Hazardous Waste Facility Operating Permit Application

Safety-Kleen Corp. Facility
8755 N.W. 36th Street
Medley, Florida

FLD 984171694

Prepared For:

Safety-Kleen Corp.
Elgin, Illinois

Prepared By:

ERM-South, Inc.
Tampa, Florida

July 1992

safety-kleen®

October 15, 1993

RECEIVED

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DEPT. OF ENV. PROTECTION
WEST PALM BEACH

Mr. Knox McKee
Florida Department of
Environmental Protection
1900 South Congress Avenue, Suite A
West Palm Beach, FL 33406

RE: Classification of Waste Streams, Safety-Kleen Corp., Medley, Florida; FLD 984171694

Dear Mr. McKee:

Safety-Kleen Corp. (Safety-Kleen) has reviewed its current operations and determined that it is appropriate to manage two of its waste streams as transfer wastes. The two waste streams are Immersion Cleaner 609, which is being phased out and non-perchloroethylene dry cleaning wastes. These two waste streams are currently permitted waste streams. The appropriate pages of the permit application have been revised to reflect managing these two waste streams as transfer wastes.

In addition, Safety-Kleen is utilizing cyclonic filters with Premium Solvent. The cyclonic filters are placed in the dumpster mud drums. The appropriate pages of the permit application have been revised to reflect this change.

Table 1 provides instructions for updating the permit application. Four copies of the replacement pages are enclosed. Also enclosed is the required $250 modification fee.

If you have any questions or comments, please do not hesitate to contact me at (813) 682-8094.

Sincerely,

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

pjh

Enclosure(s)

c: Robert W. Fox, P.E. - ERM
Cynthia Norton - ERM

13113.21/01/KM101593.LTR/2

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TABLE 1

INSTRUCTIONS FOR UPDATING THE OPERATING PERMIT APPLICATION MEDLEY, FLORIDA FLD 984171694

Replace the following pages:

I.D.2-1 through I.D.2-5
Table I.D.3-1
II.A.4(b)-2
II.A.5-1 through II.A. 5-9
Table II.A.6-1
Table II.A.6-2
Table II.A.6-3
Table II.A.6-4
II.B.3-1 through II.B.3-4

ATTACHMENT I.D.2
DESCRIPTION OF FACILITY OPERATION

DESCRIPTION OF THE BUSINESS

Safety-Kleen Corp. of Elgin, Illinois is an international, service-oriented company whose customers are primarily engaged in automotive repair and industrial maintenance. Since 1968, Safety-Kleen has been offering a leasing service for hydrocarbon and chlorinated solvents and small parts washing equipment. A unique feature of this business concept is that the solvent is produced through recycling the used solvent that is leased to the customers. Approximately two-thirds of the clean solvent leased has been previously used by the customers.

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

Basically, Safety-Kleen handles three types of parts washer solvents: petroleum-based solvents (Parts Cleaner 105, Premium Solvent, or Actrel®), and old and new formulations of immersion cleaner. The old formulation immersion cleaner solvent is labeled under the trade name of Immersion Cleaner and Carburetor and Cold Parts Cleaner #609. It is a two-phase system consisting of an upper aqueous (water) layer and lower non-aqueous (solvent) layer. The water phase consists of water and Dresinate TX (sodium soap of tall oil). The solvent phase is composed of methylene chloride, orthodichlorobenzene, cresylic acid, and an amines additive. A new formulation immersion cleaner is being marketed under the name #699 and will eventually replace the old immersion cleaner. The new solvent is composed of heavy aromatic naphtha, N-methyl-2-pyrolidone dipropylene glycol methyl ether, monoethanolamine and oleic acid. The waste contains a maximum of one percent total chlorinated solvents.

The solvents are distributed and collected by Safety-Kleen service representatives. Containers are transported in specially-equipped, enclosed route trucks. Clean parts washer solvents are distributed from and used parts washer solvents returned to the Service Center where the parts washer solvents are stored in separate tanks for the clean and used parts washer solvent (Parts Cleaner 105, Premium Solvent, and Actrel®) bulk storage. Used parts washer solvent 105 is manifested from the customer as hazardous waste. Used Actrel® is manifested from the customer as hazardous waste unless the generator's hazardous waste determination indicates it is non-hazardous, in which case, the used Actrel® would only become hazardous once it is mixed in the used parts washer solvent tank. Safety-Kleen may accept waste "Premium Solvent" at the Medley service center. The waste "Premium Solvent" will be mixed in the wet dumpster (solvent return receptacle), located in the return/fill area, when it arrives at the service center. The spent premium solvent is transported from the customer in accordance with the customer's hazardous waste determination pursuant to 40 CFR 262.11. Warehouse space is provided for the storage of both clean and used immersion cleaner containers. Immersion Cleaner #609 is managed as a transfer waste. The clean Premium Solvent and Actrel® are also stored in containers in the warehouse. Safety-Kleen leases parts washing equipment, including partially filled 5-, 16-, and 30-gallon containers, which double as the solvent reservoir of the parts washer. During servicing, the quantity of used solvent removed from each machine ranges from 5 to 20 gallons.

Periodically, a company truck is dispatched from one of Safety-Kleen's nationwide solvent recycle facilities to the branch to deliver a load of clean solvent and pick up a load of used solvent (Parts Cleaner 105, Premium Solvent and Actrel®). Parts washer solvents (used and fresh) are transported in bulk tank trucks between the branch and the recycle facilities. Clean Premium Solvent and Actrel® are transported in containers and may be transported in bulk tank trucks. Used parts washer solvent is transported in containers from the customer to the branch, where it is added to the used parts washer solvent tank. The Immersion Cleaner remains in the covered containers during transfer between the Service Center and the recycle facilities. Approximately 97 percent of the solvent handled in the parts washer business is parts washer solvent, while the remainder is immersion cleaner.

Safety-Kleen's solvent cycle is essentially a closed loop, moving from the Service Center to the customer, from the customer to the Service Center, from the Service Center to the recycle

facility and then from the recycle center back to the Service Center for redistribution to customers. The small quantities of residue remaining in the storage tanks at the Service Center and after distillation of the used solvent at Safety-Kleen's solvent recycling facilities are disposed of in accordance with applicable laws and regulations.

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

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

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

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

1. Spent hydrocarbon distillates, such as waste fuel, oil, petroleum, naphtha, etc.

center for processing. The filters from the Actrel® system will contain approximately the same constituents as dumpster mud.

In 1990, Safety-Kleen began offering a service for the collection of spent antifreeze (ethylene glycol) from automobile service stations. These wastes are deposited into a carboy or containers by the customer, which are located on the customer's premises. The contents of the carboy are pumped into a tanker truck or into containers by a Safety-Kleen sales representative. At the service center, it is then pumped into a 20,000-gallon storage tank (if handled in bulk) or placed in the container storage warehouse (if handled in containers) for shipment to a Safety-Kleen recycle center.

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

TABLE I.D.3-1
SAFETY-KLEEN CORP.
MEDLEY, FLORIDA
PART 1 ATTACHMENT

Waste Type	Process Code(s)	Estimated Annual Amounts (Tons)	Waste Codes
Spent Parts Washer Solvent*	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) IC609	S01*****	28	F002, F004, and D-Codes Listed in Note Below
Spent Immersion Cleaner (New Formula) IC699	S01**	Included Above	D-Codes Listed in Note Below
Dry Cleaning Waste (Perchloroethylene)	S01**	350	F002 and D-Codes Listed in Note Below
Dry Cleaning Waste (Non-perchloroethylene)	S01*****	Included Above	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

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

* Spent Parts Washer 105 and Actrel® are transported from the customer to the Service Center as a hazardous waste unless the generator's hazardous waste determination indicates that it is non-hazardous. Spent Premium Solvent is transported in accordance with the generator's hazardous waste determination pursuant to 40 CFR 262.11.

** 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 parts washer solvent storage tank has a capacity of 20,000 gallons and may be filled up to 19,000 gallons.

**** The spent ethylene glycol storage tank has a capacity of 20,000 gallons and may be filled up to 19,000 gallons.

***** These wastes are transfer wastes.

Premium Solvent, and Actrel®) from the wet dumpster flows into a 20,000-gallon aboveground tank for storage. Used parts washer solvent (Parts Cleaner 105, Premium Solvent, and Actrel®) is picked up periodically by a bulk tank truck from the recycle facility which at the same time delivers clean parts washer solvent. The sludge in the wet dumpster is cleaned out at least once per working day, containerized in satellite accumulation drums next to the wet dumpster units, and temporarily stored in the container storage area for later shipment to the recycle facility for reclamation. Satellite accumulation of parts washer solvent 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. Immersion Cleaner #609 is managed as a transfer waste and may be stored onsite for up to 10 days.

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. Non-perchloroethylene dry cleaning wastes are managed as transfer wastes.

The antifreeze waste is approximately two-thirds water and one-third 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),

ATTACHMENT II.A.5
WASTE ANALYSIS REPORT

In accordance with U.S. EPA Hazardous Waste Regulations, eight types of hazardous waste have been identified for collection at the service center:

1. The used Parts Cleaner 105 returned from customers in separate containers, transferred, and stored in the aboveground tank awaiting shipment to the recycle facility, is considered to be an Ignitable Waste (D001). Used Actrel® and Premium Solvent are considered non-ignitable. The used Parts Cleaner 105 and used Actrel® are considered characteristic waste by TCLP (D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D023, D024, D025, D026, D027, D028, D029, D030, D032, D033, D034, D035, D036, D037, D038, D039, D040, D041, D042, and D043). Used parts washer solvent 105 is manifested from the customer as a hazardous waste. Safety-Kleen may accept waste "Premium Solvent" at the Medley service center. The waste "Premium Solvent" will be mixed in the wet dumpster (solvent return receptacle), located in the return/fill area, when it arrives at the service center. The spent premium solvent is transported from the customer in accordance with the customer's hazardous waste determination pursuant to 40 CFR 262.11. Used Actrel® is manifested from the customer as a hazardous waste unless a generator's hazardous waste determination indicates that it is non-hazardous, in which case it will be managed as a non-hazardous waste until it is placed in the used parts washer solvent tank at which time it will be a hazardous waste.

2. The used chlorinated solvent #609 (old), returned from customers in separate containers and remain in the same container for shipment to the recycle facility, is considered to be a Listed Waste from Non-Specific sources (F002 and F004); and a characteristic waste by TCLP (D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D023, D024, D025, D026, D027, D028, D029, D030, D032, D033, D034, D035, D036, D037, D038, D039, D040, D041, D042, and D043). This waste is managed as a transfer waste.

3. The used immersion cleaner #699 (new), returned from customers in separate containers and remaining in the same container for shipment to the recycle facility, is considered a characteristic waste by TCLP (D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D023, D024, D025, D026, D027, D028, D029, D030, D032, D033, D034, D035, D036, D037, D038, D039, D040, D041, D042, and D043).

4. Parts washer solvent dumpster mud and tank bottom sludge, which will accumulate in the solvent return receptacles (wet dumpsters) and in the sludge tank, are considered to be an Ignitable Waste (D001) and a characteristic waste by TCLP (D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D023, D024, D025, D026, D027, D028, D029, D030, D032, D033, D034, D035, D036, D037, D038, D039, D040, D041, D042, and D043). Other parts washer solid debris, such as metal parts and filters, are considered a characteristic waste only by TCLP.

5. Dry cleaning wastes will consist of spent filter cartridges, powder residue from diatomaceous or other powder filter systems and still bottoms. While approximately 80 percent of the dry cleaning solvent returned by Safety-Kleen customers will be perchloroethylene (F002) and a characteristic waste by TCLP (D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D023, D024, D025, D026, D027, D028, D029, D030, D032, D033, D034, D035, D036, D037, D038, D039, D040, D041, D042, and D043), approximately 17 percent is mineral spirits (D001), and a characteristic waste by TCLP ((D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D023, D024, D025, D026, D027, D028, D029, D030, D032, D033, D034, D035, D036, D037, D038, D039, D040, D041, D042, and D043), and the remaining 3 percent is trichloro-trifluoroethane (F002) and a characteristic waste by TCLP leaching procedure ((D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D023, D024, D025, D026, D027, D028, D029, D030, D032, D033, D034, D035, D036, D037, D038, D039, D040, D041, D042, and D043). The non-perchloroethylene dry cleaning wastes are managed as transfer wastes.

6. Antifreeze waste is approximately two-thirds water with the remaining third being antifreeze (ethylene glycol) and contaminants. As a protective measure, the storage tank area for spent antifreeze will be permitted to store wastes with the following TCLP waste 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, and D043.

7. Paint wastes will consist of various lacquer thinners such as acetone, isopropyl alcohol, methyl ethyl ketone, methyl isobutyl ketone, toluene, xylenes, and acetate compounds (D001, F003, and F005) and is a characteristic waste by TCLP (D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D023, D024, D025, D026, D027, D028, D029, D030, D032, D033, D034, D035, D036, D037, D038, D039, D040, D041, D042, and D043). The waste will be collected in containers at the customer's place of business and the containers will then be palletized whenever possible and stored in the paint waste storage area of the accumulation center.

8. Due to the great variability in the composition of Fluid Recovery Service (FRS) wastes, their application or use, and the source industry, Safety-Kleen characterizes each stream from each generator separately. FRS wastes received at the facility are classified as characteristic wastes (D-waste codes), non-specific source wastes (F-waste codes), listed wastes from specific sources (K-wastes), commercial chemical products, manufacturing intermediates or off-specification chemical commercial products (U-waste codes). Most of the time, a waste stream will be some combination of specific components, and be categorized as a D- or F- waste. Table II.A.5-1 provides a list of the EPA waste codes managed at the facility under the FRS program. These wastes, except characteristic waste oil, are shipped in containers and are stored on pallets. The FRS wastes are handled as transfer wastes only.

A typical composition, and chemical physical analysis for each of the waste streams (except FRS) listed above are shown in the attached chemical analyses reports, based on existing data on these wastes generated from similar processes within Safety-Kleen's current and/or potential customers.

USED PARTS WASHER SOLVENT

The clean parts washer solvent is labeled under the trade name of "Safety-Kleen 105 Solvent," or parts washer so-named because of the flash point of the solvent being 105°F (minimum), Premium Solvent has a flash point of 148°F or higher, Actrel® has a flash point of 212°F. Chemically, the solvent primarily consists of petroleum hydrocarbon fractions with a boiling point image between 310°F and 400°F. Impurities, such as light aromatic hydrocarbons (LAHC) and chlorinated hydrocarbons, usually constitute less than one percent of the total volume. Mineral spirits typically constitute at least 95% of the total volume of the Parts Cleaner 105 and Premium Solvent. The Actrel® solvent consists primarily of a paraffinic compound with C_{12} - C_{14} chains.

The used parts washer solvent (Parts Cleaner 105, Premium Solvent, and Actrel®) consists primarily of parts washer solvent (Parts Cleaner 105, Premium Solvent, and Actrel®) plus water, insoluble solids, oil, and grease picked up in the various degreasing operations that Safety-Kleen's customers use. In most instances, no water is associated with the used solvent; however, at times, the water content may range from one percent to as much as 50 percent. The tank bottoms may range from 2 percent to 10 percent, by volume, in the used solvent. These tank bottoms are generated when the bulk tank is cleaned out. The used parts washer premium solvent is transported from the customer in accordance with the generator's hazardous waste determination pursuant to 40 CFR 262.11.

The premium solvent and Safety-Kleen's existing parts washing solvent 105 are very similar in nature, both being predominantly mineral spirits. The Actrel® solvent is a paraffinic compound with C_{12} - C_{14} chains. The Premium Solvent has a flash point of 148°F and Actrel® has a flash point of 212° and are therefore not ignitable. Our preliminary data from other facilities indicates that the used premium solvent is not toxicity characteristic leaching procedure (TCLP) hazardous. The Actrel® solvent is presumed to be TCLP hazardous unless a generator's hazardous waste determination indicates otherwise.

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

USED IMMERSION CLEANER

The clean chlorinated solvent is labeled under the trade name of "Immersion Cleaner and Carburetor and Cold Parts Cleaner #609." It is a two-phase system consisting of an upper aqueous (water) layer and lower non-aqueous (solvent) layer. The water phase consists of water and Dresinate TX (a sodium soap of tall oil). The solvent phase is composed of methylene chloride, orthodichlorobenzene, cresylic acid, and an amines additive.

A new "Immersion Cleaner and Carburetor and Cold Parts Cleaner #699" is also being leased and will eventually replace the #609 immersion cleaner. It is a heavy aromatic naphtha, N-methyl-2-pyrolidon dipropylene glycol methyl ether, monoethanolamine and oleic acid, and contains a maximum of 1 percent total chlorinated solvents.

Both the new and old used immersion cleaner are basically unchanged from their clean state, except oils, greases, and insoluble solids may be picked up during the various degreasing operations used by Safety-Kleen's customers. The spent solvent is non-flammable. It is regarded as toxic because it contains various toxic chemicals (see MSDSs in Attachment II.A.4(b)).

USED PARTS WASHER SOLVENT BOTTOM SLUDGE

This is material settled from used parts washer solvent in the aboveground tanks. It contains insoluble solids, oils and greases, and some water picked up in the degreasing operations, together with a small amount of parts washer solvent. Analyses have shown that the sludge is an ignitable waste and some TCLP analyses have shown it to be toxic using TCLP standards while others have not. The same analyses applies to tank bottoms as applies to dumpster mud.

The sludge is removed from the aboveground tank periodically, put into satellite accumulation drums next to the wet dumpster units, stored as permitted waste, and shipped to Safety-Kleen's recycle facility for reclamation. The estimated annual quantity is included in the estimate of used parts washer solvent.

USED PARTS WASHER SOLVENT DUMPSTER MUD

This waste material is accumulated in the wet dumpsters when emptying the used parts washer solvent from the containers into the aboveground storage tanks. Filters from parts washer units utilizing Actrel® or Premium Solvent may also be added. The nature of this waste is similar to the used parts washer solvent bottom sludge, except with some small metal parts and less parts washer solvent. It is regarded as an ignitable waste and often is also considered a characteristic waste using TCLP standards.

The sludge in the dumpsters is cleaned out frequently. The waste is containerized and shipped to Safety-Kleen's facility for recycling. Approximately 150 containers (1,500 gallons) of dumpster mud is anticipated to be removed from this service center each year.

DRY CLEANING WASTES

Solvent used in dry cleaning of clothing is commonly tetrachloroethylene (or perchloroethylene). Hence, waste generated from dry cleaning operations contains various concentrations of the solvent. Basically, wastes generated by dry cleaning facilities are in the following forms.

1. Cartridge Filter: In addition to the construction materials consisting of steel, paper, clay, and carbon, the used cartridge retains solvent, oil and grease, and undissolved elements such as lint and soil. Solvent retained in the filter cartridge generally amounts to less than 50 percent of the total cartridge weight.

2. Muck: At some dry cleaning facilities, a mixture of powdered materials is used as the filter medium for the dry cleaning solvent, in lieu of the cartridge filter. This filter medium normally consists of diatomaceous earth and carbon. In addition to lint, soil, oil, and grease retained by this medium, between 40 and 50 percent by weight of the "muck" is solvent.

3. Still Residue: After filtration, the dry cleaning solvent is distilled by the dry cleaning machine to remove the dissolved materials from the used solvent. The dissolved

materials (still residues) are in liquid form and consist of primarily detergent, oil and grease, vinyl acetate (a sizing compound), and 20 to 30 percent of solvent.

ANTIFREEZE COLLECTION SERVICE

The spent antifreeze (ethylene glycol) is collected from automobile service stations. These wastes are deposited into a carboy or containers by the customer, on the customer's premises, and the carboy is pumped into a tanker truck or containers by the sales representative. At the service center, it is then pumped into a 20,000-gallon storage tank (if handled in bulk) or placed in the container warehouse (if handled in containers) and held for shipment to a Safety-Kleen Recycle Center.

PAINT WASTES

Paint wastes consist of various lacquer thinners and paints. The waste is collected in containers at the customer's place of business and the containers are then palletized and stored in the container storage area of the warehouse.

FLUID RECOVERY SERVICE WASTES

Fluid Recovery Services (FRS) is a program managed by the Safety-Kleen Service Centers. Under this program, used products similar to the fresh products provided by Safety-Kleen are collected by the service center and processed by the recycle centers. These products may or may not have been originally obtained from Safety-Kleen by the industrial customer. These wastes are handled as transfer wastes at the service center. Examples of the types of wastes that may be received from FRS customers include:

1. Spent hydrocarbon distillates, such as waste fuel, oil, petroleum, and naphtha, etc.

2. Lubricating, hydraulic oils, and machine oils.

3. Industrial halogenated solvents such as 1,1,1-trichloroethane, tetrachloroethylene, freon, and trichloroethane.

4. Photographic and x-ray related wastes.

5. Paint and lacquer thinners and paint wastes.

6. Other hazardous and non-hazardous halogenated and non-halogenated wastes.

7. Waste cartridge filters from Parts Cleaner 105 or Premium Solvent.

FRS wastes received at the facility are classified as characteristic wastes (D-waste codes, non-specific source wastes (F-waste codes), listed wastes from specific sources (K-wastes, commercial chemical products, manufacturing intermediates or off-specification chemical commercial products (U-waste codes). Most of the time, a waste stream will be some combination of specific components, and be categorized as a D- or F- waste. Table II.A.5-1 provides a list of the EPA waste codes managed at the facility under the FRS program.

Certain other wastes that result from the use of organic solvents are also managed through the service centers. These include the solids and sludges that settle out of the used solvent during handling and processing. Lint, paper, oils, greases, carbons, and metals are examples of materials which may settle or separate out of used solvent. In addition to the listed waste codes, these wastes may also exhibit a characteristic under the toxicity characteristic leaching procedure.

Certain solvents are not economically recoverable in their prime form. These are typically solvents of low intrinsic value (e.g., methanol), those where the user's specifications are unattainable or where the mixture cannot be efficiently separated because of the formation of azeotropes, overlapping or close boiling ranges. However, when properly blended and processed, these solvents can be a beneficial source of energy. The Safety-Kleen recycle centers are equipped to process non-recoverable solvent mixtures with still bottoms from recovery of their solvent to produce valuable solvent based fuels.

In each of these end use applications at facilities classified as Industrial Furnaces, the combustion conditions are orders of magnitude more destructive than those specified for incinerators. For each industrial furnace emission controls are in place and covered by existing regulations. Specifications are restrictive for polychlorinated biphenyls (PCBs),

herbicides, pesticides, etc., and for other wastes that might adversely affect the operation of the unit or the properties of the finished product.

TABLE II.A.6-1
PARAMETERS AND RATIONALE
FOR HAZARDOUS WASTE IDENTIFICATION

Hazardous Waste	Parameter[a]	Rationale
1. Used Immersion Cleaner (699IC)	TCLP	May contain these compounds
2. Used Parts Washer Solvent	Flash Point TCLP	Ignitable characteristics D001; may contain these compounds
3. Parts Washer Solvent Tank Bottom Sludge and Free Water	TCLP Flash Point	The sludge and free water may contain these compounds and the sludge has a flash point of 105° F (D001)
4. Parts Washer Solvent Dumpster Mud	TCLP Flash Point	The sludge and free water may contain these compounds and the sludge has a flash point of 105° F (D001)
5. Dry Cleaning Wastes	Perchloroethylene TCLP	Contain ingredient of F002 or contains a hazardous constituent. Perchloroethylene formula is the only waste managed as a permitted waste.
6. Paint Wastes	Toluene, Xylene, Methyl ethyl ketone, Methyl isobutyl ketone, Acetone, Isopropanol, Methanol, Ethanol, Normal butyl acetate, Isobutyl acetate, Cadmium, Chromium, Lead	Contains these components: F003, F005, D001, D006, D007, and D008
7. Spent Antifreeze	TCLP	May contain these compounds

FOOTNOTE:

[a] TCLP Waste Codes: D004-D011, D018, D019, D021-D030, D032-D043.

TABLE II.A.6-2

PARAMETERS AND TEST METHODS

Parameter	Test Method	Reference
pH	pH Meter	EPA 9045/SK9906
Flash Point	Tag closed cup tester	EPA 1030/SK9401
TCLP	Toxicity Characteristic Leaching Procedure	40 CFR 261, Appendix II
Hydrocarbons and Volatile Organics	Gas Chromatography (GC)	Modified Methods Based on "Test Methods for Evaluation of Solid Waste, Physical/Chemical Methods," SW-846, USEPA and ASTM Standards
Specific Gravity	Meter	ASTM D 891/SK9903

TABLE II.A.6-3

METHODS USED TO SAMPLE HAZARDOUS WASTES

Hazardous Waste	Reference for Sampling	Sampler	Description of Sampling Method
1. Used Immersion Cleaner (699IC)	Sampling a drum "Samplers and Sampling Procedures for Hazardous Waste Streams," EPA/600/2-80/018	Test Methods for the Evaluation of Solid Waste Physical/ Chemical Methods, SW-846, USEPA	Representative composite sample using drum sampler
2. Used Parts Washer Solvent	Sampling a tank "Samplers and Sampling Procedures for Hazardous Waste Streams," EPA/600/2-80/018	Same as 1	For tanks--Bomb sampler (similar to weighted bottle sampler)
3. Parts Washer Solvent, Tank Bottom Sludge, and Free Water	Same as 2	Same as 2	Same as 2
4. Parts Washer Solvent Dumpster Mud	Same as 1	Same as 1	Same as 1
5. Dry Cleaning Wastes	Same as 1	Same as 1	Same as 1
6. Paint Wastes	Same as 1	Same as 1	Same as 1
7. Spent Antifreeze	Same as 1 or 2	Same as 1 or 2	Same as 1 or 2

TABLE II.A.6-4

FREQUENCY OF ANALYSIS

Hazardous Waste	Frequency[a]
1. Used Immersion Cleaner 699	Gas chromatograph annually TCLP annually
2. Used Parts Washer Solvent	Gas chromatograph annually Flash point annually TCLP annually
3. Parts Washer Solvent, Tank Bottom Sludge, and Free Water	Gas chromatograph annually TCLP annually
4. Parts Washer Solvent Dumpster Mud	Gas chromatograph annually TCLP annually
5. Dry Cleaning Wastes	Gas chromatograph annually TCLP annually
6. Paint Wastes	Gas chromatograph annually TCLP annually
7. Spent Antifreeze	Gas chromatograph annually TCLP annually

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

ATTACHMENT II.B.3
WASTE SEGREGATION

PROCEDURE FOR SEGREGATING WASTE TYPES

The used solvents are compatible with each other and with other materials to be handled at this facility, with respect to reactivity, and therefore do not require special segregation procedures. However, they are the primary source of feed stock for regenerating the clean solvents. For ease of inventory control and product integrity, separation and grouping of both used and fresh solvents is a standard practice at the facility.

All materials are managed in accordance with the local fire protection code and fire department requirements. Safety-Kleen uses a container color scheme as part of its waste management system. Eighty-five gallon overpack containers are used for the management of containers whose integrity has been compromised.

The immersion cleaner is always contained in partially filled, covered containers before, during, and after its use. Until received at the recycle facility, the immersion cleaner is never transferred to another container. The containers containing the used immersion cleaner are returned to the facility and stored in the designated container storage areas before shipment to the recycle center. Immersion Cleaner #609 is managed as a transfer waste.

The dry cleaning wastes are contained in containers. All containers are DOT-approved. These containers are managed similarly to the used immersion cleaner containers and contents within the containers are not removed or processed at the facility. Non-perchloroethylene dry cleaning wastes are managed as transfer wastes.

The parts washer solvents are collected in containers. These containers are then emptied into the dumpsters in the return/fill shelter. Spent antifreeze is packaged in containers, and the containers are not opened at the facility.

Paint wastes consist of various lacquer thinners and paints. The waste is collected in containers at the customer's place of business and the containers are 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 will be some combination of specific components, and be categorized as a D- or F- waste. Table II.A.5-1 provides a list of the EPA waste codes managed at the facility as transfer wastes under the FRS program. The FRS wastes are clearly delineated from the permitted wastes. An area for the temporary storage of FRS wastes is marked off using a chain and/or stantions. No other wastes are placed in the designated transfer areas. See Figure II.B.1-1.

The containers are designed and constructed to be compatible with the stored material and to minimize the possibility of breakage and leaking, in accordance with DOT shipping container specifications. Tables II.B.3-1 through II.B.3-7 provide typical construction specifications of the containers.

Wastes are stored in polyethylene and steel containers. Since none of the waste handled by Safety-Kleen reacts with metal or polyethylene, compatibility is assured. Immersion cleaner and dry cleaning waste containers are never opened at the branch, and none of the wastes are incompatible.

POTENTIAL FIRE SOURCES

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

1. All wastes and products are kept away from ignition sources--Personnel must confine smoking and open flames to remote areas (e.g., the office or locker room), separate from any solvent. The parts washer solvent handling area and the aboveground storage tanks are separate from the warehouse building area to minimize the potential for a fire to spread or injury to personnel to occur.

2. Ignitable wastes are handled so that they do not:
   a. Become subject to extreme heat or pressure, fire or explosion, or a violent reaction--The parts washer solvent wastes are stored in a tank or in containers, none of which are near sources of extreme heat, fire, potential explosion sources, or subject to

violent reactions. The tanks are vented and the containers kept at room temperature to minimize the potential for pressure build-up.

b. 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, dusts, or gases 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.

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

d. Damage the structural integrity of the Safety-Kleen facility--The solvents stored at this facility do not cause deterioration of the tank, containers, or other structural components of the facility.

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

4. "NO SMOKING" signs are posted in areas where solvents are handled or stored.

5. Fire extinguishers must be checked once per week and tested by the fire extinguisher company once per year.

EXTERNAL FACTORS

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

1. Vandalism--Only extreme vandalism would result in a solvent spill or fire. Responses to spills and fires are described in the contingency plan.

2. Strikes--A strike would not result in a solvent spill or fire.

3. Power failure--A power failure would not result in a spill or fire. Should a power failure occur, all activities requiring electricity will cease.

4. Flooding--The site elevation is above the projected 100-year floodplain.

5. Storms or Cold Weather--The solvent return and fill station is roofed to eliminate the possibility of rain or snow entering the dumpsters. No opportunity is foreseen to affect the facility with snow, cold weather, or stormwater.

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DEC 2 2 1992
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WEST PALM BEACH

December 22, 1992

Mr. J. Knox McKee, Jr.
Florida Department of
Environmental Regulation
Southeast District
1900 South Congress Avenue, Suite A
West Palm Beach, FL 33406

RE: Safety-Kleen Corp. Medley, Florida; FLD984177694

Dear Mr. McKee:

As discussed on December 21, 1992 with Tim Gray of your staff, this letter is to inform you that the two satellite cans were relocated to the north side of the return/fill dock last December 18, 1992. Safety-Kleen (SK) is providing revised return/fill shelter figures for the above-referenced facility. These figures show the placement of the satellite accumulation containers which are attached to the wet dumpsters. The schematic drawing associated with Subpart BB compliance and inspections is being revised in our Elgin, Illinois office, and will be forwarded to Florida Department of Environmental Regulation (FDER) as soon as it is completed.

