - 126 drums x \$30.00/drum ^a	\$ 3,900.00
e. Testing for contamination - 2 samples x \$640.00/each	\$ 1,280.00
Testing of rinsewater - 2 rinsate x \$320 each	\$ 640.00
f. Labor for sampling - 4 hours total	<u>\$ 126.00</u>
TOTAL DRUM CLOSURE COST	\$ 9,628.18

^a Assumed to be properly prepared, sampled, and labeled ready for shipment.

TABLE II.K.1-1

SAFETY-KLEEN TALLAHASSEE, FLORIDA
SERVICE CENTER
CLOSURE COST ESTIMATE

Phase VII - CLOSURE OF RETURN/FILL SHELTER -

Remove, package, and dispose of sludge;
clean the dumpster and dock area;
remove dumpster and dock structure for reuse

a. Clean dumpster and dock area

Crew:

1 foreman @ \$36.25/hr. x 16 hrs. \$ 580.00

1 laborer @ \$23.10/hr. x 16 hrs. \$ 369.60

Pressure washer @ \$400/day \$ 800.00

b. Disposal of wash water - 1,000 gal. x \$0.50/gal.
(assumed nonhazardous) \$ 500.00

c. Dispose of dumpster mud - 16 55-gal. drums x \$400/drum \$ 6,400.00

d. Testing for contamination (soil) - 2 samples x \$320.00/each \$ 640.00
Test rinsewater - 1 sample x \$320.00/each \$ 320.00

e. Cut up, disassemble, and remove dumpster and dock

Crew:

1 foreman @ \$36.25/hr. x 24 hrs. \$ 870.00

2 laborers @ \$23.10/hr. x 24 hrs. \$ 1,108.80

Equipment \$ 350.00

TOTAL DOCK CLOSURE COSTS \$11,938.40

TABLE II.K.1-1

SAFETY-KLEEN TALLAHASSEE, FLORIDA
SERVICE CENTER
CLOSURE COST ESTIMATE

5.	<u>PROFESSIONAL ENGINEER CERTIFICATION</u>	\$ 1,200.00
6.	<u>TOTAL CLOSURE COSTS</u>	
	One 15,000-Gallon Tank	\$25,953.88
	Container Storage Area	\$ 9,628.18
	Return/Fill Shelter	\$11,938.40
	Professional Engineer Certification	<u>\$ 1,200.00</u>
	TOTAL	\$48,720.46

NOTE: These estimates are based on third-party costs.

Attachment II.K.2

Contingent Post-Closure Plan

ATTACHMENT II.K.2

CONTINGENT POST-CLOSURE PLAN

Closure and post-closure regulations have been promulgated by the United States Environmental Protection Agency (EPA) at 40 CFR, Part 264, Subpart G for permitted hazardous waste facilities. Specific post-closure requirements for hazardous waste storage tanks are contained in 40 CFR 264, Subpart J. The FDEP has adopted these regulations by reference in Chapter 17-30.180 of the Florida Administrative Code (FAC).

264.197(c) requires post-closure of tanks as landfills if the tank system does not have secondary containment that meets the requirements of 264.193(b) through (f) or been granted a variance from secondary containment requirements in accordance with 264.193(g). The tank system at Tallahassee meets the requirements of 264.193, and is, therefore, not required to have a contingent post-closure plan under 264.197(c).

264.197(b) requires post-closure of tanks as landfills if the owner or operator demonstrates that not all contaminated soils can be practically removed or decontaminated. At the present time, Safety-Kleen intends at the time of closure to remove or decontaminate all tank system components, associated containment systems, and contaminated soils. If at a subsequent time or at the time of the closure permit application, it is determined 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 (Part 264-310) will be enacted.

Part II P

*Information Regarding Potential
Releases from Solid Waste
Management Units*

P. Information Regarding Potential Releases From Solid Waste Management Units

3-079-02

Facility name: Safety-Kleen Corp. Tallahassee, FLorida Service Center
 EPA I.D. Number: FLD 982133159
 Location: City Tallahassee
 State Florida

1. Are there any of the following solid waste management units (existing or closed) at your facility?

NOTE: DO NOT INCLUDE HAZARDOUS WASTES UNITS CURRENTLY SHOWN IN YOUR PART B APPLICATION

	YES	NO
■ Landfill	_____	<u>X</u>
■ Surface impoundment	_____	<u>X</u>
■ Land farm	_____	<u>X</u>
■ Waste pile	_____	<u>X</u>
■ Incinerator	_____	<u>X</u>
■ Storage tank	_____	<u>X</u>
■ Container storage area	_____	<u>X</u>
■ Injection wells	_____	<u>X</u>
■ Wastewater treatment units	_____	<u>X</u>
■ Transfer stations	_____	<u>X</u>
■ Waste recycling operations	_____	<u>X</u>
■ Land treatment facility	_____	<u>X</u>

2. If there are "Yes" answers to any of the items in 1. above, please provide a description of the wastes that were stored, treated or disposed of in each unit. In particular please focus on whether or not the wastes could be considered as hazardous wastes or hazardous constituents under RCRA. Also include any available data on quantities or volumes of wastes disposed of and the dates of disposal. Please also provide a description of each unit and include capacity, dimensions, and location at facility. Provide a site plan if available.

NA

NOTE: HAZARDOUS WASTES ARE THOSE IDENTIFIED IN 40 CFR PART 261. HAZARDOUS CONSTITUENTS ARE THOSE LISTED IN APPENDIX VIII OF 40 CFR PART 261.

3. For the units noted in 1. above and also those hazardous waste units in your Part B application, please describe for each unit any data available on any prior or current releases of hazardous wastes or constituents to the environment that may have occurred in the past or still be occurring.

Please provide the following information:

- a. Date of release
- b. Type of waste released
- c. Quantity or volume of waste released
- d. Describe nature of release (i.e., spill, overflow, ruptured pipe or tank, etc.)

See attached spill reports

4. In regard to the prior releases described in 3. above, please provide (for each unit) any analytical data that may be available which would describe the nature and extent of environmental contamination that exists as a result of such releases. Please focus on concentrations of hazardous wastes or constituents present in contaminated soil or ground water.

See MSDS in II.4(b) Appendix A

Signature and Certification

The following certification must be included with the submittal of this information. The certification must be signed by a principal executive officer of at least the level of Vice President or by a duly authorized representative of that person.

