safety-kleen

November 10, 1992 Sent Via Federal Express

Vivek Kamath, P.E.
Hazardous Waste Management
Florida Department of Environmental Regulation
1900 South Congress Avenue, Suite A
West Palm Beach, Florida 33406

RE: Hazardous Waste Transfer Facilities
Contingency / Emergency and Closure Plans
EPA ID Number FLD 984 171 694 and FLD 984 167 791

Dear Mr. Kamath:

Chapter 17-730 Florida Administrative Code (F.A.C.) contains the regulations governing the activities at hazardous waste transfer facilities in the state of Florida. Section 17-730.171 F.A.C. has recently been revised to require transfer facilities to submit a Contingency and Emergency Plan and Closure Plan to the Florida Department of Environmental Regulation (FDER).

Please find attached to this letter the required plans for the above referenced Safety-Kleen facility.

Should you have any questions please contact me at (813)-682-8094.

Sincerely,

Victor L. San Agustin, P.E.
Regional Environmental Manager
Tampa Region

cc: Satish Kastury, FDER

129 S. KENTUCKY AVE, SUITE 701 LAKELAND, FL 33801 PHONE 813/682-8094 FAX 813/688-3683

SAFETY-KLEEN CORPORATION
8755 Northwest 95th Street
Medley, Florida,

FLD 984 171 694

Prepared by;

SAFETY-KLEEN CORPORATION
777 Big Timber Road
Elgin, Illinois 60123
(708) 697-8460

Revision Number 1
Revision Date 11/5/92

ATTACHMENT II.K.1

CLOSURE PLAN

ATTACHMENT II.K.1
CLOSURE PLAN

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.

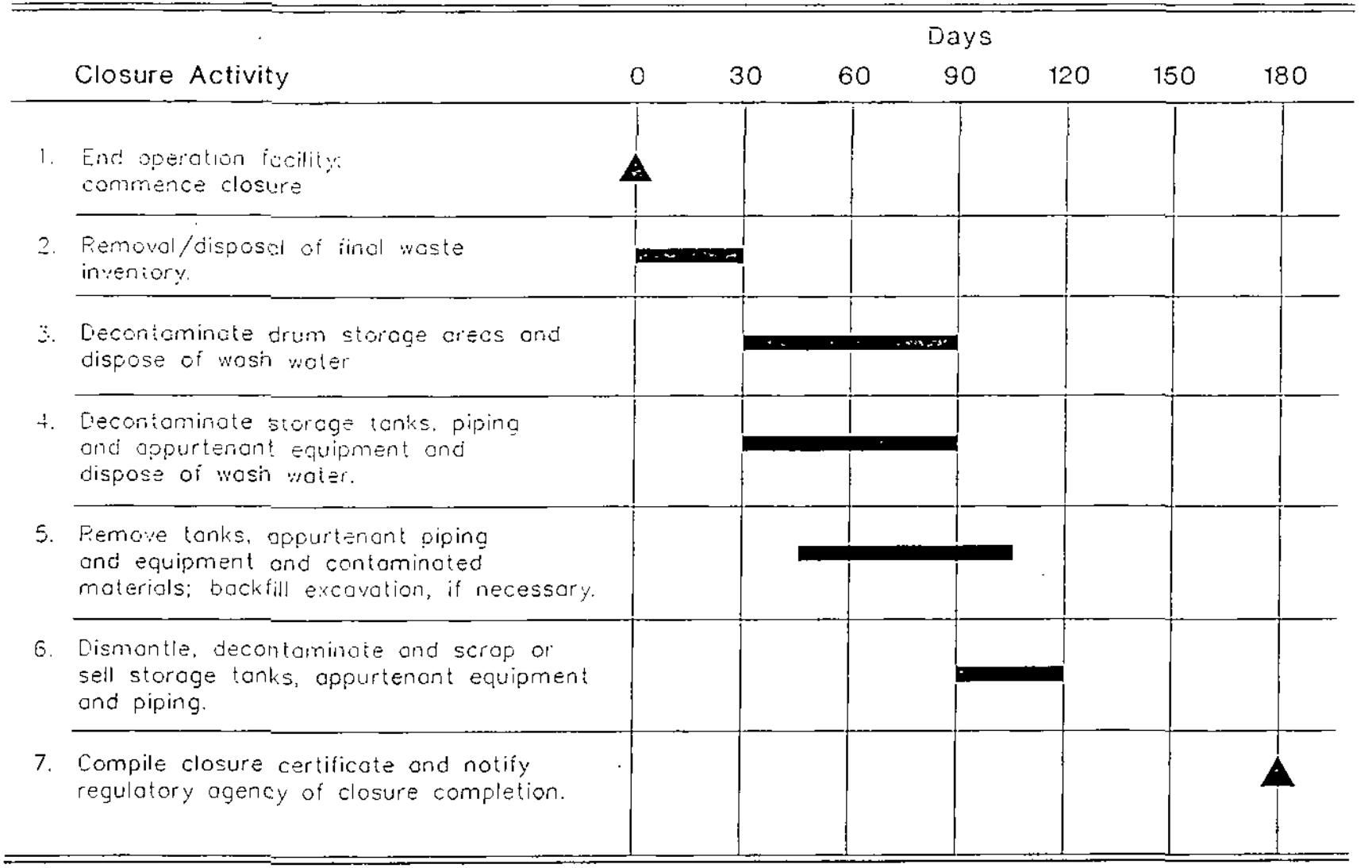
In the event that some presently unforeseen circumstance(s) results in the discontinuance of operations and permanent closure or sale of the facility, the following closure plan is designed to identify the steps necessary to completely close the facility at any point during its intended life, and should 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 the need for maintenance after closure and the possibility 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 the facility or equipment.

An anticipated closure schedule is presented in Figure II.K.1-1. At the present time, a closure permit is required to close the facility. An anticipated maximum waste inventory for the container storage portion of the facility is presented in the following section.

Figure II.K.1-1
Typical Closure Schedule
Safety-Kleen Corp. Facility
Medley, Florida



FACILITY DATA

Aboveground Storage Tanks: The 20,000-gallon vertical carbon steel waste mineral spirits tank and a 20,000-gallon vertical carbon steel spent ethylene glycol tank are in a 36-inch high concrete containment area.

Container Storage Areas

The container storage area is an area with a sloped floor and collection trench. The maximum volume of product and waste stored is 29,400 gallons, with 6,912 gallons as containers of waste dry cleaner, spent immersion cleaner, mineral spirits dumpster mud, FRS wastes, spent antifreeze, and/or paint waste.

Return/Fill Shelter: The return/fill shelter is an approximate 54' 5" x 80' 0" structure between the two halves of the building. It contains four dumpsters which facilitate the flow of solvent to the tank. These dumpsters are not intended for storage, but can hold a maximum of 2,016 gallons (504 gallons each).

MAXIMUM INVENTORY OF WASTE

The maximum amount of waste mineral spirits in the tank is 20,000 gallons.

The maximum amount of spent ethylene glycol in the tank is 20,000 gallons.

The maximum amount of containerized waste is 6,912 gallons of waste. This amount includes any combination of five-gallon containers, 15-gallon containers (also known as split 30- or 20-gallon), 16-gallon containers, 30-gallon containers, 55-gallon containers, and/or 85-gallon overpacks.

The maximum amount of solvent waste in the dumpsters is 2,016 gallons (four 504-gallon dumpsters).

CLOSURE PROCEDURE

PHASE I--OPEN THE TANK

- Access to aboveground tanks is obtained by draining the products, de-gassing, and 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 mineral spirits followed by a 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 tank, it may be necessary to use a high pressure wash system using a 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, and TCLP metals using the analytical methods outlined in SW-846 to determine the effectiveness of decontamination. The tank will continue to be washed and rinsed until levels are below MCLs, or 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 4,000 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. Entry into the tanks will conform to the procedures outlined below.

- 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 performed. 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 exists (no matter how remote) of the presence of toxic vapors in the tank to be entered, the supervisor will arrange to have the air tested.

- There must be a set of wristlets or a rescue harness and sufficient rope 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, drums, 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 the safety exit in the event of an electrical power failure.

- Explosion-proof lighting must be used in any tank used to store flammable liquids.

- 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.

- Men working inside a confined space must be under the constant observation of a fully-instructed standby observer (the "buddy" system).

- 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 worn 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 additional help is available.

- After being instructed in his responsibilities, the standby observer will sign an instruction form indicating his understanding.

- If welding and burning are to be conducted 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 secondary containment system will be steam-cleaned and then disassembled. The construction materials will be tested with 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.

- 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 surface soil beneath the fill pipes and beneath each tank will be sampled and analyzed for volatile organic compounds, mineral spirits, and TCLP metals. A total of four samples will be taken.

PHASE IV--BACKFILLING AND REGRADING

- Provide backfill free from rocks, sticks, and stones. The material must be clean and easily compacted in place.

- Regrade the site to proper topography.

- Remove and dispose of nonusable debris.

PHASE V - CONTAINER STORAGE AREAS

- The container storage area houses containers of used immersion cleaner, mineral spirits dumpster mud, dry cleaning wastes, paint wastes, FRS wastes, and spent antifreeze.

- At closure, all containers will be removed and transported to the recycle center, with proper packaging, labeling, and manifesting; 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, and TCLP metals using the methods outlined in SW-846 to determine the effectiveness of decontamination. The area will continue to be washed and rinsed until levels are below maximum contaminant levels (MCLs), or if MCLs are not available, practical quantitation limits (PQLs), as specified in Appendix IX of 40 CFR 264.

- If the wash water or other wastes generated in the closure 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 <u>not</u> 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.

PHASE VII - SOLVENT RETURN/FILL SHELTER AREA

- This area is used to return the used mineral spirits to the storage tank.

- 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, and TCLP metals 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 area will be inspected for cracks in the concrete. If cracks are observed, soil samples will be collected from beneath the concrete in these areas. It is anticipated that two soil samples will be required. These samples will be analyzed for mineral spirits, volatile organic compounds, and TCLP metals using SW-846 methods.

- The decontaminated 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 there is a change in the

expected year of closure of the facility. The plan must be amended within 60 days of the changes (Figure II.K.1-1).

- Safety-Kleen shall notify the state authority at least 180 days prior to the date closure is expected to begin, except in cases where the facility's permit is terminated or if the facility is otherwise ordered by judicial decree or compliance order to cease receiving wastes or to close. The date when Safety-Kleen "expects to begin closure" should be within 90 days after the date on which Safety-Kleen expects to receive the final volume of wastes.

- 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 (or FDER Secretary) 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 FDER permit, and within 180 days after receiving the final volume of wastes or 180 days after approval of the closure plan, whichever is later or an additional period, if required and approved by FDER and EPA.

- 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.

CLOSURE COST

The closure cost estimates are presented on the following pages. These costs are based on third party costs.

SAFETY-KLEEN CORPORATION
8755 Northwest 95th Street
Medley, Florida,

FLD 984 171 694

Prepared by;

SAFETY-KLEEN CORPORATION
777 Big Timber Road
Elgin, Illinois 60123
(708) 697-8460

Revision Number 1
Revision Date 11/5/92

ATTACHMENT II.A.4(b)

CONTINGENCY PLAN AND EMERGENCY PROCEDURES FOR DAILY BUSINESS OPERATIONS

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

EMERGENCY PHONE NUMBERS

Emergency Coordinators

Primary: Jorge Carvajal
14802 SW 69th Street
Miami, FL 33193
Home: (305) 256-2859
Office: (305) 824-0022

Alternate: Cary Alfonso
5230 SW 98th Court
Miami, FL 33165
Home: (305) 595-0015
Office: (305) 824-0022

Emergency Notification Phone Numbers

Safety-Kleen Environmental, Health and Safety Department
Telephone: (708) 888-4660 (24-hour number)

National Response Center
Telephone: (800) 424-8802

FDER-Southeast District, 1900 South Congress Avenue, West Palm Beach, FL 33406
Telephone: (407) 433-2650 (Monday - Friday, 8 a.m. - 5 p.m., except holidays). At all other times call Florida Emergency Management.