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

Sincerely,

Victor L. San Agustin

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

pjh/mmm

Enclosure(s)

c: C. Norton - ERM

13113.21/TSK23/01/KM122192.LTR/3

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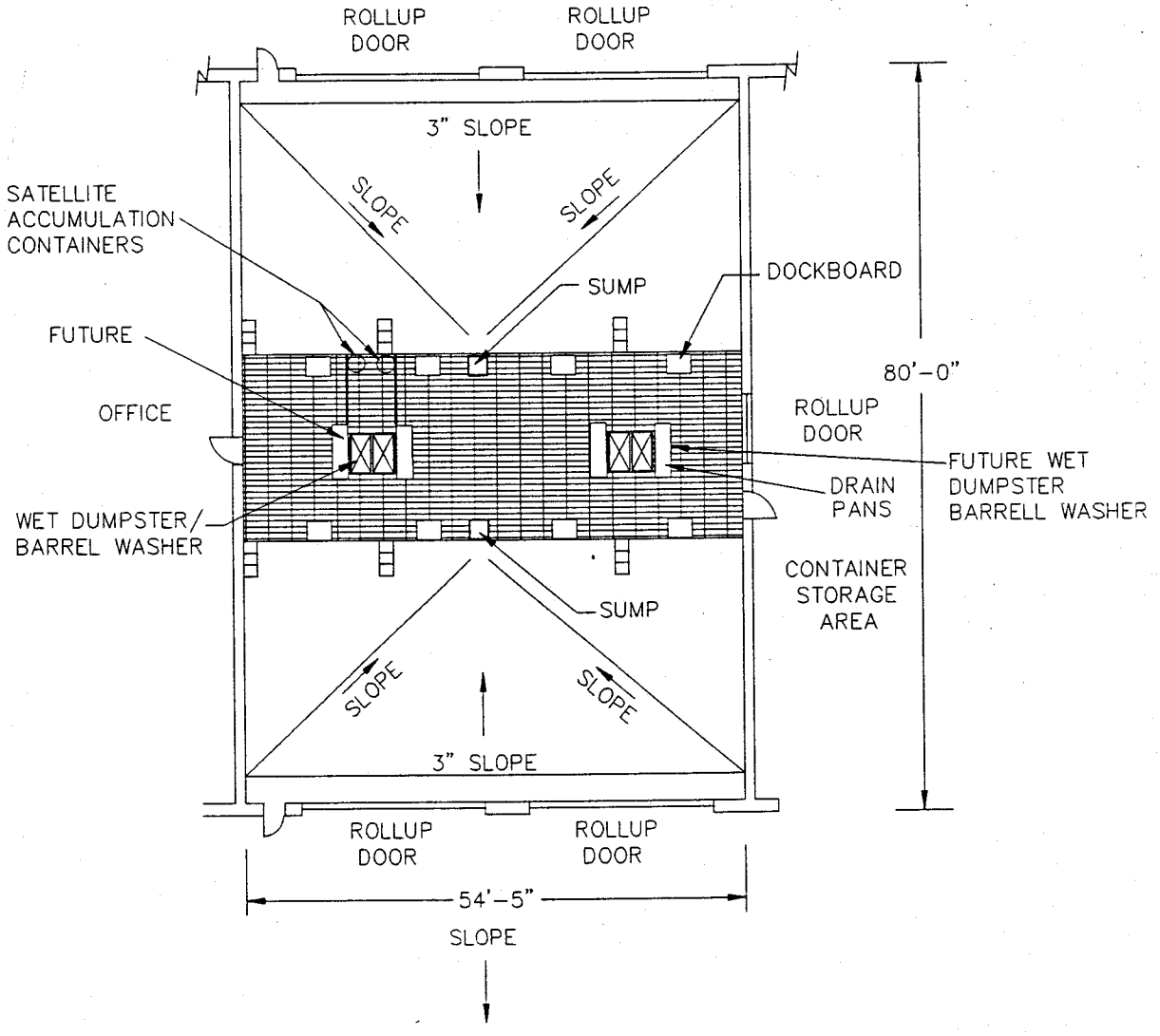
Figure II.A.4(b)-4
Return/Fill Shelter
Safety-Kleen Corp. Facility
Medley, Florida



LEGEND

STEPS

GRATING

N

0 20

FEET

REVISION 12/21/92

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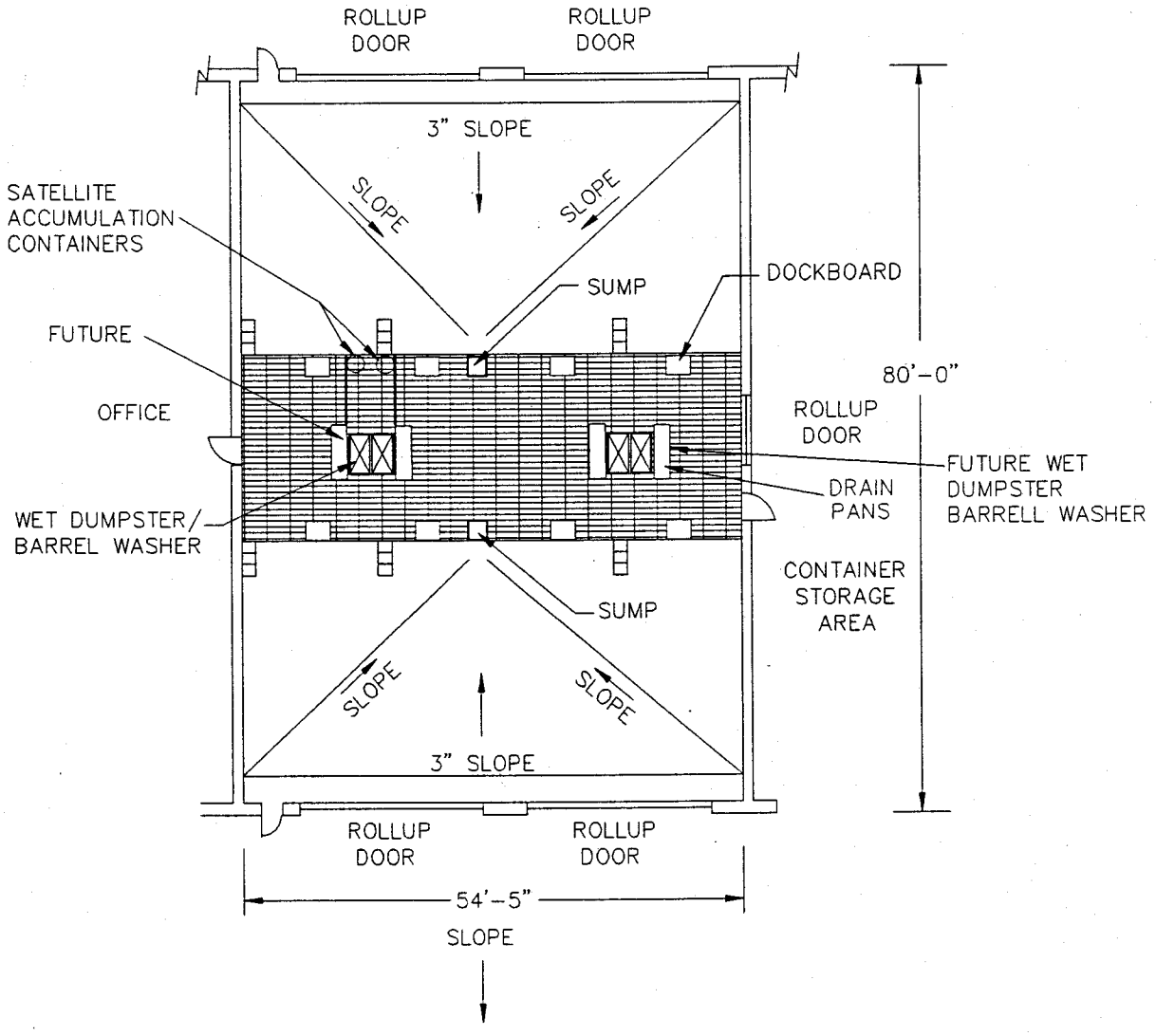
Figure II.C.7-3
Return/Fill Shelter
Safety-Kleen Corp. Facility
Medley, Florida



LEGEND

STEPS

GRATING

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FEET

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WEST PALM BEACH

December 21, 1992

Mr. J. Knox McKee, Jr.
Supervisor, Hazardous Waste Section
Florida Department of
Environmental Regulation
Southeast District
1900 South Congress Avenue, Suite A
West Palm Beach, FL 33406

RE: Safety-Kleen Corp. Medley, Florida; FLD 984177694

Dear Mr. McKee:

In reviewing the operating permit application for the Safety-Kleen (SK) Medley, Florida facility, SK identified two errors in the job descriptions provided in the training program (Attachment II.A.4(e)). The first error was the omission on Table II.A.4(e)-7 of the Branch Special Markets Manager. The second error was the inclusion as Table II.A.4(e)-9 of the Regional Special Markets Sales Manager job description rather than the Branch Special Markets Manager.

SK is supplying four copies of each of these corrected pages. If you have any questions, please contact me at (813) 682-8094.

Sincerely,

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

CHN/pjh

Enclosure(s)

c: C. Norton - ERM

13113.21/01/KM122192.(A)/2

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TABLE II.A.4(e)-7

JOB DESCRIPTION
SALES REPRESENTATIVE

JOB DESCRIPTION:

The Sales Representative is charged with the responsibility of generating new business and servicing established accounts within a certain defined geographic area.

REPORTS TO:

Branch Automotive Manager, Branch Industrial Manager, or Branch Special Markets Manager

QUALIFICATION:

Minimum high school graduate

PRINCIPAL RESPONSIBILITIES:

1. Maintain his route truck and replenish his products on the truck before beginning his route sales.

2. Contact potential customers for the purpose of selling Safety-Kleen services and allied products.

3. Exchange used solvents with fresh solvent and replenish the inventory of Safety-Kleen's products for existing customers.

4. Make minor repairs of Safety-Kleen's parts washer equipment or lease new equipment to the customer.

5. Prepare the necessary paperwork for each service, and bill or credit the customer, as necessary.

6. At the end of each day, return the truck to the branch for cleaning and maintenance, and summarize the day's activities so the Branch Manager can tabulate the daily figures and forward them to the corporate office.

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TABLE II.A.4(e)-9

JOB DESCRIPTION
BRANCH SPECIAL MARKETS MANAGER

JOB DESCRIPTION:

Develops and maintains Corporate and Branch goals related to special markets by planning, organizing, directing, and controlling all assigned employees. In most instances, the BSM is responsible for personal production within an assigned zone and operates under the guidelines established by the Special Markets Sales Specialist job description. This would include a minimum number of sales calls that would generate a set revenue quota. Branch specific standards would be established by the Regional Special Markets Sales Manager in conjunction with the Resource Recovery Branch Manager.

REPORTS TO:

The Resource Recovery Branch Manager.

QUALIFICATION:

Minimum high school graduate

PRINCIPAL RESPONSIBILITIES:

1. Responsible for sales and service of one-half route and for obtaining the branch's total sales objectives.

2. Responsible for personally netting six new customers or equivalent sales revenue per period.

3. Responsible for training and developing Special Markets Sales Specialists.

4. Responsible for developing new customers for Paint Refinishing and Dry Cleaning throughout all branch routes.

5. Through training, assures proper management, preparation, and shipment of hazardous materials and waste (including packaging, placarding, transportation, storage, and paperwork procedures).

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TABLE 5-9 (Continued)

BRANCH SPECIAL MARKETS MANAGER

6. Assures the meeting of assigned sales quotas.

7. Assures that Safety-Kleen equipment at customers (where applicable) is properly labeled and on the appropriate service interval by completing Customer Visit Reports.

8. Assures that the company's ethical standards are maintained.

9. Reviews weekly and period sales promotion summaries.

10. Assures the timely completion of services.

11. Reviews and acts on accounts receivable standards.

12. Conducts sales meetings.

13. Develops team contests or rewards for set period objectives.

14. Holds monthly goal setting sessions with assigned personnel.

15. Conducts quarterly performance reviews with assigned personnel.

16. Controls all personnel within the assigned territories by daily/weekly communication in regards to branch standards and goals.

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QUALIFICATION:

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1. Maintain his route truck and replenish his products on the truck before beginning his route sales.

2. Contact potential customers for the purpose of selling Safety-Kleen services and allied products.

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WEST PALM BEACH

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BRANCH SPECIAL MARKETS MANAGER

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TABLE 5-9 (Continued)

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JOB DESCRIPTION
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5. Through training, assures proper management, preparation, and shipment of hazardous materials and waste (including packaging, placarding, transportation, storage, and paperwork procedures).

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TABLE 5-9 (Continued)

BRANCH SPECIAL MARKETS MANAGER

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15. Conducts quarterly performance reviews with assigned personnel.

16. Controls all personnel within the assigned territories by daily/weekly communication in regards to branch standards and goals.

safety-kleen

July 16, 1992

RECEIVED
JUL 17 1992
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WEST PALM BEACH

Mr. Knox McKee
Florida Department of
Environmental Regulation
Southeast District
Hazardous Waste Section
1900 South Congress Avenue, Suite A
West Palm Beach, FL 33406

RE: Safety-Kleen Corp.; Medley, Florida; Operating Permit Application
FLD 984171694

Dear Mr. McKee:

Enclosed is the $10,000 application fee and four copies of the Operating Permit Application for the above-referenced facility. Only one sealed copy of the updated construction certification report is included in Attachment II.C.1. Additional sealed pages will be forwarded to FDER.

It is our understanding that 403.722 Florida Statutes, now requires public notice on the day that the application is submitted and also notifications must be made to the city and county within one mile of the facility. To this end, a legal advertisement is being published in the *Miami Herald*. A letter has been sent to the cities of Medley and Miami and the Dade County Administrator. Copies of the letters are attached. Proof of publication will be provided as soon as it is received. Likewise, a second publishing will occur within 14 days of filing.

If you have any questions regarding this application, please call me at (813) 682-8094.

Sincerely,

Victor L. San Agustin

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

ksc/mmm

Attachment

c: C. Norton - ERM

13112.21/01/APPLIC.LTR/1

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

Check No.	Date	Vendor No.	Vendor Name	Total Amount
431748	071092	000009172	FLORIDA DEPT OF ENVIR	10,000.00

SAFETY-KLEEN CORP. 777 Big Timber Road, Elgin, Illinois 60123 708-697-8460 DUNS NO. 05106-0408

70-2382
719

No. 431748

777 Big Timber Road
Elgin, Illinois 60123

Check No.
431748

Pay

DATE

TEN THOUSAND AND NO/100 DOLLARS ****** 07 10 92 *******10,000.00

To The Order Of

FLORIDA DEPT OF ENVIR REG
1900 S CONGRESS AVE SUITE A
WEST PALM BEACH FL 33406

SAFETY - KLEEN CORP.
AUTHORIZED SIGNATURE
Robert W. Willmschen

The Northern Trust Company
Payable Through Northern Trust Bank Du Page

NOT VALID OVER $20,000.

July 16, 1992

Certified Mail, Return Receipt Requested

RECEIVED
JUL 17 1992
DEPT. OF ENVIRONMENTAL REG.
WEST PALM BEACH

Mr. Jim Murphy
Building Official
City of Medley
7331 NW 74th Street
Medley, FL 33166

Dear Mr. Murphy:

This letter will serve as a formal Notice of Application established by the Florida Department of Environmental Regulation (FDER).

The FDER announces receipt of an Operating Permit Application from Safety-Kleen Corp. for a hazardous waste storage facility. This Operating Permit Application is for a new facility located at 8755 NW 95th Street in Dade County, City of Medley, Florida. This notification is being made in accordance with 403.722 Florida Statutes.

This application is being processed and is available for public inspection during normal business hours, 8 a.m. to 5 p.m., Monday through Friday, except legal holidays, at the FDER, 1900 South Congress Avenue, Suite A, West Palm Beach, Florida.

Sincerely,

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

ksc/mmm

c: C. Norton - ERM

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WEST PALM BEACH

July 16, 1992

Certified Mail, Return Receipt Requested

Mayor Steven P. Clark
111 NW 1st Street, Suite 230
Miami, FL 33128

Dear Mayor Clark:

This letter will serve as a formal Notice of Application established by the Florida Department of Environmental Regulation (FDER).

The FDER announces receipt of an Operating Permit Application from Safety-Kleen Corp. for a hazardous waste storage facility. This Operating Permit Application is for a new facility located at 8755 NW 95th Street in Dade County, City of Medley, Florida. This notification is being made in accordance with 403.722 Florida Statutes.

This application is being processed and is available for public inspection during normal business hours, 8 a.m. to 5 p.m., Monday through Friday, except legal holidays, at the FDER, 1900 South Congress Avenue, Suite A, West Palm Beach, Florida.

Sincerely,

Victor San Agustin

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

ksc/mmm

c: C. Norton - ERM

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

safety-kleen®

July 16, 1992

RECEIVED
JUL 17 1992
DEPT. OF ENVIRONMENTAL REG.
WEST PALM BEACH

Certified Mail, Return Receipt Requested

*Honorable Board of County Commissioners
111 NW 1st Street, Suite 230
Miami, FL 33128

Dear County Commissioners:

This letter will serve as a formal Notice of Application established by the Florida Department of Environmental Regulation (FDER).

The FDER announces receipt of an Operating Permit Application from Safety-Kleen Corp. for a hazardous waste storage facility. This Operating Permit Application is for a new facility located at 8755 NW 95th Street in Dade County, City of Medley, Florida. This notification is being made in accordance with 403.722 Florida Statutes.

This application is being processed and is available for public inspection during normal business hours, 8 a.m. to 5 p.m., Monday through Friday, except legal holidays, at the FDER, 1900 South Congress Avenue, Suite A, West Palm Beach, Florida.

Sincerely,

Victor San Agustin

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

ksc/mmm

c: C. Norton - ERM

*Please distribute to all eight commissioners.

13112.21/01/APPLIC.LTR/1

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safety-kleen®

RECEIVED
AUG 2 - 1993
DEPT. OF ENV. PROTECTION
WEST PALM BEACH

July 30, 1993

Via Federal Express

J. Knox McKee, Jr.
Supervisor, Hazardous Waste Section
Florida Department of Environmental Protection
Southeast District
1900 S. Congress Avenue, Suite A
West Palm Beach, Florida 33406

Re: Reply to Comments (Dated July 19, 1993, Received July 21, 1993) on Request for Modification of Hazardous Waste Operating Permit (Submitted on June 15, 1993). Safety-Kleen/Medley, Operating Permit Number HO 13-216311, Facility Number FLD 984171694.

Dear Mr. McKee:

Safety-Kleen Corp. (Safety-Kleen) has reviewed your comments on the requests for modification, as referenced. Following is a comment by comment response:

1. The response letter, dated May 3, 1993, has been attached to the original permit and becomes part of that permit. P. I.D.2-2, p. II.A.5-1, p. II.A.5-4, tables I.D.3-1 and II.A.4(b)-1 have been revised to reflect the Department's position on hazardous waste determination. The noted revisions have been shaded.

2. The Department's response letter, dated May 25, 1993, has been attached to the original permit and becomes part of that permit. Revision 3 - 06/11/93, p. I.D.2-4 and Revision 2 - 06/11/93, p. II.A.5-8 have been revised to include the waste cartridge filters from parts cleaner 105 or premium solvent as one of the "examples of the types of wastes" managed as FRS wastes, a segregated transfer facility waste stream.

   There appears to be some confusion regarding filters. Safety-Kleen collects three types of filters. The first type of filter is associated with dry cleaning materials which are containerized separately. The second type is cartridge filters from parts cleaner 105 and Premium Solvent parts washer which are managed as FRS wastes. The third type of filters are paper filters associated with the Actrel® parts washer. The Actrel® filters are compatible to dumpster mud and will be disposed of in the same manner as the dumpster

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mud. These filters associated with Actrel® are the filters which Safety-Kleen intends to place in the dumpster sludge drum. Specific conditions #15 and #36 do not prohibit the addition of compatible materials into the dumpster sludge drum. The conditions merely state that the container must be compatible with waste placed in it. Since the Actrel® filters and dumpster mud are compatible, both materials can be placed in the same container.

Revision 2 - 06/11/93, p. II.A.4(b)-2, paragraph one, and Revision 2 - 06/11/93, p. II.A.5-5, paragraph one, have been revised to include a statement that sludge in the wet dumpster is put into satellite accumulation drums next to the wet dumpster units.

3. Revision 2 - 06/11/93, p. II.A.6-4, paragraph one, has been revised to include the statement "...and label it as hazardous waste with the appropriate accumulation start date."

   The anticipated laboratory turnaround time has been added to p. II.A.6-4.

   Paragraph 2 has been revised to include a definition of "contaminated" as used in the statement cited.

   Paragraph 3 has been revised to include a definition of the use of the word "discrepancy" in the statement cited. In addition, clarification regarding when reports will be filed has been provided.

4. If additional contaminants have been added by the customers, there has been a violation of the service contract between Safety-Kleen and the customer. Safety-Kleen's responsibility for ownership of the solvent becomes null and void since the solvent is no longer the material leased by Safety-Kleen. Therefore, Safety-Kleen *can* "reject the waste" or "reject the container of waste", as stated in Revision 2 - 06/11/93, pp. II.A.6-4 and II.A.6-5 *and* continue to make the claim of "closed loop" and "ownership of the solvent remains with Safety-Kleen," as suggested in Revision 6 - 06/11/93, p. I.D.2-5.

   Field screening is not Safety-Kleen's sole waste analysis plan. On a national basis, the waste streams are periodically tested. Safety-Kleen's experience indicates that if the waste meets the visual and volumetric requirements, then the waste meets the waste profiles established for each waste stream.

5. The modified language of revised pages in this submittal has been shaded, as will be done for future submittals.

Please call me, at (813) 682-8094, if you have any questions.

Sincerely,

Victor L. San Agustin

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

pjh/mmm

Enclosure(s)

c: Cindy Norton - ERM

INSTRUCTIONS FOR UPDATING THE PERMIT APPLICATION
SAFETY-KLEEN CORP.
MEDLEY, FLORIDA

Replace the following:

- Attachment I.D.2
- Table I.D.3-1
- Page II.A.4(b)-2
- Table II.A.4(b)-1
- All text in Attachment II.A.5
- Page II.A.6-4

ATTACHMENT I.D.2
DESCRIPTION OF FACILITY OPERATION

DESCRIPTION OF THE BUSINESS

Safety-Kleen Corp. of Elgin, Illinois is an international, service-oriented company whose customers are primarily engaged in automotive repair and industrial maintenance. Since 1968, Safety-Kleen has been offering a leasing service for hydrocarbon and chlorinated solvents and small parts washing equipment. A unique feature of this business concept is that the solvent is produced through recycling the used solvent that is leased to the customers. Approximately two-thirds of the clean solvent leased has been previously used by the customers.

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

Basically, Safety-Kleen handles three types of parts washer solvents: petroleum-based solvents (Parts Cleaner 105, Premium Solvent, or Actrel®), and old and new formulations of immersion cleaner. The old formulation immersion cleaner solvent is labeled under the trade name of Immersion Cleaner and Carburetor and Cold Parts Cleaner #609. It is a two-phase system consisting of an upper aqueous (water) layer and lower non-aqueous (solvent) layer. The water phase consists of water and Dresinate TX (sodium soap of tall oil). The solvent phase is composed of methylene chloride, orthodichlorobenzene, cresylic acid, and an amines additive. A new formulation immersion cleaner is being marketed under the name #699 and will eventually replace the old immersion cleaner. The new solvent is composed of heavy aromatic naphtha, N-methyl-2-pyrolidone dipropylene glycol methyl ether, monoethanolamine and oleic acid. The waste contains a maximum of one percent total chlorinated solvents.

The solvents are distributed and collected by Safety-Kleen service representatives. Containers are transported in specially-equipped, enclosed route trucks. Clean parts washer solvents are distributed from and used parts washer solvents returned to the Service Center where the parts washer solvents are stored in separate tanks for the clean and used parts washer solvent (Parts Cleaner 105, Premium Solvent, and Actrel®) bulk storage. Used parts washer solvent 105 is manifested from the customer as hazardous waste. Used Actrel® is manifested from the customer as hazardous waste unless the generator's hazardous waste determination indicates it is non-hazardous, in which case, the used Actrel® would only become hazardous once it is mixed in the used parts washer solvent tank. Safety-Kleen may accept waste "Premium Solvent" at the Medley service center. The waste "Premium Solvent" will be mixed in the wet dumpster (solvent return receptacle), located in the return/fill area, when it arrives at the service center. The spent premium solvent is transported from the customer in accordance with the customer's hazardous waste determination pursuant to 40 CFR 262.11. Warehouse space is provided for the storage of both clean and used immersion cleaner containers. The clean Premium Solvent and Actrel® are also stored in containers in the warehouse. Safety-Kleen leases parts washing equipment, including partially filled 5-, 16-, and 30-gallon containers, which double as the solvent reservoir of the parts washer. During servicing, the quantity of used solvent removed from each machine ranges from 5 to 20 gallons.

Periodically, a company truck is dispatched from one of Safety-Kleen's nationwide solvent recycle facilities to the branch to deliver a load of clean solvent and pick up a load of used solvent (Parts Cleaner 105, Premium Solvent and Actrel®). Parts washer solvents (used and fresh) are transported in bulk tank trucks between the branch and the recycle facilities. Clean Premium Solvent and Actrel® are transported in containers and may be transported in bulk tank trucks. Used parts washer solvent is transported in containers from the customer to the branch, where it is added to the used parts washer solvent tank. The Immersion Cleaner remains in the covered containers during transfer between the Service Center and the recycle facilities. Approximately 97 percent of the solvent handled in the parts washer business is parts washer solvent, while the remainder is immersion cleaner.

Safety-Kleen's solvent cycle is essentially a closed loop, moving from the Service Center to the customer, from the customer to the Service Center, from the Service Center to the recycle facility and then from the recycle center back to the Service Center for redistribution to

facility and then from the recycle center back to the Service Center for redistribution to customers. The small quantities of residue remaining in the storage tanks at the Service Center and after distillation of the used solvent at Safety-Kleen's solvent recycling facilities are disposed of in accordance with applicable laws and regulations.

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

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

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

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

1. Spent hydrocarbon distillates, such as waste fuel, oil, petroleum, naphtha, etc.

2. Lubricating, hydraulic oils, and machine oils.

3. Industrial halogenated solvents such as 1,1,1-trichloroethane, tetrachloroethylene, freon, and trichloroethane.

4. Photographic and x-ray related wastes.

5. Paint and lacquer thinners and paint wastes.

6. Other hazardous and non-hazardous halogenated and non-halogenated wastes.

7. Waste cartridge filters from Parts Cleaner 105 or Premium Solvent.

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

The Actrel® systems are also equipped with a filtration system. Approximately once every 4 to 8 weeks the service representative changes the filter. The filters are placed inside a plastic tube located inside the Actrel® solvent container which is connected to the parts washer equipment. The filters are removed when the entire contents of the Actrel® container are replaced with fresh Actrel® approximately every six months. The used Actrel® is placed in the wet dumpster. The filters are placed in the waste sludge satellite accumulation container located at the return/fill shelter wet dumpster. Once the branch's satellite accumulation container is full, it is managed as a permitted waste stream and is transported to a recycle center for processing. The filters from the Actrel® system will contain approximately the same constituents as dumpster mud.

In 1990, Safety-Kleen began offering a service for the collection of spent antifreeze (ethylene glycol) from automobile service stations. These wastes are deposited into a carboy or containers by the customer, which are located on the customer's premises. The contents of the carboy are pumped into a tanker truck or into containers by a Safety-Kleen sales representative. At the service center, it is then pumped into a 20,000-gallon storage tank (if handled in bulk) or placed in the container storage warehouse (if handled in containers) for shipment to a Safety-Kleen recycle center.

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

TABLE I.D.3-1
SAFETY-KLEEN CORP.
MEDLEY, FLORIDA
PART 1 ATTACHMENT

Waste Type	Process Code(s)	Estimated Annual Amounts (Tons)	Waste Codes
Spent Parts Washer Solvent*	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
Spent Immersion Cleaner (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

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

* Spent Parts Washer 105 and Actrel® are transported from the customer to the Service Center as a hazardous waste unless the generator's hazardous waste determination indicates that it is non-hazardous. Spent Premium Solvent is transported in accordance with the generator's hazardous waste determination pursuant to 40 CFR 262.11.

** 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 parts washer solvent storage tank has a capacity of 20,000 gallons and may be filled up to 19,000 gallons.

**** The spent ethylene glycol storage tank has a capacity of 20,000 gallons and may be filled up to 19,000 gallons.

***** FRS wastes are transfer wastes only.

Premium Solvent, and Actrel®) from the wet dumpster flows into a 20,000-gallon aboveground tank for storage. Used parts washer solvent (Parts Cleaner 105, Premium Solvent, and Actrel®) is picked up periodically by a bulk tank truck from the recycle facility which at the same time delivers clean parts washer solvent. The sludge in the wet dumpster is cleaned out at least once per working day, containerized in satellite accumulation drums next to the wet dumpster units, and temporarily stored in the container storage area for later shipment to the recycle facility for reclamation. Satellite accumulation of parts washer solvent 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 two-thirds water and one-third 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),

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 Parts Washer Solvent*	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
Spent Immersion Cleaner (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

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

* Spent Parts Washer 105 and Actrel® are transported from the customer to the Service Center as a hazardous waste unless the generator's hazardous waste determination indicates that it is non-hazardous. Spent Premium Solvent is transported in accordance with the generator's hazardous waste determination pursuant to 40 CFR 262.11.

** 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 parts washer solvent storage tank has a capacity of 20,000 gallons and may be filled up to 19,000 gallons.

**** The spent ethylene glycol storage tank has a capacity of 20,000 gallons and may be filled up to 19,000 gallons.

***** FRS wastes are transfer wastes only.

ATTACHMENT II.A.5
WASTE ANALYSIS REPORT

In accordance with U.S. EPA Hazardous Waste Regulations, eight types of hazardous waste have been identified for collection at the service center:

1. The used Parts Cleaner 105 returned from customers in separate containers, transferred, and stored in the aboveground tank awaiting shipment to the recycle facility, is considered to be an Ignitable Waste (D001). Used Actrel® and Premium Solvent are considered non-ignitable. The used Parts Cleaner 105 and used Actrel® are considered characteristic waste by TCLP (D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D023, D024, D025, D026, D027, D028, D029, D030, D032, D033, D034, D035, D036, D037, D038, D039, D040, D041, D042, and D043). Used parts washer solvent 105 is manifested from the customer as a hazardous waste. Safety-Kleen may accept waste "Premium Solvent" at the Medley service center. The waste "Premium Solvent" will be mixed in the wet dumpster (solvent return receptacle), located in the return/fill area, when it arrives at the service center. The spent premium solvent is transported from the customer in accordance with the customer's hazardous waste determination pursuant to 40 CFR 262.11. Used Actrel® is manifested from the customer as a hazardous waste unless a generator's hazardous waste determination indicates that it is non-hazardous, in which case it will be managed as a non-hazardous waste until it is placed in the used parts washer solvent tank at which time it will be a hazardous waste.

2. The used chlorinated solvent #609 (old), returned from customers in separate containers and remain in the same container for shipment to the recycle facility, is considered to be a Listed Waste from Non-Specific sources (F002 and F004); and a characteristic waste by TCLP (D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D023, D024, D025, D026, D027, D028, D029, D030, D032, D033, D034, D035, D036, D037, D038, D039, D040, D041, D042, and D043).