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments. Based on my inquiry of those individuals immediately responsible for obtaining the information, the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Scott E. Fore

Signature

Scott E. Fore, Senior Vice President
Environment, Health, & Safety

Name and Title (typed)

Safety-Kleen Tallahassee, Florida Service Center 3-079-02
Facility Name

Date: 9/14/94 Telephone: (708) 697-8460



SAFETY-KLEEN CORP. Field Spill Report Form

Report all spills to the Safety-Kleen Environment, Health and Safety Dept. Immediately.

- 1. Facility Number and Location: 3-079-02
- 2. Date of spill: 1-15-93 Time: 1:10 a.m. p.m.
- 3. Report from: Frank Taylor Title: Branch Manager
- 4. Location of spill: 4426 Entrepot Blvd., Tallahassee, FL 32310
- 5. Material spilled: Hylcol/Anti Freeze Quantity: 10 Gal. approx.
- 6. Any injuries or property damage? Yes or No If yes, explain. _____

7. Cause of spill: Valve left open on Oil truck while pumping, catch pan overflowed.

8. Was the spilled material contained? Yes or No If yes, how? If no, describe the scene in detail (including nearby surface water or sewers and distance to them). Leakage diverted toward drainage ditch. approx. 1 1/2 to 2 gallons water in surface water. Standing water from rain. Took sample

9. Describe clean-up action taken. Contained majority of material with absorbent materials and can col absorbent. Contained absorbent materials and labeled for shipment and disposal.

10. Person involved in incident: Tommy Dawson
11. Vehicle # SK-5764 Company Safety Kleen Corp.

12. List any emergency agencies at scene. none

13. Are there homes or businesses nearby? Yes or No Distance? 100 yards

14. Notification: S-K Environment Dept. Nat'l. Response Center State
1-800-323-5740 1-800-424-8802 1-
1-312-888-4660 (24 hr.)

Date/time: 1-15-93 1:40 Pm 1-15-93 1:55 Pm

Contact name: Mary Kay #7 Report # 153523

Comments rec'd: Took information Took information

Report # Instructed to call
011593-02 Nat'l Response Center

Infotrac. REE Notified - Bill Hayward

15. Signature Frank Taylor



SAFETY-KLEEN CORP.

Field Environmental Incident Report Form

Report all spills to the Safety-Kleen Environment, Health and Safety Dept. immediately (including spills, fires, DOT reportable releases, etc.).

- 1. Facility Number: 3-079-02 Facility Location: TAIHAHASSEE
- 2. Date of Incident: 7-21-94 Time: 6:30 a.m. p.m.
- 3. Reported By: ROGER CASAVANT (OIL Rep.)
- 4. Location of Incident: 4426 Entrepot Blvd. TAIHAHASSEE, FL.
If not at S-K site, name and phone of contact person: _____
- 5. Material Involved: NON-HAZ OIL Quantity: 10gals
- 6. Material Status: Clean Non-Hazardous Waste Hazardous Waste
- 7. Any injuries or property damage? Yes No If yes, explain: _____

- 8. Cause of Incident: (Explain in detail) OIL Rep. underestimated volume of oil on TANKER, overflowed out of top of TANKER, ran down back to port holes.
- 9. Describe incident in detail (including nearby surface water or sewer and distance, type of surface spilled on, was spill contained): TANKER WAS bordered by Absorbent Booms, 1-30gal. can of Absorbent No sewer drains present, grass embankment was not hindered. Spill WAS contained.
- 10. Describe actions taken to prevent recurrence: TALK with OIL Rep. (no longer rep. leaves truck, don't fill no more than 6500gals. at a time.
- 11. Describe response/cleanup action taken and any material not recovered: Pump & valves were turned off immediately, buckets were used to catch port hole drainage from additional boom were used along with absorbent pads to contain Sp.
- 12. Cleanup Residue Volume: 2-30gal. drums, 1-16gal. drums Spill Kit Restocked? Yes No
- 13. Emergency Response Company Involved: _____ Phone # _____
- 14. Person(s) Involved in Incident: FRANK BATAZ ROGER CASAVANT, RAY Carnahan Phone # 904-576-9764
- 15. Vehicle #: SK5764 Company: Safety Kleen Corp.
- 16. List Emergency Agencies at Scene (include names & phones): NONE
- 17. Potential Public Exposure, Distance to Homes, Businesses, etc.: NONE

18. Notification: S-K EHS 1-708-888-4660 S-K Regional Env. Staff Nat'l Response Center 1-800-424-8802 State/Local 1- - -

Date/Time: _____ 7-21-94 1:15pm

Contact Name: _____ Ennigh Bill

Comments Rec'd: _____

Report Number: _____ 250990

- 19. Spill EPA ID # (if obtained): FLD982133159
- 20. Spill Residue Paperwork (check): Bill of Lading Manifest Spill: LDR
- 21. DOT Reports Required/Completed? Verbal: Yes No Written: Yes No
- 22. State Reports Required/Completed? Verbal: Yes No Written: Yes No

Signature of Preparer: Dellie Wick Date of Report: 7/21/94



SAFETY-KLEEN CORP.

Field Environmental Incident Report Form

Report all spills to the Safety-Kleen Environment, Health and Safety Dept. immediately
(including spills, fires, DOT reportable releases, etc.).

1. Facility Number: 3-079-02 Facility Location: Tallahassee, FL

Date of Incident: 5-9-94 Time: 5:00 P.M. a.m. p.m.

3. Reported By: Roger Casavant - Ben Buda

4. Location of Incident: Bozch Oldsmobile Sales - Valdosta, Ga
If not at S-K site, name and phone of contact person: 912-242-2416

5. Material Involved: Used Oil Quantity: 20 Gallons

6. Material Status: Clean Non-Hazardous Waste Hazardous Waste

7. Any injuries or property damage? Yes No If yes, explain: _____

8. Cause of Incident: (Explain in detail) Overflow from SK-Truck. Cut off switch stuck. Malfunction. Working properly at present.

9. Describe incident in detail (including nearby surface water or sewer and distance, type of surface spilled on, was spill contained): Spill contained. Spilled on concrete service inside building. No nearby surface water or sewer.

10. Describe actions taken to prevent recurrence: Work as careful as possible. checked all cut off switches for proper operation.