Florida Department of Emergency Management
Telephone: (904) 488-1320 (during non-FDER-SE business hours)

Dade County Environmental Resources Management, Mr. Mike Graham
Telephone: (305) 375-3376 (24-hour)

Emergency Team to be Notified

Metro Dade Fire Department
6000 SW 87th Avenue
Miami, FL 33173
911 or (305) 470-1760

Metro Dade Police Department
1850 NW 86th Avenue
Miami, FL 33166
911 or (305) 471-2100

Palmetto General Hospital
2001 West 68th Street
Hialeah, FL 33016
(305) 823-5000

O.H. Materials Company
P.O. Box 551
Findley, OH 45840
(800) 537-9540
(Primary Clean-Up Contractor)

AMO Pollution Services, Inc.
P.O. Box 311B
Canonsburg, PA 15317
(800) 325-1398
(Secondary Clean-Up Contractor)

REACT Environmental Engineers
2200 Welch Industrial Court
St. Louis, MO 63146
(800) 325-1398
(Secondary Clean-Up Contractor)

EMERGENCY PHONE NUMBERS

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Primary: Jorge Carvajal
14802 SW 69th Street
Miami, FL 33193
Home: (305) 256-2859
Office: (305) 884-0123

Alternate: Cary Alfonso
5230 SW 98th Court
Miami, FL 33165
Home: (305)595-0015
Office: (305)884-0123

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Dade County Environmental Resources Management, Mr. Mike Graham
Telephone: (305) 375-3376 (24-hour)

Emergency Team to be Notified

Metro Dade Fire Department
8175 Northwest 12th Street
Miami, FL 33126
911 or (305) 470-1760

Metro Dade Police Department
9109 Northwest 25th Street
Miami, FL 33172
911 or (305) 471-2100

Palmetto General Hospital
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Hialeah, FL 33016
(305) 823-5000

O.H. Materials Company
P.O. Box 551
Findley, OH 45840
(800) 537-9540
(Primary Clean-Up Contractor)

REACT Environmental Engineers
2200 Welch Industrial Court
St. Louis, MO 63146
(800) 325-1398
(Secondary Clean-Up Contractor)

ATTACHMENT II.A.4(b)

PREPAREDNESS, PREVENTION, CONTINGENCY PLAN, AND EMERGENCY PROCEDURES FOR DAILY BUSINESS OPERATIONS SAFETY-KLEEN CORP., MEDLEY, FLORIDA

GENERAL INFORMATION

Purpose

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

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

General Description of Activities

The business activities conducted at the Medley 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 returned to, the service center, where separate storage tanks are utilized for the storage of clean and used mineral spirits (solvent), spent antifreeze, and where warehouse space is designated for the storage of containers of both clean and used immersion cleaner, mineral spirits sludge, antifreeze, paint waste, fluid recovery service wastes (FRS), dry cleaning wastes (chlorinated solvent), and used oil.

The mineral spirits are transported in covered containers between the service center and customers. Upon returning to the service center, the used mineral spirits are transferred

from the containers into a wet dumpster/barrel washer (solvent return receptacle) in which coarse solids in the mineral spirits are retained. Used mineral spirits from the wet dumpster flow into a 20,000-gallon aboveground tank for storage. Used mineral spirits solvent is picked up periodically by a bulk tank truck from the recycle facility which at the same time delivers clean mineral spirits. The sludge in the wet dumpster is cleaned out at least once per working day, containerized, and temporarily stored in the container storage area for later shipment to the recycle facility for reclamation. Satellite accumulation of mineral spirits occurs in the return/fill area. These satellite accumulation points are associated with the operation of the dumpsters.

The immersion cleaner remains 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. Dry cleaning wastes are picked up at commercial dry cleaning establishments in containers and stored temporarily at the service center. The containers are picked up periodically for recycling at the recycle facility.

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

The antifreeze waste is approximately one-third water and two-thirds antifreeze (ethylene glycol) and contaminants. These wastes are deposited into a carboy or containers by the customer, which are located on the customer's premises. The contents of the carboy are pumped into a tanker truck or containers by a Safety-Kleen sales representative. At the service center, they are then pumped into a 20,000-gallon storage tank (if handled in bulk) or placed in the container warehouse (if handled in containers) for shipment to a Safety-Kleen recycle center. Tanker truck to tanker truck transfers of waste antifreeze are conducted at the return/fill shelter when the antifreeze tank is shut down.

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.

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 is some combination of specific components, and is categorized as a D- or F-waste. The FRS wastes are collected in containers. The FRS wastes are transfer wastes only.

Safety-Kleen also collects used oil, used oil filters, and oily water. These wastes are managed either in containers or in bulk.

Containers are palletized whenever possible (four 55-gallon, five 20- or 30-gallon, nine 16-gallon, or twelve 5-gallon containers) to facilitate shipping and storage. This will prevent the containers from contacting any standing liquid while they are in storage. Pallets are stacked up to six feet high or two high (whichever is higher) while in storage and during transport.

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. Table II.A.4(b)-1 lists estimated annual quantities of waste found at the facility.

Figure II.A.4(b)-1 shows the basic site and floor plans.

TABLE II.A.4(b)-1
SAFETY-KLEEN CORP.
MEDLEY, FLORIDA
PART 1 ATTACHMENT

Waste Type	Process Code(s)	Estimated Annual Amounts (Tons)	Waste Codes
Spent Mineral Spirits	S01* S02**	813	D001 and D-Codes Listed in Note Below
Dumpster Sediment	S01*	Included Above	D001 and D-Codes Listed in Note Below
Tank Bottoms	S01*	Included Above	D001 and D-Codes Listed in Note Below
Spent Ethylene Glycol	S01* S02***	5,000	D-Codes Listed in Note Below
Spent Immersion Cleaner (Old Formula)	S01*	28	F002, F004, and D-Codes Listed in Note Below
(New Formula)	S01*	Included Above	D-Codes Listed in Note Below
Dry Cleaning Waste	S01*	271	D001 or F002 and D-Codes Listed in Note Below
Paint Waste	S01*	69	D001, F003, F005 and D-Codes Listed in Note Below
Fluid Recovery Service (FRS Waste)	S01****	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

TABLE II.A.4(b)-1 (Continued)

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

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

** The spent mineral spirits storage tank has a maximum storage capacity of 20,000 gallons.

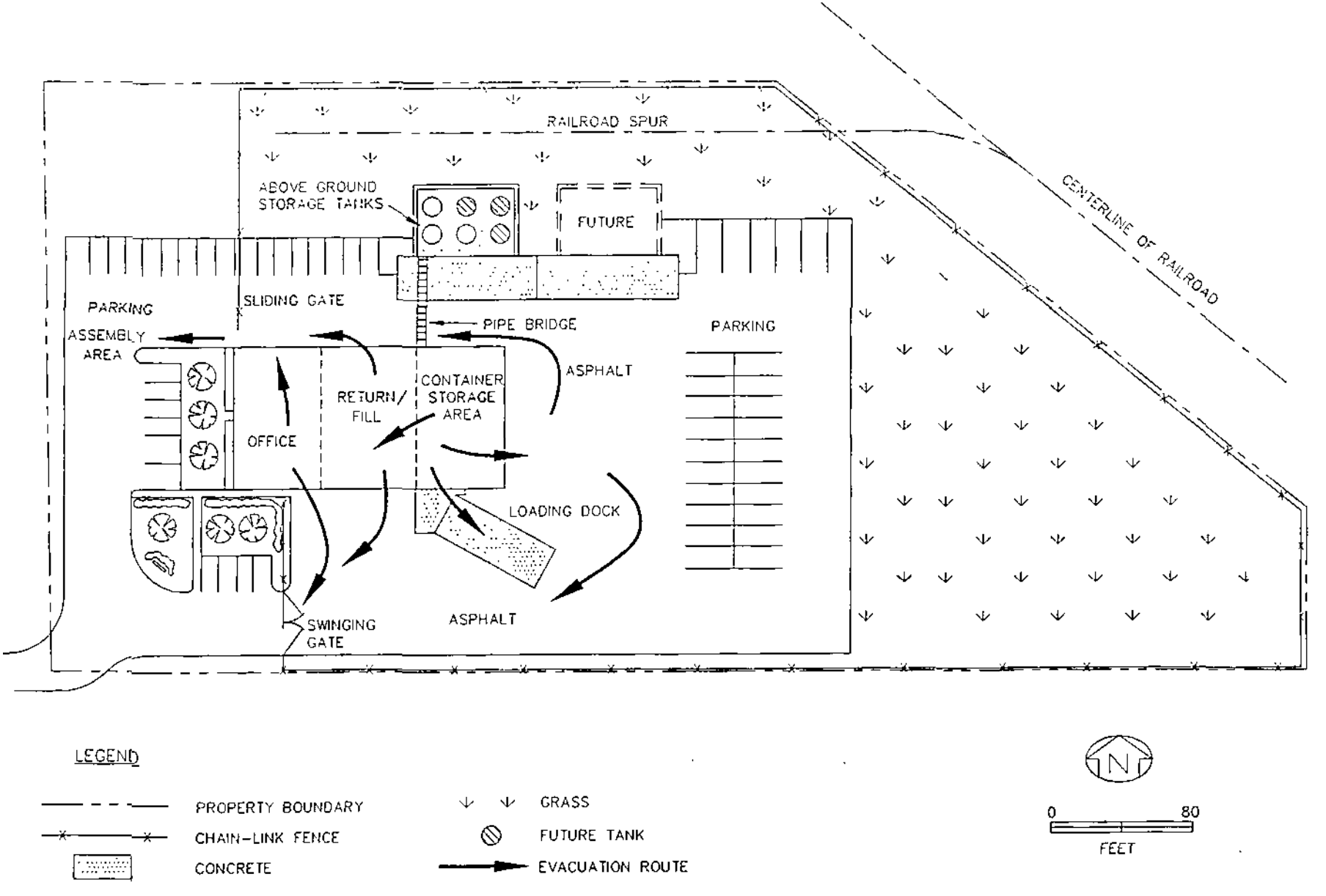
*** The spent ethylene glycol storage tank has a maximum storage capacity of 20,000 gallons.

****FRS wastes are transfer wastes only.

13112 21/31121BM/071602-7

II.A.4(b)-3C

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



The ERM Group

INSPECTION 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)-2 provides an Inspection Schedule.

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

The Branch Manager or his designate will inspect the security features of the facility daily (e.g., gates and locks), looking for any evidence of sticking, corrosion, or uncommon activity. The facility fence will be checked weekly for deterioration, gaps, and broken wire ties.

Daily inspections will include the following:

- Physically examine the container storage area to verify that leaks have not occurred since the last inspection.
- Verify that the tanks and containers have not been damaged or rusted to the point of near leakage.
- Replace or adjust damaged, missing, or loose equipment.

TABLE II.A.4(b)-2

INSPECTION SCHEDULE

Area/Equipment	Specific Item	Types of Problems	Frequency of Inspection
Safety Equipment	Fire Extinguishers	▪ Overdue inspection ▪ Inadequately charged ▪ Inaccessible	Weekly
	Eye Wash	▪ Disconnected/malfunctioning valves ▪ Pressure ▪ *Inaccessible*	Weekly
	First-Aid Kit	▪ Inadequate inventory	Weekly
	Spill Cleanup Equipment	▪ Inadequate supply of sorbent, towels, shovels, mops, empty drums	Weekly
	Personal Protection Equipment	▪ Inadequate supply of aprons, glasses, respirators	Weekly
Security Equipment	Gates and Locks	▪ Sticking, corrosion, lack of warning signs	Weekly
	Fence	▪ Broken ties, corrosion, holes, distortion	Weekly
Storage Tank System-Storage Tanks	Volume in Tank	▪ Must never be more than 95 percent full	Each operating day
	Tank Exterior	▪ Rusty or loose anchoring, lack of grounding, wet spots, *discoloration, leaks, distortion*	Each operating day
	High Level Alarms	▪ Malfunctioning siren/strobe light	Each operating day
	Volume Gauges	▪ Disconnected, sticking, condensation	Each operating day

TABLE II.A.4(b)-2 - Continued

INSPECTION SCHEDULE

Area/Equipment	Specific Item	Types of Problems	Frequency of Inspection
Secondary Containment	Bottom and Walls	▪ Cracks, debris, ponding, wet spots/stains, deterioration, displacement, leaks	Each operating day
	Self Closing Drain Valve	▪ Open, leaks	Each operating day
	Rigid Piping and Supports	▪ Distortion, corrosion, paint failures, leaks	Each operating day
Transfer Pumps and Hoses	Pump Seals	▪ Leaks	Each operating day
	Motors	▪ Overheating	Each operating day
	Fittings	▪ Leaks	Each operating day
	Valves	▪ Leaks, sticking	Each operating day
	Hose Connections and Fittings	▪ Cracks, loose, leaks	Each operating day
	Hose Body	▪ Crushed, cracked, thin spots, leaks	Each operating day
Return and Fill Station	Wet Dumpster	▪ Excess sediment build-up, leaks, rust, split seams, distortion, deterioration, excess debris	Each operating day
	Secondary Containment	▪ Excess sediment/liquid, leaks, deterioration, distortion, excess debris, cracks	Each operating day
	Loading/Unloading Area	▪ Cracks, pondings/wet spots	Each operating day
Container Storage Area	Total Volume in Storage	▪ Exceeds permitted limit	Each operating day

TABLE II.A.4(b)-2 - Continued

INSPECTION SCHEDULE

Area/Equipment	Specific Item	Types of Problems	Frequency of Inspection
	Condition of Drums	▪ Missing or loose lids; labels missing, incomplete or incorrect; rust, leaks, distortion	Each operating day
	Stacking/Placement/ Aisle Space	▪ Containers not on pallets, unstable stacks, inadequate aisle space	Each operating day
Secondary Containment	Curbing, Floor and Sump	▪ Ponding/wet spots, deterioration, displacement, leaks, other	Each operating day
	Loading/Unloading Area	▪ Cracks, deterioration, ponding/wet spots	Each operating day

- Examine the tank and container storage areas to verify that all container identification, dates, loading data, and hazardous waste labels are attached and current.