3. The used immersion cleaner #699 (new), returned from customers in separate containers and remaining in the same container for shipment to the recycle facility, is considered a characteristic waste by TCLP (D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D023, D024, D025, D026, D027, D028, D029, D030, D032, D033, D034, D035, D036, D037, D038, D039, D040, D041, D042, and D043).

4. Parts washer solvent dumpster mud and tank bottom sludge, which will accumulate in the solvent return receptacles (wet dumpsters) and in the sludge tank, are considered to be an Ignitable Waste (D001) and a characteristic waste by TCLP (D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D023, D024, D025, D026, D027, D028, D029, D030, D032, D033, D034, D035, D036, D037, D038, D039, D040, D041, D042, and D043). Other parts washer solid debris, such as metal parts and Actrel® filters, are considered a characteristic waste only by TCLP.

5. Dry cleaning wastes will consist of spent filter cartridges, powder residue from diatomaceous or other powder filter systems and still bottoms. While approximately 80 percent of the dry cleaning solvent returned by Safety-Kleen customers will be perchloroethylene (F002) and a characteristic waste by TCLP (D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D023, D024, D025, D026, D027, D028, D029, D030, D032, D033, D034, D035, D036, D037, D038, D039, D040, D041, D042, and D043), approximately 17 percent is mineral spirits (D001), and a characteristic waste by TCLP ((D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D023, D024, D025, D026, D027, D028, D029, D030, D032, D033, D034, D035, D036, D037, D038, D039, D040, D041, D042, and D043), and the remaining 3 percent is trichloro-trifluoroethane (F002) and a characteristic waste by TCLP leaching procedure ((D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D023, D024, D025, D026, D027, D028, D029, D030, D032, D033, D034, D035, D036, D037, D038, D039, D040, D041, D042, and D043).

6. Antifreeze waste is approximately two-thirds water with the remaining third being antifreeze (ethylene glycol) and contaminants. As a protective measure, the storage

tank area for spent antifreeze will be permitted to store wastes with the following TCLP waste 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, and D043.

7. Paint wastes will consist of various lacquer thinners such as acetone, isopropyl alcohol, methyl ethyl ketone, methyl isobutyl ketone, toluene, xylenes, and acetate compounds (D001, F003, and F005) and is a characteristic waste by TCLP (D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D023, D024, D025, D026, D027, D028, D029, D030, D032, D033, D034, D035, D036, D037, D038, D039, D040, D041, D042, and D043). The waste will be collected in containers at the customer's place of business and the containers will then be palletized whenever possible and stored in the paint waste storage area of the accumulation center.

8. Due to the great variability in the composition of Fluid Recovery Service (FRS) wastes, their application or use, and the source industry, Safety-Kleen characterizes each stream from each generator separately. FRS wastes received at the facility are classified as characteristic wastes (D-waste codes), non-specific source wastes (F-waste codes), listed wastes from specific sources (K-wastes), commercial chemical products, manufacturing intermediates or off-specification chemical commercial products (U-waste codes). Most of the time, a waste stream will be some combination of specific components, and be categorized as a D- or F- waste. Table II.A.5-1 provides a list of the EPA waste codes managed at the facility under the FRS program. These wastes, except characteristic waste oil, are shipped in containers and are stored on pallets. The FRS wastes are handled as transfer wastes only.

A typical composition, and chemical physical analysis for each of the waste streams (except FRS) listed above are shown in the attached chemical analyses reports, based on existing data on these wastes generated from similar processes within Safety-Kleen's current and/or potential customers.

USED PARTS WASHER SOLVENT

The clean parts washer solvent is labeled under the trade name of "Safety-Kleen 105 Solvent," or parts washer so-named because of the flash point of the solvent being 105°F (minimum), Premium Solvent has a flash point of 148°F or higher, Actrel® has a flash point of 212°F. Chemically, the solvent primarily consists of petroleum hydrocarbon fractions with a boiling point image between 310°F and 400°F. Impurities, such as light aromatic hydrocarbons (LAHC) and chlorinated hydrocarbons, usually constitute less than one percent of the total volume. Mineral spirits typically constitute at least 95% of the total volume of the Parts Cleaner 105 and Premium Solvent. The Actrel® solvent consists primarily of a paraffinic compound with C_{12} - C_{14} chains.

The used parts washer solvent (Parts Cleaner 105, Premium Solvent, and Actrel®) consists primarily of parts washer solvent (Parts Cleaner 105, Premium Solvent, and Actrel®) plus water, insoluble solids, oil, and grease picked up in the various degreasing operations that Safety-Kleen's customers use. In most instances, no water is associated with the used solvent; however, at times, the water content may range from one percent to as much as 50 percent. The tank bottoms may range from 2 percent to 10 percent, by volume, in the used solvent. These tank bottoms are generated when the bulk tank is cleaned out. The used parts washer premium solvent is transported from the customer in accordance with the generator's hazardous waste determination pursuant to 40 CFR 262.11.

The premium solvent and Safety-Kleen's existing parts washing solvent 105 are very similar in nature, both being predominantly mineral spirits. The Actrel® solvent is a paraffinic compound with C_{12} - C_{14} chains. The Premium Solvent has a flash point of 148°F and Actrel® has a flash point of 212° and are therefore not ignitable. Our preliminary data from other facilities indicates that the used premium solvent is not toxicity characteristic leaching procedure (TCLP) hazardous. The Actrel® solvent is presumed to be TCLP hazardous unless a generator's hazardous waste determination indicates otherwise.

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

USED IMMERSION CLEANER

The clean chlorinated solvent is labeled under the trade name of "Immersion Cleaner and Carburetor and Cold Parts Cleaner #609." It is a two-phase system consisting of an upper aqueous (water) layer and lower non-aqueous (solvent) layer. The water phase consists of water and Dresinate TX (a sodium soap of tall oil). The solvent phase is composed of methylene chloride, orthodichlorobenzene, cresylic acid, and an amines additive.

A new "Immersion Cleaner and Carburetor and Cold Parts Cleaner #699" is also being leased and will eventually replace the #609 immersion cleaner. It is a heavy aromatic naphtha, N-methyl-2-pyrolidon dipropylene glycol methyl ether, monoethanolamine and oleic acid, and contains a maximum of 1 percent total chlorinated solvents.

Both the new and old used immersion cleaner are basically unchanged from their clean state, except oils, greases, and insoluble solids may be picked up during the various degreasing operations used by Safety-Kleen's customers. The spent solvent is non-flammable. It is regarded as toxic because it contains various toxic chemicals (see MSDSs in Attachment II.A.4(b)).

USED PARTS WASHER SOLVENT BOTTOM SLUDGE

This is material settled from used parts washer solvent in the aboveground tanks. It contains insoluble solids, oils and greases, and some water picked up in the degreasing operations, together with a small amount of parts washer solvent. Analyses have shown that the sludge is an ignitable waste and some TCLP analyses have shown it to be toxic using TCLP standards while others have not. The same analyses applies to tank bottoms as applies to dumpster mud.

The sludge is removed from the aboveground tank periodically, put into satellite accumulation drums next to the wet dumpster units, stored as permitted waste, and shipped to Safety-Kleen's recycle facility for reclamation. The estimated annual quantity is included in the estimate of used parts washer solvent.

USED PARTS WASHER SOLVENT DUMPSTER MUD

This waste material is accumulated in the wet dumpsters when emptying the used parts washer solvent from the containers into the aboveground storage tanks. Filters from parts washer units utilizing Actrel® may also be added. The nature of this waste is similar to the used parts washer solvent bottom sludge, except with some small metal parts and less parts washer solvent. It is regarded as an ignitable waste and often is also considered a characteristic waste using TCLP standards.

The sludge in the dumpsters is cleaned out frequently. The waste is containerized and shipped to Safety-Kleen's facility for recycling. Approximately 150 containers (1,500 gallons) of dumpster mud is anticipated to be removed from this service center each year.

DRY CLEANING WASTES

Solvent used in dry cleaning of clothing is commonly tetrachloroethylene (or perchloroethylene). Hence, waste generated from dry cleaning operations contains various concentrations of the solvent. Basically, wastes generated by dry cleaning facilities are in the following forms.

1. Cartridge Filter: In addition to the construction materials consisting of steel, paper, clay, and carbon, the used cartridge retains solvent, oil and grease, and undissolved elements such as lint and soil. Solvent retained in the filter cartridge generally amounts to less than 50 percent of the total cartridge weight.

2. Muck: At some dry cleaning facilities, a mixture of powdered materials is used as the filter medium for the dry cleaning solvent, in lieu of the cartridge filter. This filter medium normally consists of diatomaceous earth and carbon. In addition to lint, soil, oil, and grease retained by this medium, between 40 and 50 percent by weight of the "muck" is solvent.

3. Still Residue: After filtration, the dry cleaning solvent is distilled by the dry cleaning machine to remove the dissolved materials from the used solvent. The dissolved

materials (still residues) are in liquid form and consist of primarily detergent, oil and grease, vinyl acetate (a sizing compound), and 20 to 30 percent of solvent.

ANTIFREEZE COLLECTION SERVICE

The spent antifreeze (ethylene glycol) is collected from automobile service stations. These wastes are deposited into a carboy or containers by the customer, on the customer's premises, and the carboy is pumped into a tanker truck or containers by the sales representative. At the service center, it is then pumped into a 20,000-gallon storage tank (if handled in bulk) or placed in the container warehouse (if handled in containers) and held for shipment to a Safety-Kleen Recycle Center.

PAINT WASTES

Paint wastes consist of various lacquer thinners and paints. The waste is collected in containers at the customer's place of business and the containers are then palletized and stored in the container storage area of the warehouse.

FLUID RECOVERY SERVICE WASTES

Fluid Recovery Services (FRS) is a program managed by the Safety-Kleen Service Centers. Under this program, used products similar to the fresh products provided by Safety-Kleen are collected by the service center and processed by the recycle centers. These products may or may not have been originally obtained from Safety-Kleen by the industrial customer. These wastes are handled as transfer wastes at the service center. Examples of the types of wastes that may be received from FRS customers include:

1. Spent hydrocarbon distillates, such as waste fuel, oil, petroleum, and naphtha, etc.

2. Lubricating, hydraulic oils, and machine oils.

3. Industrial halogenated solvents such as 1,1,1-trichloroethane, tetrachloroethylene, freon, and trichloroethane.

4. Photographic and x-ray related wastes.

5. Paint and lacquer thinners and paint wastes.

6. Other hazardous and non-hazardous halogenated and non-halogenated wastes.

7. Waste cartridge filters from Parts Cleaner 105 or Premium Solvent.

FRS wastes received at the facility are classified as characteristic wastes (D-waste codes, non-specific source wastes (F-waste codes), listed wastes from specific sources (K-wastes, commercial chemical products, manufacturing intermediates or off-specification chemical commercial products (U-waste codes). Most of the time, a waste stream will be some combination of specific components, and be categorized as a D- or F- waste. Table II.A.5-1 provides a list of the EPA waste codes managed at the facility under the FRS program.

Certain other wastes that result from the use of organic solvents are also managed through the service centers. These include the solids and sludges that settle out of the used solvent during handling and processing. Lint, paper, oils, greases, carbons, and metals are examples of materials which may settle or separate out of used solvent. In addition to the listed waste codes, these wastes may also exhibit a characteristic under the toxicity characteristic leaching procedure.

Certain solvents are not economically recoverable in their prime form. These are typically solvents of low intrinsic value (e.g., methanol), those where the user's specifications are unattainable or where the mixture cannot be efficiently separated because of the formation of azeotropes, overlapping or close boiling ranges. However, when properly blended and processed, these solvents can be a beneficial source of energy. The Safety-Kleen recycle centers are equipped to process non-recoverable solvent mixtures with still bottoms from recovery of their solvent to produce valuable solvent based fuels.

In each of these end use applications at facilities classified as Industrial Furnaces, the combustion conditions are orders of magnitude more destructive than those specified for incinerators. For each industrial furnace emission controls are in place and covered by existing regulations. Specifications are restrictive for polychlorinated biphenyls (PCBs),

herbicides, pesticides, etc., and for other wastes that might adversely affect the operation of the unit or the properties of the finished product.

analyzed for parameters related to the suspected source of the waste. Alternately, the customer may choose to dispose of the material by using another (non-Safety-Kleen) facility.

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

If the laboratory analysis reveals that the sampled waste is not contaminated (i.e., contains no hazardous waste constituents which the Safety-Kleen facility is not permitted to accept, Safety-Kleen will accept the waste from the customer.

If the laboratory confirms that the waste contains hazardous waste constituents which the Safety-Kleen facility is not permitted to accept, the generator will be responsible for securing an alternate means of disposal and Safety-Kleen will attempt to reconcile the discrepancy with the generator (e.g., telephone conversations). If the discrepancy (i.e., hazardous waste constituents which the Safety-Kleen facility is not permitted to accept) is not resolved within 15 days after Safety-Kleen receives the analytical results, Safety-Kleen will immediately submit to the department a letter describing the discrepancy and attempts to reconcile it, and it will submit a copy of the manifest or shipping paper at issue, in accordance with 40 Code of Federal Regulations (CFR) 264.72.

Waste Specific Criteria

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

Spent Parts Washer Solvent (Parts Cleaner 105, Premium Solvent, and Actrel®)

The acceptance criteria for determining by visual inspection whether spent parts washer solvent has been contaminated are volume and color, the most significant of which is volume. Safety-Kleen places clean parts washer solvent in 5-, 16-, and 30-gallon containers with the customer which, if no additional material has been added to the container, should not hold more than the 5, 10, and 19 gallons of waste, respectively, at the time of waste pick-up since those volumes are equal to the respective product amounts in the containers. If the volume of waste in a given container exceeds the specified level, the Safety-Kleen service representative will sample the waste for laboratory testing as described above, or will reject the waste.

RCRA OPERATING PERMIT APPLICATION
SAFETY-KLEEN CORP. 3-097-02
8755 NW 95th STREET
MEDLEY, FLORIDA
FLD 984171694

July 1992

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WEST PALM BEACH

Prepared for:

Safety-Kleen Corp.
777 Big Timber Road
Elgin, Illinois 60123

Prepared by:

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

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PART I

GENERAL FACILITY INFORMATION

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

Please Type or Print

A. General Information

1. Type of facility:

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

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

3. Application submittal: [x] new [ ] revised

4. Date current operation began (or is expected to begin): 3/1/91 (Construction)

5. Facility name: Safety - Kleen Corp.

6. EPA/DER I.D. No.: FLD 984171694

7. Facility location or street address: 8755 95th Street, Medley, FL 33166

8. Facility mailing address: 777 Big Timber Rd. Elgin, IL 60123
Street or P.O. Box / City / State / Zip

9. Contact person: Victor San Agustin Telephone: (813) 682-8094

Title: Regional Environmental Manager

Mailing Address: 129 S. Kentucky Suite 701 Lakeland FL 33801
Street or P.O. Box / City / State / Zip

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

11. Operator's address: 777 Big Timber Rd. Elgin, IL 60123
Street or P.O. Box / City / State / Zip

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

13. [redacted]lity owner's address: 777 Big Timber Rd. Elgin, IL 60123
Street or P.O. Box City State Zip

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

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

County:_____ State: N/A

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

State of incorporation: Wisconsin

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

Name:_____

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

Name:_____

[redacted]dress:_____
Street or P.O. Box City State Zip

Name:_____

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

Name:_____

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

18. Site ownership status: [X] owned [ ] to be purchased [ ] to be leased_____years
[ ] presently leased; the expiration date of the lease is:_____

If leased, indicate:

Land owner's name: Safety Kleen Corp.

Land owner's address: 777 Big Timber Rd. Elgin, IL 60123
Street or P.O. Box City State Zip

[redacted]

19. Name of engineer: Victor E. Hiatt Registration no.: 26787

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

Associated with: Environmental Resources Mgmt - South

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

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

NAME OF PERMIT	AGENCY	PERMIT NUMBER	DATE ISSUED	EXPIRATION DATE
Haz. Waste Construction Permit	FDER	HC 13-175466	3-1-91	12-1-92

B. Site Information

1. Facility location County: Dade Nearest Community: Medley

Latitude: N 25° 51' 90" Longitude: W80° 20' 25"

2. Area of facility site (acres): 4.5

3. Attach a scale drawing and photographs of the facility showing the location of all past, present, and future treatment, storage and disposal areas. Also show the hazardous wastes traffic pattern including estimated volume and control. See Attachment I. B. 3

4. Attach topographic map which show all the features indicated in the instruction sheet for this part.
See Attachment I. B. 4

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

C. Land Use Information

1. Present zoning of the site M-1 Light Manufacturing/Industry

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

3. Present land use of site Industrial

D. Operating Information

1. Is waste generated on site? [x] yes [ ] no

List the SIC codes (4-digit)

7399 5172 5084 5013 _____ _____ _____

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

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

See Attachment I.D.3

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

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

Facility name: Medley, FL Operation Application EPA ID# FLD 984171694

1. Operator

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. Further, I agree to comply with the provisions of Chapter 403, Florida Statutes, and all rules and regulations of the Department of Environmental Regulation. It is understood that the permit is only transferable in accordance with Section 17-730, FAC, and, if granted a permit, the Department of Environmental Regulation will be notified prior to the sale or legal transfer of the permitted facility.

Scott E. Fore

Signature of the Operator or Authorized Representative*

Scott E. Fore
Vice President - Environment, Health & Safety

Name and Title (Please type or print)

Date: 7/7/92 Telephone :(708) 468-2480

92-294

2. Facility Owner

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

Scott E. Fore

Signature of the Facility Owner or Authorized Representative*

Scott E. Fore
Vice President - Environment, Health & Safety

Name and Title (Please type or print)

Date: 7/7/92 Telephone: (708) 468-2480

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*Attach a letter of authorization

Land Owner

This is to certify that I, as land owner, understand that this application is submitted for the purpose of obtaining a permit to construct, operate, or close a hazardous waste management facility on the property as described. For hazardous waste disposal facilities, I further understand that I am responsible for providing the notice in the deed to the property required by 40 CFR §264.119 and §265.119, as adopted by reference in Chapter 17-730, FAC.

Scott E. Fore

Signature of the Land Owner or Authorized Representative*

Scott E. Fore
Vice President - Environment, Health & Safety

Name and Title (Please type or print)

Date: 7/7/92 Telephone: (708) 468-2480

*Attach a letter of authorization

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

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

Victor E. Hiatt

Signature

Victor E. Hiatt

Name (please type)

Florida Registration Number: 26787

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

Tampa, FL 33619
City State Zip

Date: 7/16/92 Telephone (813) 622-8727

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[PLEASE AFFIX SEAL]

Victor E. Hiatt
7/16/92

DER Form # 17-730.900(2)(d)
Page 2 of 2 [9-10-91]

ATTACHMENT I.A.21

PERMIT INFORMATION

Florida Department of Environmental Regulation

Southeast District • 1900 S. Congress Ave., Suite A • West Palm Beach, Florida 33406

Lawton Chiles, Governor

Telephone: 407/433-2650
Fax: 407/433-2666

Carol M. Browner, Secretary

MAY 15 1992

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MAY 18 1992
SAFETY-KLEEN CORP.
ENVIRONMENTAL ENGINEER
TAMPA REGION

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Victor L. San Agustin, P.E.
Regional Environmental Engineer
Safety-Kleen Corporation
129 South Kentucky Ave., Suite 701
Lakeland, FL 33801

Re: Modification of Hazardous Waste Construction Permit
Safety-Kleen/Medley, HC 13-175466

Dear Mr. San Agustin:

The above referenced permit modification has been finalized. The modifications included in the permit are as follows:

-provision to allow operation under the construction permit while the operating permit application is under review;

-addition of Fluid Recovery Service (FRS) wastes as ~~permitted~~ transfer wastestreams;

-inclusion of a 20,000-gallon ethylene glycol tank;

-addition of references to Toxicity Characteristic Leaching Procedure (TCLP), including spent ethylene glycol;

-deletion of references to specific container colors and sizes;

-inclusion of the new dumpster/barrel washers;

-variations in dimensions and capacities between the final engineering drawings and the permit application, as noted by Questec Corp. (letter of 10/14/91 from Gary McLogan of Questec to Melissa Hlebasko of Safety-Kleen), Safety-Kleen's construction contractor.

-various other informational changes to update the permit.

The attached revised permit replaces the previously issued permit.

This letter constitutes final agency action unless a person substantially affected by this action requests an administrative hearing pursuant to Section 120.57, Florida Statutes. The petition must be filed within fourteen (14) days from receipt of this letter. The petition must comply with the requirements of Florida Administrative Code Rule 28-5.201 and be filed pursuant to Rule 17-103.155(1) in the Office of General Counsel of the Department of Environmental Regulation at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400. Petitions which are not filed in accordance with the above provisions will not be accepted by the department. If a formal proceeding pursuant to Section 120.57(1) is requested, at such formal hearing all parties shall have an opportunity to respond, to present evidence and argument on all issues involved, to conduct cross-examination of witnesses and submit rebuttal evidence, to submit proposed findings of facts and orders, to file exceptions to any order or hearing officer's recommended order, and to be represented by counsel. If an informal proceeding is requested, the agency will, in accordance with its rules of procedure, give affected persons or parties or their counsel an opportunity, at a convenient time and place, to present to the agency or hearing officer written or oral evidence in opposition to the agency's action or refusal to act, or a written statement challenging the grounds upon which the agency has chosen to justify its action or inaction, pursuant to Section 120.57(2), Florida Statutes. The hearing process is designed to formulate agency action. Accordingly, the Department's final action as a result of a hearing may be different from the position taken by it in this stage. Therefore, any person who may wish to contest the Department's ultimate permitting decision must petition for hearing within the fourteen day period described above. Failure to file a request for hearing within this time period shall constitute a waiver of any right such person may have to request a hearing under Section 120.57, Florida Statutes.

Sincerely,

Bobby A. Cooley

Bobby A. Cooley
Acting Director of District Management

BAC:km:gml/965.49

cc: Satish Kastury, DER/Tlh.
Alan Farmer, EPA/Atlanta
DERM
Tim Gray, DER/WPB

Florida Department of Environmental Regulation

Southeast District • 1900 S. Congress Ave., Suite A • West Palm Beach, Florida 33406

Lawton Chiles, Governor

Telephone: 407/433-2650
Fax: 407/433-2666

Carol M. Browner, Secretary

MAY 15 1992

PERMITTEE:
Safety-Kleen Corporation
777 Big Timber Road
Elgin, IL 60120
Attn: Mr. Victor L. San Agustin,
Regional Environmental Engineer
Tampa Region

PERMIT/CERTIFICATION NUMBER: HC 13-175466
DATE OF ISSUE: March 1, 1991
DATE OF EXPIRATION: December 1, 1992
DATE OF MODIFICATION:
COUNTY: Dade County
LATITUDE/LONGITUDE: N25°51'90"/W80°20'23"
SECTION/TOWNSHIP/RANGE:
PROJECT: Hazardous Waste Storage Facility

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rule 17-4, and 17-730 in conformance with all existing regulations of the Florida Department of Environmental Regulation. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents attached hereto or on file with the Department and made a part hereof and specifically described as follows:

TO CONSTRUCT: A Hazardous Waste Storage Facility consisting of a container storage area, return/fill area and above-ground storage tanks.

CONTAINER STORAGE AREA:

The container storage is equipped with the following features: impervious floors with slopes toward spill containment areas, fire suppression system and controlled access (inside fenced area with locked gate). The capacity of the container storage area will be 6912 gallons (432 16-gallon containers, or the equivalent). The hazardous waste to be stored in the containers is as follows:

Dumpster Sediment
Spent Immersion Cleaner
Dry Cleaning Wastes
Paint Wastes
Transfer/Fluid Recovery
Service Waste (FRS)

The transfer/fluid recovery service waste will be stored within the container storage area, but apart from those wastes with manifests which are terminated at the facility. The facility will manage the FRS waste in accordance with 17-730.171 F.A.C. and insure that the transfer (FRS) waste is maintained within a permanently designated, distinctly separate, area.

PERMITTEE:
Safety-Kleen Corporation
777 Big Timber Road
Elgin, IL 60120

PERMIT/CERTIFICATION NUMBER: HC 13-175466
DATE OF ISSUE: March 1, 1991
DATE OF EXPIRATION: December 1, 1992
DATE OF MODIFICATION:

TANK SYSTEM:

The secondary containment of the tank farm building will house two above-ground waste storage tanks. The capacity of the waste mineral spirits (D001, D006, D008) tank is 20,000 gallons. The capacity of the used antifreeze (D004-D011, D018, D019, D021-D030, D032-D043) tank is 20,000 gallons. The tanks will be constructed with adequate secondary containment/leak detection systems and operated at a volume of 95% of their total capacity. Each tank may be filled beyond 95% of their total capacity only for testing purposes. The tank testing will be provided to ensure the proper functioning of each tank's high level alarm system.

IN ACCORDANCE WITH: Application DER Form 17-730.900(2) Dated January 26, 1990 and with additional information submitted May 1, 1990, November 12, 1990, February 4, 1992, March 10, 1992, May 6, 1992 and Public Notice dated March 30, 1992.

LOCATED AT: Safety-Kleen Corporation, N.W. 96 St. and N.W. 89th Avenue, Medley, Florida.

SUBJECT TO: General Conditions 1-17 and Specific Conditions 1-15.

PERMITTEE:
Safety-Kleen Corporation
777 Big Timber Road
Elgin, IL 60120

PERMIT/CERTIFICATION NUMBER: HC 13-175466
DATE OF ISSUE: March 1, 1991
DATE OF EXPIRATION: December 1, 1992
DATE OF MODIFICATION:

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth herein are "permit conditions" and are binding and enforceable pursuant to Sections 403.141, 403.727, or 403.859 through 403.861, F.S. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.

2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.

3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in this permit.

4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgement of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the state. Only the Trustees of the Internal Improvement Trust Fund may express state opinion as to title.

5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, plant life or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.

6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

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

   (a) Have access to and copy any records that must be kept under the conditions of the permit;
   (b) Inspect the facility, equipment, practices, or operations regulated or required under this permit; and
   (c) Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules. Reasonable time may depend on the nature of the concern being investigated.

GENERAL CONDITIONS Cont'd:

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

   (a) a description of and cause of non-compliance; and

   (b) the period of non-compliance, including exact dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance. The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or revocation of this permit.

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

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

11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 17-4.120 and 17-730.300, as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

12. This permit or a copy thereof shall be kept at the work site of the permitted activity.

13. This permit also constitutes:

   (a) Determination of Best Available Control Technology (BACT)

   (b) Determination of Prevention of Significant Deterioration (PSD)

   (c) Certification of Compliance with State Water Quality Standards (Section 401, PL 92-500)

   (d) Compliance with New Source Performance Standards

14. The permittee shall comply with the following:

   (a) Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically, unless otherwise stipulated by the Department.

   (b) The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation), required by this permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report or application unless otherwise specified by Department rule.

   (c) Records of monitoring information shall include:

      1. the date, exact place, and time of sampling or measurements;
      2. the person responsible for performing the sampling or measurements
      3. the date(s) analyses were performed;
      4. the person responsible for performing the analyses;
      5. analytical techniques or methods used; and
      6. results of such analyses.

GENERAL CONDITIONS Cont'd:

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

16. In the case of an underground injection control permit, the following permit conditions also shall apply:

(a) All reports or information required by the Department shall be certified as being true, accurate and complete.

(b) Reports of compliance or noncompliance with, or any progress reports on, requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.

(c) Notification of any noncompliance whcih may endanger health or the environment shall be reported verbally to the Department within 24 hours and again within 72 hours, and a final written report provided within two weeks.

1. The verbal reports shall contain any monitoring or other information which indicate that any contaminant may endanger an underground source of drinking water and any noncompliance with a permit condition or malfunction of the injection system which may cause fluid migration into or between underground sources of drinking water.

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

(a) The following reports shall be submitted to the Department:

1. Manifest discrepancy report. If a significant discrepancy in a manifest is discovered, the permittee shall attempt to rectify the discrepancy. If not resolved within 15 days after the waste is received, the permittee shall immediately submit a letter report, including a copy of the manifest, to the Department.

2. Unmanifested waste report. The permittee shall submit an unmanifested waste report to the Department within 15 days of receipt of unmanifested waste.

3. Annual report. An annual report covering facility activities during the previous calendar year shall be submitted pursuant to Chapter 17-730, F.A.C.

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

1. A description and cause of the noncompliance.

2. If not corrected, the expected time of correction, and the steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.

(c) Reports of compliance or noncompliance with, or any progress reports on, requirements in any compliance schedule shall be submitted no later than 14 days after each schedule date.

(d) All reports or information required by the Department by a hazardous waste permittee shall be signed by a person authorized to sign a permit application.

PERMITTEE:
Safety-Kleen Corporation
777 Big Timber Road
Elgin, IL 60120

PERMIT/CERTIFICATION NUMBER: HC 13-175466
DATE OF ISSUE: March 1, 1991
DATE OF EXPIRATION: Decemberl, 1992
DATE OF MODIFICATION:

SPECIFIC CONDITIONS:

1. This permit authorizes construction only of the facility described in the application. The Department shall be notified and prior approval shall be obtained of any changes or revisions made during construction.

2. The permittee shall retain the engineer of record for the inspection of the construction of the project. Upon completion, the engineer shall inspect for conformity to the permit application and additional information submitted and shall so certify to the Department. The certification is to be submitted within 30 days after completion.

3. The permittee, in accordance with 40 CFR 264.192(b), shall provide a professional engineer registered in the State of Florida to monitor and/or visually inspect the tank installation in order to identify the presence of any of the following items:

   (a) weld breaks

   (b) punctures

   (c) scrapes in the protective coatings

   (d) cracks

   (e) corrosion

   (f) other structural damage or inadequate construction/installation

   Should any of the above problems be identified they must be remedied before the tank system is placed in use.

4. Upon completion of construction of the tanks, the permittee shall perform a tightness test using hydrostatic pressure by preloading the tanks with water before hazardous waste storage.

5. At a minimum, the permittee shall equip the facility with the equipment specified in the application, as required by 40 CFR 264.32.

6. The completed construction of the container storage shall be in compliance with 40 CFR 264.175 and 40 CFR 264.176.

7. The completed construction of the above-ground tank system shall be in compliance with 40 CFR 264.193 and 40 CFR 264.198.

8. The permittee may <u>not</u> commence storage of hazardous waste at the facility until:

   (a) The permittee has submitted the engineering certification of construction in compliance with the permit application;

   (b) The Department has inspected the newly constructed facility and finds it in compliance with the conditions of the permit, and other applicable state regulations;

   (c) Personnel training has been completed.

   (d) The permittee may, however, as per FAC Rule 17-730.250(3), operate until final agency action is taken on the operating permit. Storage of hazardous waste may commence only after Specific Conditions 8.(a), 8.(b), and 8.(c), above, have been met.

9. The permittee shall submit an application for an Operation Permit at least 135 days prior to expiration of this permit.

10. The Department may modify the conditions in this permit upon written request of the permittee in accordance with FAC Rule 17-730.290(3).