11. Describe response/cleanup action taken and any material not recovered: all material recovered. Spill cleaned up with absorbent towels, Rags, bagged & brought back to facility for disposal.

12. Cleanup Residue Volume: 10 Pounds Spill Kit Restocked? Yes No

13. Emergency Response Company Involved: no assistance needed. Phone # 0

14. Person(s) Involved in Incident: Roger Casavant - Oil Drum. Phone # 904-576-9764

15. Vehicle #: SK-5764 Company: Safety, Kleen Corp.

16. List Emergency Agencies at Scene (include names & phones): None

17. Potential Public Exposure, Distance to Homes, Businesses, etc.: no exposure, limited to work area.

18. Notification:	S-K EHS 1-708-888-4660	S-K Regional Env. Staff	Nat'l Response Center 1-800-424-8802	1-	State/Local - - -
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Date/Time: 5:05 P.M. 5:10 P.M.

Contact Name: Tony Gator #5 Bil Crawford

Comments Rec'd: NO DOT Report voicemail
No NRC Report.
Took all information

Report Number: 05099403

19. Spill EPA ID # (if obtained): GA0981223563

Spill Residue Paperwork (check): Bill of Lading Manifest Spill: LDR

DOT Reports Required/Completed? Verbal: Yes No Written: Yes No

22. State Reports Required/Completed? Verbal: Yes No Written: Yes No

Signature of Preparer: Mark Duffin Date of Report: 5-9-94

After completing this form, file copy 1 in the Facility Incident (Spill) File at the facility, send copy 2 to the EHS Department in Elgin and copy 3 to the site's regional environmental staff.



SAFETY-KLEEN CORP.

Field Environmental Incident Report Form

Report all spills to the Safety-Kleen Environment, Health and Safety Dept. immediately (including spills, fires, DOT reportable releases, etc.).

1. Facility Number: 3-079-02 Facility Location: Tallahassee, Fl.
 2. Date of Incident: 5-5-94 Time: 10:00 a.m. p.m.
 3. Reported By: Frank Taylor - Roger Casavant.
 4. Location of Incident: Jelly Muffler - Magnolia Dr. - Tallahassee, Fl. 32301
 If not at S-K site, name and phone of contact person: Wayne Peavy - 904-377-8811
 5. Material Involved: Used Oil Quantity: 5 Gallons.
 6. Material Status: Clean Non-Hazardous Waste Hazardous Waste
 7. Any injuries or property damage? Yes No If yes, explain: _____

3. Cause of Incident: (Explain in detail) Tank Overfilled causing pressure release when opened.
 4. Describe incident in detail (including nearby surface water or sewer and distance, type of surface spilled on, was spill contained): 7 floor Tank & walls of building (Splattered). Spill contained. No formation of material in any large quantity.
 5. Describe actions taken to prevent recurrence: Discussed with customer to be sure tank is not overfilled. Call for service before full.
 6. Describe response/cleanup action taken and any material not recovered: material cleaned up with sorbent towels & solvent materials. Material contained & recovered.
 7. Cleanup Residue Volume: 1/2 Gallons Spill Kit Restocked? Yes No
 8. Emergency Response Company Involved: no assistance needed Phone # -
 9. Person(s) Involved in Incident: Roger Casavant - Oil Driver Phone # 904-576-9764
 10. Vehicle #: SK-5764 Company: Safety Kleen Corp.
 11. List Emergency Agencies at Scene (include names & phones): None
 12. Potential Public Exposure, Distance to Homes, Businesses, etc.: Exposure limited to work area at business.

Notification: S-K EHS 1-708-888-4660 S-K Regional Env. Staff Nat'l Response Center 1-800-424-8802 State/Local 1- - - business
 Date/Time: 5-5-94 1:45 PM 5-5-94 12:15 PM
 Contact Name: Ron #8 Bill Crawford
 Comments Rec'd: Took information, call & info to call RE for further direction.

Report Number: OS0594-01
 Spill EPA ID # (if obtained): None
 Spill Residue Paperwork (check): Bill of Lading Manifest Spill: LDR
 DOT Reports Required/Completed? Verbal: Yes No Written: Yes No
 State Reports Required/Completed? Verbal: Yes No Written: Yes No
 Signature of Preparer: Frank Taylor Date of Report: 5/5/94



SAFETY-KLEEN CORP.

Field Environmental Incident Report Form

Report all spills to the Safety-Kleen Environment, Health and Safety Dept. immediately (including spills, fires, DOT reportable releases, etc.).

1. Facility Number: 3-079-02 Facility Location: TALLAHASSEE, FL

2. Date of Incident: 4-19-94 Time: 11:50 a.m. p.m.

3. Reported By: Robert I Weldon

4. Location of Incident: Carlton Company of ALBANY

If not at S-K site, name and phone of contact person: Jim shock 912-434-8516

5. Material Involved: 105 Petroleum Naphtha m/s Quantity: 15 gallons

Material Status: Clean Non-Hazardous Waste Hazardous Waste

Any injuries or property damage? Yes No If yes, explain: _____

Cause of Incident: (Explain in detail) Lock ring on Lid in poor condition, when attempting to load on Dolly and clamp Down Drum, Drum Tipped hitting the concrete thus spilling.

Describe incident in detail (including nearby surface water or sewer and distance, type of surface spilled on, was spill contained): Rollled 30 gallon Drum on dolly, then proceeded to Lock Dolly with the Hand cart Lock Hook, As handtruck was tilted to transport Drum, Drum tipped thus spilling.

Describe actions taken to prevent recurrence: Making sure all rings are secure and in Extreme to proper working ORDER.