- Containment areas to detect signs of deterioration and failure of the containment system such as cracks, breakage, settlement, and spillage.

- Container placement and stacking such as aisle space, height, and stability of stacks.

Daily inspections of aboveground tanks will also include the following:

- Check the automatic high level alarm. In addition, measure the depth of used solvent in the tanks to confirm the proper functioning of the automatic alarm system and to determine unexpected deviations in tank measuring data, or a sudden drop in liquid level, which may indicate leakage.

- Inspect the solvent dispensing hose, connections, and valve for any leaks, damage, or wear that could cause a leak to develop.

- Inspect the valves for proper seating. Stem leaks from worn glands and warped valve bodies should be repaired. If the valve cannot be repaired, replace the unit.

- Pumps should be inspected for packing leaks and cool, quiet operation.

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

This inspection and testing will involve a visual inspection and performance of hydrostatic pneumatic or other leak detection tests in accordance with the tank manufacturer's instructions. Frequency and method of future inspection and testing will be determined based upon results of prior evaluations.

Daily inspection of the solvent return receptacle (wet dumpster) will consist of an 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 will be 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 will be 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 inspected for proper 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 includes the names, home addresses, and both office and home phone numbers of the primary emergency coordinator and his alternates. At least one employee will be either present on the facility premises or on call with responsibility for coordinating all emergency response measures at all times. This primary emergency coordinator and alternate emergency coordinator will be 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. A Field Spill Report Form is shown in Table II.A.4(b)-3.

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 repeatedly sound a car horn to notify building occupants of an emergency. A head count will be performed by the emergency coordinator.

Table II.A.4(b)- 3
SAFETY-KLEEN CORP.
Field Spill Report Form

Report all spills to the Safety-Kleen Environment, Health and Safety Dept. immediately.

1. Facility Number_____Facility Location_____
2. Date of spill_____Time_____a.m./p.m.
3. Report from:_____Title_____
4. Location of spill:_____
5. Material spilled:_____Quantity_____
6. Any injuries or property damage? Yes or No If yes, explain._____

   _____
7. Cause of spill? (Explain in detail.)_____

   _____
8. Describe the scene in detail (including nearby surface water or sewer and distance, type of surface spilled on, was spill contained)._____

   _____

   _____

   _____
9. Describe clean-up action taken in detail. How much material was not recovered?_____

   _____

   _____
10. Person involved in incident._____
11. Vehicle #_____Company_____
12. Accident resulted from activities involving (circle all that apply):

    SK Fleet Branch Personnel Outside Carrier Customer Other
13. List any emergency agencies at scene._____
14. Are there homes or businesses nearby? Yes or No Distance?_____
15. Notification:

	S-K Environment Dept. 1-800-669-5740 1-312-888-4660 (24 hr.)*	Nat'l Response Center 1-800-424-8802	State 1- - -
Date/time:			
Contact name:			
Comments rec'd:			
Report Number:			

16. Action taken to prevent recurrence._____

    _____

Use back of form if additional space is needed for any item.

*. Signature_____

After completing this form, file copy 1 in the Spill Incident File at the branch, and send copy 2 to the SK Environment, Health and Safety Department in Elgin and copy 3 to the Regional Environmental Engineer.

*NOTE: After 11/11/89 telephone number will be (708) 888-4660

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 areal extent of any released materials. Because of the limited types of chemicals in storage, the identification processes can easily be performed visually.

Procedure for Assessing Possible Hazard to the Environment and Human Health:

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

- If a fire or explosion is determined uncontrollable by plant personnel or threatening neighboring establishments or population, assistance from a local emergency response agency shall be summoned immediately and an evacuation order be requested.

- In case of a release outside of the containment area that is deemed immediately uncontainable or unrecoverable, the local emergency response agency and/or specialty cleanup contractor shall be called in.

- After termination of a fire or explosion or containment and preliminary cleanup of a spill, evaluate whether residues in the form of gas or liquid have become airborne, seeped into ground water, and/or flowed into surface water bodies.

- Expert assistance should be requested to determine whether the escaped materials are potentially harmful and whether the receiving medium ultimately will be a populated area, public water supply source, a private well, or an environmentally sensitive area.

- Additional steps shall then be taken to mitigate the potential impact on the environment and human health, in accordance with expert recommendations.

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

- If the assessment indicates that evacuation of local areas may be advisable, the coordinator must immediately notify appropriate authorities. The coordinator must be available to help appropriate officials decide whether local areas should be evacuated.

- The coordinator must immediately notify the Southeast District of the FDER, (407) 954-9668 (Monday - Friday, 8 a.m. to 5 p.m., except holidays), or the government designated emergency coordinator (Florida Department of Emergency Management (904) 488-1320 at all other times) and/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 Southeast District of the FDER, 1900 South Congress Avenue, Suite A, West Palm Beach, Florida 33406 (407) 954-9668. 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 30 gallons of waste) pollution incident.

1. Moving of containers.

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

2. Delivery truck container transfers.

   a. Individual delivery containers hold from 5 to 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 containers off the truck and into the customer's shop and returning the dirty solvent containers 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), a worker would enter the area wearing rubber gloves, boots, and respirator, mop up the liquid and place it in a container for return to the container storage area. 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 treated as a hazardous waste.

Tank 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 treated as hazardous waste.

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 (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 emergency and safety equipment stored onsite for such situations (Figure II.A.4(b)-2) and Table II.A.4(b)-4 or call in emergency response contractors (Page iii). Start recovery operations immediately.

   After recovery of spilled solvent, wash all contaminated impervious surfaces and equipment with soap and water. The residue of spill- or fire-contaminated soils and waste waters must be removed and disposed of at a 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 Southeast District of the FDER, 1900 Congress Avenue, Suite A, West Palm Beach, Florida 33406, (407) 954-9668 (Monday - Friday, 8 a.m. to 5 p.m., except holidays); Dade County Environmental Resources Management (Mr. Mike Graham (305) 375-3376, 24-hour line); the Florida Department of Emergency Management (telephone: (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, 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.

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

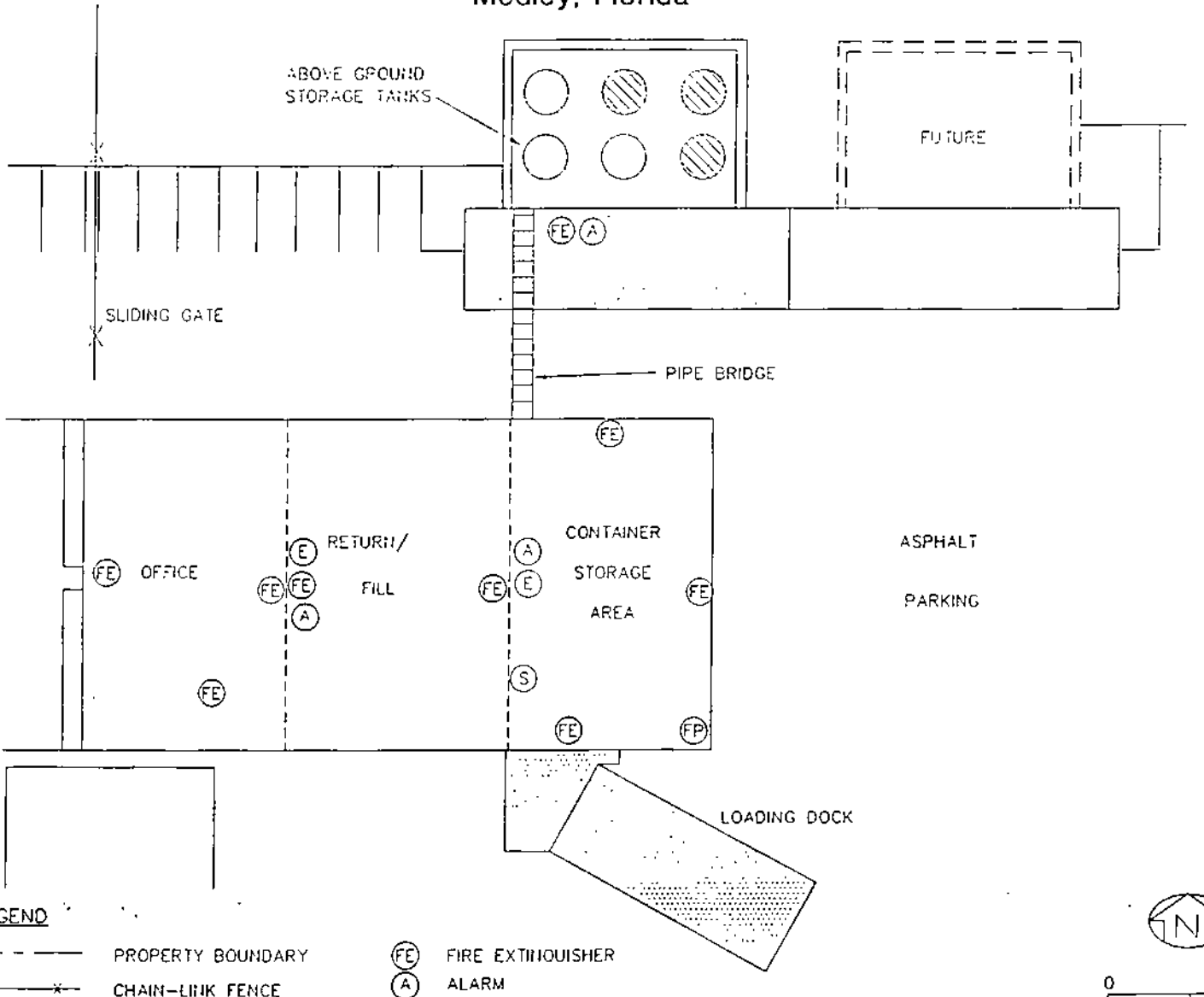


TABLE II.A.4(b)-4

SPILL CONTROL AND EMERGENCY RESPONSE EQUIPMENT

Description	Type/Capacity	Location	Quantity
Fire Extinguisher	ABC (10 lb)	Container Storage Area	9
Fire Extinguisher	ABC	Tank Storage Area	1
Eyewash	Fountain	Container Storage Area	1
Eyewash	Fountain	Return/Fill Shelter	1
First-Aid		Container Storage Area	1
Telephones	Standard	Manager's Office	1
Telephones	Standard	Secretary's Desk	1
Telephones	Standard	Container Storage Area	2
Gloves	Rubber	Emergency Equip. Area	Min. 3
Boots (optional)	Rubber	Emergency Equip. Area	Min. 3
Protective Clothing	Apron	Emergency Equip. Area	Min. 3
Eye Protection	Goggles/Safety Glasses	Emergency Equip. Area	Min. 3
Sorbent Material	Oil Absorbing	Emergency Equip. Area	Min. 1 bale
Shovel	Standard	Emergency Equip. Area	Min. 1
Mop and Bucket	Standard	Emergency Equip. Area	Min. 1
Pump	Hand-held, Electric	Emergency Equip. Area	Min. 1
Wet/Dry Vacuum	Portable, Electric	Emergency Equip. Area	1
Empty Drums for Overpack	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
Fire Sprinkler System	N/A	Container Storage Area	1

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.

Every spill must be recorded on the Field Spill Report Form (Table II.A.4(b)-3). A copy of this report will be sent to the Corporate Environment Health and Safety Department.