PERMITTEE:
Safety-Kleen Corporation
777 Big Timber Road
Elgin, IL 60120

PERMIT/CERTIFICATION NUMBER: HC 13-175466
DATE OF ISSUE: March 1, 1991
DATE OF EXPIRATION: December 1, 1992
DATE OF MODIFICATION:

SPECIFIC CONDITIONS:

11. The provision for the storage of FRS Waste is contingent upon all principles of waste compatability identified in the segregation chart of hazardous materials (49 CFR, Chapter I, Subpart 177.848) being adhered to at all times. The FRS wastes are to be managed as a segregated transfer facility waste stream. The FRS hazardous transfer waste will be stored within the container storage area but apart from the wastes with manifests which are terminated at the facility. The facility will manage the FRS waste in accordance with 17-730.171 F.A.C. and insure that the transfer (FRS) waste is maintained within a permanently designated, distinctly separate, area. The maximum storage volume of the container storage area will remain 6912 gallons (432 16-gallon containers, or the equivalent).

12. The permittee may store only those wastes specified, in Attachment I.D.3-1 and Table II.A.5-1 of the application, at the facility. Prior to acceptance of new hazardous waste, the permittee shall submit to the Department, for approval, waste analysis of the proposed new waste stream. This analysis must also be incorporated in the general waste analysis plan and retained on-site (40 CFR 264.13).

13. Construction of the facility will also include new dumpster/barrel washers located within the mineral spirits return and fill shelters. The new dumpster/barrel washers will conform with the drawings (Figures II.C.2-2(a) through II.C.2-2(j)) of the application. The capacity of the wet dumpsters (504 gallons per dumpster) is not to be increased by the design changes of the new dumpster/barrel washers.

14. The floors of the container storage area, mineral spirits return and fill shelters and the tank vault systems interior walls and concrete slab will receive two coats of Semstone 140 or equivalent.

15. Construction of the facility will include revised dimensions and capacities as addressed in the revised engineering drawings. These variations are as follows:

    (a) container storage area containment-3036 gal.

    (b) return/fill area containment-2014 gal.

    (c) exterior trench/loading dock-706 gal.

    All discrepancies between approved engineering drawings and final construction must be addressed in the final engineering certification of the facility.

Issued this 15th day of May, 1992.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

Bobby A. Cooley

Bobby A. Cooley, P.E.
Acting Director of District Management

BAC:km:gml/965.61

Florida Department of Environmental Regulation

Twin Towers Office Bldg. ● 2600 Blair Stone Road ● Tallahassee, Florida 32399-2400

Lawton Chiles, Governor

Carol M. Browner, Secretary

11 May 1992

RECEIVED

MAY 13 1992

SAFETY-KLEEN CORP.
ENVIRONMENTAL ENGINEER
TAMPA REGION

Victor L. San Agustin, P.E.
Regional Environmental Engineer
Tampa Region
129 South Kentucky Avenue
Suite 701
Lakeland, FL 33801

Re: Florida Hazardous Waste Transporter Approval

Dear Mr. San Agustin:

Your Florida Hazardous Waste Transporter Approval Certificate is enclosed. The terms and conditions of the approval are specified in Sections 17-730.170 and 17-730.171, Florida Administrative Code (FAC), a copy of which is enclosed for your reference. Please note the following:

1. You must demonstrate proof of liability coverage on an annual basis, even if your insurance policy is issued on a multi-year basis. If no changes in status or insurance coverage have occurred, you can meet this requirement by submitting a certificate of policy renewal. Otherwise, you must submit a new certificate of liability coverage form, copies of which are available upon request from the Department of Environmental Regulation (DER).

2. A copy of your insurance policy, together with any endorsements, must be maintained at your principle place of business.

3. Your insurer cannot terminate your coverage until 35 days after filing written notice with DER, by Certified Mail, that your policy has expired or has been canceled.

4. Any changes to the information specified on your approval certificate will render it null and void. It is your responsibility to advise DER of any changes in liability coverage or status.

5. If you intend to operate a hazardous waste transfer facility, you must submit a Transfer Facility Notification Form 30 days before you use the facility as a storage location. If you are currently operating a transfer facility, you must maintain records of incoming and outgoing hazardous waste shipments. These records must include generator names and manifest numbers, and unless otherwise approved by DER, must be maintained at the transfer facility.

If you have any questions, please contact me.

Sincerely,

Terri J. Chasteen
Environmental Specialist
Hazardous Waste Management Section
904/488-0300

Enclosures: Hazardous Waste Transporter Approval Certificate
Sections 17-730.170 and 17-730.171, FAC

Florida Department of Environmental Regulation

Twin Towers Office Bldg. ● 2600 Blair Stone Road ● Tallahassee, Florida 32399-2400

Lawton Chiles, Governor

Carol M. Browner, Secretary

****

HAZARDOUS WASTE TRANSPORTER

CERTIFICATE OF APPROVAL

****

This is to certify that the carrier specified below has been approved as a hazardous waste transporter in Florida. The terms and conditions of this certificate require that the holder comply with all applicable portions of Chapter 17-730, Florida Administrative Code. This certificate shall be rendered null and void if any information contained within becomes obsolete. The certificate shall remain valid through the expiration date specified below, or for 35 days after written notice of insurance policy cancellation or non-renewal, whichever comes first.

TRANSPORTER:	Safety-Kleen Corporation 777 Big Timber Road Elgin, IL 60123
EPA ID NUMBER:	ILD 051 060 408
FACILITY ADDRESS:	777 Big Timber Road Elgin, IL 60123
INSURANCE CARRIER:	National Union Fire Insurance Company
INSURANCE POLICY #:	RMCA 142 8019
EFFECTIVE DATE:	01 October 1991
EXPIRATION DATE:	01 October 1992

APPROVED TRANSFER FACILITY: no

APPROVAL ISSUED BY: _____ DATE: 11 May 92

Terri J. Chasteen
Hazardous Waste Management Section
904/488-0300

rev. 0 (Oct 91)

Florida Department of Environmental Regulation

Twin Towers Office Bldg. ● 2600 Blair Stone Road ● Tallahassee, Florida 32399-2400

Lawton Chiles, Governor

Carol M. Browner, Secretary

****

HAZARDOUS WASTE TRANSPORTER

CERTIFICATE OF APPROVAL

****

This is to certify that the carrier specified below has been approved as a hazardous waste transporter in Florida. The terms and conditions of this certificate require that the holder comply with all applicable portions of Chapter 17-730, Florida Administrative Code. This certificate shall be rendered null and void if any information contained within becomes obsolete. The certificate shall remain valid through the expiration date specified below, or for 35 days after written notice of insurance policy cancellation or non-renewal, whichever comes first.

TRANSPORTER: Safety-Kleen Corporation
777 Big Timber Road
Elgin, IL 60123

EPA ID NUMBER: FLD 984 171 694

FACILITY ADDRESS: East of Northwest 89th Avenue &
Northwest 96th Street
Medley, FL 33166

INSURANCE CARRIER: National Union Fire Insurance Company

INSURANCE POLICY #: RMCA 142 8019

EFFECTIVE DATE: 01 October 1991

EXPIRATION DATE: 01 October 1992

APPROVED TRANSFER FACILITY: no

APPROVAL ISSUED BY: _____ DATE: 11 May 92
Terri J. Chasteen
Hazardous Waste Management Section
904/488-0300

rev. 0 (Oct 91)

Recycled Paper

safety-kleen®

June 19, 1992

Sent Via Federal Express
Mail - June 19, 1992

Mr. Knox McKee
Hazardous Waste Section
Florida Department of Environmental
Regulation - Southeast District
1900 South Congress Avenue, Suite A
West Palm Beach, FL 33406

Subject: Transfer Facility Notification and
Request for Inspection
Safety-Kleen Corp., Medley Facility
EPA ID No. FLD 984 167 791

Dear Mr. McKee:

As discussed and agreed upon with you and with Ms. Terri Chasteen of FDER-Tallahassee, during phone conversations on the date of this letter, the purpose of this letter is to reaffirm to the Department that Safety-Kleen does not need to notify again on FDER form 17-730.900(6) prior to operating as a transfer facility at the above referenced location.

Last February 4, 1992, we notified the Department using the above mentioned form of our intent to store transfer facility wastes at our Medley facility. By sending the notification form at least 30 days prior to storing transfer facility wastes, Safety-Kleen has fulfilled the notification requirements of Section 17-730.171(3), F.A.C.. Furthermore, as mentioned in your letter of March 10, 1992 (enclosed), the information we provided last February 4 will be acceptable once compliance with Specific Condition 8 is achieved. Also, our construction permit HC13-175466 which was modified last May 15, 1992 recognizes that we will be storing transfer wastes at our Medley facility. A detailed description of our management of transfer facility waste is also included in our major permit modification request submitted last January 13, 1992.

In accordance with Specific Condition 8.(b) of permit HC13-175466, this letter is also to request that the Department conduct its inspection of the Medley facility and inform us of the results of its inspection as soon as possible. We are in the process of ensuring that the facility will be in full compliance with all permit conditions. Specific Condition

8(b) requires the Department to inspect the newly constructed facility and to find whether it is in full compliance with all permit conditions and all applicable state regulations. As you know, our hazardous waste permit for our Miami facility expires July 15, 1992. We obviously would like to receive our approval to operate at our Medley facility by this date so we can transfer any hazardous wastes in Miami over to our new facility.

Your consideration in this regard is requested. If you have any questions, please call me at (813)682-8094.

Sincerely,

Victor L. San Agustin

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

cc: Terri Chasteen, FDER-Tallahassee
Satish Kastury, FDER-Tallahassee
Allan Farmer, USEPA IV
Vic Kamath, P.E., SE-FDER
Bobby Cooley, P.E., SE-FDER

FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION

HAZARDOUS WASTE TRANSPORTER STATUS SHEET

Transporter Name: SAFETY-KLEEN CORP.

Mailing Address: 777 BIG TIMBER ROAD

ELGIN, ILLINOIS 60123

Contact Person: JORGE CARVAJAL

Title: BRANCH MANAGER

Telephone number: (305) 591-9409

Facility Address: EAST OF NW 89TH AVE., AND NW 96TH STREET

MEDLEY, FLORIDA 33166

Facility EPA ID: FLD 984171694

Insurance Company: _____

Address: _____

_____

_____

Contact Person: _____

Telephone number: _____

Policy Number: _____

Expiration Date: _____

Completed by: Joyce Henrickson
Willis Corroon Corporation of Illinois Date: 1/6/92
(Please print or type)

Signature: Joyce Henrickson

ATTACHMENT I.B.3

FACILITY LAYOUT AND PHOTOGRAPHS

ATTACHMENT I.B.3
FACILITY LAYOUT AND PHOTOGRAPHS

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

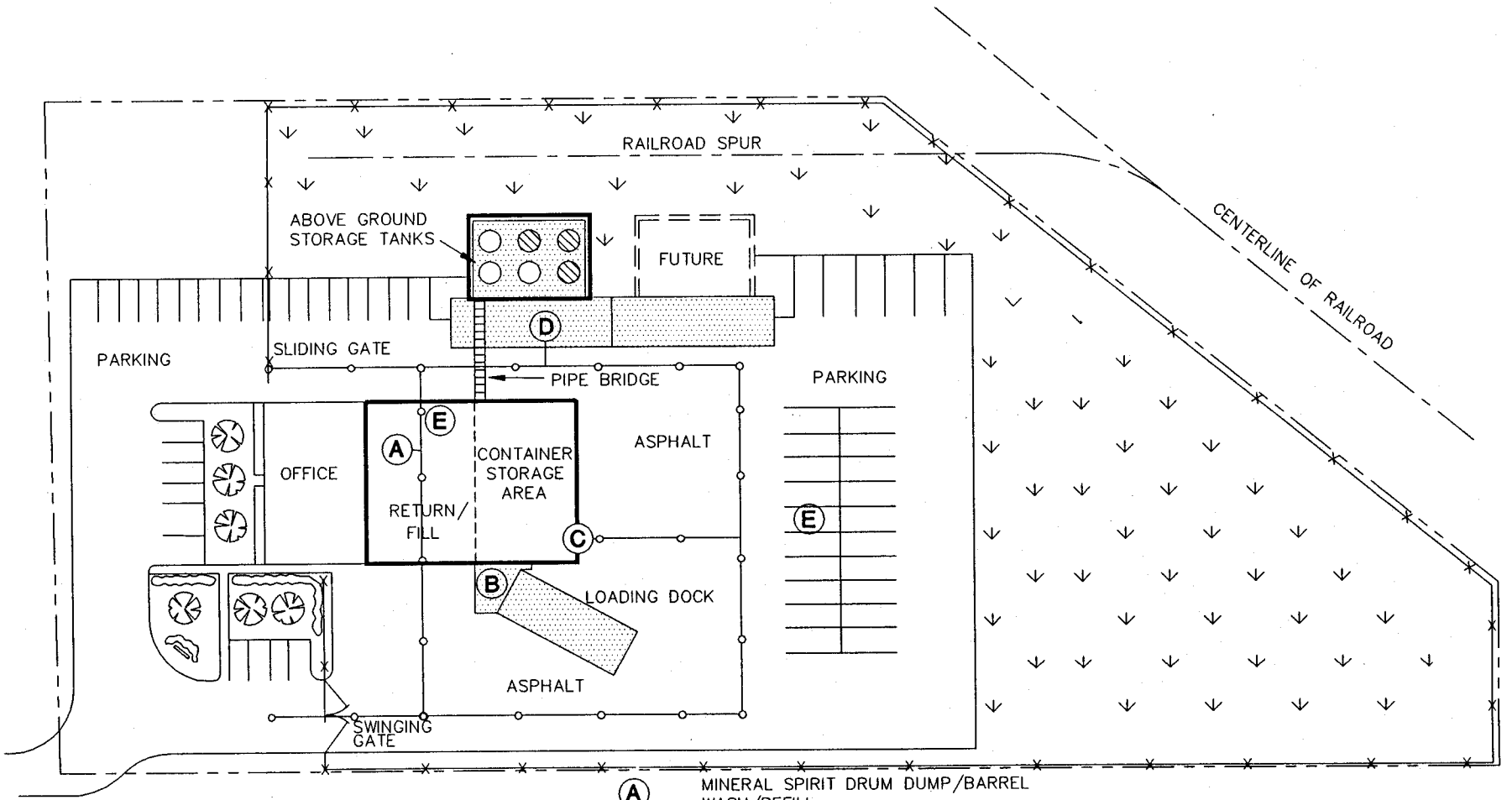
The non-building areas of the facility are paved with asphalt or concrete as noted on the site plan. The stormwater retention areas and other unpaved areas are vegetated with grass. The majority of the vehicular traffic and loading/unloading operations occurs at and near the return and fill (area A) which is paved with asphalt and concrete. Approximately once per week a tractor trailer brings fresh containerized solvents and removes used, containerized solvents for transfer to a recycle facility. This truck backs up to the concrete dock, located on the southeastern side of the facility in area B, to load and unload containers. Area C is used for the loading/unloading of transfer wastes, and containerized permitted wastes from local area vans and trucks. The trucks dispatched from the recycle center to deliver and pick up fresh and used mineral spirits and spent ethylene glycol perform these activities at the aboveground tank truck loading area (Area D) approximately once per week. Truck to truck transfer of Fluid Recovery Service (FRS) (transfer) wastes may occur on any asphalt or concrete surfaces within the compound (Area E). Tank truck to tank truck transfer of ethylene glycol may also occur in Area E.

U.S. 27, Okeechobee Road, is the major access road to the facility. The access road is designed in accordance with engineering criteria appropriate for sustaining the traffic volume and loading for the heavy industrial activities in this area. The vans that travel the routes daily between the service center and Safety-Kleen customers use the two-lane road within the industrial park. Traffic from this facility will have a minor impact on local traffic conditions.

13112.21/31121LUL/071392-8

I.B.3-1A

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



LEGEND

- PROPERTY BOUNDARY
- CHAIN-LINK FENCE
- HAZARDOUS WASTE MANAGEMENT AREAS
- CONCRETE
- ENTRANCE/EXIT ROUTE
- GRASS
- FUTURE TANK

(A) MINERAL SPIRIT DRUM DUMP/BARREL WASH/REFILL

(B) LOADING & UNLOADING OF DRUMS CONTAINING SOLVENTS FROM TRUCKS

(C) LOADING & UNLOADING OF CONTAINERIZED WASTE FROM LOCAL AREA VANS & TRUCKS

(D) LOADING & UNLOADING OF MINERAL SPIRITS AND ETHYLENE GLYCOL

(E) TRUCK TO TRUCK TRANSFER OF FRS (TRANSFER) WASTES AND TANK TRUCK TO TANK TRUCK TRANSFER OF ETHYLENE GLYCOL

NOTE: THIS OCCURS ON ANY ASPHALT OR CONCRETE SURFACE EAST, NORTH OR SOUTH OF THE WAREHOUSE OR IN THE RETURN/FILL SHELTER

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FEET

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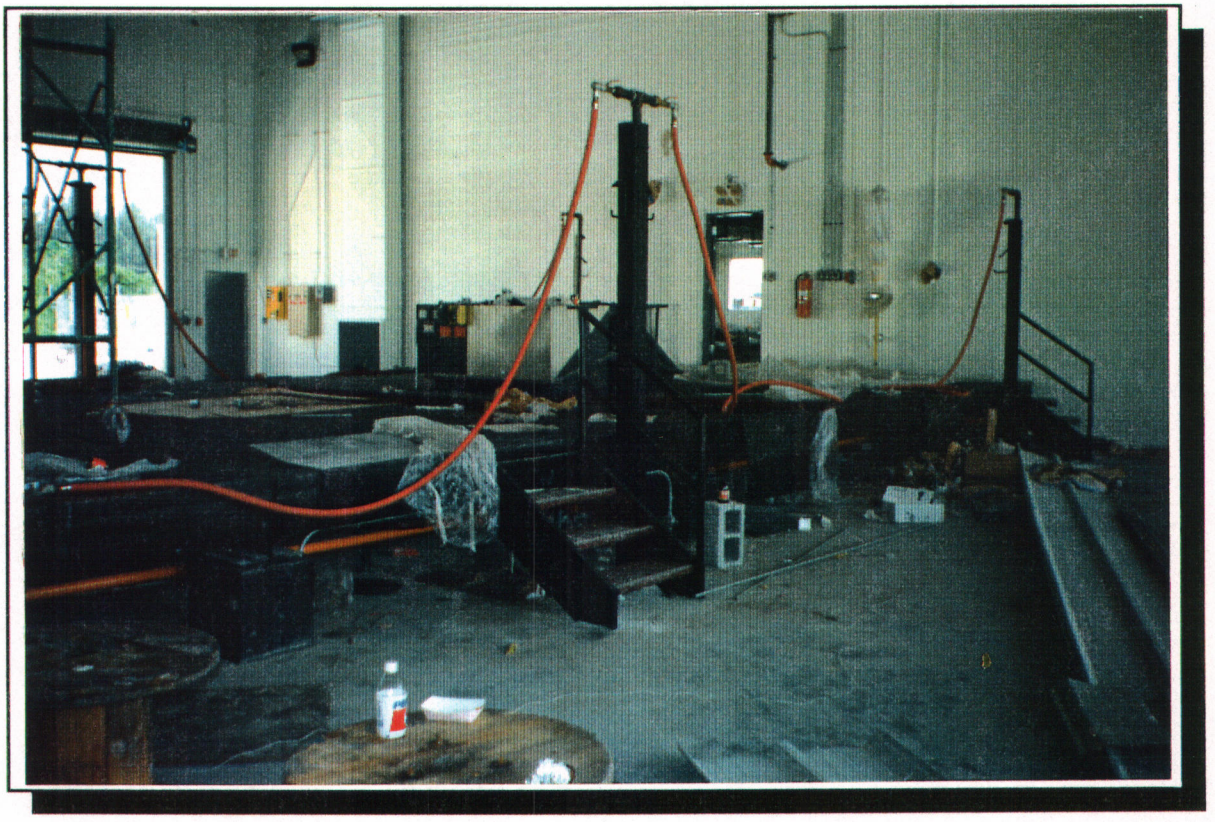
Photographs which depict the hazardous waste management units, security features, and general layout of the facility are provided.

Safety-Kleen Corp.
Medley, Florida

Photograph 1: Front and side of facility (view to northeast)

Photograph 2: Tank farm (view to northeast)

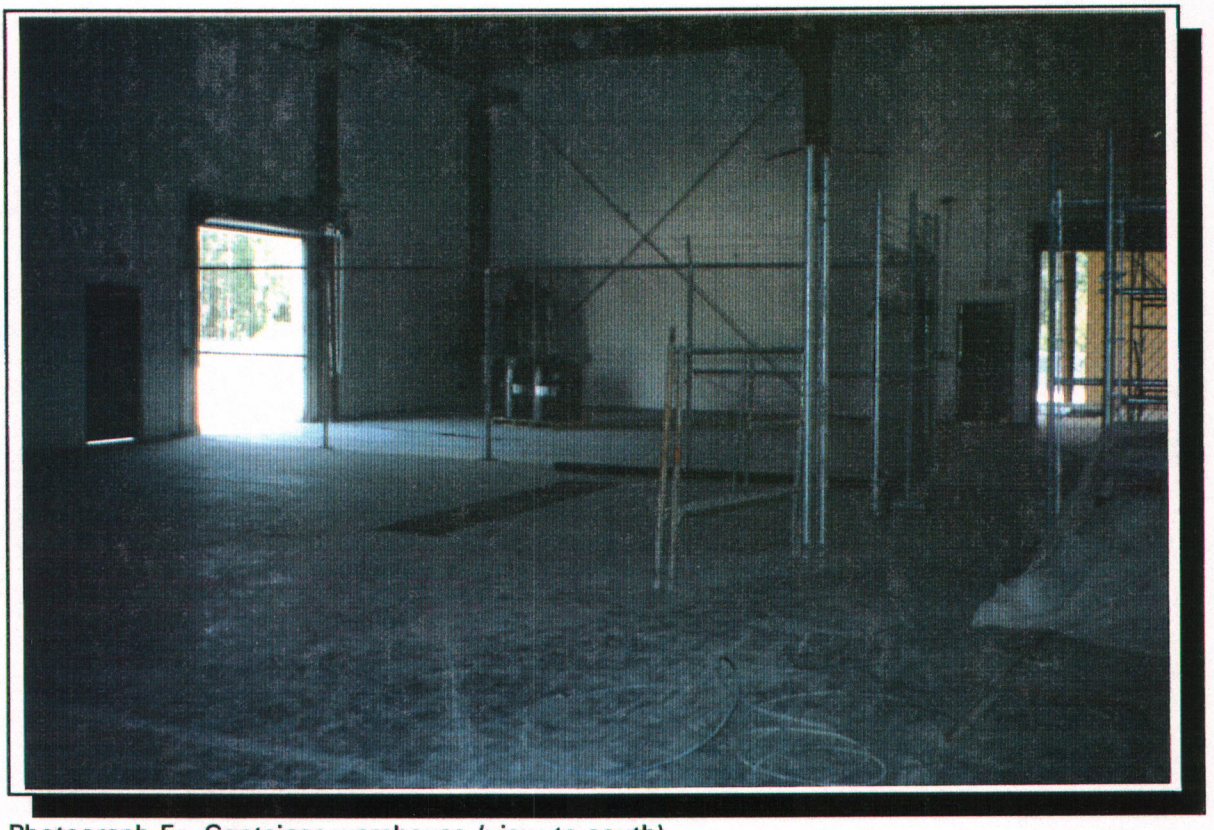
Safety-Kleen Corp.
Medley, Florida



Photograph 3: Return/fill shelter (view to west)

Photograph 4: Truck dock (view to west)

Safety-Kleen Corp.
Medley, Florida



Photograph 5: Container warehouse (view to south)

ATTACHMENT I.B.4

TOPOGRAPHIC MAP OF THE SITE

ATTACHMENT I.B.4
TOPOGRAPHIC MAP OF THE SITE

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

1. Map scale and dates:
   Supplied on all maps.

2. 100-year floodplain area:
   Based on information available from the Federal Emergency Management Agency (Figure I.B.4-2), the facility does not lie within the 100-year flood plain. The site is located in a Zone AH(EL6). AH areas are areas of 100-year shallow flooding where depths are between one and three feet. Base flood elevations are shown, but no flood hazard factors are determined. This site does not require any special flood management procedures.

3. Orientation of map:
   Supplied on all maps.

4. Surface water bodies within one-quarter mile of the facility property boundary (e.g., intermittent streams and springs):
   Surface water bodies located within one-quarter mile of the facility property boundary include unnamed lakes to the northeast and southeast. These surface water bodies are depicted in Figure I.B.4-1.

5. Surrounding land uses:
   See Figure I.B.4-3.

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

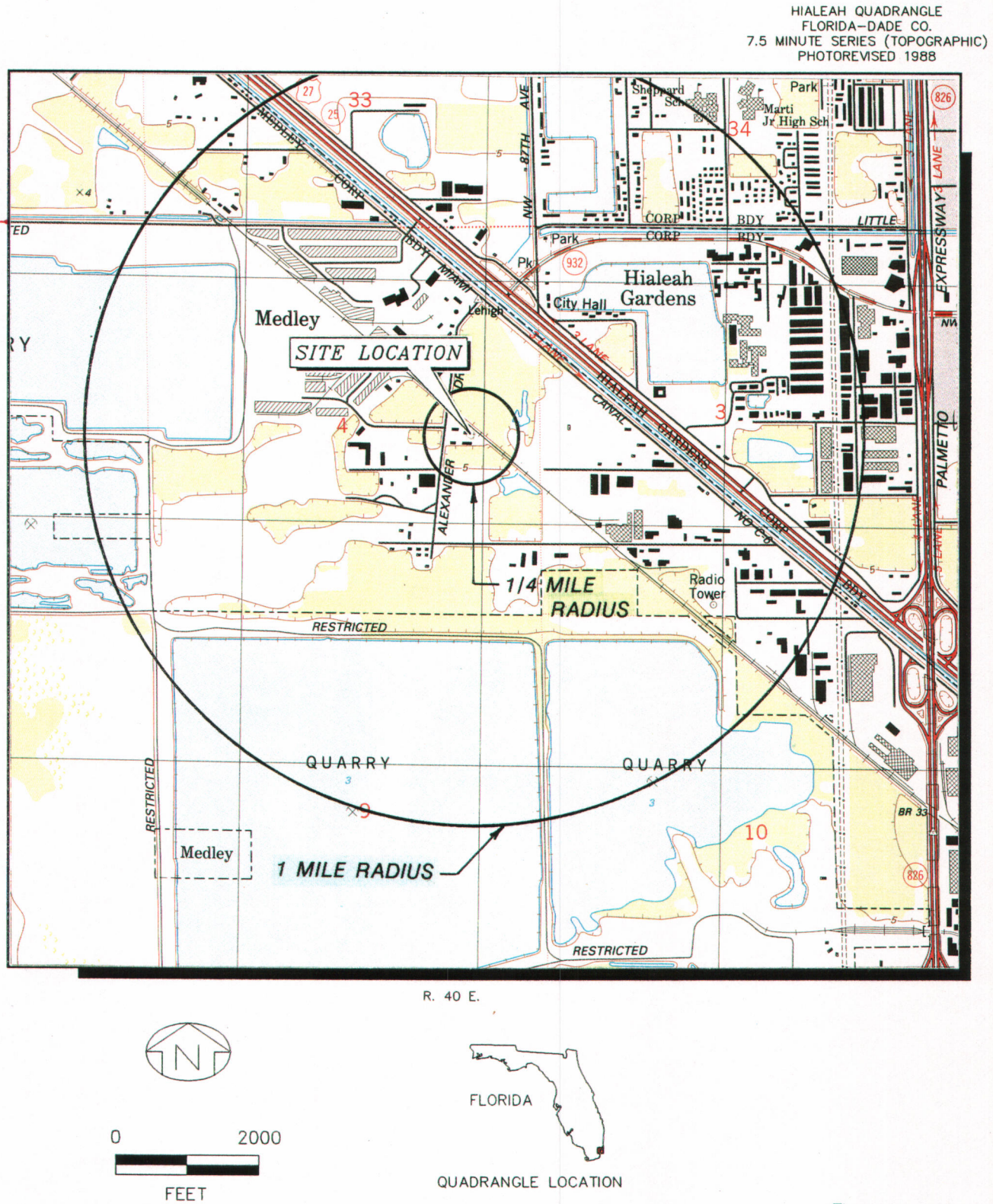


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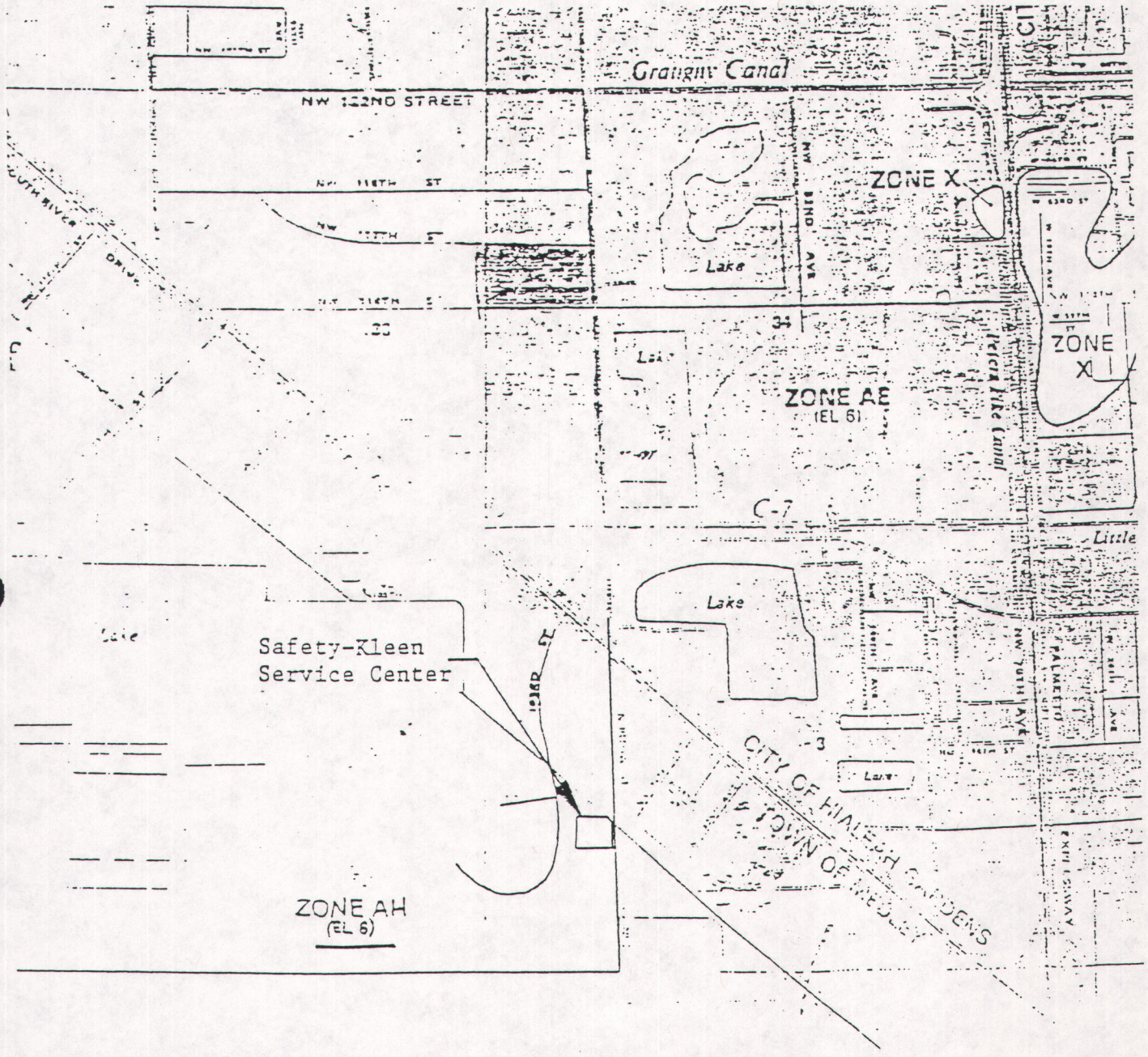
Figure I.B.4-2
Floodplain Map
Safety-Kleen Corp. Facility
Medley, Florida