Describe response/cleanup action taken and any material not recovered: SK spill kit used. 1 Bundle of 8914 Sorbent sheets Used to secure spill perimeter and final mop up of spill Material Recovered (100%)

Cleanup Residue Volume: 15 gallons Spill Kit Restocked? Yes No

Emergency Response Company Involved: INFO TRAC Phone # 1-708-888-4660

Person(s) Involved in Incident: Robert I Weldon Phone # 904-576-9264

Vehicle #: SK-91093 Company: Safety Kleen Corp

List Emergency Agencies at Scene (include names & phones): None

Potential Public Exposure, Distance to Homes, Businesses, etc.: None

Notification:	S-K EHS 1-708-888-4660	S-K Regional Env. Staff	Nat'l Response Center 1-800-424-8802	State/Local 1- - -
Date/Time:	<u>4-19-94 11:55 Am</u>	<u>4-19-94 11:57</u>		
Contact Name:	<u>Jack Operator #9</u>	<u>Bill Crawford</u>		
Comments Rec'd:	<u>Follow Spill Report</u>	<u>Fill out Spill Report & send copy, file</u>		

Report Number: 041994-05

Spill EPA ID # (if obtained): _____

Spill Residue Paperwork (check): Bill of Lading Manifest Spill: LDR

DOT Reports Required/Completed? Verbal: Yes No Written: Yes No

State Reports Required/Completed? Verbal: Yes No Written: Yes No

Signature of Preparer: [Signature] Date of Report: 4-19-94



SAFETY-KLEEN CORP.

Field Environmental Incident Report Form

Report all spills to the Safety-Kleen Environment, Health and Safety Dept. immediately (including spills, fires, DOT reportable releases, etc.).

- 1. Facility Number: 3-079-02 Facility Location: TALLAHASSEE FL 32310
- 2. Date of Incident: 9-15-93 Time: 3:00 a.m. p.m.
- 3. Reported By: Andrew J Schindler
- 4. Location of Incident: SHIVER DIESEL INJECTION 1707 CARPENTERS RD TIFTON GA 31794
If not at S-K site, name and phone of contact person: JACK OPERATOR 9
- 5. Material Involved: SOLVENT Quantity: 3 GLS
- 6. Material Status: Clean Non-Hazardous Waste Hazardous Waste
- 7. Any injuries or property damage? Yes No If yes, explain: _____

8. Cause of Incident: (Explain in detail) ~~Drum~~ Bumped drum with dolly
Drum fell over and started to LEAK LEAK OUT

9. Describe incident in detail (including nearby surface water or sewer and distance, type of surface spilled on, was spill contained): SOLVENT WAS RECOVERED BEFORE ENTERING DRAIN

10. Describe actions taken to prevent recurrence: Be more CAREFUL ABOUT where
drum is placed

11. Describe response/cleanup action taken and any material not recovered: ALL MATERIAL RECOVERED

- 2. Cleanup Residue Volume: 3 GL Spill Kit Restocked? Yes No
- 3. Emergency Response Company Involved: NO Phone # _____
- 4. Person(s) Involved in Incident: Andrew J Schindler Phone # _____
- 5. Vehicle #: _____ Company: _____
- 6. List Emergency Agencies at Scene (include names & phones): N/A
- 7. Potential Public Exposure, Distance to Homes, Businesses, etc.: N/A

3. Notification:	S-K EHS 1-708-888-4660	S-K Regional Env. Staff	Nat'l Response Center 1-800-424-8802	State/Local
Date/Time:	<u>9-15-93 3:50</u>	<u>9-15-93 4:00</u>		
Contact Name:	<u>JACK OPERATOR 9</u>	<u>vector</u>		
Comments Rec'd:				

Report Number: 091593-07

Spill EPA ID # (if obtained): _____

- Spill Residue Paperwork (check): Bill of Lading Manifest Spill: LDR
- DOT Reports Required/Completed? Verbal: Yes No Written: Yes No
- State Reports Required/Completed? Verbal: Yes No Written: Yes No



SAFETY-KLEEN CORP.

Field Environmental Incident Report Form

Report all spills to the Safety-Kleen Environment, Health and Safety Dept. immediately (including spills, fires, DOT reportable releases, etc.).

1. Facility Number: 3-079-02 Facility Location: TALLAHASSEE, FL

2. Date of Incident: 7-19-93 Time: 10:00 a.m. p.m.

3. Reported By:

4. Location of Incident: PAVEMENT BY THE TANK FARM

If not at S-K site, name and phone of contact person:

5. Material Involved: Petroleum Naphtha (Mineral Spirits) Quantity: 2 gal.

6. Material Status: [X] Clean [] Non-Hazardous Waste [] Hazardous Waste

7. Any injuries or property damage? [X] Yes [] No If yes, explain: The Asphalt in front of TANK FARM.

8. Cause of Incident: (Explain in detail) Hunt Oil (BARNETT TRANSPORTATION, INC.) brought in clean Petroleum, Naphtha (Mineral Spirits) spilled about 2 gal. on Asphalt.

9. Describe incident in detail (including nearby surface water or sewer and distance, type of surface spilled on, was spill contained): The spill was on the Asphalt in front of TANK FARM. 14' x 2' wide It looks like the driver try to wipe it up.

10. Describe actions taken to prevent recurrence: TALKING to FLEET, explaining what happen and watch the driver more closely.

11. Describe response/cleanup action taken and any material not recovered:

Cleanup Residue Volume: NONE Spill Kit Restocked? [] Yes [X] No

Emergency Response Company Involved: Infotrac Phone # 708-888-4660

Person(s) Involved in Incident: Robert Ballard Phone # 205-391-3300

Vehicle #: 5903-181101 Company: BARNETT TRANSPORTATION INC.

List Emergency Agencies at Scene (include names & phones): NONE

Potential Public Exposure, Distance to Homes, Businesses, etc.: 1 BLOCK

Notification: S-K EHS 1-708-888-4660 S-K Regional Env. Staff Nat'l Response Center 1-800-424-8802 State/Local

Date/Time: 9:00 A.M. 7/20 10:00 AM 7/20

Contact Name: Bill Crawford JACK (operator 9)

Comments Rec'd: Fill out Incident Report And call

Infotrac

Spill Number: 072093-04

Spill EPA ID # (if obtained): FLD 982133159

Spill Residue Paperwork (check): [] Bill of Lading [] Manifest [] Spill: LDR

DOT Reports Required/Completed? Verbal: [] Yes [] No Written: [] Yes [] No

State Reports Required/Completed? [] Verbal: [] Yes [] No Written: [] Yes [] No



July 30, 1993

Sent Via Federal Express

Mr. William E. Kellenberger, P.E.
Hazardous Waste Management Program
Florida Dept. of Environmental Regulation
Northwest District Office
160 Governmental Center
Pensacola, Florida 32501

Subject: 2 Gallon Parts Washer Solvent Spill
Tallahassee Facility, Leon County
EPA ID No. FLD982133159

Dear Mr. Kellenberger:

The following information is being submitted for an incident at Safety Kleen Corporation's, 4426 Entrepot Blvd., Tallahassee, Florida, facility pursuant to 40 CFR 264.56(j).