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

1. Name, address, and telephone number of the owner of operator;

2. Name, address, and telephone number of the facility;

3. Date, time, and type of incident (e.g., fire, explosion);

4. Name and quantity of materials involved;

5. The extent of injuries, if any;

6. An assessment of actual or potential hazards to human health or the environment, where this is applicable;

7. Estimated quantity and disposition of recovered material that resulted from the incident; and

8. Provide a sketch depicting the location and extent of the spill, if applicable.

Containment Systems

Containerized Wastes

All containers are stored in the container storage area. The storage area is totally contained by a concrete floor and the container area's four walls (Figure II.A.4(b)-3). The containment system is free of cracks and coated with a concrete sealer that is compatible with and resistant to chemicals stored at this facility. All containers are stored on pallets whenever possible.

The floor has a two-inch inward slope (four sides) that will direct a spill toward the collection trench located in the center of the room (Figure II.A.4(b)-3). Six openings (doorways) in the containment area exist. Four of these lead to other containment areas; the container fill/return and the enclosed concrete dock. The other two openings (doorways) are located on the west side of the containment area behind a locked chain link fence. The containment system was measured to have a capacity of 2,996 gallons. Due to the volume of containment available and the configuration of the containment area, it is highly unlikely that any spill would extend beyond this area.

In the container storage area, containers are handled with a hand-truck 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 drum. Each route truck is 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. With the exception of mineral spirits, all

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

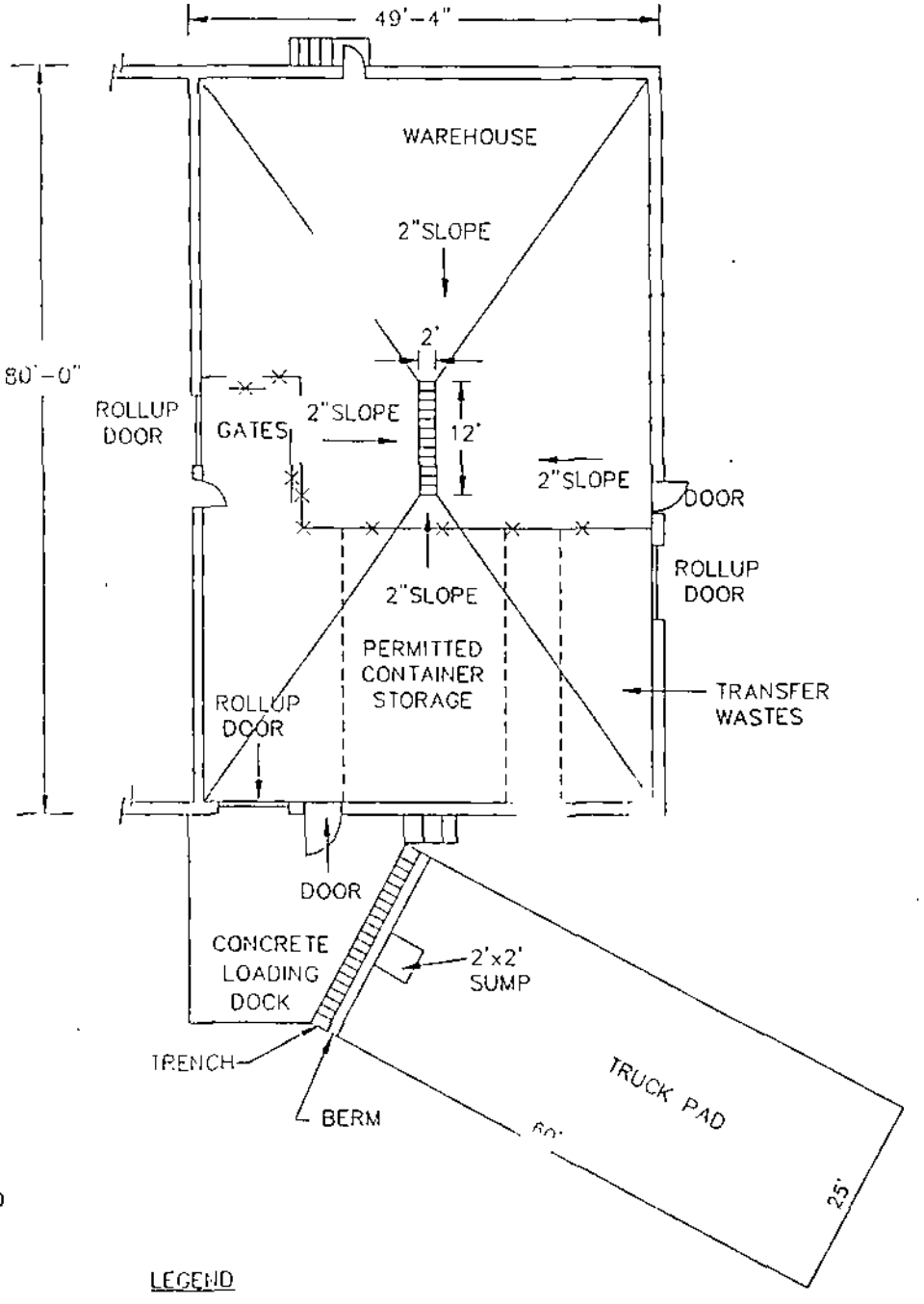


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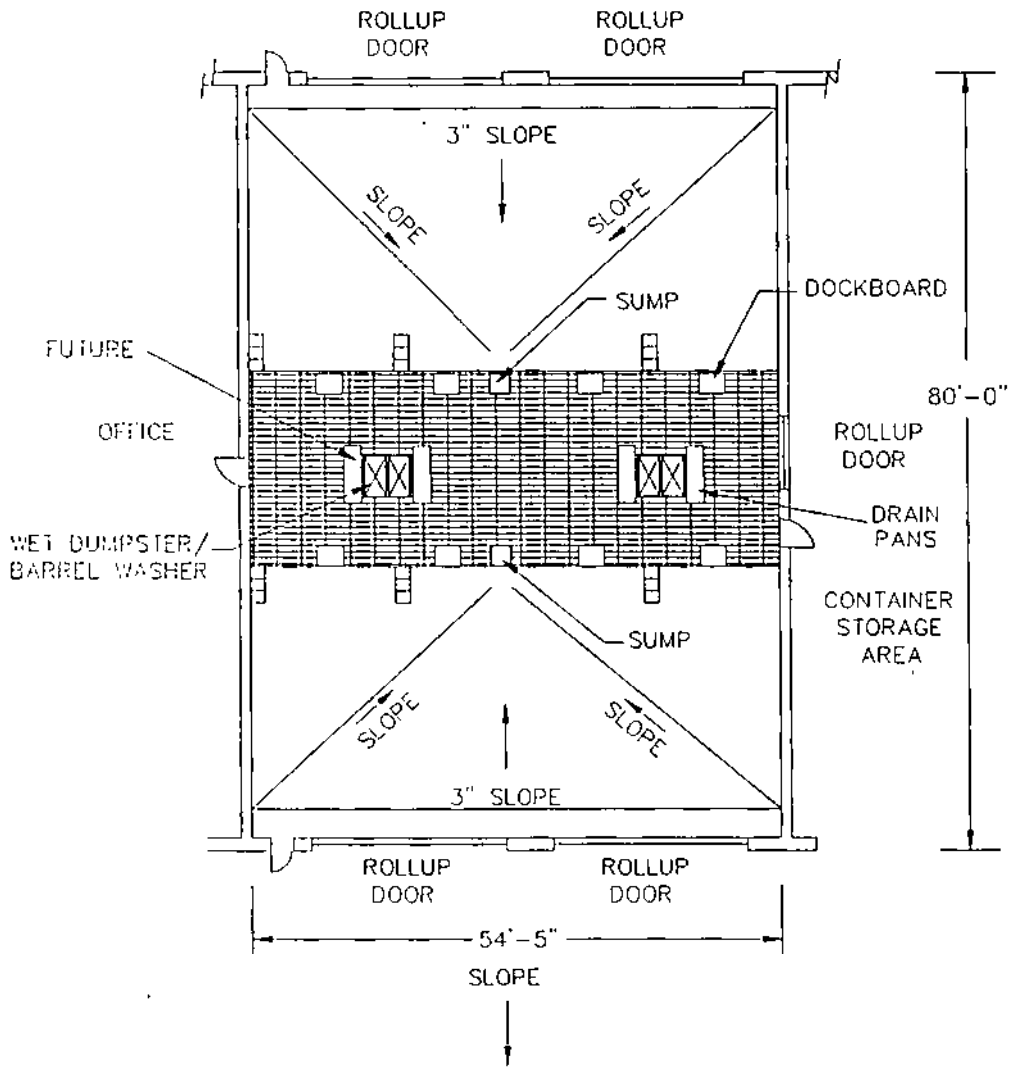
Figure II.A.4(b)-4
Return/Fill Shelter
Safety-Kleen Corp. Facility
Medley, Florida



LEGEND

STEPS

GRATING

N

0 20

FEET

The ERM Group ®

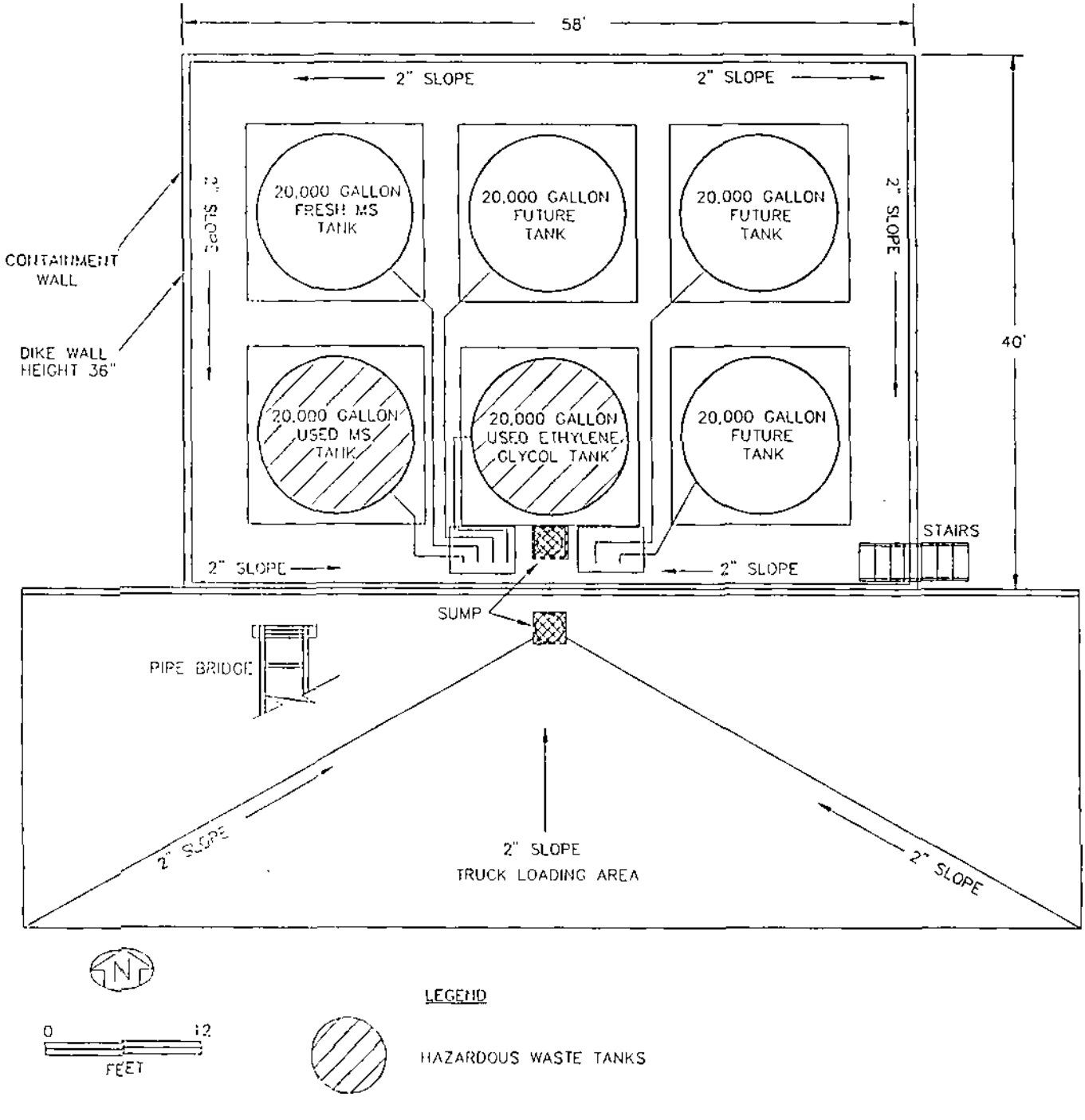
building, one overhead doorway connecting the container fill/return area and container storage area (warehouse), one doorway connecting the container fill/return area and the container storage area, and one doorway connecting the container fill/return area and the offices. The office floor and the container storage area floor are approximately 33 inches above the container fill/return area floor and are flush with the steel grate dock. Therefore, spills originating in the container fill/return area will go into the sump beneath the grate in the return/fill area and will not flow into these areas. Based on the capacity of the container fill/return collection sumps and sloped floor, it is extremely unlikely that a spill would escape through the overhead doorways or two doorways entering/exiting the service building. The area just outside the service building container fill/return area is asphalt covered.