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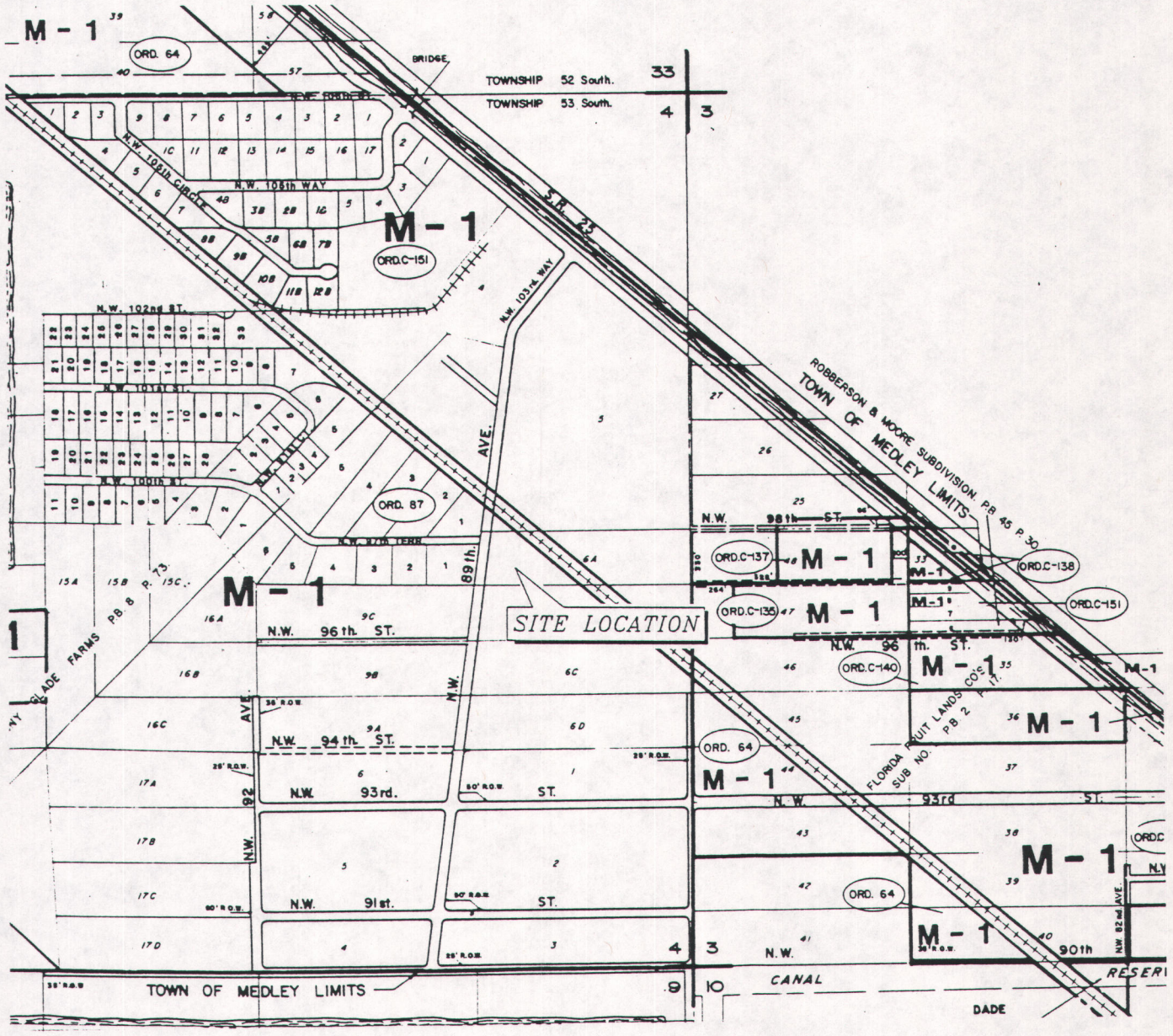
APPROXIMATE SCALE IN FEET

OBTAINED FROM FEMA FLOOD INSURANCE RATE MAP, TALLAHASSEE, FLORIDA. PANEL NUMBER 125098 0075 F, MAP REVISED: NOVEMBER 4, 1987

The ERM Group

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



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LEGEND

M-1 LIGHT MANUFACTURING INDUSTRIAL DISTRICT

Source: Howard Needles Tammen & Bergendoff, Miami, Florida, September 1986.

The ERM Group ®

6. Legal boundaries of the facility:

   Figure I.B.4-4 shows the property boundaries.

7. Injection wells:

   No injection wells are used by the facility.

8. Drinking water wells listed in public records or otherwise known to the applicant within one-quarter mile of the facility property boundary:

   According to information obtained from the Southeast Florida Water Management District, four four-inch monitoring wells were identified by personnel of SFWMD as lying within Section 4, Township 53S, Range 40E. It should be noted that information regarding water wells in this area has not been computerized (as in other Water Management Districts). Information obtained from a site inspection indicates, that to the best of Safety-Kleen's knowledge, there are no known wells within a one-quarter mile radius of the facility.

9. Intake and discharge structures within one mile:

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

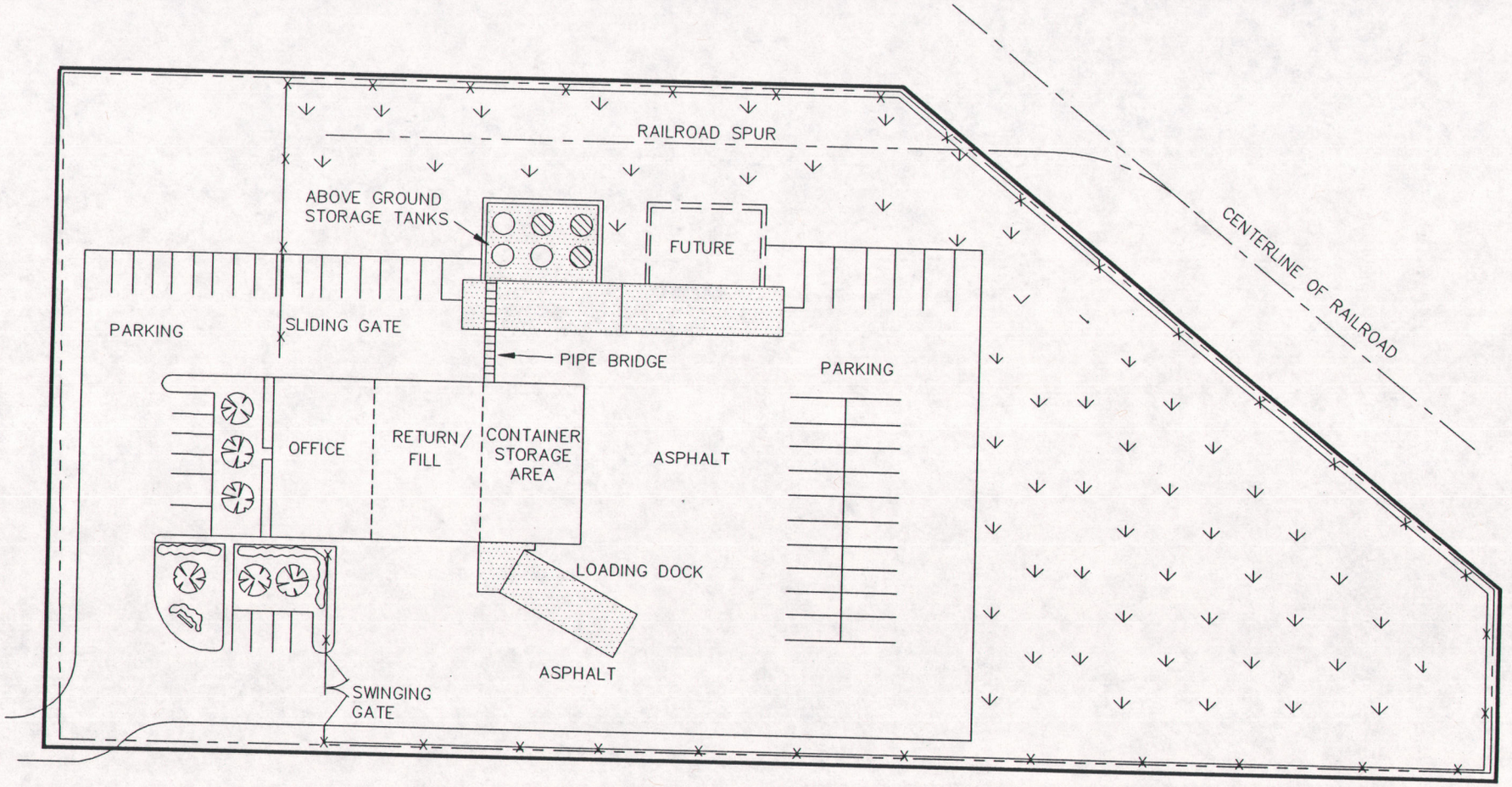
10. Run-off control system:

    This facility will be connected to the city water sewer system. The entire industrial park is currently under construction and plans showing how the sewer system will be developed are not finalized. A surface water management plan has been previously submitted to the City of Medley. Sub-Attachment I.B.4-1 includes the prints depicting the surface water management features.

13112.21/31121LBF/071392-5

I.B.4-2A

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



LEGEND

- PROPERTY BOUNDARY
- LEGAL BOUNDARY
- CHAIN-LINK FENCE
- CONCRETE
- GRASS
- FUTURE TANK

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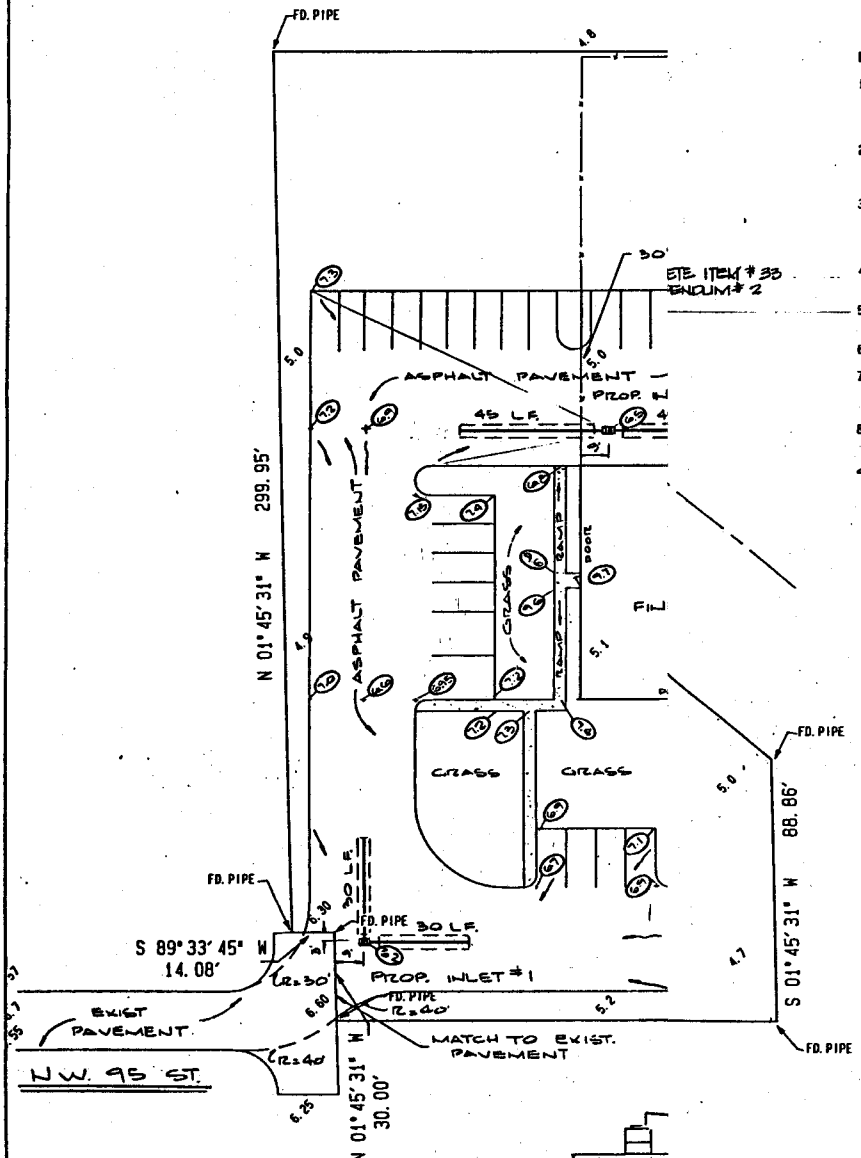
SUB-ATTACHMENT I.B.4-1

SURFACE WATER MANAGEMENT PLAN

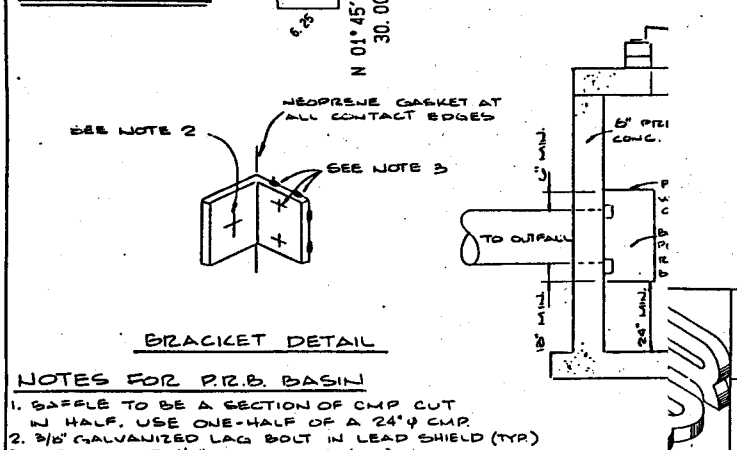


ENGINEER'S NOTES:

1. All materials and labor shall conform to Dade County Public Works standards and specifications, and to Florida Department of Transportation standards and specifications where appropriate.
2. Contractor shall verify acceptable utilities in the field by calling underground utility notification center 1-800-432-4770 prior to digging.
3. Fill shall be locally acceptable and suitable for fill purposes. Fill shall be compacted to 95% of Maximum density as determined by AASHTO T-180 test reports shall be submitted to the architect and owner.
4. ~~PAVEMENT SECTION: 10" FOOT THICK S-1 SURFACE COURSE, 8" LIMEROCK BASE;~~
5. ~~Concrete shall have a minimum compressive strength of 4000 PSI in 28 days FOR REINFORCED PAVEMENT SLABS.~~
6. Elevations shown are referred to NGV Datum.
7. Any apparent discrepancies in the plans and field conditions shall be brought to the attention of the engineer before proceeding with the work.
8. Dade County Flood Criteria: Elevation 6.7
   Fema Flood Zone "AH", Elevation 6
9. SEEPAGE STRUCTURES SHALL BE A FRENCH DRAIN (SD. I.) WITH 6" PERFORATED CMP INVERT OF PIPE TO BE AT ELEVATION B.O. BOTTOM OF TRENCH TO BE 15' DEEP TRENCH WIDTH TO BE 36". PROVIDE MASONRY PLUG AT END OF TRENCH.

5.2 INDICATES EXISTING ELEVATION

(6.7) INDICATES PROPOSED ELEVATION



BRACKET DETAIL

NOTES FOR P.R.B. BASIN

1. BAFFLE TO BE A SECTION OF CMP CUT IN HALF, USE ONE-HALF OF A 24"ϕ CMP.
2. 3/8" GALVANIZED LAG BOLT IN LEAD SHIELD (TYP.)
3. WELD OR 2-1/2" THRU BOLTS (SS) GRATING SHALL BE OFFSET IF STRUCTURE IS USED AS OVERFLOW

TYPICAL C

C-2

SAFETY-KLEEN CORP.
DRAINAGE PLAN

E. R. BROWNELL & ASSOC., INC.
CONSULTING ENGINEERS · LAND SURVEYORS
3152 Coral Way
Miami, Florida, 33145

Drawn by: GZ	Ref.		Sheet 2 of 3
Des. by: GZ	J.N. 44021	F.B. FILE	Sk. No. P-423
Chk. by: TB	Scale: 1"=30'	Date: JULY 1990	

ATTACHMENT I.D.2

DESCRIPTION OF FACILITY OPERATION

ATTACHMENT I.D.2
DESCRIPTION OF FACILITY OPERATION

DESCRIPTION OF THE BUSINESS

Safety-Kleen Corp. of Elgin, Illinois is an international, service-oriented company whose customers are primarily engaged in automotive repair and industrial maintenance. Since 1968, Safety-Kleen has been offering a leasing service for hydrocarbon and chlorinated solvents and small parts washing equipment. A unique feature of this business concept is that the solvent is produced through recycling the used solvent that is leased to the customers. Approximately two-thirds of the clean solvent leased has been previously used by the customers.

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

Basically, Safety-Kleen handles three types of parts washer solvents: a mineral spirits solvent, and old and new formulations of immersion cleaner. The old formulation immersion cleaner solvent is labeled under the trade name of Immersion Cleaner and Carburetor and Cold Parts Cleaner #609. It is a two-phase system consisting of an upper aqueous (water) layer and lower non-aqueous (solvent) layer. The water phase consists of water and Dresinate TX (sodium soap of tall oil). The solvent phase is composed of methylene chloride, orthodichlorobenzene, cresylic acid, and an amines additive. A new formulation immersion cleaner is being marketed under the name #699 and will

eventually replace the old immersion cleaner. The new solvent is composed of heavy aromatic naphtha, N-methyl-2-pyrolidone dipropylene glycol methyl ether, monoethanolamine and oleic acid. The waste contains a maximum of one percent total chlorinated solvents.

The solvents are distributed and collected by Safety-Kleen service representatives. Containers are transported in specially-equipped, enclosed route trucks. Clean mineral spirits (MS) are distributed from and used MS returned to the service center where the MS are stored in separate aboveground tanks for the clean and used mineral spirits. Warehouse space is dedicated for the storage of both clean and used immersion cleaner containers. Safety-Kleen leases parts washing equipment, including partially filled containers, which double as the solvent reservoir of the parts washer. During servicing, the quantity of used solvent removed from each machine ranges from 5 to 20 gallons.

Periodically, a company truck is dispatched from one of Safety-Kleen's nationwide solvent recycle facilities to the service center to deliver a load of clean solvent and pick up a load of used solvent. Mineral spirits are transported in bulk tank trucks between the service centers and the recycle facilities. The immersion cleaner remains in the covered containers during transfer between the service centers and the recycle facilities. Approximately 97 percent of the solvent handled in the parts washer business is mineral spirits, while the remainder is immersion cleaner.

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

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

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

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

Fluid Recovery Services (FRS) is a program managed by the Safety-Kleen Service Centers. Under this program, waste types (FRS) similar to those provided by Safety-Kleen are collected by the service center and processed by the recycle centers. The FRS wastes will be managed as transfer wastes. The manifest will not be terminated at the service center. These wastes may or may not have originally been obtained from Safety-Kleen by the industrial customer. Examples of the types of waste that may be received from FRS customers include:

1. Spent hydrocarbon distillates, such as waste fuel, oil, petroleum, naphtha, etc.

2. Lubricating, hydraulic oils, and machine oils.

3. Industrial halogenated solvents such as 1,1,1-trichloroethane, tetrachloroethylene, freon, and trichloroethane.

4. Paint and lacquer thinners and paint wastes.

5. Other hazardous and non-hazardous halogenated and non-halogenated solvents.

In 1990, Safety-Kleen began offering a service for the collection of spent antifreeze (ethylene glycol) from automobile service stations. These wastes are deposited into a carboy or containers by the customer, which are located on the customer's premises. The contents of the carboy are pumped into a tanker truck or into containers by a Safety-Kleen sales representative. At the service center, it is then pumped into a 20,000-gallon storage tank (if handled in bulk) or placed in the container storage warehouse (if handled in containers) for shipment to a Safety-Kleen recycle center.

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

ATTACHMENT I.D.3

ESTIMATED ANNUAL QUANTITIES OF HAZARDOUS WASTE AND STORAGE METHODS

TABLE I.D.3-1
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 I.D.3-1 (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.

PART II A

GENERAL

ATTACHMENT II.A.1(a)

TOPOGRAPHIC MAP

ATTACHMENT II.A.1(a)
TOPOGRAPHIC MAP

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

1. Map scale and date:
   All maps have a scale and dated indicated.

2. 100-year floodplain area:
   Based on information available from the Federal Emergency Management Agency (Figure II.A.1(a)-2), the facility does not lie within the 100-year flood plain. The site is located in a Zone AH(EL6). AH areas are areas of 100-year shallow flooding where depths are between one and three feet. Base flood elevations are shown, but no flood hazard factors are determined. This site does not require any special flood management procedures.

3. Orientation of the map:
   All maps show orientation.

4. Access control (fences, gates, etc.):
   Figure II.A.1(a)-3 shows access control features.

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

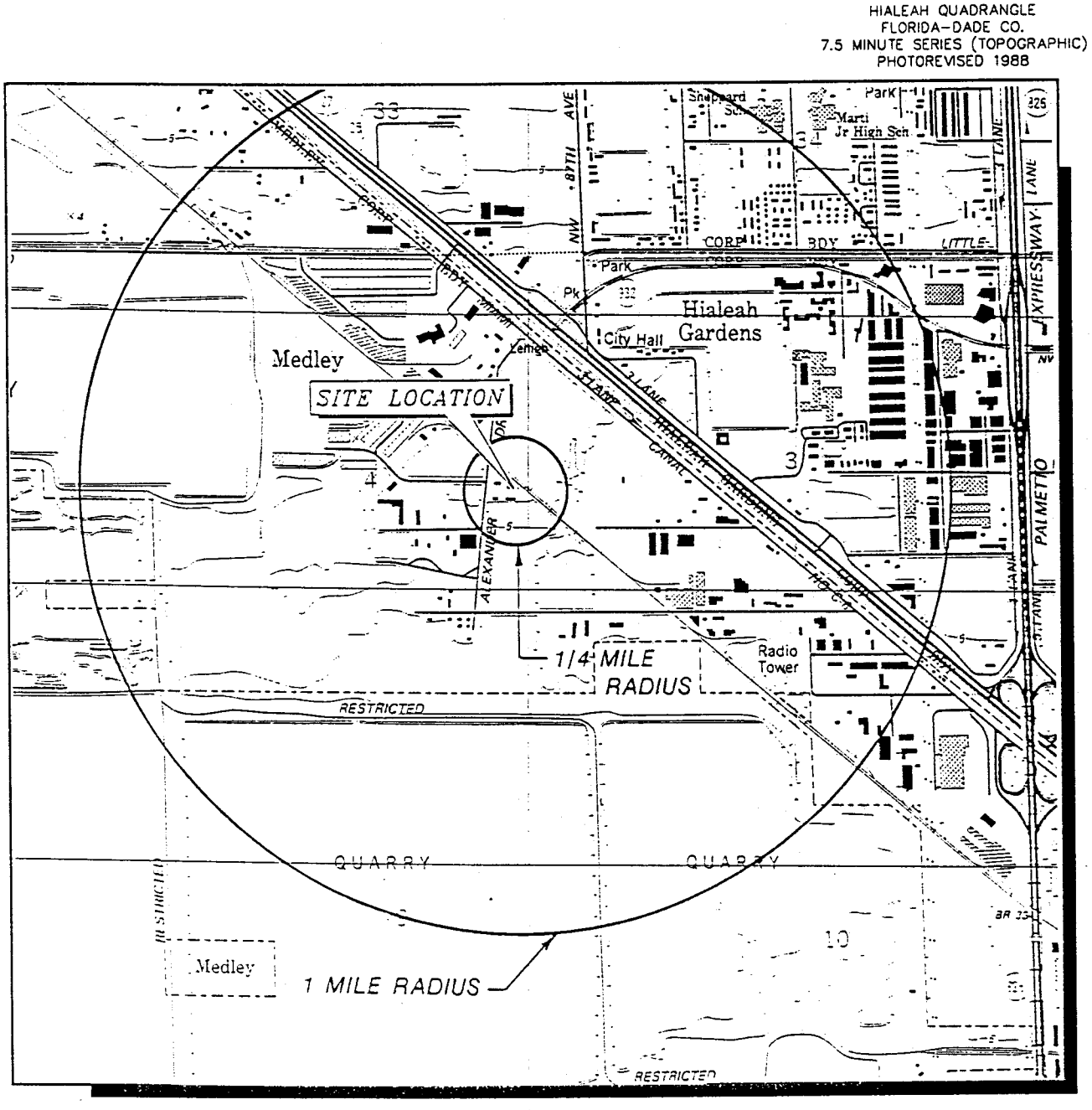
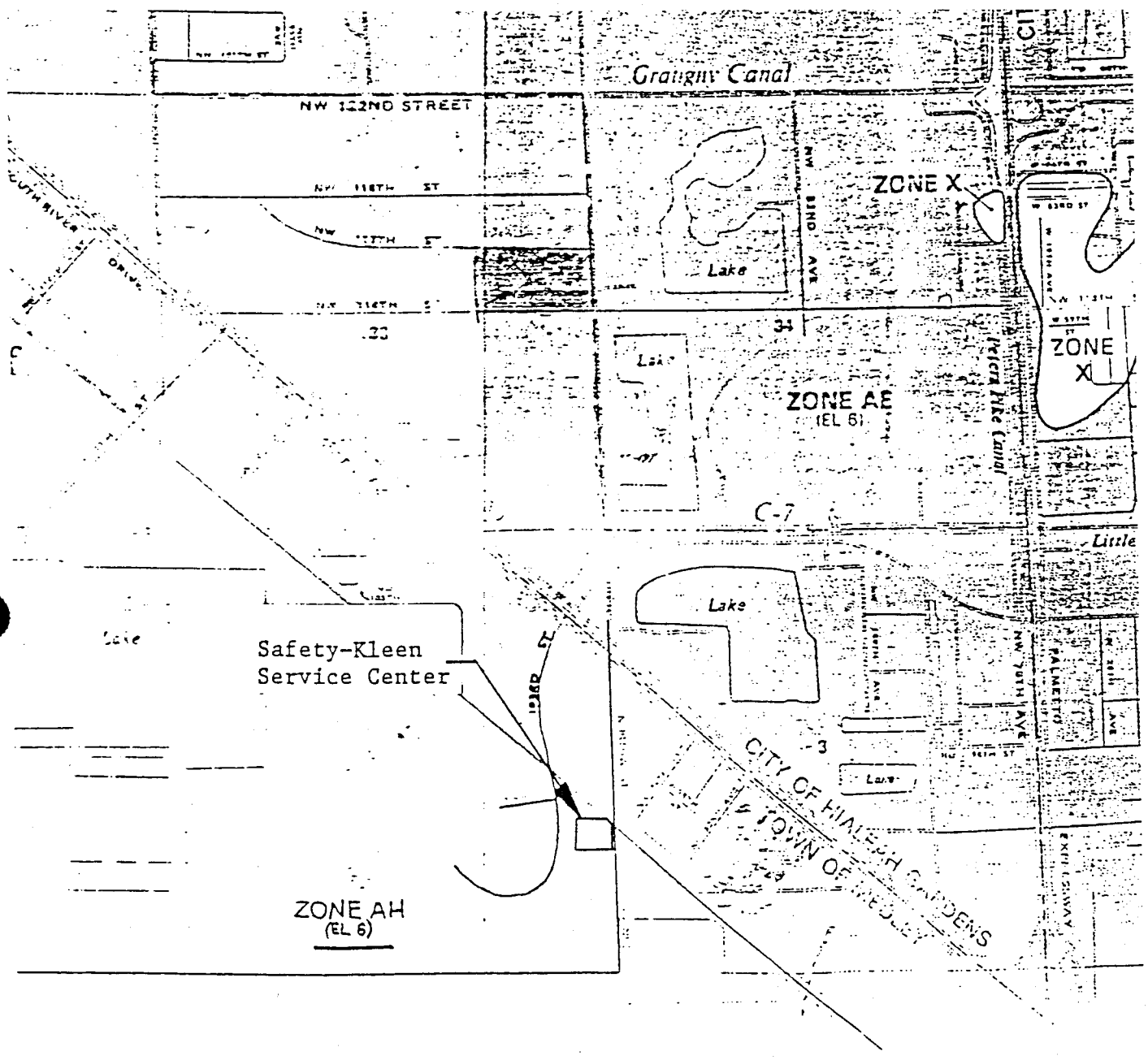


Figure II.A.1(a)-2
Floodplain Map
Safety-Kleen Corp. Facility
Medley, Florida



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APPROXIMATE SCALE IN FEET

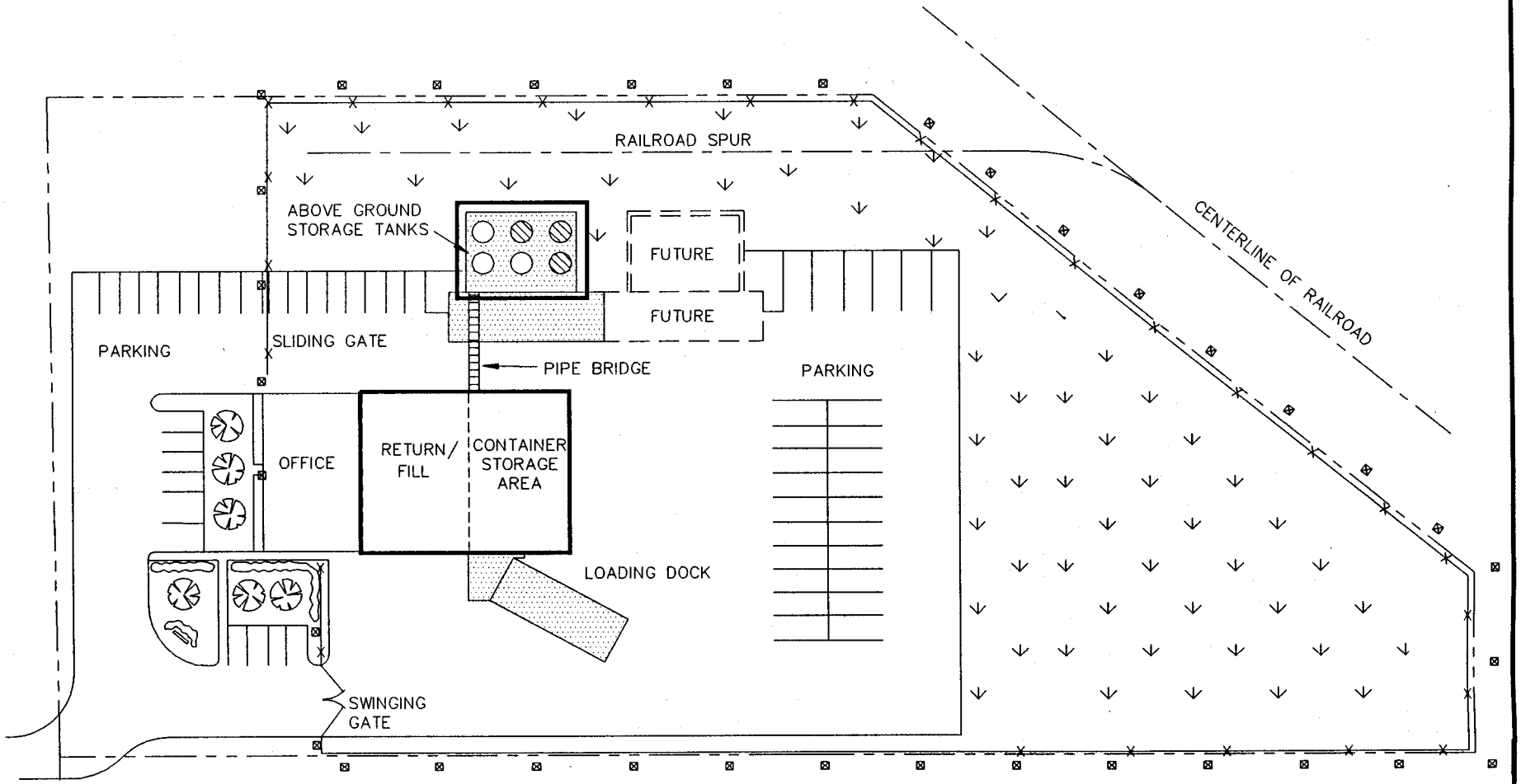
OBTAINED FROM FEMA FLOOD INSURANCE RATE MAP, TALLAHASSEE, FLORIDA. PANEL NUMBER 125098 0075 F, MAP REVISED: NOVEMBER 4, 1987

The ERM Group ®

13112.21/31121SS/071692-6

II.A.1(a)-1C

Figure II.A.1(a)-3
Access Control Features and Security Signage
Safety-Kleen Corp. Facility
Medley, Florida



LEGEND

- PROPERTY BOUNDARY
- HAZARDOUS WASTE MANAGEMENT AREAS
- CHAIN-LINK FENCE
- CONCRETE
- WARNING SIGNS
- GRASS
- FUTURE TANK

NOTE: ALL AREAS WHICH ARE NOT CONCRETE OR LANDSCAPED ARE ASPHALT

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5. Injection and withdrawal wells both onsite and offsite:

   There are no injection or withdrawal wells onsite. According to information obtained from the Southeast Florida Water Management District, four four-inch monitoring wells were identified by personnel of SFWMD as lying within Section 4, Township 535, Range 40E. It should be noted that information regarding water wells in this area have not been computerized (as other Water Management Districts). Information obtained from a site inspection indicate, that to the best of Safety-Kleen's knowledge, there are no known wells within a one-quarter mile radius of the facility.