Transportation: Safety Kleen Corporation
1000 N. Randall Road
Elgin, Illinois 60123-7857

Facility Operator: Safety Kleen Corporation
4426 Entrepot Blvd.
Tallahassee, Florida 32310
Telephone No. 904-576-9764
FLD982133159

1. Report Date: July 29, 1993
2. Person Filing Report: Debbie Widner
3. Date and Time of Incident: July 19, 1993 at 10:00 A.M.
4. Description of Incident: Barnett Transportation brought in a truck load of clean Parts Washer Solvent 105 and spilled about 2 gallons on our pavement. A copy of the Material Safety Data Sheet is enclosed.
5. Extent of Personal Injuries: None

6. Extent of Property Damage: Florida Developers came out, dug up 21-30 gallon drums filled with asphalt and dirt, then repaved the asphalt. No other property damage. Dirt was excavated until no parts washer solvent was no longer detectable either by sight or by smell.
7. Description and Estimated Quantity of Material Released: Approximately 2 gallons of clean Parts Washer Solvent 105.
8. Human Health and Environmental Impact: The solvent was removed as described in item #9
There were no impacts on Human Health and the Environment.
9. Remedial Action Taken: Called Florida Developers the next day. They sent a crew out to dig up the asphalt and dirt, 6 inches down. The crew put the contaminated asphalt and dirt in 21-30 gallon drums and the drums were shipped under a manifest to Safety Kleen's Accumulation Center in Norcross, Georgia on Tuesday July 27, 1993. The drums will then be shipped to Safety Kleen's Hebron, Ohio Recycle Center. The next day Florida Developers came back out and re-asphalted the area that was dug up.
10. Estimated Quantity of Clean-Up Residue for Treatment and Disposal: 21-30 gallon drums were generated from Branch clean-up. These drums were shipped to a Safety Kleen Facility for processing.

This letter also serves as notification that the spill has been cleaned up, and that all emergency equipment is again ready for use. Please contact me at 904-576-9764 if you have any question.

Sincerely,



Debbie Widner
Branch Facility Manager

bc: Catherine McCord, (x.a.)
John Hodges, Remediation
Regional Office, (x.a.)
Branch Spill File 1435



July 21, 1993

Safety Kleen Corporation
P.O. Box 20008
Tallahassee, Fl. 32316

Barnett Transportation, Inc.
P.O. Box 031605
Tuscaloosa, Al. 35403

To Whom It May Concern:

On July 19, 1993, your driver Mr. Robert Ballard, tractor number 5903, trailer number 181101 was off loading clean mineral spirits in our tanks at 4426 Entrepot Blvd. Tallahassee, Florida.

When he was finish he came in the office to bring the paperwork. I took a reading off the tanks, then sign off on the paperwork. The next day I came in and notice a spill on the pavement about 14 foot long and 2 foot wide. Your driver did not mention anything about a spill. Frank Taylor (Branch Manager) has told Mr. Ballard not to spill any solvent on the ground. This has been a constant problem with your drivers.

Regardless of whether the spills are cause from leaking o-rings, fittings, hoses, etc., they must be contained. Or better yet, prevented! This time it was approximately 2 gallons next time it could be 50 or more gallons.

Thank You for care and prevention in this matter in the future.

Sincerely,

Debbie Widner
Branch Facility Manager

Part II Q

*Information Requirements for
Solid Waste Management Units*

PART II Q

SOLID WASTE MANAGEMENT UNITS

Safety-Kleen Corp. has identified the following solid waste management units in addition to the permitted hazardous waste management units which are the subject of this Operating Permit Application.

- Two dry trash dumpsters. One is used for recyclable cardboard, the second one is used for routine garbage.
- Storm water drainage ditch north of fence line.

Part II R

Process Vents

PART II.R

PROCESS VENTS - SUBPART AA

Subpart AA does not apply to the Tallahassee facility since the Tallahassee facility is strictly a storage facility. No process vents associated with distillation, fractionation, thin film evaporation, solvent extraction, or air or steam stripping operations that manage hazardous wastes with organic concentrations of at least 10 ppmw are present at the facility.

Part II S

Equipment Requirements
Subpart BB

Attachment II.S.1

Equipment

ATTACHMENT II.S.1

EQUIPMENT

The following information is required under 40 Code of Federal Regulations (CFR) Section 270.25 for each piece of equipment which Subpart BB of Part 264 applies:

1. Equipment is associated with the 15,000-gallon used parts washer solvent tank.
2. A site plan identifying the hazardous waste management unit at the facility is enclosed. Also enclosed are complete equipment inventory forms listing each piece of regulated equipment.
3. Types of equipment include pumps, flanges, and valves.
4. The hazardous waste stream is spent parts washer solvent, which can be considered to contain organics.
5. The hazardous waste state of parts washer solvent is liquid.
6. The equipment is considered to be heavy liquid service (mineral spirits vapor pressure is 2 mm Hg). Compliance with the standard (40 CFR 264.1058) will be achieved through daily facility inspections and, if required, leak detection monitoring and repair. A copy of the daily inspection record and leak detection and repair record for equipment is enclosed.

The requirements of sections 270.25(b), 270.25(c), and 270.25(e) of 40 CFR do not apply to Safety-Kleen's Tallahassee facility.

INSPECTION LOG SHEET FOR: Daily Inspection List of EQUIPMENT

INSPECTOR'S NAME/TITLE: _____

INSPECTOR'S SIGNATURE: _____

	MON	TUES	WED	THURS	FRI
DATE: (M/D/Y)	___	___	___	___	___
TIME:	___	___	___	___	___

Pump or Valve Number

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

If "N," enter pump or valve # _____ and circle appropriate problem: potential leak, actual leak, sticking, wear, does not operate smoothly, other: _____.

For all leaks and potential leaks, the Leak Detection and Repair Record *must* be completed.

- * A = ACCEPTABLE
- N = NOT ACCEPTABLE

Draw a line through valve and pump I.D. numbers which do not apply.