Because the container fill/return area is fully enclosed and the pavement outside this area is sloped to carry water away from the building, spills originating in this area should not come in contact with stormwater.

Tank Area

The tank area (Figure II.A.4(b)-5) with all six tanks and their associated displacement taken into account, is provided with 20,320 gallons of secondary containment which is in excess of the single largest tank (20,000 gallons). This secondary containment capacity is based on the presence of six tanks. Only three of these tanks are currently installed. This containment area is only slightly sloped. Any spilled material is removed by pump or wet vacuum. The tanks loading/unloading area is a concrete pad. This concrete pad has a slight slope directed to a sump. When rainwater accumulates in the containment area, and it has been verified that no spill has occurred, then the rainwater will be discharged to the ground surface. Only the Branch Manager or someone operating under his direct orders may discharge to the ground surface. A written record will be kept of all discharges to the ground surface. If it is not possible to verify that a spill has not occurred or the water exhibits an iridescent sheen, then the rainwater will

Figure II.A.4(b)-5
Tank Farm
Safety-Kleen Corp. Facility
Medley, Florida



NOTE: ENTIRE AREA IS CONCRETE

be pumped into the used mineral spirits tank. Any spills which occur on the pad will be cleaned up and the area decontaminated. Decontamination methods are discussed later in this Plan. This decontamination will result in de minimus residue.

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 spills, eliminates or greatly minimizes the chance of contamination of ground water 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 is determined to be hazardous, it will be properly disposed of as a hazardous waste; otherwise, the material will be disposed of as an industrial waste. It should be noted that wash water and rinsate will not be allowed to drain to the waterway.

EMERGENCY RESPONSE EQUIPMENT AND COMMUNICATION

Due to the small size of the facility, routine communication will be accomplished by voice communication. Emergency alarms are available at the tank farm, return/fill shelter, and warehouse. 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 for the Corporate Environmental Department at the corporate office in Elgin, Illinois. Figure II.A.4(b)-2 provides the locations of fire extinguishers, the first-aid kits, and the emergency eye washes. Other emergency response equipment (Table II.A.4(b)-4) 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)-5. Adequate aisle space is provided in the container storage area for movement in an emergency situation. The City of Medley supplies water for domestic use, decontamination, and fire fighting. The water pressure supplied by the City of Medley was inadequate for fire fighting purposes, so a booster pump has been installed at the facility. The fire protection system was installed and certified by the installation contractor in accordance with applicable fire codes.

Pails, hoses, and detergents are the primary equipment that will be used for decontamination.

The equipment available at the facility for emergency situations is adequate for most cases. Large or serious emergency situations will be remediated by local emergency response teams or special emergency response or cleanup contractors. The facility is constructed and operates in accordance with National Fire Protection Association (NFPA) standards and applicable local ordinances. Applicable health and safety standards are also observed at the service center. An air quality survey conducted by an independent

TABLE II.A.4(b)-5

DESCRIPTION AND USES OF EMERGENCY EQUIPMENT

Item	Location	Use/Description
Gloves	Locker Room	The rubber or plastisol gloves sold by Safety-Kleen are to be used when handling the solvents.
Safety Glasses or Face Mask	Locker Room	Whichever the worker prefers is to be worn when loading or unloading solvent.
Plastic Aprons	Locker Room	For situations where a solvent may get on the worker's clothing.
Eyewash Stand	Container storage area and return/fill shelter	The workers should operate the stand and become familiar with its operation.
Showers	Office to return/fill dock exit	These are used for emergency and routine cleaning of employees.
Fire Extinguisher	Points where solvent is transferred	An ABC extinguisher is a universal system used on paper, wood, and electrical, as well as solvent fires. The extinguishers must be full and carry an inspection tag. 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 will also be kept in the warehouse to remediate and prevent the spread of large spills.

TABLE II.A.4(b)-5 - Continued

DESCRIPTION AND USES OF EMERGENCY EQUIPMENT

Item	Location	Use/Description
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	Warehouse	Taping of protective clothing, containment plastic, and other miscellaneous uses.
First-Aid Supplies	Locker Room	Minor first-aid needs and health problems.
Shovels and Mops	Warehouse	To be used to collect spills and spill residue.
Communication Equipment	Throughout the Facility	Six telephones with paging/loudspeaker systems are available in the office and warehouse for internal and external communications.
Decontamination Equipment	Warehouse	Two brushes, a box of detergent and cloth rags are available for decontamination of clean-up equipment.
Fire Sprinkler System	Warehouse	An automatic sprinkler system that is activated in case of a fire in the building.

industrial hygienist at the Los Angeles service center has shown that air quality at a typical service center is within Threshold Limit Values (TLV) as specified by OSHA and local air pollution control criteria; no respirator or special protection unit is deemed mandatory.

FIRE CONTROL PROCEDURES

Call the Fire Department.

Center aisles are available in container storage areas to permit fire department personnel to pass with fire fighting equipment.

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.

Ignitable Wastes

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

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

Ignitable wastes are handled so that they do not:

1. Become subject to extreme heat or pressure, fire or explosion, or a violent reaction--The mineral spirits and paint wastes are stored in a tank or in drums, 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 pressure buildup.

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 mercury). Mineral spirits and the paint waste may react with strong oxidizers. Toxic mists, fumes, and dusts do not form in quantities sufficient to threaten human health since strong oxidizers are not handled at this facility, and the solvent vaporization is minimal under normal working conditions.

3. Produce uncontrolled fires or gases in quantities sufficient to pose a risk of fire or explosion--See "1" above and "4" below.

4. Damage the structural integrity of the Safety-Kleen facility--The mineral spirits and paint wastes do not cause deterioration of the tank, drums, 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:

a. Generate extreme heat or pressure, fire or explosion, or violent reaction.

b. Produce uncontrolled toxic mists, fumes, dusts, or gases in sufficient quantities to threaten human health.

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

d. Damage the structural integrity of the Safety-Kleen facility.

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

External Factors

The design of the 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. Also, the container storage areas are in buildings which are inaccessible to unauthorized personnel.

1. Vandalism - Only extreme vandalism would result in a solvent spill or fire. Responses to spills and fires are described in 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, tank storage, and the container storage areas are roofed to eliminate the possibility of rain entering the waste management areas. Neither snow, cold weather, nor stormwater is expected to affect the facility.

EVACUATION PLAN

In an uncontrolled emergency, all persons are to be evacuated from the area by means of a verbal cry or use of the public address system and assemble across the street from the entrance drive to the facility. 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. A head count will be performed by the emergency coordinator.

The Fire Department must be notified at the time of evacuation either from a safe onsite building or neighboring facilities.

Clearly marked exits exist in warehouse and office area.

AVAILABILITY AND REVISION OF THE PREPAREDNESS, PREVENTION AND CONTINGENCY PLAN

This plan and all revisions to the plan are kept at the facility and regularly updated throughout the operating life of the facility.

Copies of this document are provided to local authorities and organizations listed under the Preparedness and Prevention Plan, which may be called upon to provide emergency services.

This plan and all revisions to the plan are made readily available to employees working at the facility.

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

1. The facility permit is modified to allow new process wastes to be stored or treated, or applicable regulations are revised;

2. The list or location of emergency equipment changes;

3. The facility changes in its design, construction, operation, maintenance, or other circumstances in a way that:
   a. Materially increase the potential for fires, explosions, or releases of hazardous waste or hazardous waste constituents, or

   b. Changes in response necessary in an emergency.

4. The names, addresses, or phone numbers of emergency coordinators change;

5. The employee assigned to each emergency task changes, or

6. The plan fails when implemented in an emergency.

ARRANGEMENTS WITH LOCAL AUTHORITIES

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

Potential primary and secondary spill control contractors as well as sorbent suppliers are identified in the Contingency Plan and Emergency Procedures.

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 pubic health or environment is threatened.

APPENDIX A

MATERIAL SAFETY DATA SHEETS FOR KNOWN HAZARDOUS CONSTITUENTS

SAFETY-KLEEN 105 PARTS WASHING SOLVENT

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	*MEDICAL:*	*TRANSPORTATION:*
These numbers are for emergency use only. If you desire non-emergency information about this product, please call the telephone number listed above.	800/942-5969 or 312/942-5969 RUSH POISON CONTROL CENTER CHICAGO, ILLINOIS (24 HOURS)	800/424-9300 CHEMTREC

IDENTITY (TRADE NAME): SAFETY-KLEEN 105 PARTS WASHING SOLVENT

SYNONYMS: PETROLEUM DISTILLATES, PETROLEUM NAPHTHA, MINERAL SPIRITS, STODDARD SOLVENT

SK PART NUMBER: 6617

FAMILY/CHEMICAL NAME: HYDROCARBON SOLVENT

PRODUCT USAGE: SOLVENT FOR CLEANING AND DEGREASING PARTS

SECTION II -- HAZARDOUS COMPONENTS

NAME	SYNONYM	%	CAS NO.	OSHA PEL (ppm)	ACGIH TLV (ppm)
Parts Washer Solvent (consists predominantly of C9-C13 hydrocarbon)	Mineral Spirits	(Typical % by Wt.)			
C9-C13 Saturated Hydrocarbon		85	64741-41-9	100 (Stoddard Solvent)	100 (Stoddard Solvent)
*Toluene		0.5	108-88-3	100 150 STEL	100 150 STEL
*Xylene		1.0	1330-20-7	100 150 STEL	100 150 STEL
*Ethyl Benzene		0.5	100-41-4	100 Skin 125 STEL	100 125 STEL
C8+ Aromatics		12.0	Mixture	N/E	N/E
Chlorinated Solvents		(Max 1% by Wt.)			
*1,1,1 Trichloroethane		< 0.5	71-55-6	350 450 STEL	350 450 STEL
*Tetrachloroethylene		< 0.5	127-18-4	25	50 200 STEL

N/E = Not Established
* See Section X - Other Regulatory Information

SECTION III -- PHYSICAL DATA

PHYSICAL STATE, APPEARANCE AND ODOR: Combustible liquid - clear, green, with characteristic hydrocarbon odor.

BOILING POINT: 300° - 429° F

PERCENT VOLATILE:	99.9%
VAPOR DENSITY:	4.9 (Air = 1)
VAPOR PRESSURE:	2 mm of Hg at 68° F
SOLUBILITY IN WATER:	Negligible
pH:	Not Applicable
SPECIFIC GRAVITY:	0.77 to 0.80
MOLECULAR WEIGHT:	Approximately 142
VOLATILE ORGANIC COMPOUNDS:	795 g/L

SECTION IV -- FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: 105° F (SETA)

AUTOIGNITION TEMPERATURE: 473° F

CONDITIONS OF FLAMMABILITY: Materials must be moderately heated before ignition can occur.

FLAMMABLE LIMITS IN AIR - LOWER: 0.7% *UPPER:* 6.0%

EXTINGUISHING MEDIA: Carbon dioxide, foam, dry chemical, water (mist only).

FIRE FIGHTING PROCEDURES -- SPECIAL: NFPA 704 Rating 2-2-0

Keep storage tanks cool with water spray. Use self-contained breathing apparatus (SCBA).

UNUSUAL FIRE AND EXPLOSION HAZARDS:

Decomposition and combustion products may be toxic. Heated tanks may rupture, explode or be thrown into the air. Vapors are heavier than air and may travel great distances to ignition source and flashback.

HAZARDOUS COMBUSTION PRODUCTS:

Thermal decomposition and burning may produce carbon monoxide.

SECTION V -- REACTIVITY DATA

STABILITY: Normally stable even under fire exposure conditions and is not reactive with water. Normal firefighting procedures may be used.

INCOMPATIBILITY (CONDITIONS TO AVOID): Strong oxidizing agents (e.g. chlorine, peroxides, strong acids).

HAZARDOUS POLYMERIZATION: Not known to occur under normal conditions.

HAZARDOUS DECOMPOSITION PRODUCTS: Normally none; however, incomplete burning may yield carbon monoxide.

SECTION VI -- HEALTH HAZARD DATA

PRIMARY ROUTES OF EXPOSURE: Skin and eye contact; inhalation.