6. Buildings and other structures:

   Buildings and other structures are shown in Figure II.A.1(a)-3.

7. Elevations and contours sufficient to show surface water flow:

   The surface water management plan for the facility is presented in Sub-Attachment I.B.4-1.

8. Loading and unloading areas:

   Figure II.A.1(a)-4 shows loading and unloading areas in relation to the waste management areas. Additional details regarding traffic patterns are in Attachment II.A.1(c).

9. Drainage or flood control barriers:

   The surface water management plan for the facility is presented in Sub-Attachment I.B.4-1.

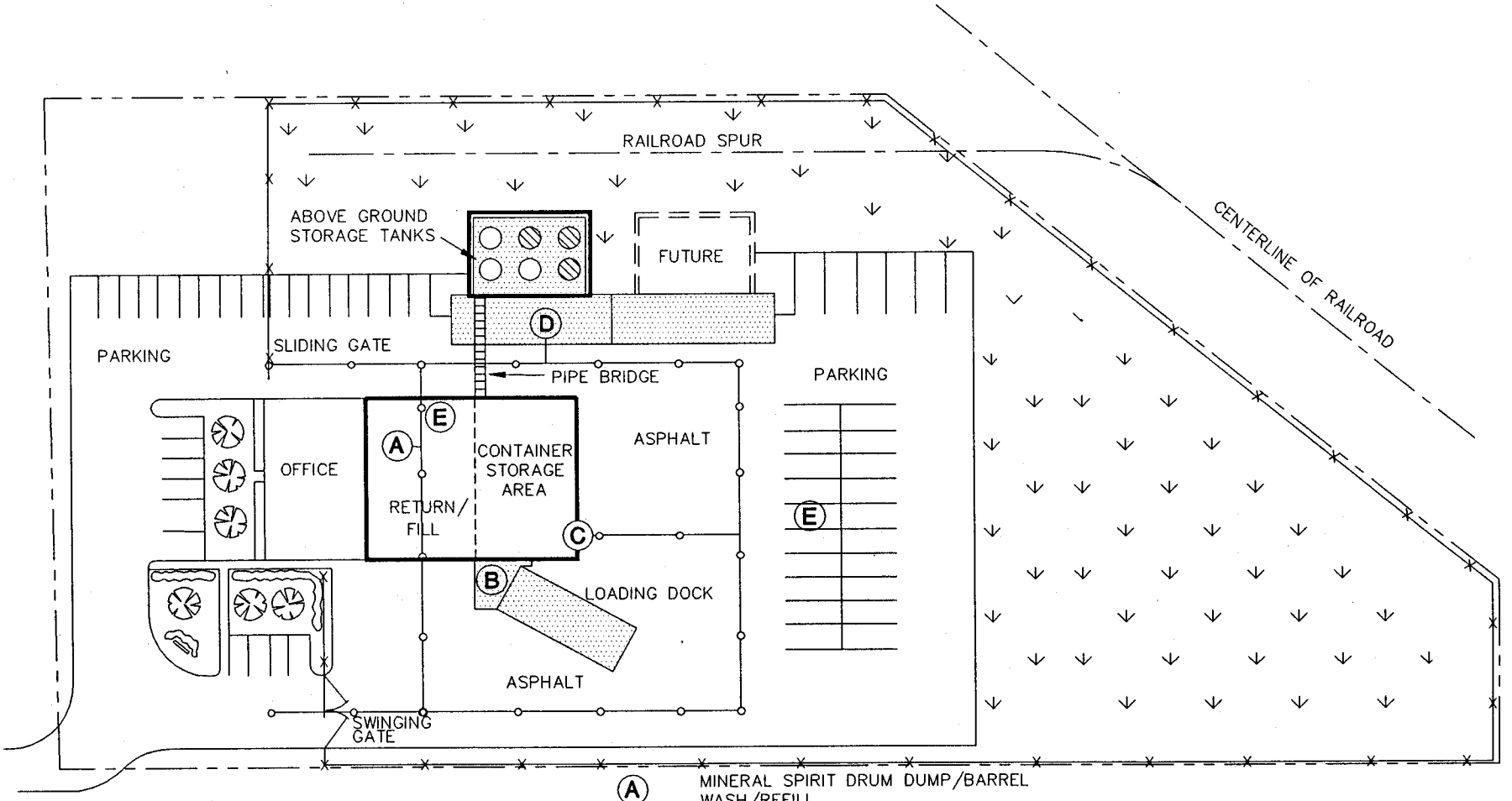
10. Hazardous waste units:

    Figure II.A.1(a)-4 shows hazardous waste management areas. These are 1) a tank area, 2) a container storage area, and 3) return/fill shelters.

13112.21/31121LUL/071392-8

II.A.1(a)-2A

Figure II.A.1(a)-4
Truck Traffic Patterns and Loading/Unloading Areas of Hazardous Wastes
Safety-Kleen Corp. Facility
Medley, Florida



LEGEND

- PROPERTY BOUNDARY
- CHAIN-LINK FENCE
- HAZARDOUS WASTE MANAGEMENT AREAS
- CONCRETE
- ENTRANCE/EXIT ROUTE
- GRASS
- FUTURE TANK

(A) MINERAL SPIRIT DRUM DUMP/BARREL WASH/REFILL

(B) LOADING & UNLOADING OF DRUMS CONTAINING SOLVENTS FROM TRUCKS

(C) LOADING & UNLOADING OF CONTAINERIZED WASTE FROM LOCAL AREA VANS & TRUCKS

(D) LOADING & UNLOADING OF MINERAL SPIRITS AND ETHYLENE GLYCOL

(E) TRUCK TO TRUCK TRANSFER OF FRS (TRANSFER) WASTES AND TANK TRUCK TO TANK TRUCK TRANSFER OF ETHYLENE GLYCOL

NOTE: THIS OCCURS ON ANY ASPHALT OR CONCRETE SURFACE EAST, NORTH OR SOUTH OF THE WAREHOUSE OR IN THE RETURN/FILL SHELTER

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FEET

The ERM Group ®

11. Run-off control system:

    This facility is connected to the city water sewer system. The surface water management plan is presented in Sub-Attachment I.B.4-1.

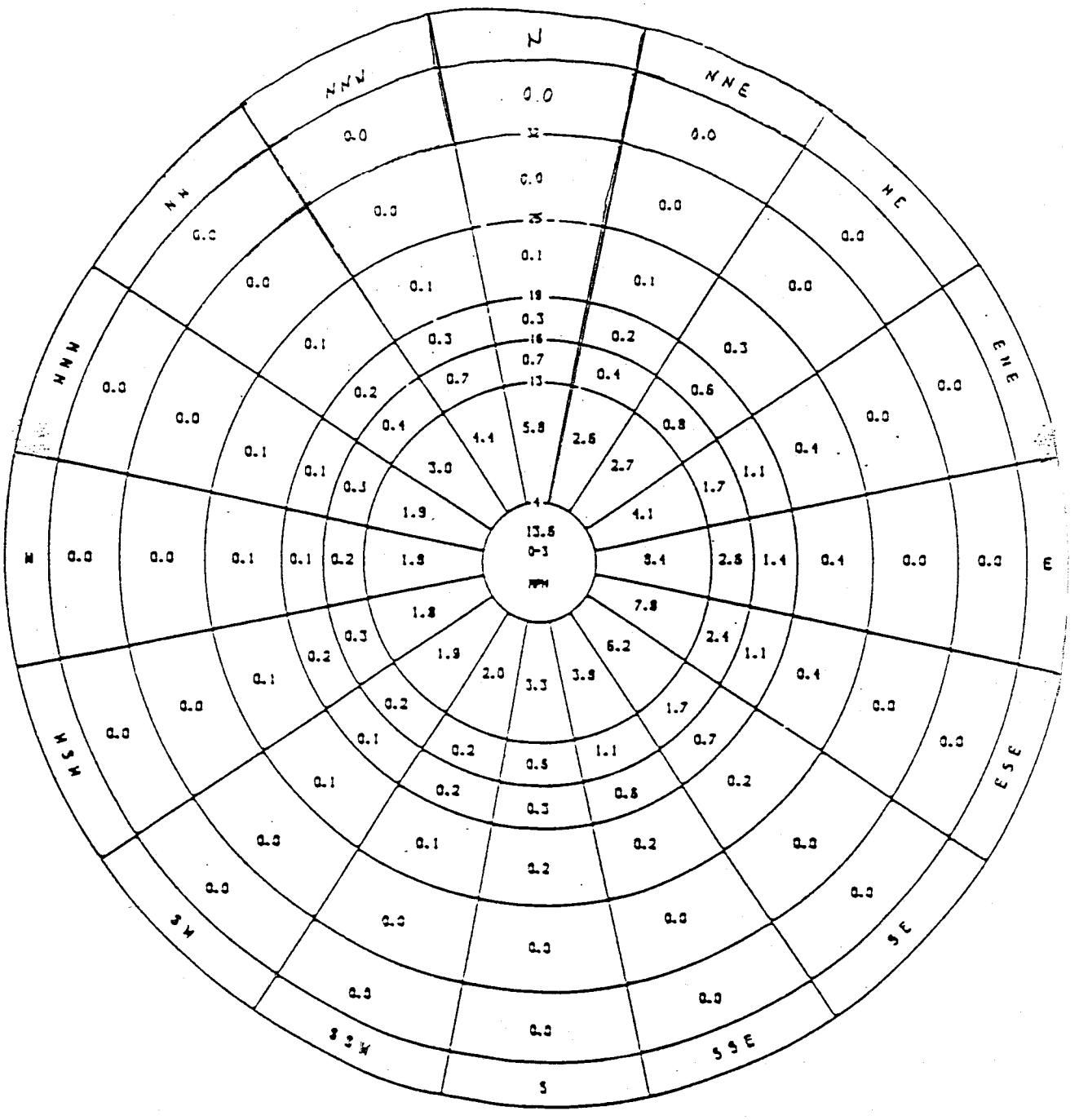
ATTACHMENT II.A.1(b)

WIND ROSE

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

MIAMI, FLORIDA
1965 - 1974

CEILING-VISIBILITY
WIND GRAPH



Source; NOAA National Oceanic and Atmospheric Administration

The ERM Group ®

ATTACHMENT II.A.1(c)

TRAFFIC INFORMATION

ATTACHMENT II.A.1(c)
TRAFFIC INFORMATION

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

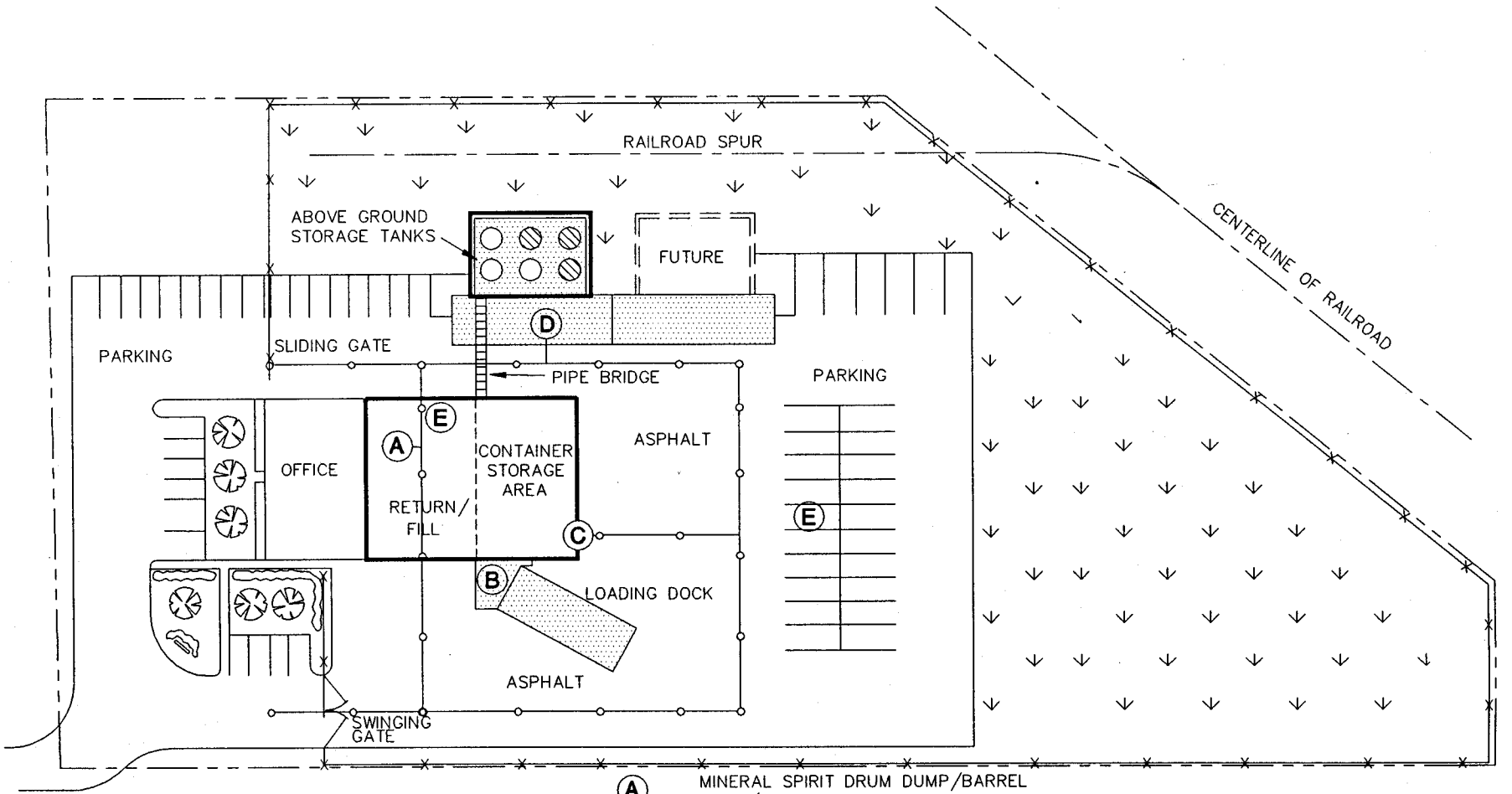
The non-building areas of the facility are paved with asphalt or concrete as noted on the site plan. The stormwater retention areas and other unpaved areas are vegetated with grass. The majority of the vehicular traffic and loading/unloading operations occurs at and near the return and fill (area A) which is paved with asphalt and concrete. Approximately once per week a tractor trailer brings fresh containerized solvents and removes used, containerized solvents for transfer to a recycle facility. This truck backs up to the concrete dock, located on the southeastern side of the facility in area B, to load and unload containers. Area C is used for the loading/unloading of transfer wastes, and containerized permitted wastes from local area vans and trucks. The trucks dispatched from the recycle center to deliver and pick up fresh and used mineral spirits and spent ethylene glycol perform these activities at the aboveground tank truck loading area (Area D) approximately once per week. Truck to truck transfer of Fluid Recovery Service (FRS) (transfer) wastes may occur on any asphalt or concrete surfaces within the compound (Area E). Tank truck to tank truck transfer of ethylene glycol may also occur in Area E.

U.S. 27, Okeechobee Road, is the major access road to the facility. The access road is designed in accordance with engineering criteria appropriate for sustaining the traffic volume and loading for the heavy industrial activities in this area. The vans that travel the routes daily between the service center and Safety-Kleen customers use the two-lane road within the industrial park. Traffic from this facility will have a minor impact on local traffic conditions.

13112.21/31121LUL/071392-8

II.A.1(c)-1A

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



LEGEND

- PROPERTY BOUNDARY
- CHAIN-LINK FENCE
- HAZARDOUS WASTE MANAGEMENT AREAS
- CONCRETE
- ENTRANCE/EXIT ROUTE
- GRASS
- FUTURE TANK

(A) MINERAL SPIRIT DRUM DUMP/BARREL WASH/REFILL

(B) LOADING & UNLOADING OF DRUMS CONTAINING SOLVENTS FROM TRUCKS

(C) LOADING & UNLOADING OF CONTAINERIZED WASTE FROM LOCAL AREA VANS & TRUCKS

(D) LOADING & UNLOADING OF MINERAL SPIRITS AND ETHYLENE GLYCOL

(E) TRUCK TO TRUCK TRANSFER OF FRS (TRANSFER) WASTES AND TANK TRUCK TO TANK TRUCK TRANSFER OF ETHYLENE GLYCOL

NOTE: THIS OCCURS ON ANY ASPHALT OR CONCRETE SURFACE EAST, NORTH OR SOUTH OF THE WAREHOUSE OR IN THE RETURN/FILL SHELTER

N

0 80

FEET

The ERM Group®

ATTACHMENT II.A.2

FINANCIAL RESPONSIBILITY INFORMATION

ATTACHMENT II.A.2
LIABILITY INSURANCE

In accordance with the liability requirements of 40 CFR 264.147 and 265.147, Safety-Kleen Corp. has acquired insurance coverage for sudden accidental occurrences arising from operations for the Service Center facility. Attached are the Hazardous Waste Facility Liability Endorsements from the National Union Fire Insurance Company of Pittsburg, Pennsylvania.

MAY 11 1992

Florida Department of Environmental Regulation

Twin Towers Office Bldg. ● 2600 Blair Stone Road ● Tallahassee, Florida 32399-2400

Lawton Chiles, Governor

Carol M. Browner, Secretary

April 29, 1992

RECEIVED
MAY 22 1992
SAFETY-KLEEN CORP.
ENVIRONMENTAL ENGINEER
TAMPA REGION

RECEIVED
1992
SAFETY-KLEEN CORP.
EH&S — ELGIN
EASTERN DIVISION

Mr. Robert W. Willmschen
Vice President of Finance
Safety Kleen Corporation
777 Big Timber Road
Elgin, Illinois 60123

RE: Safety Kleen, Sanford, FL FLD 097 837 983
Safety Kleen, Delray Beach, FL FLD 984 171 165
Safety Kleen, Boynton Beach, FL FLD 984 167 791
Safety Kleen, Orange Park, FL FLD 980 847 214
Safety Kleen, Miami, FL FLD 980 840 086
Safety Kleen, Medley, FL FLD 984 171 694
Safety Kleen, Port Charlotte, FL FLD 000 776 716
Safety Kleen, Tallahassee, FL FLD 000 776 773
Safety Kleen, Tallahassee, FL FLD 982 133 159
Safety Kleen, Tampa, FL FLD 049 557 408
Safety Kleen, Tampa, FL FLD 980 847 271
Safety Kleen, Altamonte Springs, FL FLD 097 837 983

Dear Mr. Willmschen:

I have reviewed your financial test, dated March 18, 1992 for the above facilities. Your demonstration of financial assurance for closure and post closure care costs satisfies the financial responsibility requirements of 40 CFR Part 264 Subpart H. I have questions on the closure cost estimates for the Casselberry facility, FLD 097 837 983. This will be addressed in a separate letter.

Your next demonstration will be due by March 30, 1992. If I can be of further assistance, I may be reached at 904/488-0300.

Sincerely,

Lorraine G. Clark

Lorraine G. Clark
Environmental Specialist
Hazardous Waste Regulation

LGC/mh

cc: Jeff Pallas, EPA, Atlanta
Bill Crawford, DER, Tampa
Bob Snyder, DER, Orlando
Bob Kukleski, DER, West Palm Beach
Bill Kellenberger, DER, Tallahassee
G. Minhaj, DER, Fort Myers

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STATE OF FLORIDA

HAZARDOUS WASTE FACILITY LETTER FROM CHIEF FINANCIAL OFFICER
TO DEMONSTRATE CLOSURE AND/OR POST-CLOSURE FINANCIAL ASSURANCE

Ms. Carol Browner, Secretary
Florida Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

I am the chief financial officer of Safety-Kleen Corp., 777 Big Timber Road
[Name and Address of Firm]
Elgin, Illinois 60123.
This letter is in support of this firm's use of the financial test to demonstrate financial assurance, as specified in Subpart H of 40 CFR Parts 264 and 265, as adopted by reference in Section 17-30.180, Florida Administrative Code (F.A.C.).

(Fill out the following five paragraphs regarding facilities and associated cost estimates. If your firm has no facilities that belong in a particular paragraph, write "NONE" in the space indicated. For each facility, include its EPA/DER Identification Number, name, address, and current closure and/or post-closure cost estimates. Identify each cost estimate as to whether it is for closure or post-closure care.)

1. This firm is the owner or operator of the following facilities in the State of Florida for which financial assurance for closure or post-closure care is demonstrated through the financial test specified in Subpart H of 40 CFR Parts 264 and 265, as adopted by reference in Section 17-30.180, F.A.C. The current closure and/or post-closure cost estimates covered by the test are shown for each facility: total per attached listing - closure $1,307,850; post-closure $2,398,700.

2. This firm guarantees, through the corporate guarantee specified in Subpart H of 40 CFR Parts 264 and 265, as adopted by reference in Section 17-30.180, F.A.C., the closure or post-closure care of the following facilities in the State of Florida owned or operated by subsidiaries of this firm. The current cost estimates for the closure or post-closure care so guaranteed are shown for each facility: None.

3. In States other than Florida where EPA is administering the financial requirements of Subpart H of 40 CFR Parts 264 and 265, this firm, as owner or operator or guarantor is demonstrating financial assurance for the closure or post-closure care of the following facilities through the use of a test equivalent or substantially equivalent to the financial test specified in Subpart H of 40 CFR Parts 264 and 265. The current closure and/or post-closure cost estimates covered by such test are shown for each facility: total per attached listing - closure $3,506,400; post-closure $2,105,000.

4. In States other than Florida where EPA is not administering the financial requirements of Subpart H of 40 CFR Parts 264 and 265, this firm, as owner or operator or guarantor, is demonstrating financial assurance for the closure or post-closure care of the following facilities through the use of a test equivalent or substantially equivalent to the financial test specified in Subpart H of 40 CFR Parts 264 and 265. The current closure and/or post-closure cost estimates covered by such a test are shown for each facility: total per attached listing - closure $24,781,880; post-closure $6,613,400.

5. This firm is the owner or operator of the following hazardous waste management facilities for which financial assurance for closure or, if a disposal facility, post-closure care, is not demonstrated either to EPA or a State through the financial test or any other financial assurance mechanism specified in Subpart H of 40 CFR Parts 264 and 265, or equivalent or substantially equivalent State mechanisms. The current closure and/or post-closure cost estimates not covered by such financial assurance are shown for each facility: None.

6. This firm is the owner or operator of the following UIC facilities for which financial assurance for plugging and abandonment is required under 40 CFR Part 144 and/or Section 17-28.27(9), F.A.C. The current plugging and abandonment cost estimates as required by 40 CFR 144.62 and/or Section 17-28.27(9), F.A.C. are shown for each facility: None.

This firm is required [insert "is required" or "is not required"] to file a Form 10K with the Securities and Exchange Commission (SEC) for the latest fiscal year.

The fiscal year of this firm ends on the Saturday closest to December 31. [Month, Day] The figures for the following items marked with an asterisk are derived from this firm's independently audited, year-end financial statements and footnotes for the latest completed fiscal year, ended December 28, 1991. [Date]

[Fill in Alternative I if the criteria of paragraph (f)(1)(i) of §§264.143 or 264.145, or of paragraph (e)(1)(i) of §§265.143 or 265.145, as adopted by reference in Section 17-30.180, F.A.C., are used. Fill in Alternative II if the criteria of paragraph (f)(1)(ii) of §§264.143 or 264.145, or of paragraph (e)(1)(ii) of §§265.143 or 264.145, as adopted by reference in Section 17-30.180, F.A.C., are used.]

ALTERNATIVE I

1.	Sum of current closure and post-closure cost estimates [total of all cost estimates shown in the five paragraphs above]	$_____
*2.	Total liabilities [if any portion of the closure or post-closure cost estimates is included in total liabilities, you may deduct the amount of that portion from this line and add that amount to lines 3 and 4]	$_____
*3.	Tangible net worth	$_____
*4.	Net worth	$_____
*5.	Current assets	$_____
*6.	Current liabilities	$_____
*7.	Net working capital [line 5 minus line 6]	$_____
*8.	The sum of net income plus depreciation, depletion, and amortization	$_____
*9.	Total assets in U.S. (required only if less than 90 percent of firm's assets are located in the U.S.)	$_____

		YES	NO
10.	Is line 3 at least $10 million?	____	____
11.	Is line 3 at least 6 times line 1?	____	____
12.	Is line 7 at least 6 times line 1?	____	____
13.	Are at least 90 percent of firm's assets located in the U.S.? If not, complete line 14.	____	____
14.	Is line 9 at least 6 times line 1?	____	____
15.	Is line 2 divided by line 4 less than 2.0?	____	____
16.	Is line 8 divided by line 2 greater than 0.1?	____	____
17.	Is line 5 divided by line 6 greater than 1.5?	____	____

ALTERNATIVE II

1.	Sum of current closure and post-closure cost estimates [total of all cost estimates shown in the five paragraphs above]	$ 40,713,230
2.	Current bond rating of most recent issuance of this firm and name of rating service	A, Standard and Poors
3.	Date of issuance of bond	9/15/89
4.	Date of maturity of bond	9/15/99
*5.	Tangible net worth [if any portion of the closure and post-closure cost estimates is included in "total liabilities" on your firm's financial statements, you may add the amount of that portion to this line]	$356,526,000
*6.	Total assets in U.S. (required only if less than 90 percent of firm's assets are located in the U.S.)	$711,082,000

		YES	NO
7.	Is line 5 at least $10 million?	X	
8.	Is line 5 at least 6 times line 1?	X	
*9.	Are at least 90 percent of firm's assets located in the U.S.? If not, complete line 10.		X
10.	Is line 6 at least 6 times line 1?	X	

I hereby certify that the wording of this letter is substantially identical to the wording specified in 40 CFR 264.151(f), as adopted by reference in Section 17-30.180, FAC, as such regulations were constituted on the date shown immediately below.

Robert W. Willmschen
[Signature]

Robert W. Willmschen
[Type Name]

Vice President - Finance
[Type Title]

March 18, 1992
[Date]

PARAGRAPH #1

STATE OF FLORIDA

Casselberry ($52,050)	(0)	(3-130-01)	464 A Pulmosa Drive Casselberry, FL 32707	FLD 097837983
Sanford ($52,050)	(0)	(3-130-01)	North Star Business Park, Lot 10 Sanford, FL 32771	FLD 984171165
Delray Beach ($207,159)	(733,905)	(3-097-01)	16086 SW 4th Ave., Bldg. B Delray Beach, FL 33444	FLD 000776757
Boynton Beach ($52,050)	(0)	(3-097-01)	Lot 46B Boynton Beach Park of Commerce Boynton Beach, FL	Applied For
Orange Park ($52,050)	(0)	(3-079-01)	161 Industrual Loop South Orange Park, FL 32073	FLD 980847214
Miami ($52,050)	(0)	(3-097-02)	7875 NW 54th Street Miami, FL 33166	FLD 980840086
Medley ($52,050)	(0)	(3-097-02)	Palmetto Dr. & NW South River Dr. Medley, FL	Applied For
Port Charlotte ($52,050)	(0)	(3-163-02)	19200 Peachland Blvd. Bachman Blvd. Port Charlotte, FL 33949	FLD 000776716
Tallahassee ($52,050)	(40,600)	(3-079-02)	3082 West Tharpe Street (Rear) Tallahassee, FL 32303	FLD 000776773
Tallahassee ($52,050)	(0)		Entrepot Blvd.-Airport Ind. Park Tallahassee, FL 32303	Applied For FLD 982,183,59
Tampa ($234,225)	(739,110)	(3-163-01)	4701 North Manhattan Tampa, FL 33614	FLD 049557408
Tampa AC ($125,751)	(0)	(0-007-50)	5309 24th Avenue South Tampa, FL 33619	FLD 980847271
# 1,035585	# 1,513,615			

Closure Post Closure

PARAGRAPH #2

None

PARAGRAPH #3 (See Transmittal Letter for Description)

STATE OF CALIFORNIA

El Monte ($52,050)	(0)	(7-088-06)	10625 Hickson Street Unit A El Monte, CA 91731	CAT 000613893

safety-kleen

RECEIVED
DEC 6 1991
Environmental Department
SAFETY-KLEEN CORP.