SUBJECT: Subpart BB Requirements
Anti-freeze/Coolants

DATE: February 13, 1992

TO: Regional Environmental Engineers
Jeff Bard
Ellen Jurczak
Catherine McCord

FROM: Desi Chari
DMC 92-122

Dmc

cc: Bill Constantelos
Dan Dowling
Gary King
Rick Peoples
Ken Snell
Stan Walczynski

During the recent environmental staff meeting questions were raised regarding the applicability of Subpart BB Air Emission Standards for Equipment Leaks requirements for used antifreeze managed at the Service Centers and Recycle Centers.

Pursuant to 40 CFR 264 and 265.1050-1064, the equipment (pumps, valves and flanges) that come into contact with waste organic compounds are subject to the requirements of the equipment leak standards. Pumps, valves and flanges that come into contact with waste antifreeze must be identified in a process flow diagram and must be tagged.

The vapor pressure of ethylene glycol, which constitutes greater than fifty percent of antifreeze (remaining being water), is 0.01 PSIA (0.069 Kilo Pascals) at standard temperature and pressure. This shows that the waste antifreeze is less volatile than mineral spirits.

Therefore, as per 40 CFR 264 and 265.1031, waste antifreeze is defined as a heavy liquid and the equipment that come into contact with waste antifreeze is subject to 264 and 265.1058 standards applicable to heavy liquid service. Therefore, we must comply with air emission leak detection and repair standards based on visual inspection similar to the standards applicable to waste mineral spirit solvents.

Because the waste antifreeze exhibits a very low vapor pressure (0.01 PSIA), the portable organic analyzers will not detect more than 1000 ppm of organics at the liquid-surface. However, the standard for leak detection using portable analyzer is 10,000 ppm. Therefore visual inspection is adequate to detect leaks and portable instruments are not required.

The attached equilibrium calculation shows that the maximum concentration of ethylene glycol in air at standard conditions will be 680 ppm volume. This calculation must be kept in file at the facility to justify that portable instrument monitoring is not required.

February 13, 1992
Page 2

264 and 265.1058 require that if a visual leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected. The first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

If you have any questions regarding this update, please contact me at X2579.

Theoretical (Equilibrium) Saturation Concentration
of Ethylene Glycol in Air at Atmospheric Pressure
(760 mm Hg) and Ambient Temperature (68 0 F).

Concentration of Ethylene Glycol
in Air , PPM Volume = 1 - Mole Fraction of Air x 1,000,000

Atmospheric Pressure = 760 mm Hg
Weight of Air = 1.0 pounds
Ambient Temperature = 68 0F
Vapor Pressure of Ethylene Glycol = 0.517 mm Hg

CALCULATIONS

Partial Pressure of Air = Atmospheric Pressure - Vapor Pressure
= 760 mm Hg - 0.517 mm Hg
= 759.483 mm Hg

Mol. Fraction of Air = Partial Pressure/Atmospheric Pressure
= 759.483/760 mm Hg
= 0.99932


Equilibrium Concentration
PPM Volume =(1-Mol Fraction) x 1,000,000

ppm Volume of Ethylene
Glycol =(1-0.99932) x 1,000,000
= 680 ppm Ethylene Glycol <<<< 10,000 ppm

SUBJECT: RCRA Air Emission Standards
Immediate Action Required

DATE: December 17, 1990

TO: Branch Managers

FROM: Ellen Jurczak 

cc: Reg. Engrs.
Rick Peoples
Anita Pendry
Jennifer Jendras
Melissa Hlebasko
Reg. Mgrs.
Div. V.P.'s
Bill Heyn
Dan Dowling

On December 21, 1990, new EPA rules take effect which regulate air emissions from equipment (such as pumps and valves) used to manage hazardous wastes. Included are requirements for equipment marking and identification, inspection, recordkeeping and specific repair procedures.

Enclosed are some new inspection forms which you must complete to comply with these rules. An explanation of the forms follows:

I. Equipment Inventory Form

This form must be completed and kept in file 1070 (with a copy sent to EHS, Elgin). SITE PLANS SHOWING THE I.D. NUMBER AND LOCATION OF ALL EQUIPMENT WILL BE SENT TO YOU BY TECH SERVICES. Each valve and pump which is associated with the hazardous waste tank(s) (i.e. from the dumpster/barrel washer to the tank and from the tank to the fill pipes) must be marked and listed on this form. The site plan shows the location and newly assigned (by Tech Services) I.D. numbers of all the equipment. You should verify this information to make sure it is correct and use the same I.D. numbers when completing the inventory forms. Tags are used to mark the equipment with its I.D. number. In the column headed Hazardous Waste Management Unit, enter "storage tank". If there are two tanks at the branch, (e.g. waste mineral spirits and waste antifreeze) differentiate between the two for equipment which is only associated with one tank. In the columns headed Pump Description or Valve Type, enter a descriptive term such as spent solvent pump, dumpster shutoff valve, gate valve or check valve.

2. Revised Facility Inspection Record

An additional page has been added to the facility inspection record (file 1210) for the daily inspection of equipment. You should begin using it on December 21, 1990. If a potential leak is discovered (by visual evidence or excessive odor) note it as "N" on the form and follow procedures in #3 below.

3. Leak Detection and Repair Record

After detection of a potential or actual leak, a pump or valve must be monitored with a photoionizer-type instrument within five days. If the instrument reading is 10,000 ppm or greater, a leak is confirmed and a repair must be made within 15 days. Contact your Regional Environmental Engineer immediately to arrange for the equipment to be monitored by a local environmental consultant.

The third form must only be completed for each potential or actual leak detected. The piece of equipment must be tagged with the I.D. number, date of potential or actual leak detection and date of leak confirmation. Tags may be obtained from Tech. Services. After a valve has been repaired, it must be monitored monthly by a consultant using a photoionization detector. After two successive months with no leak detection, the identification may be removed and monitoring discontinued. For other equipment, such as pumps, the tag may be removed after a successful repair. This form must be kept in a new file (1220.2 - Leak Detection and Repair Record).

EQUIPMENT INVENTORY

TO BE FILLED OUT AT THE BRANCH AND KEPT IN THE OPERATING RECORD (FILE 1070) WITH THE SITE PLAN AND PUMP AND VALVE LIST

Listed on the attached pump list and valve list is all equipment at the facility which is subject to the requirements of 40 CFR 264 and 265, Subpart BB. The equipment is also identified on the attached site plan.