HEALTH HAZARD DATA/SIGNS AND SYMPTOMS OF EXPOSURE:

ACUTE: *Skin*: Prolonged or repeated contact tends to remove skin oils, possibly leading to irritation and dermatitis. No significant skin absorption hazard.

Eyes: Contact may cause slight to moderate irritation. High vapor concentrations (> 500 ppm) are irritating to the eyes.

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

Ingestion: 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 and/or repeated contact may cause drying and cracking of the skin or dermatitis.

OTHER POTENTIAL HEALTH HAZARDS:

The impurities that may be present are not expected to add significantly to the effects of exposure.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:

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

CARCINOGENICITY: Tetrachloroethylene is listed by IARC and NTP as a suspected carcinogen. Studies indicate that Ethyl Benzene and 1,1,1 Trichloroethane are experimental teratogens.

SECTION VII -- EMERGENCY AND FIRST AID PROCEDURES

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

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

INGESTION: 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: 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 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: Avoid contact with eyes, skin or clothing. Use in well ventilated area and avoid breathing vapors or mists. Keep away from heat, sparks and open flames.

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. Launder contaminated clothing and clean protective equipment before reuse.

SECTION IX – CONTROL MEASURES

VENTILATION: Provide local exhaust or general dilution ventilation as determined necessary 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.

PROTECTIVE GLOVES: Use nitrile or neoprene gloves to prevent contact with skin.

EYE PROTECTION: Where there is likelihood of spill or splash, wear chemical goggles or faceshield. Contact lenses should not be worn.

RESPIRATORY PROTECTION: Use NIOSH-approved respiratory protective equipment when concentration of vapors or mists exceeds applicable exposure limit. Depending on the airborne concentration, use a respirator or gas mask with appropriate cartridges and canisters (for organic vapor with mist prefilter). 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: Wear 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: Petroleum Naphtha

DOT CLASS: Combustible Liquid

DOT NUMBER: UN 1255

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
Fire Hazard

SECTION XI – PREPARATION INFORMATION

PREPARED BY: SK Product Review Committee *FORM NO.* 900-14-001

ORIGINAL ISSUE DATE: July 20, 1989 *REVISED:* March 12, 1990 *SUPERSEDES:* July 20, 1989

IMMERSION CLEANER/CARBURETOR AND COLD PARTS CLEANER 609

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	*MEDICAL:*	*TRANSPORTATION:*
These numbers are for emergency use only. If you desire non-emergency information about this product, please call the telephone number listed above.	800/942-5969 or 312/942-5969 RUSH POISON CONTROL CENTER CHICAGO, ILLINOIS (24 HOURS)	800/424-9300 CHEMTREC

IDENTITY (TRADE NAME): IMMERSION CLEANER/CARBURETOR AND COLD PARTS CLEANER 609

SK PART NUMBER: 609, 6631, 50

FAMILY/CHEMICAL NAME: N/A

PRODUCT USAGE: *REMOVING CARBON RESIDUE FROM PARTS*

SECTION II -- HAZARDOUS COMPONENTS

NAME	SYNONYM	%	CAS NO.	OSHA PEL (ppm)	ACGIH TLV (ppm)
*Cresylic Acid	Mixed Cresols	11.9	1319-77-3	5 (Skin)	5 (Skin)
Petroleum Sulfonate	Surfactant Blend	7.4			
Contains:					
Hexylene Glycol			107-41-5	25(C)	25(C)
Diethylene Glycol			111-46-6	N/E	N/E
*Methylene Chloride	Dichloromethane	31.7	75-09-2	500 1000(C)	50
Di-chlorobenzenes:					
*(o-dichlorobenzene)	ODCB	10.5	95-50-1	50(C)	50(C)
*(p-dichlorobenzene)		10.5	106-46-7	75 110 STEL	75 110 STEL
*(m-dichlorobenzene)		10.5	541-73-1	N/E	N/E
Complex Amines	Rust Inhibitor	0.4			
Contains:					
Propargyl Alcohol			107-19-7	1 (Skin)	1 (Skin)
*Isopropyl Alcohol			67-63-0	400 500 STEL	400 500 STEL
Triethanolamine	TEA	0.4	102-71-6	N/E	N/E
Water		16.8	7732-18-5	N/E	N/E

* See Section X - Other Regulatory Information
N/E = Not Established
(C) = Ceiling Concentration

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

EVAPORATION RATE:	1.0 (Water = 1)
PERCENT VOLATILE:	Majority
VAPOR DENSITY:	Same as Water
VAPOR PRESSURE:	Same as Water
SOLUBILITY IN WATER:	Completely miscible in all proportions.
pH:	9-10 in water phase
SPECIFIC GRAVITY:	1.19 (Water = 1.0)
MOLECULAR WEIGHT:	Use molecular weights of individual components.
VOLATILE ORGANIC COMPOUNDS:	750 g/L

SECTION IV -- FIRE AND EXPLOSION HAZARD DATA

FLASH POINT:	Non-Flammable
AUTOIGNITION TEMPERATURE:	Not Known
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)	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: Methylene chloride is listed by NTP and IARC as a suspected carcinogen. P-dichlorobenzene is listed by IARC as a suspected carcinogen.

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

SECTION XI -- PREPARATION INFORMATION

PREPARED BY: SK Product Review Committee *FORM NO.* 900-14-002

ORIGINAL ISSUE DATE: July 20, 1989 *REVISED:* December 1, 1989 *SUPERSEDES:* July 20, 1989

SAFETY-KLEEN IMMERSION CLEANER AND COLD PARTS CLEANER 699

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	*MEDICAL:*	*TRANSPORTATION:*
These numbers are for emergency use only. If you desire non-emergency information about this product, please call the telephone number listed above.	800/942-5969 or 312/942-5969 RUSH POISON CONTROL CENTER CHICAGO, ILLINOIS (24 HOURS)	800/424-9300 CHEMTREC

NTITY (TRADE NAME): SAFETY-KLEEN IMMERSION CLEANER AND COLD PARTS CLEANER 699

PART NUMBER: 6861, 699

MILY/CHEMICAL NAME: N/A

)DUCT USAGE: REMOVING CARBON RESIDUE FROM PARTS

SECTION II -- HAZARDOUS COMPONENTS

ME	SYNONYM	TYPICAL % BY WT.	CAS NO.	OSHA PEL (ppm)	ACGIH TLV (ppm)
matic 150	Heavy Aromatic Naphtha Cleaning Solvent, 140 (60) Class		64742-94-5	100 (Exxon)	100 (Exxon)
(May contain up to 5% Naphthalene)			91-20-3	10 15 STEL	10 15 STEL
thyl-2-Pyrrolidone	NMP		872-50-4	100 (BASF)	100 (BASF)
ropylene Glycol hyl Ether	Dipropylene Glycol Monomethyl Ether		34590-94-8	100 150 STEL	100 150 STEL
noethanolamine	Ethanolamine		141-43-5	3 6 STEL	3 6 STEL
ic Acid	Red Oil		112-80-1	N/E	N/E
ter			7732-18-5	—	—
**(Total chlorinated solvents)		1.0 (Max)			

E = Not Established
e Section X - Other Regulatory Information
May contain methylene chloride and/or tetrachloroethylene in concentrations > 0.1%

SECTION III -- PHYSICAL DATA

YSICAL STATE, PPEARANCE AND ODOR: Clear, reddish brown liquid with hydrocarbon odor.

OILING RANGE: 210° - 439° F

IELTING POINT: < 10° F

VAPORATION RATE: 1.0 (Water = 1)

ENT VOLATILE:	92 Wt. %
R DENSITY:	2.6 (Air = 1.0)
R PRESSURE:	10.9 mm Hg at 25° C
BILITY IN WATER:	Completely miscible in all proportions.
	10.8, 50/50 (Water/Solvent)
IFIC GRAVITY:	0.95 (Water = 1.0)
ECULAR WEIGHT:	127, Average molecular weight of components.
TILE ORGANIC COMPOUNDS:	N/E

SECTION IV -- FIRE AND EXPLOSION HAZARD DATA

SH POINT:	SETA, 142° F (Min.)
DIGNITION TEMPERATURE:	Not Known
DITIONS OF FLAMMABILITY:	Ignitable, if material is heated above its flash point.
MMABLE LIMITS IN AIR - LOWER:	0.8 *UPPER:* 7.0
NGUISHING MEDIA:	None Special
E FIGHTING PROCEDURES - SPECIAL:	NFPA 704 Rating 2-2-0

ISUAL FIRE AND EXPLOSION HAZARDS:

Decomposition and combustion products may be toxic. Heated tanks may rupture, explode or be thrown into the air. Vapors are heavier than air and may travel great distances to ignition source and flashback.

ZARDOUS COMBUSTION PRODUCTS:

Thermal decomposition and burning may produce carbon monoxide, oxides of nitrogen and acrid smoke.

SECTION V -- REACTIVITY DATA

ABILITY:	Normally stable.
COMPATIBILITY: *ONDITIONS TO AVOID)*	Strong oxidizing agents (e.g. chlorine, peroxides, strong acids)
ZARDOUS *LYMERIZATION:*	Not known to occur under normal conditions, oxides of nitrogen and acrid smoke. Glycol ethers have been shown to form explosive peroxides.
ZARDOUS DECOMPOSITION *ODUCTS:*	Normally none; however, incomplete burning may yield carbon monoxide.

SECTION VI -- HEALTH HAZARD DATA

IMARY ROUTES *F EXPOSURE:*	Inhalation, skin and eye contact, skin absorption.

EALTH HAZARD DATA/SIGNS AND SYMPTOMS OF EXPOSURE:

CUTE: *Skin*: Corrosive to living tissue and is absorbed through the skin causing systemic poisoning. Contact with unprotected skin can cause discoloration, irritation, blistering and slow healing chemical burns.

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. Symptoms similar to those for inhalation also may occur.

)NIC: 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.

ER POTENTIAL HEALTH HAZARDS:

Dipropylene glycol methyl ether is a mild allergen.

ICAL CONDITIONS RAVATED BY OSURE: 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.

CINOGENICITY: Naphthalene is an experimental tumorigen. Mutagenic data exists and Naphthalene is included in EPA Genetic Toxicology Program. Oleic acid is an experimental tumorigen. Methylene Chloride and Tetrachloroethylene are listed by IARC and NTP as suspected carcinogens.

SECTION VII -- EMERGENCY AND FIRST AID PROCEDURES

S: For direct contact, flush eyes with clean 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.

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

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

IALATION: 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

ILL OCEDURES: 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.

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

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

IPPING AND ORING ECAUTIONS: 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.

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

SECTION IX - CONTROL MEASURES

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

TECTIVE GLOVES: Wear neoprene gloves to prevent skin contact.

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.

PIRATORY TECTION: 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.

IER PROTECTIVE IIPMENT: 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

T PROPER IPPING NAME: Compound, Cleaning Liquid

T CLASS: Corrosive Liquid

T ID NUMBER: NA1760

RA 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
Fire Hazard
Reactivity Hazard

SECTION XI -- PREPARATION INFORMATION

REPARED BY: SK Technical Services *FORM NO.* 900-14-057

RIGINAL ISSUE DATE: December 1, 1989 *REVISED:* July 13, 1990 *SUPERSEDES:* April 6, 1990

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	*MEDICAL:*	*TRANSPORTATION:*
These numbers are for emergency use only. If you desire non-emergency information about this product, please call the telephone number listed above.	800/942-5969 or 312/942-5969 RUSH POISON CONTROL CENTER CHICAGO, ILLINOIS (24 HOURS)	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

NAME	SYNONYM	%	CAS NO.	OSHA PEL (ppm)	ACGIH TLV (ppm)
*Perchloroethylene (Stabilized)	1,1,2,2 - Tetrachloroethylene	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 *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 unconciousness 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° 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

SAFETY-KLEEN DRY CLEANING GRADE SOLVENT F 780
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	*MEDICAL:*	*TRANSPORTATION:*
These numbers are for emergency use only. If you desire non-emergency information about this product, please call the telephone number listed above.	800/942-5969 or 312/942-5969 RUSH POISON CONTROL CENTER CHICAGO, ILLINOIS (24 HOURS)	800/424-9300 CHEMTREC

IDENTITY (TRADE NAME): SAFETY-KLEEN DRY CLEANING GRADE SOLVENT F 780

SK PART NUMBER: 780

FAMILY/CHEMICAL NAME: CHLORINATED/FLUORINATED HYDROCARBON

PRODUCT USAGE: DRY CLEANING SOLVENT

SECTION II -- HAZARDOUS COMPONENTS

NAME	SYNONYM	%	CAS NO.	OSHA PEL (ppm)	ACGIH TLV (ppm)
*Trichlorotrifluoroethane	Fluorocarbon 113	~ 100	76-13-1	1000 1250 STEL	1000

* See Section X - Other Regulatory Information

SECTION III -- PHYSICAL DATA

PHYSICAL STATE, APPEARANCE AND ODOR: Liquid - clear, colorless liquid with slight ethereal odor.