Via Certified Mail - Return Receipt Requested

September 25, 1991
91 MH-295

Mr. Satish Kastury
Florida Department
of Environmental Regulation
2600 Blairstone Road
Tallahassee, Florida 32399

Subject: Certificate of Liability Insurance

Altamonte Springs	FLD 097837983
Boynton Beach	FLD 984167791
Orange Park	FLD 980847214
Miami	FLD 980940086
Medley	FLD 984171694
Port Charoltte	FLD 000776716
Tallahassee	FLD 000776773
Tallahassee (Old)	FLD 982133159
Tampa	FLD 980847271

Dear Mr. Kastury:

Please find enclosed the Hazardous Waste Liability Certificate of Insurance for Safety-Kleen operations within the State of Florida. The certificate of is for the policy year 10-1-91 through 10-1-92. If you have any questions please contact Joe Hartline, Safety-Kleen's Regional Environmental Engineer at (404) 438-6055.

Sincerely,

Melissa Hlebasko
Environmental Permit Writer

cc: J. Hartline
FL Branch Managers
Chron File

RECEIVED
1991
HAZARDOUS WASTE
PERMITTING

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

HAZARDOUS WASTE FACILITY CERTIFICATE OF LIABILITY INSURANCE

1. National Union Fire Insurance Company (the "Insurer") of Pittsburgh, PA hereby certifies that it has issued liability insurance covering bodily injury and property damage to Safety-Kleen Corp., (the "Insured"), of 777 Big Timber Road, Elgin, Illinois 60123 in connection with the Insured's obligation to demonstrate financial responsibility under 40 CFR 264.147 or 265.147, as adopted by reference in Section 17-30.18, Florida Administrative Code (FAC). The coverage applies at:

   (SEE ATTACHED LIST) (FLORIDA)

   for sudden and nonsudden accidental occurrences. The amounts of liability are $4 million per each occurrence with annual aggregate of $8 million, exclusive of legal defense costs. The coverage is provided under policy number PLL706-31-38 issued on October 1, 1991. The effective date of said policy is October 1, 1991.

2. The Insurer further certifies the following with respect to the insurance described in Paragraph 1:

   (a) Bankruptcy or insolvency of the Insured shall not relieve the Insurer of its obligations under the policy.

   (b) The Insurer is liable for the payment of amounts within any deductible applicable to the policy, with a right of reimbursement by the Insured for any such payment made by the Insurer. This provision does not apply with respect to that amount of any deductible for which coverage is demonstrated as specified in 40 CFR 264.147(f) or 265.147(f) as adopted by reference in Section 17-30.18, FAC.

   (c) Whenever requested by the Secretary of the Florida Department of Environmental Regulation (FDER), the Insurer agrees to furnish to the Secretary a signed duplicate original of the policy and all endorsements.

   (d) Cancellation of the insurance, whether by the Insurer or the Insured, will be effective only upon written notice and only after the expiration of sixty (60) days after a copy of such written notice is received by the Secretary of the FDER.

   (e) Any other termination of the insurance (e.g., expiration, non-renewal) will be effective only upon written notice and only after the expiration of thirty (30) days after a copy of such written notice is received by the Secretary of the FDER.

I hereby certify that the wording of this instrument is identical to the wording specified in 40 CFR 264.151(j), as adopted by reference in Section 17-30.18, FAC, as such regulation was constituted on the date first above written, and that the Insurer is licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines Insurer, in one or more states including Florida.

Bernard M. Dunne

Bernard M. Dunne, Manager
Authorized Representative
National Union Fire Insurance Company
500 West Madison
Chicago, IL 60606

Date Printed: 9/20/91

RECEIVED
OCT 1 1991
HAZARDOUS WASTE
PERMITTING

STATE OF FLORIDA

EPA/DER I.D. NO.	NAME	ADDRESS
FLD 097837983	Safety-Kleen Corp.	505 Plumosa Dr. Altamonte Springs, FL 32701
FLD 984167791	Safety-Kleen Corp.	Lot 46B Quantum Industrial Park Boynton Beach, FL
FLD 980847214	Safety-Kleen Corp.	161 Industrial Loop South Orange Park, FL 32073
FLD 980840086	Safety-Kleen Corp.	7875 NW 54th Street Miami, FL 33166
FLD 984171694	Safety-Kleen Corp.	E. of NW 89th Ave. & NW 96th St. Medley, FL
FLD 000776716	Safety-Kleen Corp.	19200 Peachland Blvd. Port Charlotte, FL 33949
FLD 000776773	Safety-Kleen Corp.	3082 W. Tharpe St. (Rear) Tallahassee, FL 32303
FLD 982133159	Safety-Kleen Corp.	Entrepot Blvd. Airport Ind. Park Tallahassee, FL 32303
FLD 980847271	Safety-Kleen Corp.	5809 24th Avenue South Tampa, FL 33619

Corrected: 9/20/91

RECEIVED
OCT 1 [redacted]
HAZARDOUS WASTE
PERMITTING

STATE OF FLORIDA

HAZARDOUS WASTE TRANSPORTER CERTIFICATE OF LIABILITY INSURANCE

1. National Union Fire Insurance Company,
[Name of Insurer]
(the "Insurer"), of Pittsburgh, Pennsylvania
[Address of Insurer]
hereby certifies that it has issued liability insurance covering bodily injury and property damage including environmental restoration for sudden accidental occurrences to Safety-Kleen Corp.
[Name of Insured]
(the "Insured"), of 777 Big Timber Rd., Elgin, IL 60123
[Address of Insured]
in connection with the insured's obligation to demonstrate financial responsibility under Florida Administrative Code Rule 17-730.170. The coverage applies at:

EPA/DER I.D. No.	Name	Address

(See Attached List - Florida)

(If coverage is for multiple facilities, identify each facility insured.)

This insurance is primary and the company shall not be liable for amounts in excess of $2,000,000 for each accident, exclusive of legal defense costs. The coverage is provided under policy number RMCA1428019, issued on 10/1/91 [Date]. The effective date of said policy is 10/1/91 [Date].

This insurance is excess and the company shall not be liable for amounts in excess of $_____ for each accident in excess of the underlying limit of $_____ for each accident, exclusive of legal defense costs. The coverage is provided under policy number _____, issued on _____ [Date]. The effective date of said policy is _____ [Date].

2. The Insurer further certifies the following with respect to the insurance described in Paragraph 1:

(a) Bankruptcy or insolvency of the insured shall not relieve the Insurer of its obligations under the policy.

(b) The Insurer is liable for the payment of amounts within any deductible applicable to the policy, with a right of reimbursement by the insured for any such payment made by the Insurer.

(c) Whenever requested by the Secretary (or designee) of the Florida Department of Environmental Regulation (FDER), the Insurer agrees to furnish to the Department a signed duplicate original of the policy and all endorsements.

(d) Cancellation of the insurance, whether by the Insurer or the insured and any other termination of the insurance (e.g., expiration, non-renewal), will be effective only upon written notice and only after the expiration of thirty-five (35) days after a copy of such written notice is received by the Secretary of the FDER as evidenced by certified mail return receipt.

(e) The Insurer shall not be liable for the payment of any judgement or judgements against the Insured for claims resulting from accidents which occur after the termination of the insurance described herein, but such termination shall not affect the liability of the Insurer for the payment of any such judgement or judgements resulting from accidents which occur during the time the policy is in effect.

I hereby certify that the Insurer is licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in one or more States including Florida.

Bernard M. Dunne

[Signature of Authorized Representative of Insurer

Bernard M. Dunne

[Type name] [Social Security Number]

Vice President

[Title]

Authorized Representative of

National Union Fire Insurance Company

[Name of Insurer]

500 W. Madison St.
Chicago, IL 60606

[Address of Representative]

STATE OF FLORIDA

EPA/DER I.D. NO.	NAME	ADDRESS
FLD 09787983	Safety-Kleen Corp.	505 Plumosa Dr. Altamonte Springs, FL 37201
FLD 984167791	Safety-Kleen Corp.	Lot 46B Quantum Industrial Park Boynton Beach, FL
FLD 980847214	Safety-Kleen Corp.	161 Industrial Loop South Orange Park, FL 32073
FLD 980840086	Safety-Kleen Corp.	7875 NW 54th Street Miami, FL 33166
FLD 984171694	Safety-Kleen Corp.	E. of NW 89th Ave. & NW 96th St. Medley, FL
FLD 000776716	Safety-Kleen Corp.	19200 Peachland Blvd. Port Charlotte, FL 33949
FLD 982133159	Safety-Kleen Corp.	Entrepot Blvd. Airport Ind. Park Tallahassee, FL 32303
FLD 980847271	Safety-Kleen Corp.	5809 24th Avenue South Tampa, FL 33619
FLD 984171165	Safety-Kleen Corp.	Lot 10 Northstar Business Park Sanford, FL 32771

safety-kleen corp

December 30, 1991

STATUS REPORT: Per Victor San Augustin, Regional Engineer

FLD 000 776 757 — Delray Beach, FL
This facility is no longer operational and is undergoing closure. All hazardous waste transportation is operated out of the Boynton Beach facility. Liability insurance for hazardous waste transportation is no longer needed.

FLD 049 557 408 — Tampa, FL
ILD 051 060 408 — Elgin, IL
These two facilities are no longer operational. Liability insurance for hazardous waste transportation is not needed.

FLD 984 171 165 — Sanford, FL
This site is not yet built. Hazardous waste will be transported from out of this facility once it is allowed to operate. It is projected that Sanford will commence operations in the later part of next year. Until this happens, hazardous waste will be transported out of the Altamonte Springs branch.

FLD 982 133 159 — Tallahassee, FL (3082 W. Tharpe St. [Rear] 32303)
This site is not operational. All hazardous waste transportation is operated out of the Entrepot Boulevard, Tallahassee facility. Liability insurance for hazardous waste transportation is no longer needed.

FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION

HAZARDOUS WASTE TRANSPORTER STATUS SHEET

Transporter Name: SAFETY-KLEEN CORP.

Mailing Address: 777 BIG TIMBER ROAD

ELGIN, ILLINOIS 60123

Contact Person: STEVE BECKER

Title: BRANCH MANAGER

Telephone number: (904) 576-9764

Facility Address: 4426 ENTREPOT BLVD.

TALLAHASSEE, FLORIDA 32310

Facility EPA ID: FLD 982133159

Insurance Company:

Address:

Contact Person:

Telephone number:

Policy Number:

Expiration Date:

Completed by: Joyce Henrickson
Willis Corroon Corporation of Illinois Date: 1/6/92
(Please print or type)

Signature: Joyce Henrickson

FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION

HAZARDOUS WASTE TRANSPORTER STATUS SHEET

Transporter Name: SAFETY-KLEEN CORP.

Mailing Address: 777 BIG TIMBER ROAD

ELGIN, ILLINOIS 60123

Contact Person: RUSS GIAMBRONE

Title: BRANCH MANAGER

Telephone number: (904) 264-2607

Facility Address: 161 INDUSTRIAL LOOP SOUTH

ORANGE PARK, FLORIDA 32073

Facility EPA ID: FLD 980847214

Insurance Company:

Address:

Contact Person:

Telephone number:

Policy Number:

Expiration Date:

Completed by: Joyce Henrickson
Willis Corroon Corporation of Illinois Date: 1/6/92
(Please print or type)

Signature: Joyce Henrickson

FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION

HAZARDOUS WASTE TRANSPORTER STATUS SHEET

Transporter Name: SAFETY-KLEEN CORP.

Mailing Address: 777 BIG TIMBER ROAD

ELGIN, ILLINOIS 60123

Contact Person: FRANK TAYLOR

Title: BRANCH MANAGER

Telephone number: (813) 626-1203

Facility Address: 5809 24th AVENUE SOUTH

TAMPA, FLORIDA 33619

Facility EPA ID: FLD 980847271

Insurance Company:

Address:

Contact Person:

Telephone number:

Policy Number:

Expiration Date:

Completed by: Joyce Henrickson
Willis Corroon Corporation of Illinois Date: 1/6/92
(Please print or type)

Signature: Joyce Henrickson

FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION

HAZARDOUS WASTE TRANSPORTER STATUS SHEET

Transporter Name: SAFETY-KLEEN CORP.

Mailing Address: 777 BIG TIMBER ROAD

ELGIN, ILLINOIS 60123

Contact Person: PAUL JOHNSON

Title: BRANCH MANAGER

Telephone number: (407) 830-6906

Facility Address: 505 PLUMOSA DRIVE

ALTAMONTE SPRINGS, FLORIDA 32701

Facility EPA ID: FLD 097837983

Insurance Company:

Address:

Contact Person:

Telephone number:

Policy Number:

Expiration Date:

Completed by: Joyce Henrickson
Willis Corroon Corporation of Illinois Date: 1/6/92
(Please print or type)

Signature: Joyce Henrickson

FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION

HAZARDOUS WASTE TRANSPORTER STATUS SHEET

Transporter Name: SAFETY-KLEEN CORP.

Mailing Address: 777 BIG TIMBER ROAD

ELGIN, ILLINOIS 60123

Contact Person: PAUL JOHNSON

Title: BRANCH MANAGER

Telephone number: (407) 830-6906

Facility Address: LOT 10

NORTHSTAR BUSINESS PARK

SAMFORD, FLORIDA 32771

Facility EPA ID: FLD 984171165

Insurance Company:

Address:

Contact Person:

Telephone number:

Policy Number:

Expiration Date:

Completed by: Joyce Henrickson
Willis Corroon Corporation of Illinois Date: 1/6/92
(Please print or type)

Signature: Joyce Henrickson

FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION

HAZARDOUS WASTE TRANSPORTER STATUS SHEET

Transporter Name: SAFETY-KLEEN CORP.

Mailing Address: 777 BIG TIMBER ROAD

ELGIN, ILLINOIS 60123

Contact Person: DON MURPHY

Title: BRANCH MANAGER

Telephone number: (813) 629-4711

Facility Address: 19200 PEACHLAND BLVD.

PORT CHARLOTTE, FLORIDA 33949

Facility EPA ID: FLD 000776716

Insurance Company:

Address:

Contact Person:

Telephone number:

Policy Number:

Expiration Date:

Completed by: Joyce Henrickson
Willis Corroon Corporation of Illinois Date: 1/6/92
(Please print or type)

Signature: Joyce Henrickson

FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION

HAZARDOUS WASTE TRANSPORTER STATUS SHEET

Transporter Name: SAFETY-KLEEN CORP.

Mailing Address: 777 BIG TIMBER ROAD
ELGIN, ILLINOIS 60123

Contact Person: TOM SANDS

Title: BRANCH MANAGER

Telephone number: (407) 736-1339

Facility Address: LOT 46B
QUANTUM INDUSTRIAL PARK
BOYNTON BEACH, FLORIDA 33426

Facility EPA ID: FLD 984167791

Insurance Company:

Address:

Contact Person:

Telephone number:

Policy Number:

Expiration Date:

Completed by: Joyce Henrickson
Willis Corroon Corporation of Illinois Date: 1/6/92
(Please print or type)

Signature: Joyce Henrickson

FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION

HAZARDOUS WASTE TRANSPORTER STATUS SHEET

Transporter Name: SAFETY-KLEEN CORP.

Mailing Address: 777 BIG TIMBER ROAD

ELGIN, ILLINOIS 60123

Contact Person: JORGE CARVAJAL

Title: BRANCH MANAGER

Telephone number: (305) 591-9409

Facility Address: 7875 NW 54TH STREET

MIAMI, FLORIDA 33166

Facility EPA ID: FLD 980840086

Insurance Company:

Address:

Contact Person:

Telephone number:

Policy Number:

Expiration Date:

Completed by: Joyce Henrickson
Willis Corroon Corporation of Illinois Date: 1/6/92
(Please print or type)

Signature: Joyce Henrickson

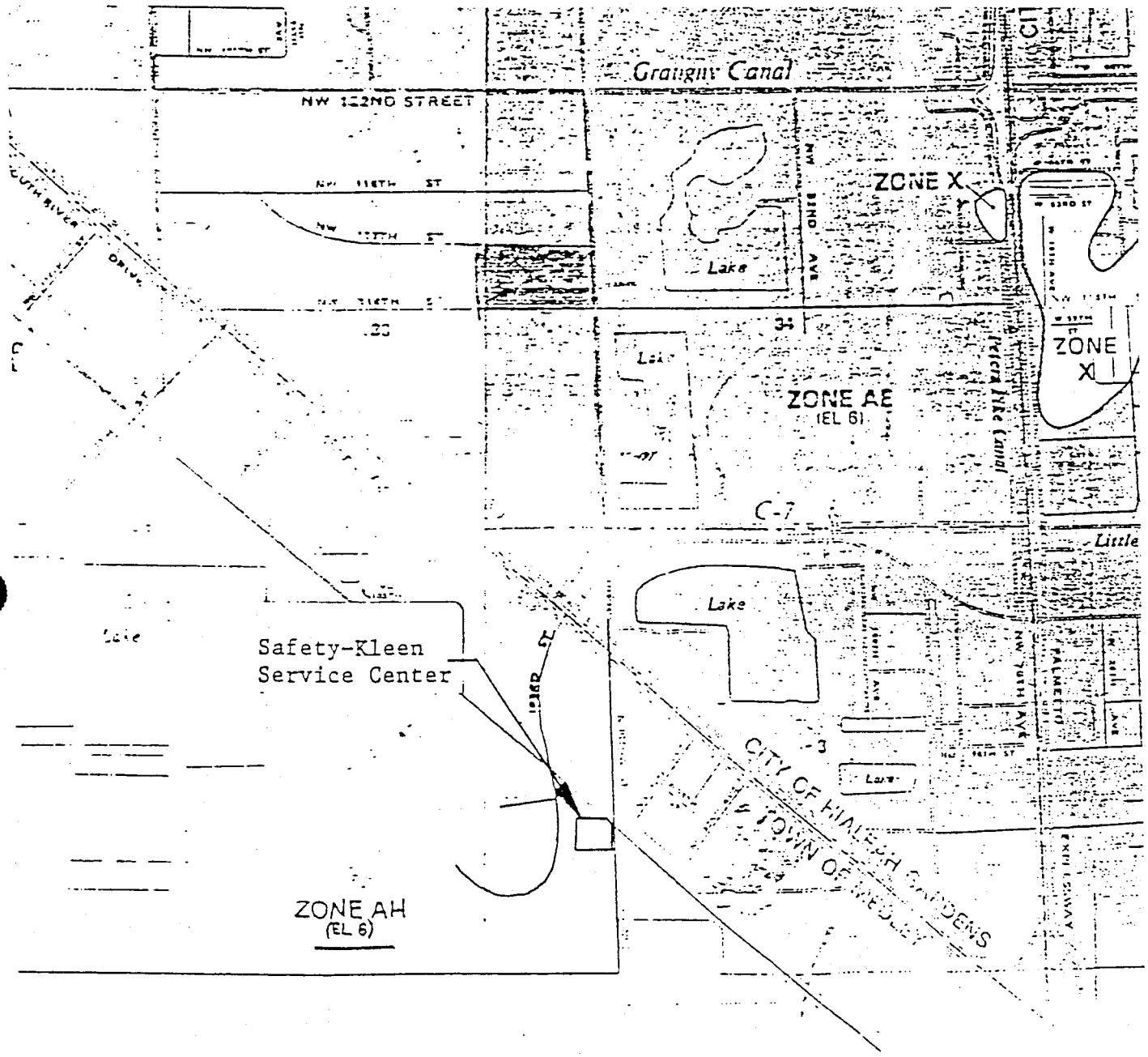
ATTACHMENT II.A.3

FLOOD INFORMATION

ATTACHMENT II.A.3
FLOOD INFORMATION

Based on information available from the Federal Emergency Management Agency (Figure II.A.3-1), the facility does not lie within the 100-year flood plain. The site is located in a Zone AH(EL6). AH areas are areas of 100-year shallow flooding where depths are between one and three feet. Base flood elevations are shown, but no flood hazard factors are determined. This site does not require any special flood management procedures.

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



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APPROXIMATE SCALE IN FEET

OBTAINED FROM FEMA FLOOD INSURANCE RATE MAP, TALLAHASSEE, FLORIDA. PANEL NUMBER 125098 0075 F, MAP REVISED: NOVEMBER 4, 1987

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ATTACHMENT II.A.4(a)

SECURITY PROCEDURES AND EQUIPMENT

ATTACHMENT II.A.4(a)
SECURITY PROCEDURES AND EQUIPMENT

SECURITY MEASURES

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

1. Entry to the container storage and return/fill areas is controlled through gates and doors. All gates and doors are locked at all times when the facility is not in operation. The entire facility is surrounded by an approximately eight-foot-high fence. The fence consists of six feet of chain-link topped by approximately two feet of barbed wire.

2. The combination of doors and signs will prevent unknowing entry and minimize the potential for unauthorized entry of people or livestock into the facility.

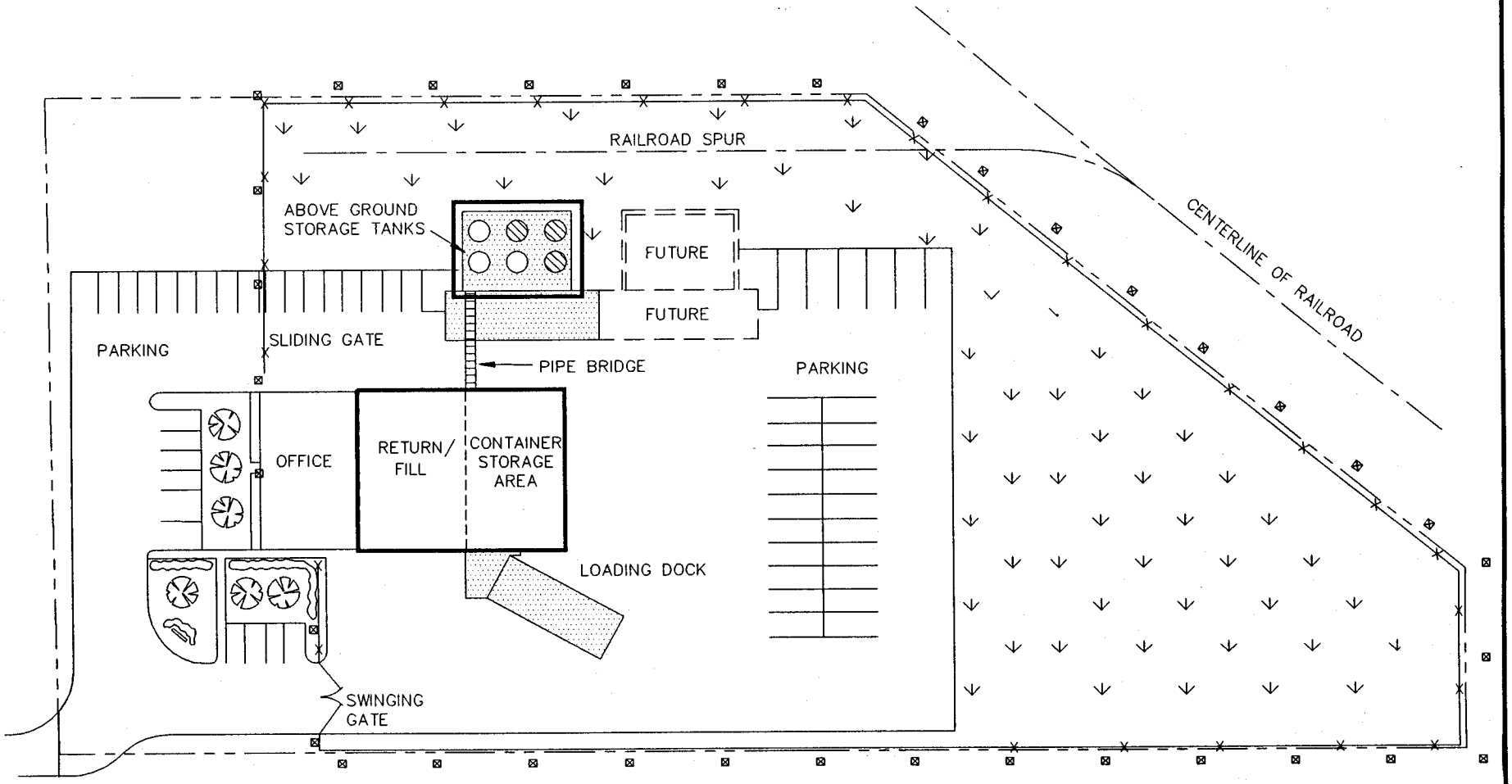
3. Signs (in both English and Spanish) are posted at the entrance of the facility and additional locations so that they are visible from any approach at 50 feet. Signs are marked "DANGER - UNAUTHORIZED PERSONNEL KEEP OUT." See Figure II.A.4(a)-1 for future locations of the signs.

4. "NO SMOKING" signs are posted in areas where hazardous wastes are handled.

13112.21/31121SS/071692-6

II.A.4(a)-1A

Figure II.A.4(a)-1
Access Control Features and Security Signage
Safety-Kleen Corp. Facility
Medley, Florida



LEGEND

- PROPERTY BOUNDARY
- HAZARDOUS WASTE MANAGEMENT AREAS
- CHAIN-LINK FENCE
- CONCRETE
- WARNING SIGNS
- GRASS
- FUTURE TANK

NOTE: ALL AREAS WHICH ARE NOT CONCRETE OR LANDSCAPED ARE ASPHALT

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FEET

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ATTACHMENT II.A.4(b)

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

PREPAREDNESS, PREVENTION, CONTINGENCY PLAN, AND EMERGENCY PROCEDURES FOR DAILY BUSINESS OPERATIONS
SAFETY-KLEEN CORP. 3-097-02
8755 NW 95th STREET
MEDLEY, FLORIDA
FLD 984171694

July 1992

Prepared for:

Safety-Kleen Corp.
777 Big Timber Road
Elgin, Illinois 60123

Prepared by:

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

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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)

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.

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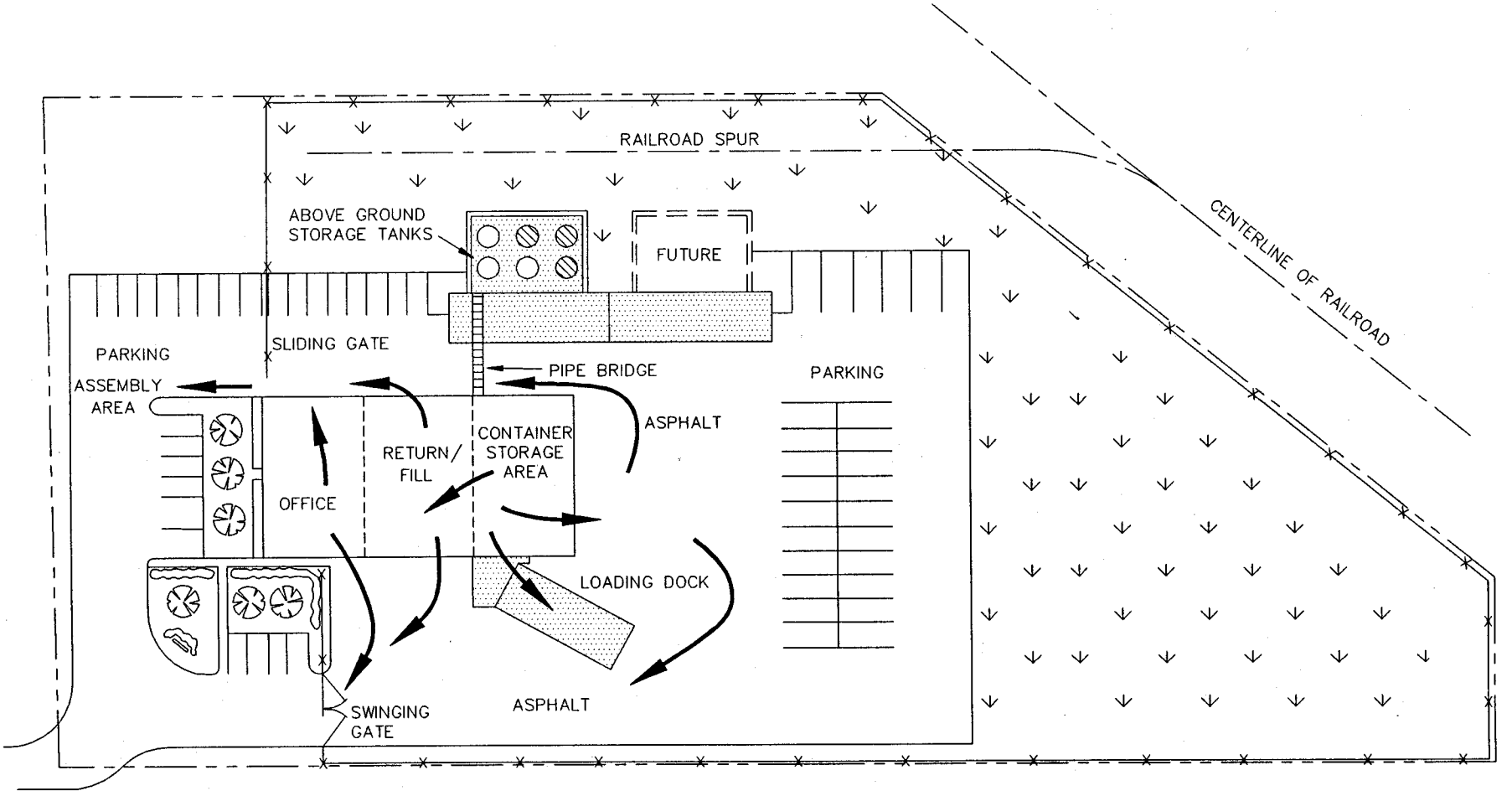
II.A.4(b)-3C

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



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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

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- 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.