The hazardous waste influent to and effluent from the hazardous waste management unit(s) is spent mineral spirits (D001, D004-D011, D018, D019, D021-D030 and D032-D043). Tanks are used for storage of spent mineral spirits which is usually 100% by weight organic. The vapor pressure of mineral spirits at 68° F is 0.27 kPa (equivalent to 2 mm Hg - see MSDS and the attached EPA guidance document page). The waste stream has a vapor pressure equal or lower than that of the clean mineral spirits due to contamination during use with oil, grease and sediment and it is in a liquid state at the equipment, so all equipment is in contact with materials defined as heavy liquid under the cited regulations.

Equipment associated with the waste antifreeze tank(s) is also in heavy liquid service. Ethylene glycol has a vapor pressure at 68° F of .06 mm Hg or 0.01 kPa and is usually 100% organic.

Compliance with the standard (264.1058) will be achieved through daily facility inspections, and if required, leak detection monitoring and repair. The facility inspection record has been updated to include a detailed daily equipment inspection. Records of equipment monitoring and repair are maintained on a separate form in the operating record.

LEAK DETECTION AND REPAIR RECORD

EQUIPMENT I.D. # _____
 DESCRIPTION _____

BRANCH # _____

	<u>DATE</u>	<u>INSPECTOR'S SIGNATURE</u>
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 _____