BOILING POINT: 117.6° F

MELTING POINT: Not Applicable

EVAPORATION RATE: 0.1 (CCl_4 = 1)

PERCENT VOLATILE: 100%

VAPOR DENSITY: 6.5 (Air = 1)

VAPOR PRESSURE: 334 mm Hg @ 77° F

SOLUBILITY IN WATER: 0.02% by weight (77° F)

pH: Not Applicable

SPECIFIC GRAVITY: 1.57 (Water = 1, @ 77° F)

MOLECULAR WEIGHT: 187

VOLATILE ORGANIC COMPOUNDS: None

OTHER POTENTIAL HEALTH HAZARDS: None Known

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:

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

CARCINOGENICITY: No components are listed by OSHA, NTP or IARC as known or suspected carcinogens.

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. Remove residue with inert sorbent such as sand, oil dry 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 or mists.

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. Do not store above 125° F.

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 neoprene or nitrile gloves for repeated or prolonged contact.

EYE PROTECTION: Where there is likelihood of spill or splash, wear chemical goggles or faceshield. 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 (chemical cartridge 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 rubber boots, apron and other protective clothing as need to protect against contact with skin.

SECTION X -- OTHER REGULATORY INFORMATION

DOT PROPER SHIPPING NAME: Cleaning Compound N.O.I.

DOT CLASS: None

DOT ID NUMBER: None

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

SECTION XI -- PREPARATION INFORMATION

PREPARED BY: SK Product Review Committee *FORM NO.* 900-14-021

ORIGINAL ISSUE DATE: July 20, 1989 *REVISED:* December 1, 1989 *SUPERSEDES:* July 20, 1989

SECTION I -- PRODUCT INFORMATION

Safety-Kleen Corporation - 777 Big Timber Road - Elgin, IL 60123
For Product/Sales Information Call 312/697-8460

EMERGENCY TELEPHONE	*MEDICAL:*	*TRANSPORTATION:*
These numbers are for emergency use only. If you desire non-emergency information about this product, please call the telephone number listed above.	800/942-5969 or 312/942-5969 RUSH POISON CONTROL CENTER CHICAGO, ILLINOIS (24 HOURS)	800/424-9300 CHEMTREC

IDENTITY (TRADE NAME): SAFETY-KLEEN 140 PARTS WASHING SOLVENT

SYNONYMS: PETROLEUM DISTILLATES, PETROLEUM NAPHTHA

SK PART NUMBER: 6616

FAMILY/CHEMICAL NAME: HYDROCARBON SOLVENT

PRODUCT USAGE: SOLVENT FOR CLEANING AND DEGREASING PARTS

SECTION II -- HAZARDOUS COMPONENTS

NAME	%	CAS NO.	OSHA PEL (ppm)	ACGIH TLV (ppm)
Mineral Spirits	99.5	64742-88-7	100 (Stoddard Solvent)	100 (Stoddard Solvent)
Dye (contains Xylene)	.003	1330-20-7	100 150 STEL	100 150 STEL
Anti-Static Agent (contains Xylene)	1 ppm	1330-20-7	100 150 STEL	100 150 STEL

SECTION III -- PHYSICAL DATA

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

BOILING POINT: 360° - 400° F

MELTING POINT: Not Available

EVAPORATION RATE: (Toluene = 1) 0.2

PERCENT VOLATILE: 99.9%

VAPOR DENSITY: 4.9 (Air = 1)

VAPOR PRESSURE: 2 mm of Hg at 68° F.

SOLUBILITY IN WATER: Negligible

SPECIFIC GRAVITY: 0.770 to 0.811

MOLECULAR WEIGHT: Approximately 142.

VOLATILE ORGANIC COMPOUNDS: 795 g/L

SECTION IV -- FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: 140° F (TCC)

AUTOIGNITION TEMPERATURE: 473° F

CONDITIONS OF FLAMMABILITY: Materials must be moderately heated before ignition can occur.

FLAMMABLE LIMITS IN AIR - LOWER: 0.7% *UPPER:* 6.0%

EXTINGUISHING MEDIA: Carbon Dioxide, Foam, Dry Chemical, Water (mist only).

FIRE FIGHTING PROCEDURES -- SPECIAL:

Keep storage tanks cool with water spray. Use self-contained breathing apparatus (SCBA).

UNUSUAL FIRE AND EXPLOSION HAZARDS:

Decomposition and combustion products may be toxic. Heated tanks may rupture, explode or be thrown into the air. Vapors are heavier than air and may travel great distances to ignition source and flashback.

HAZARDOUS COMBUSTION PRODUCTS:

Thermal decomposition and burning may produce carbon monoxide.

SECTION V -- REACTIVITY DATA

STABILITY: Normally stable even under fire exposure conditions and is not reactive with water. Normal firefighting procedures may be used.

INCOMPATIBILITY (CONDITIONS TO AVOID): Strong oxidizing agents (e.g. chlorine, peroxides, strong acids).

HAZARDOUS POLYMERIZATION: Not known to occur under normal conditions.

HAZARDOUS DECOMPOSITION PRODUCTS: Normally none; however, incomplete burning may yield carbon monoxide.

SECTION VI – HEALTH HAZARD DATA

PRIMARY ROUTES OF EXPOSURE: Skin and eye contact; inhalation.

HEALTH HAZARD DATA/SIGNS AND SYMPTOMS OF EXPOSURE:

ACUTE: *Skin*: Prolonged or repeated contact tends to remove skin oils, possibly leading to irritation and dermatitis. No significant skin absorption hazard.

Eyes: Contact may cause slight to moderate irritation. High vapor concentrations (> 500 ppm) are irritating to the eyes.

SPECIFIC GRAVITY: 0.770 to 0.811

MOLECULAR WEIGHT: Approximately 142.

VOLATILE ORGANIC COMPOUNDS: 795 g/L

SECTION IV -- FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: 140° F (TCC)

AUTOIGNITION TEMPERATURE: 473° F

CONDITIONS OF FLAMMABILITY: Materials must be moderately heated before ignition can occur.

FLAMMABLE LIMITS IN AIR - LOWER: 0.7% *UPPER:* 6.0%

EXTINGUISHING MEDIA: Carbon Dioxide, Foam, Dry Chemical, Water (mist only).

FIRE FIGHTING PROCEDURES -- SPECIAL:

Keep storage tanks cool with water spray. Use self-contained breathing apparatus (SCBA).

UNUSUAL FIRE AND EXPLOSION HAZARDS:

Decomposition and combustion products may be toxic. Heated tanks may rupture, explode or be thrown into the air. Vapors are heavier than air and may travel great distances to ignition source and flashback.

HAZARDOUS COMBUSTION PRODUCTS:

Thermal decomposition and burning may produce carbon monoxide.

SECTION V -- REACTIVITY DATA

STABILITY: Normally stable even under fire exposure conditions and is not reactive with water. Normal firefighting procedures may be used.

INCOMPATIBILITY (CONDITIONS TO AVOID): Strong oxidizing agents (e.g. chlorine, peroxides, strong acids).

HAZARDOUS POLYMERIZATION: Not known to occur under normal conditions.

HAZARDOUS DECOMPOSITION PRODUCTS: Normally none; however, incomplete burning may yield carbon monoxide.

SECTION VI -- HEALTH HAZARD DATA

PRIMARY ROUTES OF EXPOSURE: Skin and eye contact; inhalation.

HEALTH HAZARD DATA/SIGNS AND SYMPTOMS OF EXPOSURE:

ACUTE: *Skin:* Prolonged or repeated contact tends to remove skin oils, possibly leading to irritation and dermatitis. No significant skin absorption hazard.

Eyes: Contact may cause slight to moderate irritation. High vapor concentrations (> 500 ppm) are irritating to the eyes.

SECTION IX – CONTROL MEASURES

VENTILATION: Provide local exhaust or general dilution ventilation as determined necessary 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.

PROTECTIVE GLOVES: Use nitrile or neoprene gloves to prevent contact with skin.

EYE PROTECTION: Use protective eyewear such as safety glasses with side shields. Where there is likelihood of spill or splash, wear chemical goggles or faceshield. Contact lenses should not be worn.

RESPIRATORY PROTECTION: Use NIOSH-approved respiratory protective equipment when concentration of mists exceeds applicable exposure limit. Depending on the airborne concentration, use a respirator or gas mask with appropriate cartridges and canisters (for organic vapor). 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: Wear 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: Petroleum Naphtha

DOT CLASS: Combustible Liquid

DOT NUMBER: UN 1255

TSCA INVENTORY STATUS: Ingredients listed are reported in EPA TSCA Inventory

SECTION XI – PREPARATION INFORMATION

PREPARED BY: SK Product Review Committee *FORM NO.:* 900-14-031

ORIGINAL ISSUE DATE: July 20, 1989 *REVISED:* *SUPERSEDES:*

SAFETY-KLEEN HEAVY DUTY LACQUER THINNER 6782

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	*MEDICAL:*	*TRANSPORTATION:*
These numbers are for emergency use only. If you desire non-emergency information about this product, please call the telephone number listed above.	800/942-5969 or 312/942-5969 RUSH POISON CONTROL CENTER CHICAGO, ILLINOIS (24 HOURS)	800/424-9300 CHEMTREC

IDENTITY (TRADE NAME): SAFETY-KLEEN HEAVY DUTY LACQUER THINNER 6782

SK PART NUMBER: 5820, 5825

FAMILY/CHEMICAL NAME: N/A

PRODUCT USAGE: LACQUER THINNER

SECTION II -- HAZARDOUS COMPONENTS

NAME	SYNONYM	%	CAS NO.	OSHA PEL (ppm)	ACGIH TLV (ppm)
*Toluene	Toluol	5-60	108-88-3	100 150 STEL	100 150 STEL
*Xylene	Xylol	5-20	1330-20-7	100 150 STEL	100 150 STEL
Heptane	n-Heptane	N/E	142-82-5	400 500 STEL	400 500 STEL
*Methyl Ethyl Ketone	MEK	5-40	78-93-3	200 300 STEL	200 300 STEL
*Methyl Isobutyl Ketone	MIBK	0.1-10	108-10-1	50 75 STEL	50 75 STEL
Methylcyclohexane	Cyclohexylmethane	0.10-40	108-87-2	400	400
*Acetone	2-Propanone	2-20	67-64-1	750 1000 STEL	750 1000 STEL
*Cyclohexane			110-82-7	300	300
*Isopropanol	Isopropyl Alcohol	0.1-20	67-63-0	400 500 STEL	400 500 STEL
*Methanol	Methyl Alcohol	2-10	67-56-1	200 250 STEL	200 250 STEL
Lactol Spirits	VM & P Naphtha	0.1-20	8030-30-6	300 400 STEL	300
Ethanol	Ethyl Alcohol	0.1-10	64-17-5	1000	1000
n-Butyl Acetate	Butyl Acetate	0.1-15	123-86-4	150 200 STEL	150 200 STEL
Isobutyl Acetate	Isobutyl Ester Acetic Acid	0.1-15	110-19-0	150	150
Ethyl 3-Ethoxypropionate	3-Ethoxypropionic Acid Ethyl Ester	N/E	763-69-9	N/E	N/E

N/E = Not Established
* See Section X - Other Regulatory Information

SECTION III -- PHYSICAL DATA

HYSICAL STATE, PPEARANCE AND ODOR:	Liquid - colorless, clear, with a characteristic solvent odor.
OILING POINT:	- 131 - 347° F
IELTING POINT:	Not Applicable
VAPORATION RATE:	3.68 (N-Butyl = 1)
ERCENT VOLATILE:	100%
APOR DENSITY:	3.02 (Air = 1)
APOR PRESSURE:	94.7 mm Hg @ 20 ° C
OLUBILITY IN WATER:	Appreciable
H:	Not Applicable
PECIFIC GRAVITY:	- 0.802 (Water = 1)
OLECULAR WEIGHT:	Use molecular weight of individual components.
OLATILE ORGANIC COMPOUNDS:	802 g/L

SECTION IV -- FIRE AND EXPLOSION HAZARD DATA

LASH POINT: < 20° F (TCC)

UTOIGNITION TEMPERATURE: Not Available

ONDITIONS OF FLAMMABILITY: Normal temperatures and pressures.

FLAMMABLE LIMITS IN AIR - LOWER: 1.0% *UPPER:* 13.2%

EXTINGUISHING MEDIA: Carbon dioxide, foam, dry chemical, water (mist only)

FIRE FIGHTING PROCEDURES -- SPECIAL: NFPA 704 Rating 2-3-0

Water may be used to cool containers and firefighters. However, water could cause free solvent to float and spread fire.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

Flammable liquid. Most components are Class 1B with flash point below 73° F and boiling point above 100° F.

HAZARDOUS COMBUSTION PRODUCTS: Carbon Monoxide

SECTION V -- REACTIVITY DATA

STABILITY:	Stable under normal temperatures and conditions.
INCOMPATIBILITY: (CONDITIONS TO AVOID)	Heat sparks, flames, fire, strong oxidizing agents.
HAZARDOUS POLYMERIZATION:	Not known to occur under normal conditions.
HAZARDOUS DECOMPOSITION PRODUCTS:	Normally none. Incomplete burning may yield carbon monoxide.

SECTION VI -- HEALTH HAZARD DATA

PRIMARY ROUTES OF EXPOSURE: Inhalation, skin and eye contact

HEALTH HAZARD DATA/SIGNS AND SYMPTOMS OF EXPOSURE:

ACUTE:

Skin: Contact may cause irritation, dryness and cracking. Prolonged or repeated contact may remove skin oils, possibly leading to irritation and dermatitis. Material is readily absorbed through skin.

Eyes: Direct contact may cause severe irritation and temporary corneal damage. Vapors may cause noticeable redness, tearing, irritation and pain. Conjunctivitis may occur upon chronic exposure.

Inhalation: Can cause headache, dizziness, confusion, nausea, vomiting, irritation of the respiratory system and other central nervous system effects including unconsciousness in extreme cases.

Ingestion: Can cause burning of the mouth, throat and abdomen, nausea, vomiting, diarrhea, symptoms of the 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 possible death.

CHRONIC: *Inhalation*: Prolonged overexposure may cause damage to the liver, kidney, spleen, lungs or nervous system.

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.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:

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

CARCINOGENICITY: No components are known or suspected carcinogens.

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: Remove all ignition sources. Isolate area and deny entry. If possible, contain as a liquid for possible recycling. 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 handling this product.

STORAGE 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, when concentrations of vapors exceed applicable exposure limits. Where explosive mixtures may be present, systems safe for such locations should be used.

PROTECTIVE GLOVES: To protect against contact with skin, wear nitrile gloves.

EYE PROTECTION: Where there is likelihood of eye contact, wear 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 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 the work area for flushing eyes and skin. Wear rubber apron or other protective clothing as needed to protect against spills or splash.

SECTION X -- OTHER REGULATORY INFORMATION

DOT PROPER SHIPPING NAME: Paint-Related Material

DOT CLASS: Flammable Liquid

DOT ID NUMBER: ~~NA1263~~ UN1263

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
Fire Hazard

SECTION XI – PREPARATION INFORMATION

PREPARED BY: SK Product Review Committee *FORM NO.* 900-14-055

ORIGINAL ISSUE DATE: July 20, 1989 *REVISED:* December 1, 1989 *SUPERSEDES:* July 20, 1989

SAFETY-KLEEN MULTI-USE LACQUER THINNER 6801

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	*MEDICAL:*	*TRANSPORTATION:*
These numbers are for emergency use only. If you desire non-emergency information about this product, please call the telephone number listed above.	800/942-5969 or 312/942-5969 RUSH POISON CONTROL CENTER CHICAGO, ILLINOIS (24 HOURS)	800/424-9300 CHEMTREC

IDENTITY (TRADE NAME): SAFETY-KLEEN MULTI-USE LACQUER THINNER 6801

SK PART NUMBER: 6801

FAMILY/CHEMICAL NAME: N/A

PRODUCT USAGE: LACQUER THINNER

SECTION II -- HAZARDOUS COMPONENTS

NAME	SYNONYM	%	CAS NO.	OSHA PEL (ppm)	ACGIH TLV (ppm)
*Toluene	Toluol	11-43	108-88-3	100 150 STEL	100 150 STEL
*Xylene	Xylol	3-4	1330-20-7	100 150 STEL	100 150 STEL
*Methyl Ethyl Ketone	MEK	- 5	78-93-3	200 300 STEL	200 300 STEL
*Methyl Isobutyl Ketone	MIBK	- 3	108-10-1	50 75 STEL	50 75 STEL
*Acetone	2-Propanone	20-30	67-64-1	750 1000 STEL	750 1000 STEL
*Isopropanol	Isopropyl Alcohol	5-15	67-63-0	400 500 STEL	400 500 STEL
Special Lactol Spirits	VM & P Naphtha	0.5-32	8030-30-6	300 400 STEL	300 STEL
Isobutyl Acetate	Isobutyl Ester Acetic Acid	0.1-15	110-19-0	150	150
Ethyl 3-Ethoxypropionate	3-Ethoxypropionic Acid Ethyl Ester	- 5	763-69-9	N/E	N/E

N/E = Not Established
* See Section X - Other Regulatory Information

SECTION III -- PHYSICAL DATA

PHYSICAL STATE, APPEARANCE AND ODOR: Liquid - colorless, clear, with a characteristic solvent odor.

BOILING POINT: - 131 - 347° F

MELTING POINT: Not Applicable

EVAPORATION RATE: 3.30 (N-Butyl = 1)

VAPOR DENSITY:	3.02 (Air = 1)
VAPOR PRESSURE:	78.6 mm Hg @ 20° C
SOLUBILITY IN WATER:	Appreciable
pH:	Not Applicable
SPECIFIC GRAVITY:	– 0.8000 - 0.8438 (Water = 1)
MOLECULAR WEIGHT:	Use molecular weight of individual components.
VOLATILE ORGANIC COMPOUNDS:	800 - 844 g/L

SECTION IV -- FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: < 20° F (TCC)

AUTOIGNITION TEMPERATURE: Not Available

CONDITIONS OF FLAMMABILITY: Normal temperatures and pressures.

FLAMMABLE LIMITS IN AIR - LOWER: 1.0% *UPPER:* 13.2%

EXTINGUISHING MEDIA: Carbon dioxide, foam, dry chemical, water (mist only)

FIRE FIGHTING PROCEDURES – SPECIAL: NFPA 704 Rating 2-3-0

Water may be used to cool containers and fire fighters. However, water could cause free solvent to float and spread fire.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

Flammable liquid. Most components are Class 1B with flash point below 73° F and boiling point above 100° F.

HAZARDOUS COMBUSTION PRODUCTS: Carbon Monoxide

SECTION V -- REACTIVITY DATA

STABILITY: Stable under normal temperatures and conditions.

INCOMPATIBILITY: (CONDITIONS TO AVOID) Heat sparks, flames, fire, strong oxidizing agents.

HAZARDOUS POLYMERIZATION: Not known to occur under normal conditions.

HAZARDOUS DECOMPOSITION PRODUCTS: Normally none. Incomplete burning may yield carbon monoxide.

SECTION VI – HEALTH HAZARD DATA

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

HEALTH HAZARD DATA/SIGNS AND SYMPTOMS OF EXPOSURE:

ACUTE: *Skin:* Contact may cause irritation, dryness and cracking. Prolonged or repeated contact may remove skin oils, possibly leading to irritation and dermatitis. Material is readily absorbed through skin.

Eyes: Direct contact may cause severe irritation and temporary corneal damage. Vapors may cause noticeable redness, tearing, irritation and pain. Conjunctivitis may occur upon chronic exposure.

Inhalation: Can cause headache, dizziness, confusion, nausea, vomiting, irritation of the respiratory system and other central nervous system effects including unconsciousness in extreme cases.

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CHRONIC: *Inhalation*: Prolonged overexposure may cause damage to the liver, kidney, spleen, lungs or nervous system.

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.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:

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

CARCINOGENICITY: No components are known or suspected carcinogens.

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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.

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

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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 handling 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.

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, when concentrations of vapors exceed applicable exposure limits. Where explosive mixtures may be present, systems safe for such locations should be used.

PROTECTIVE GLOVES: To protect against contact with skin, wear nitrile gloves.

EYE PROTECTION: Where there is likelihood of eye contact, wear 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 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.

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SECTION X -- OTHER REGULATORY INFORMATION

DOT PROPER SHIPPING NAME: Paint-Related Material

DOT CLASS: Flammable Liquid

DOT ID NUMBER: NA1263

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
Fire Hazard

SECTION XI -- PREPARATION INFORMATION

PREPARED BY: SK Product Review Committee *FORM NO.* 900-14-056

ORIGINAL ISSUE DATE: July 20, 1989 *REVISED:* December 1, 1989 *SUPERSEDES:* July 20, 1989

APPENDIX B

LETTERS TO LOCAL AUTHORITIES

July 8, 1992

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Palmetto General Hospital
2001 West 68th Street
Hialeah, FL 33016

RE: Safety-Kleen Corp. Medley, Florida Facility

Dear Sir:

Under terms of United States Environmental Protection Agency Regulation 40 CFR 264.37, Safety-Kleen Corp. must make arrangements to familiarize police and fire departments with the layout of the facility, places where facility personnel would be working, entrances to roads inside the facility, and possible evacuation routes. A copy of the facility Contingency Plan and Emergency Procedures is enclosed for your file.

Material Safety Data Sheets for Mineral Spirits, Immersion Cleaner (chlorinated solvents), and Perchloroethylene (dry cleaning solvent) are provided in Appendix A of the attached Plan and Procedures. These documents describe the properties and associated hazards of the materials at the facility.

As required by law, Safety-Kleen will need your acknowledgment of receipt of this letter and indications that you have been familiarized with the action necessary in the event of an emergency and that you are willing to provide assistance.

If you have any questions or desire to visit the facility, please contact the branch manager, Mr. Jorge Carvajal, at (305) 591-9409 (until July 15) or (305) 824-0022 (after July 15).

Sincerely,

Victor L. San Agustin

Victor L. San Agustin, P.E.
Regional Environmental Manager
Tampa Region

ksc/pjh

Enclosure(s)

13112.21/TSK20/02/EXHIBITS.IE

777 BIG TIMBER ROAD ELGIN, ILLINOIS 60123 PHONE 708/697-8460 FAX 708/697-4295

safety-kleen.

July 8, 1992

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Metro Dade Police Department
1850 NW 86th Avenue
Miami, FL 33173

RE: Safety-Kleen Corp. Medley, Florida Facility

Dear Sir:

Under terms of United States Environmental Protection Agency Regulation 40 CFR 264.37, Safety-Kleen Corp. must make arrangements to familiarize police and fire departments with the layout of the facility, places where facility personnel would be working, entrances to roads inside the facility, and possible evacuation routes. A copy of the facility Contingency Plan and Emergency Procedures is enclosed for your file.

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777 BIG TIMBER ROAD ELGIN, ILLINOIS 60123 PHONE 708/697-8460 FAX 708/697-4295

safety-kleen.

July 8, 1992

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Metro Dade Fire Department
6000 SW 87th Avenue
Miami, FL 33173

RE: Safety-Kleen Corp. Medley, Florida Facility

Dear Sir:

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Regional Environmental Manager
Tampa Region

ksc/pjh

Enclosure(s)

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777 BIG TIMBER ROAD ELGIN, ILLINOIS 60123 PHONE 708/697-8460 FAX 708/697-4295

containerized wastes are loaded/unloaded in the vicinity of the enclosed concrete dock the northwest side of the building (Figure II.A.4(b)-3).

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

All containers are covered during movement and are located within diked, concrete floored areas to contain any potential spill. 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 is contained for offsite recycling/reclamation.

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

Container Fill/Return Area

The container fill/return area is located in the service center building between the office and container storage areas. A slight, nondetectable slope (three inches) exists, which terminates at the sumps (2' long, 2' wide, and 2' deep). The sloped floors and containment sump were measured to have a containment capacity of 3,693 gallons. A 20-foot wide steel grate dock (approximately 33 inches above the floor) is located perpendicular to the floor and extends the full width of this area (Figure II.A.4(b)-4). The concrete floor in this area is coated with a concrete sealer that is compatible with and resistant to chemicals handled in this area. Any spill which occurs on the concrete floor is directed by gravity into the sumps. Any residual remaining on the floor can be cleaned up immediately through the use of mops, wet/dry vacuums, or sorbent materials, should a spill occur. Spilled waste is contained and sent for recycling/reclamation. Doors in this area include four overhead roll-up doorways for trucks entering/exiting the service building, two personnel doorways for employees entering/exiting the service