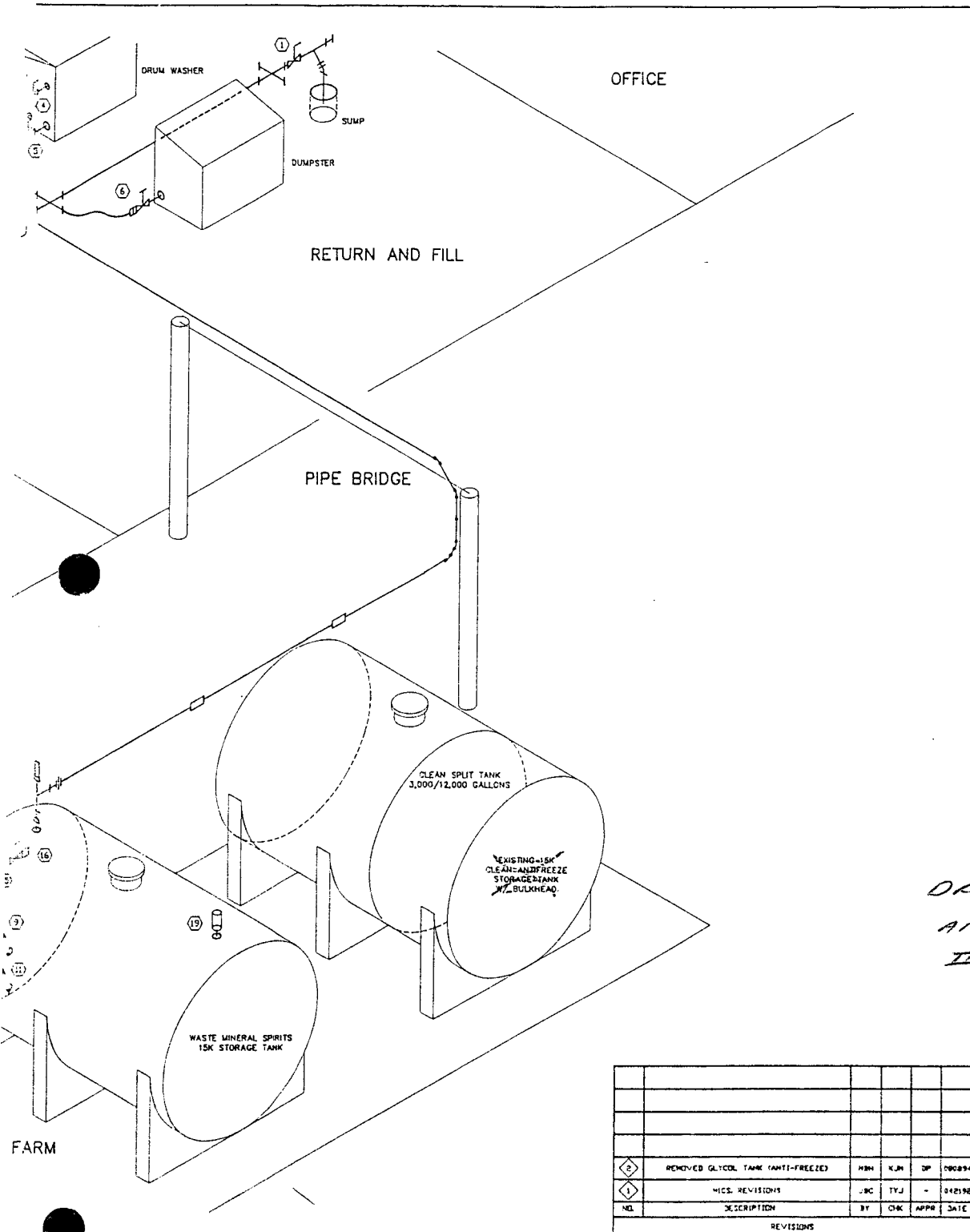
MONITORING SUMMARY

(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

Quisa 05/95



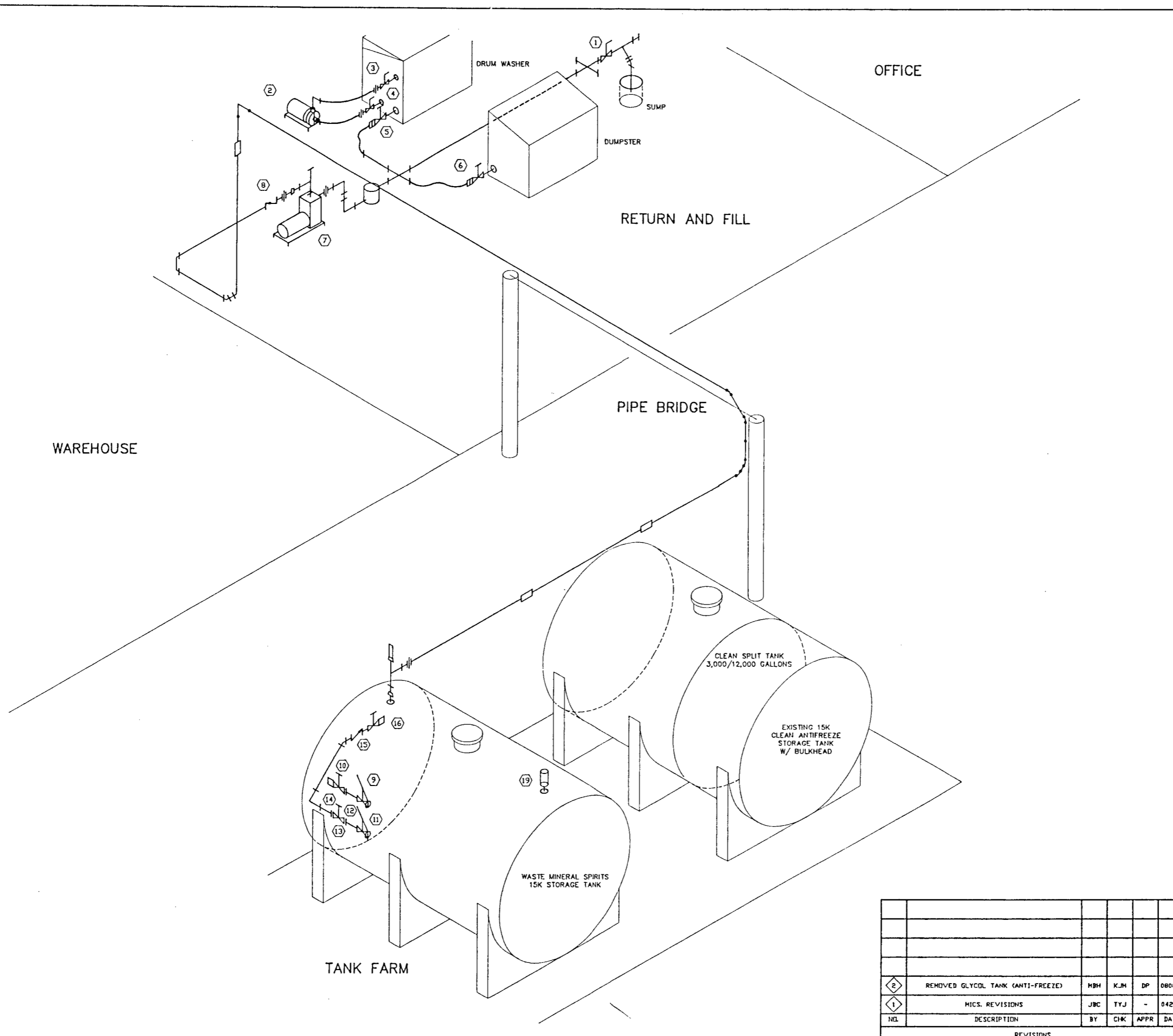
WASTE MINERAL SPIRITS EQUIPMENT SCHEDULE

MARK	DESCRIPTION
(1)	2" THREADED BALL VALVE
(2)	WASTE M.S. RECIRCULATION PUMP
(3)	1 1/4" THREADED BALL VALVE
(4)	1 1/2" THREADED BALL VALVE
(5)	2" THREADED GATE VALVE
(6)	2" THREADED GATE VALVE
(7)	WASTE MINERAL SPIRITS PUMP
(8)	2" THREADED CHECK VALVE
(9)	3" THREADED INTERNAL EMERGENCY VALVE
(10)	3" THREADED GATE VALVE
(11)	3" THREADED INTERNAL EMERGENCY VALVE
(12)	3" FLANGED CONNECTION
(13)	3" THREADED FLANGED GATE VALVE
(14)	3" FLANGED CONNECTION
(15)	3" THREADED CHECK VALVE
(16)	3" THREADED GATE VALVE

DRAWING IN ATTACHMENT II S. 4

FIGURE II.S.1-1

TITLE						ENVIRONMENTAL PIPING SCHEMATIC (WASTE M.S.)						
REMOVED GLYCOL TANK (ANTI-FREEZE)						MM	KJM	DP	080894	Safety-Kleen Corp. 1000 NORTH RANDALL ROAD PHONE (708)597-8400		
M.S. REVISIONS						BY	CHKD	P.E. APPR	DATE	SC-000-REV 08/19/91		
DESCRIPTION						BY	CHK	APPR	DATE	SERVICE CENTER LOCATION TALLAHASSEE, FL.		
REVISIONS									307902-E2001-02			



**WASTE MINERAL SPIRITS
EQUIPMENT SCHEDULE**

MARK	DESCRIPTION
①	2" THREADED BALL VALVE
②	WASTE M.S. RECIRCULATION PUMP
③	1 1/4" THREADED BALL VALVE
④	1 1/2" THREADED BALL VALVE
⑤	2" THREADED GATE VALVE
⑥	2" THREADED GATE VALVE
⑦	WASTE MINERAL SPIRITS PUMP
⑧	2" THREADED CHECK VALVE
⑨	3" THREADED INTERNAL EMERGENCY VALVE
⑩	3" THREADED GATE VALVE
⑪	3" THREADED INTERNAL EMERGENCY VALVE
⑫	3" FLANGED CONNECTION
⑬	3" THREADED FLANGED GATE VALVE
⑭	3" FLANGED CONNECTION
⑮	3" THREADED CHECK VALVE
⑯	3" THREADED GATE VALVE

FIGURE II.S.1-1

REVISIONS					TITLE			
②	REMOVED GLYCOL TANK (ANTI-FREEZE)	MBH	KJM	DP	ENVIRONMENTAL PIPING SCHEMATIC (WASTE M.S.)			
①	MISC. REVISIONS	JBC	TYJ	-	Safety-Kleen Corp. 1000 NORTH RANDALL ROAD ELGIN, ILLINOIS 60123 PHONE (708)897-8480			
NEL	DESCRIPTION	BY	CHK	APPR	SCALE	DATE	OP. APPR	DATE
					N.T.S.	042192	-	081391
					SERVICE CENTER LOCATION			SC-DWG-REV NO.
					TALLAHASSEE, FL.			307902-E2001-02

080894

ATTACHMENT II.S.4

DOCUMENTATION

Safety-Kleen maintains an operating record in the facility. This record provides a place in which the required information is record under 264.1064. The forms and plans in attachment II.S.1 contain the necessary information.

Attachment II.S.4

Documentation