17. 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

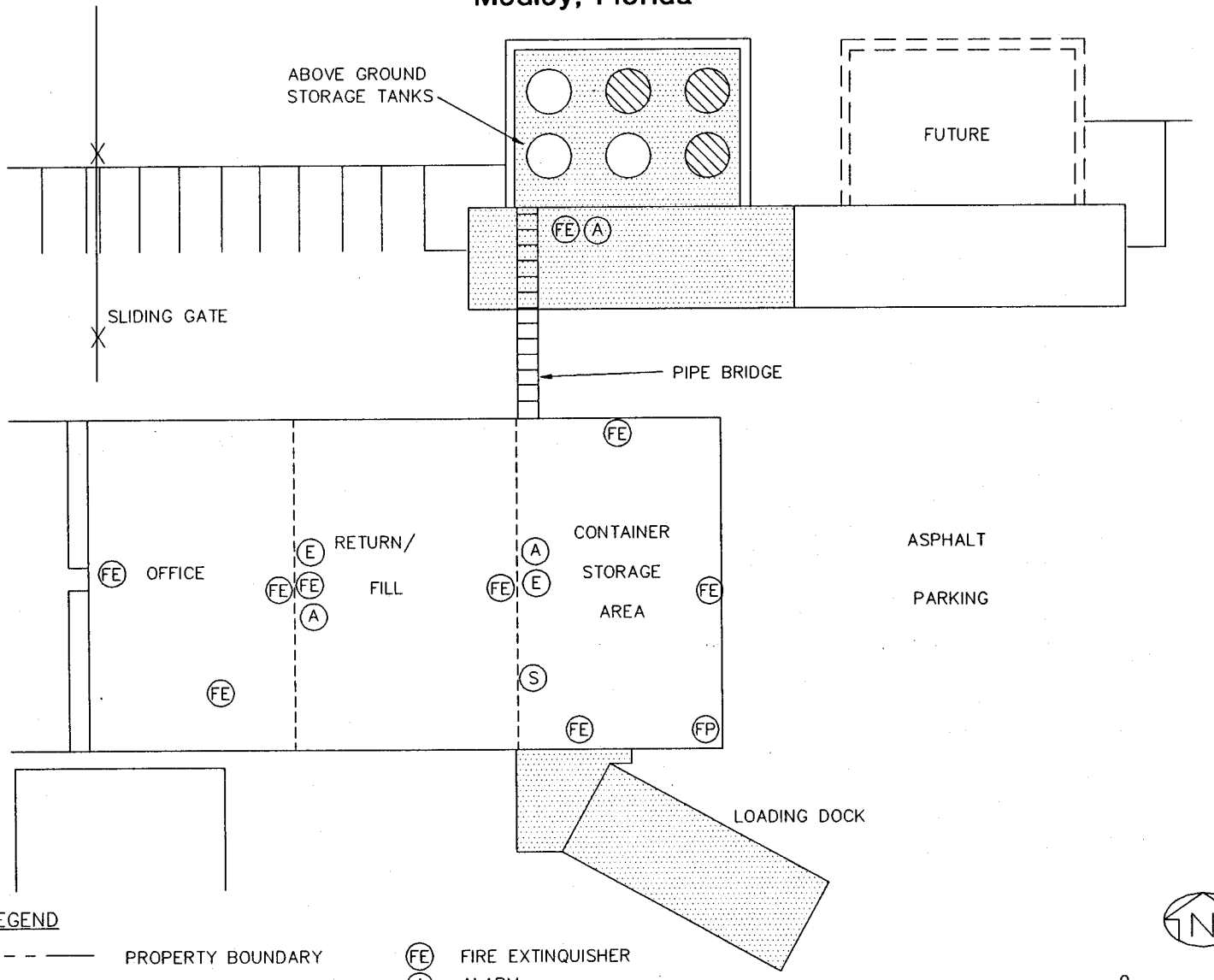

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TABLE II.A.4(b)-4

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 will 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

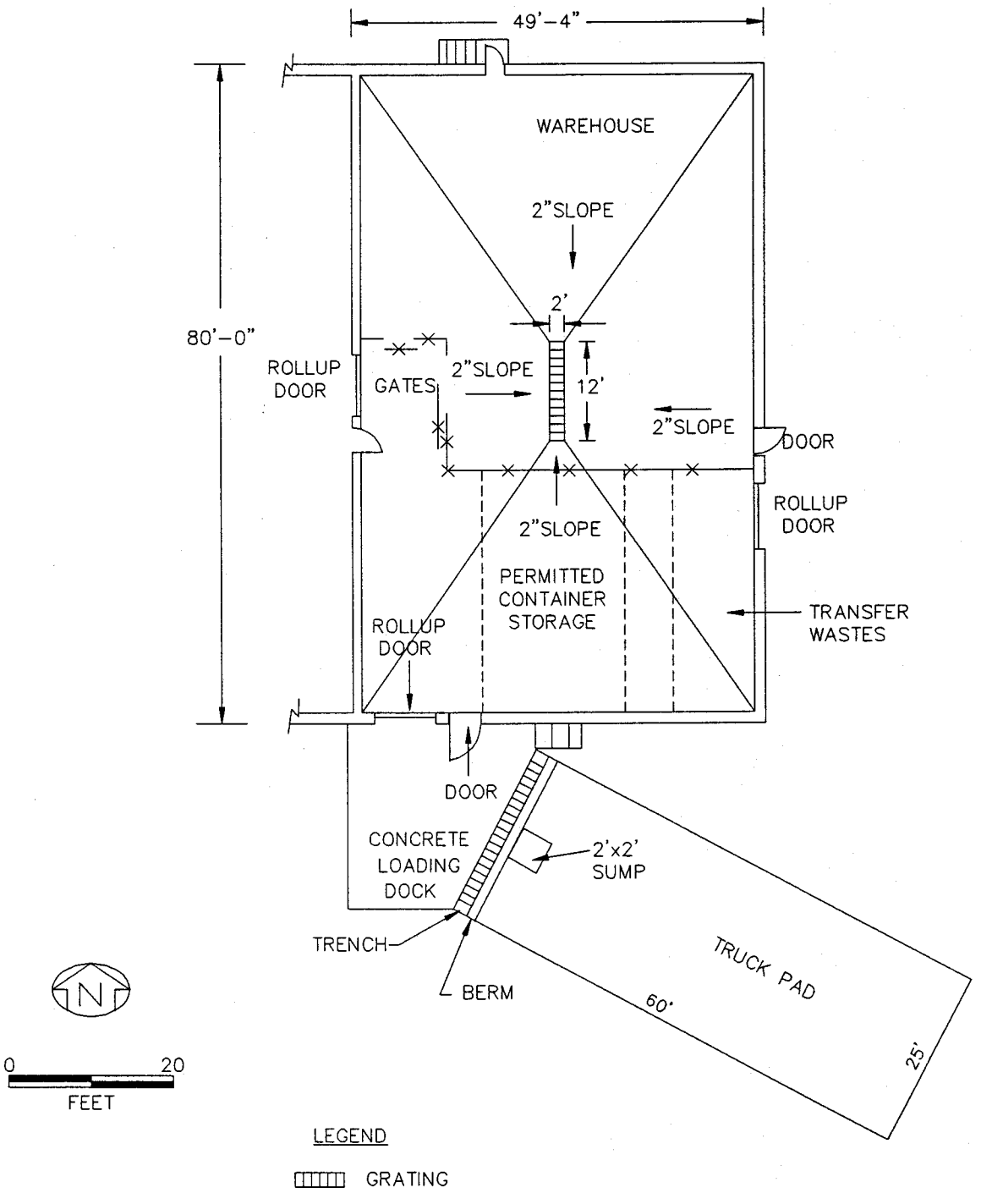
Containerized Wastes

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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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.

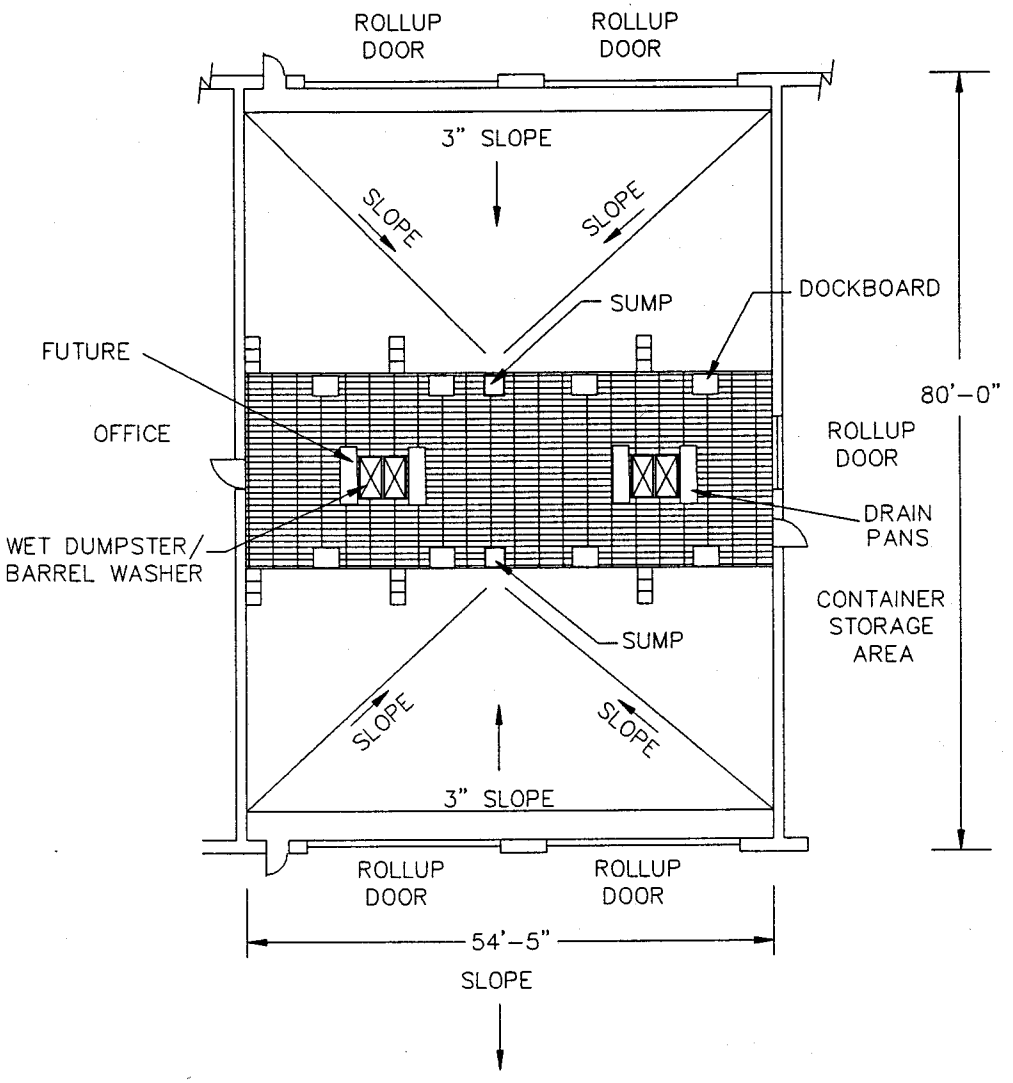
All containers are covered during movement and are located within diked, concrete floored areas to contain any potential spill. The small quantities of waste onsite at any time can be cleaned up immediately through the use of hand-held electric pumps, mops, wet/dry vacuums, or sorbent materials, should 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

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



LEGEND

STEPS

GRATING

N

0 20

FEET

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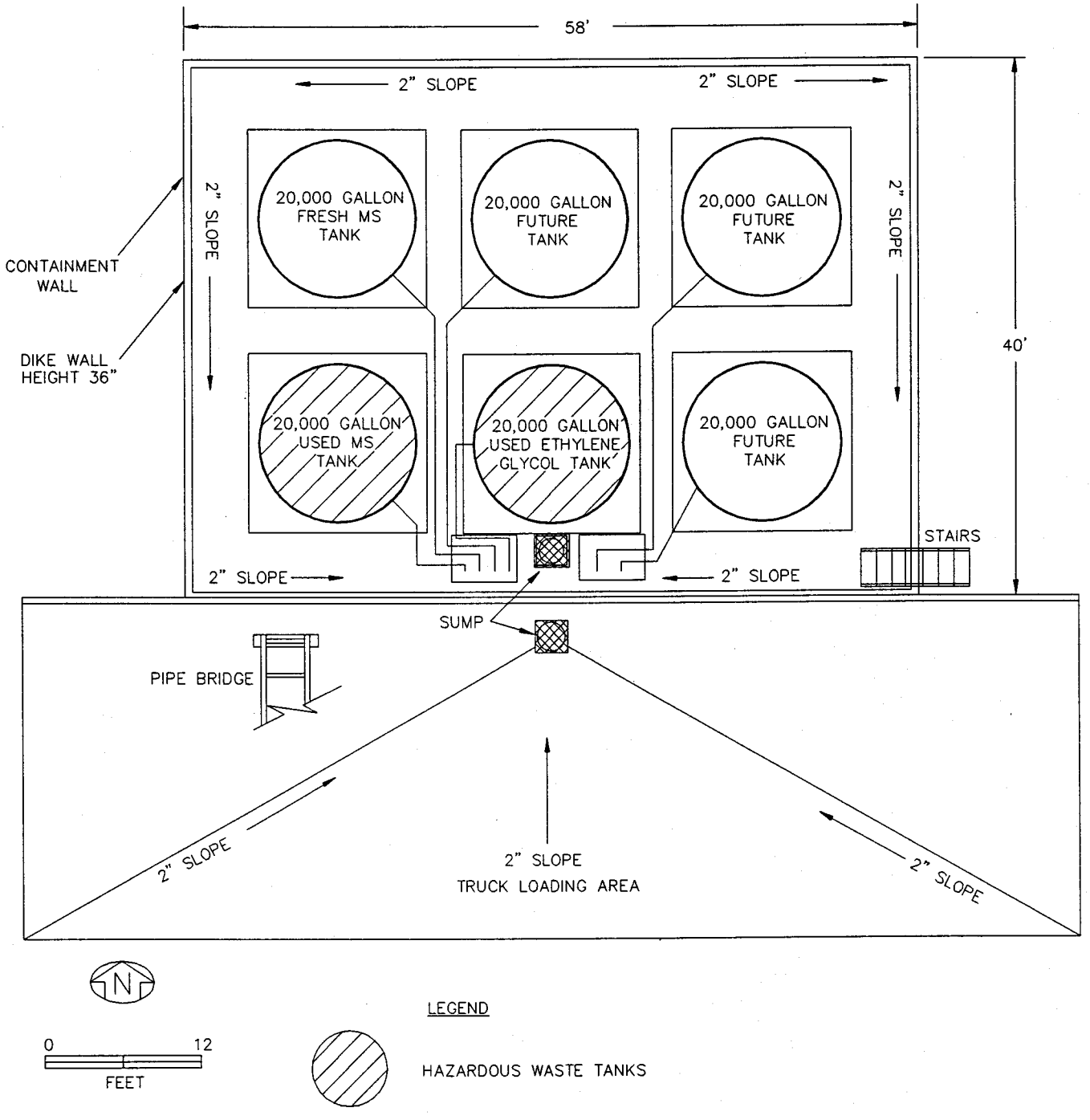
building, one overhead doorway connecting the container fill/return area and container storage area (warehouse), one doorway connecting the container fill/return area and the container storage area, and one doorway connecting the container fill/return area and the offices. The office floor and the container 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

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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

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

SECTION I – PRODUCT INFORMATION

Safety-Kleen Corp. - 777 Big Timber Road - Elgin, IL, U.S.A. 60123
Safety-Kleen Canada Inc. - 3090 Blvd. Le Carrefour - Suite 300 - Chomedy Laval Quebec, Canada H7T 2J7
For Product Technical Information Call 312-694-2700 (U.S.A.);
800-363-2260 (Eastern Canada); 514-686-2040 (Western Provinces/Call Collect)

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

IDENTITY (TRADE NAME): SAFETY-KLEEN 105 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	Wt. %	CAS NO.	OSHA PEL TWA (ppm)	OSHA PEL STEL (ppm)	ACGIH TLV TWA (ppm)	ACGIH TLV STEL (ppm)	LD50[a]	LC50[b]
Parts Washer Solvent (Consists predominantly of C9-C13 Saturated Hydrocarbons)	Mineral Spirits	85.0	64741-41-9	100 **	N.Av.	100 **	N.Av.	> 5000**	3400**
C8+ Aromatics		12.0	Mixture	N.Av.	N.Av.	N.Av.	N.Av.	N.Av.	N.Av.
*Toluene		0.5	108-88-3	100	150	100	150	5000	4000
*Xylene		1.0	1330-20-7	100	150	100	150	4300	5000
*Ethyl Benzene		0.5	100-41-4	100	125	100	125	3500	4000[c]
*1,1,1 Trichloroethane	Methyl Chloroform	0-0.5***	71-55-6	350	450	350	450	10300	13000
*Perchloroethylene	Tetrachloroethylene	0-0.5***	127-18-4	25	N.Av.	50	200	2629	4000[c]
Total Chlorinated Solvents		0-1.0***							

N.Av. = Not available.
* See Section X - Other Regulatory Information
**For Stoddard Solvent
***Even though the concentration range does not fall under the ranges prescribed by WHMIS, this is the actual range which varies with each batch of the product.

[a] Oral-Rat LD50 (mg/kg)
[b] Inhalation-Rat LC50 (ppm - 4 hours)
[c] Inhalation-Rat LC50 (ppm - 4 hours)

SECTION III – PHYSICAL DATA

PHYSICAL STATE, APPEARANCE AND ODOR:	Combustible liquid, clear, green, with characteristic hydrocarbon odor.
ODOR THRESHOLD:	Not available.
BOILING POINT:	304–435°F (151-224°C).
VAPOR PRESSURE:	2 mm Hg at 68°F (20°C).
FREEZING POINT:	Not available.
EVAPORATION RATE:	0.1 (Butyl Acetate = 1).
VOLATILE:	99.9%
VOLATILE ORGANIC COMPOUNDS:	6.4 to 6.7 lbs/gal; 770 to 800 g/l
DENSITY:	Not available.
VAPOR DENSITY:	4.9 (Air = 1).
SOLUBILITY IN WATER:	Negligible.
pH:	Not applicable.
SPECIFIC GRAVITY:	0.77 to 0.80 at 60/60°F (16/16°C) (Water = 1).
COEFFICIENT OF WATER/OIL DISTRIBUTION:	Not available.
MOLECULAR WEIGHT:	142 (Approximately).

SECTION IV – FIRE AND EXPLOSION HAZARD DATA

FLASH POINT:	105°F (41°C) SETA
AUTOIGNITION TEMPERATURE:	473°F (245°C).
CONDITIONS OF FLAMMABILITY:	Materials must be moderately heated before ignition can occur.
FLAMMABLE LIMITS IN AIR:	*LOWER:* 0.7 Vol. % *UPPER:* 6.0 Vol. %
UNUSUAL FIRE AND EXPLOSION HAZARDS:	Decomposition and combustion products may be toxic. Heated containers may rupture, explode or be thrown into the air. Vapors are heavier than air and may travel great distances to ignition source and flash back. Not sensitive to mechanical impact. Material may be sensitive to static discharge, which could result in fire or explosion.
EXTINGUISHING MEDIA:	Carbon dioxide, foam, dry chemical, water (mist only).
FIRE FIGHTING PROCEDURES – SPECIAL:	NFPA 704 Rating 0-2-0 Keep storage containers cool with water spray. Use self-contained breathing apparatus (SCBA).
HAZARDOUS COMBUSTION PRODUCTS:	Thermal decomposition and burning may produce carbon monoxide.

SECTION V – REACTIVITY DATA

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

INCOMPATIBILITY (MATERIALS AND CONDITIONS TO AVOID): Avoid oxidizing agents, flames, sparks and high temperatures.

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

HAZARDOUS DECOMPOSITION PRODUCTS: Normally none.

SECTION VI – HEALTH HAZARD DATA AND TOXICOLOGICAL PROPERTIES

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

EXPOSURE LIMITS: See Section II.

SIGNS AND SYMPTOMS OF EXPOSURE:

ACUTE:

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

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

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

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

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

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

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

Perchloroethylene is listed by IARC as a possible carcinogen and is classified by NTP as having limited evidence of carcinogenicity in humans or sufficient evidence of carcinogenicity in experimental animals.

OTHER POTENTIAL HEALTH HAZARDS: The following information is required by Canadian WHMIS regulations. Irritancy is covered in Signs and Symptoms of Exposure in Section VI. There is no known human sensitization or toxicologically synergistic product. Xylene has demonstrated experimental effects for reproductive toxicity, mutagenicity and teratogenicity. Studies indicate Ethylbenzene 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. If irritation or redness from exposure to vapors or mists develops, move victim away from exposure into fresh air. Consult physician if irritation or pain persists.

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

INHALATION: (Breathing)	Remove to fresh air immediately. Use oxygen if there is difficulty breathing or artificial respiration if breathing has stopped. Do not leave victim unattended. Seek immediate medical attention if necessary.
INGESTION: (Swallowing)	If conscious, drink 4 to 8 ounces of water and seek immediate medical attention. DO NOT induce vomiting.

SECTION VIII – PRECAUTIONS FOR SAFE USE AND HANDLING AND PREVENTIVE MEASURES

SPILL PROCEDURES:	Remove all ignition sources. Ventilate area and avoid breathing vapors. For large spills, isolate area and deny entry. If possible, contain as a liquid for possible re-refining. Absorb with compatible absorbent material. Shovel into closable container for disposal. Wear protective equipment specified in Section IX. Contain away from surface waters and sewers.
WASTE DISPOSAL METHODS:	Dispose in accordance with Federal, State, Provincial and local regulations. Contact Safety-Kleen regarding recycling or proper disposal.
HANDLING PRECAUTIONS:	Avoid contact with eyes, skin or clothing. Use in well ventilated area and avoid breathing vapors or mists. Keep away from heat, sparks and flames.
SHIPPING AND STORING PRECAUTIONS:	Keep container tightly closed when not in use and during transport. Empty product containers may contain product residue. Do not pressurize, cut, heat, weld, grind or expose containers to flame or other sources of ignition.
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 AND OTHER PREVENTIVE MEASURES

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

SECTION X – OTHER REGULATORY INFORMATION

DOT PROPER SHIPPING NAME:	PETROLEUM NAPHTHA
DOT CLASS:	COMBUSTIBLE LIQUID
DOT ID NUMBER:	UN1255

SARA TITLE III:

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

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

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

TDGA:

NAPHTHA, PETROLEUM
CLASS 3.3, UN1255, P.G. III

WHMIS CLASSIFICATION:

Class B3, Combustible Liquid;
Class D2A, Other Toxic Effects, Very Toxic Material;
Class D2B, Other Toxic Effects, Toxic Material

SECTION XI – PREPARATION INFORMATION

PREPARED BY: Product MSDS Coordinator

FORM PART NO. 82310

ORIGINAL ISSUE DATE: July 20, 1989 *REVISED:* December 14, 1990 *SUPERSEDES:* March 12, 1990

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

PERCHLOROETHYLENE

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

SECTION 1 -- PRODUCT INFORMATION

Safety-Kleen Corp. - 777 Big Timber Road - Elgin, IL, U.S.A. 60123
Safety-Kleen Canada Inc. - 3090 Blvd. Le Carrefour - Suite 300 - Chomedy Laval Quebec, Canada H7T 2J7
For Product Technical Information Call 312-694-2700 (U.S.A.);
800-363-2260 (Eastern Canada); 514-686-2040 (Western Provinces/Call Collect)

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

IDENTITY (TRADE NAME): PERCHLOROETHYLENE

SYNONYMS: TETRACHLOROETHYLENE

SK PART NUMBER: 775, 10778, 30778

FAMILY/CHEMICAL NAME: CHLORINATED HYDROCARBON

PRODUCT USAGE: DRY CLEANING SOLVENT

MSDS FORM PART NO.: 82342

SECTION 2 -- HAZARDOUS COMPONENTS

NAME	SYNONYM	Wt. %	CAS NO.	OSHA PEL TWA ppm	OSHA PEL STEL ppm	ACGIH TLV TWA ppm	ACGIH TLV STEL ppm	LD50[a]	LC50[b]
*Perchloroethylene	Tetrachloroethylene	99.5-100	127-18-4	25	N.Av.	50	200	2629	34200

N.Av. = Not Available
*See Section 10-Other Regulatory Information
[a]Oral-Rat LD50 (mg/kg)
[b]Inhalation-Rat LC50 (mg/m^3/3 hours)

SECTION 3 -- PHYSICAL DATA

PHYSICAL STATE, APPEARANCE AND ODOR: Clear, colorless, liquid with a mild ether-like odor.

ODOR THRESHOLD: 50ppm (For Perchloroethylene).

BOILING POINT: 250°F (121°C) (For Perchloroethylene).

VAPOR PRESSURE: 14mm Hg at 68°F (20°C) (For Perchloroethylene).

FREEZING POINT: -7.6°F (-22°C) (For Perchloroethylene).

EVAPORATION RATE: 2.3 (Butyl Acetate = 1) (For Perchloroethylene).

VOLATILE: 100%

VOLATILE ORGANIC COMPOUNDS: 13.5 lbs/gal; 1623 g/l

DENSITY: 13.5 lbs/gal (For Perchloroethylene).

VAPOR DENSITY:	5.7 (Air = 1) (For Perchloroethylene).
SOLUBILITY IN WATER:	Slight (For Perchloroethylene).
pH	7-10
SPECIFIC GRAVITY:	1.623 (Water = 1) (For Perchloroethylene).
COEFFICIENT OF WATER/OIL DISTRIBUTION:	Not available.
MOLECULAR WEIGHT:	165.8 (For Perchloroethylene).

SECTION 4 -- FIRE AND EXPLOSION HAZARD DATA

FLASH POINT:	Not applicable.
AUTOIGNITION TEMPERATURE:	Not applicable.
CONDITIONS OF FLAMMABILITY:	Heat, sparks and flame.
FLAMMABLE LIMITS IN AIR:	*LOWER:* Not applicable. *UPPER:* Not applicable.
UNUSUAL FIRE AND EXPLOSION HAZARDS:	Decomposition and combustion products may be toxic. Heated containers may rupture, explode or be thrown into the air. Not sensitive to mechanical impact or static discharge.
EXTINGUISHING MEDIA:	Carbon dioxide, dry chemical.
FIRE FIGHTING PROCEDURES -- SPECIAL:	Perchloroethylene NFPA 704 Rating 2-0-0 Keep storage containers cool with water spray. Use self-contained breathing apparatus (SCBA).
HAZARDOUS COMBUSTION PRODUCTS:	Thermal decomposition and burning may produce phosgene, chloride fumes and carbon monoxide.

SECTION 5 -- REACTIVITY DATA

STABILITY:	Stable under normal temperatures and pressures, and not reactive with water.
INCOMPATIBILITY (MATERIALS AND CONDITIONS TO AVOID):	Avoid alkalies. May form explosive mixtures with metals and alkaline materials.
HAZARDOUS POLYMERIZATION:	Not known to occur under normal temperatures and pressures.
HAZARDOUS DECOMPOSITION PRODUCTS:	None under normal temperatures and pressures. However, thermal decomposition may produce phosgene chloride fumes and carbon monoxide.

SECTION 6 -- HEALTH HAZARD DATA AND TOXICOLOGICAL PROPERTIES

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

EXPOSURE LIMITS: See Section 2.

SIGNS AND SYMPTOMS OF EXPOSURE:

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

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

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

Ingestion (Swallowing): 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: Repeated or prolonged exposure may cause conjunctivitis. Prolonged and/or repeated skin contact may cause drying and cracking or dermatitis. Repeated inhalation may cause respiratory tract irritation, central nervous system depression, liver and kidney damage.

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

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

Perchloroethylene is listed by IARC as a possible carcinogen. Perchloroethylene is classified by NTP as having limited evidence of carcinogenicity in humans or sufficient evidence of carcinogenicity in experimental animals.

Also see Section 10.

OTHER POTENTIAL HEALTH HAZARDS: The following information is required by Canadian WHMIS regulations. Irritancy is covered in Signs and Symptoms of Exposure in Section 6. There is no known human sensitization. toxicologically synergistic product, reproductive toxicity, mutagenicity, or teratogenicity associated with this product.

SECTION 7 -- EMERGENCY AND FIRST AID PROCEDURES

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

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

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

INGESTION: (Swallowing) If conscious, drink 4 to 8 ounces of water and seek immediate medical attention. DO NOT induce vomiting.

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

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

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

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

SHIPPING AND STORING PRECAUTIONS: Keep container tightly closed when not in use and during transport. Empty product containers may contain product residue. Do not pressurize, cut, heat, weld, grind or expose containers to flame or other sources of ignition. See Section 10 for Packing Group information.

PERSONAL HYGIENE: Use good personal hygiene. Wash thoroughly with soap and water after handling and before eating, drinking or using tobacco products. Clean contaminated clothing, shoes and protective equipment before reuse.

SECTION 9 -- CONTROL MEASURES AND OTHER PREVENTIVE MEASURES

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

PROTECTIVE GLOVES: Use polyvinyl alcohol, Teflon or Viton® gloves to prevent contact with skin.

RESPIRATORY PROTECTION: Use NIOSH/MSHA-approved respiratory protective equipment when concentration of vapors or mists exceeds applicable exposure limit. Depending on the airborne concentration, use a full-face respirator or gas mask with appropriate cartridges and canisters. A self-contained breathing apparatus (SCBA) is required for large spills and emergencies. Selection and use of respiratory protective equipment should be in accordance in the U.S.A. with OSHA General Industry Standard 29 CFR 1910.134 and in Canada with CSA Standard Z94.4-M1982.

ENGINEERING CONTROLS: Provide local exhaust or general dilution ventilation needed to maintain concentrations of vapors or mists below applicable exposure limits. Where explosive mixtures may be present, systems safe for such locations should be used.

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

SECTION 10 -- OTHER REGULATORY INFORMATION

DOT PROPER SHIPPING NAME: TETRACHLOROETHYLENE

DOT CLASS: Class 6.1

DOT ID NUMBER: UN1897, Packing Group III
(Reportable Quantity = 100 lbs/container)

SARA TITLE III: Product contains a toxic chemical 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 constituent is listed with an asterisk in Section 2 of this Material Safety Data Sheet.

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

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

CALIFORNIA: This product contains detectable amounts of Perchloroethylene CAS No. 127-18-4 and Trichloroethylene CAS No. 79-01-6. These materials are listed by the State of California as known carcinogens.

TDGA: Tetrachloroethylene, Class 6.1, UN1897, Packing Group III

WHMIS CLASSIFICATION: D1B (Poisonous and Infectious Materials, Immediate and Serious Toxic Effects, Toxic Material):
D2A (Poisonous and Infectious Materials, Other Toxic Effects, Very Toxic Material):
D2B (Poisonous and Infectious Materials, Other Toxic Effects, Toxic Material

SECTION 11 -- PREPARATION INFORMATION

PREPARED BY: Product MSDS Coordinator

REVISED: March 20, 1991

ORIGINAL ISSUE DATE: July 20, 1989

SUPERSEDES: December 1, 1989

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

SAFETY-KLEEN 140 SOLVENT-MS

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 140 SOLVENT-MS

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	SYNONYM	%	CAS NO.	OSHA PEL (ppm)	ACGIH TLV (ppm)
Mineral Spirits	Petroleum Distillates	99.9	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)		0.0001	1330-20-7	100 150 STEL	100 150 STEL

* 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: 360 - 400 F

MELTING POINT: Not Available

EVAPORATION RATE: (Butyl Acetate = 1) 0.08

PERCENT VOLATILE: 99.9 %

VAPOR DENSITY: 5.48 (Air = 1)

VAPOR PRESSURE: 0.5 mm of Hg at 68 F

SOLUBILITY IN WATER: Negligible

pH:	Not Applicable
SPECIFIC GRAVITY:	0.770 to 0.811
MOLECULAR WEIGHT:	Approximately 142
VOLATILE ORGANIC COMPOUNDS:	770 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: 1.0% *UPPER:* 7.0%

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

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

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 anesthetic 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: None Known

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: None of the ingredients are known or suspected carcinogens.

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 does not contain 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.

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.* 8248
(was 900-14-004)

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

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

HEAVY DUTY LACQUER THINNER

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

SECTION I -- PRODUCT INFORMATION

Safety-Kleen Corp. - 777 Big Timber Road - Elgin, IL, U.S.A. 60123
Safety-Kleen Canada Inc. - 3090 Blvd. Le Carrefour - Suite 300 - Chomedy Laval Quebec, Canada H7T 2J7
For Product Technical Information Call 312-694-2700 (U.S.A.);
800-363-2260 (Eastern Canada); 514-686-2040 (Western Provinces/Call Collect)

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

IDENTITY (TRADE NAME): HEAVY DUTY LACQUER THINNER

SYNONYMS: NONE

SK PART NUMBER: 5820, 5825, 15820, 15825, 95825

FAMILY/CHEMICAL NAME: NONE

PRODUCT USAGE: LACQUER THINNER

SECTION II -- HAZARDOUS COMPONENTS

NAME	SYNONYM	Wt. %	CAS NO.	OSHA PEL TWA ppm	OSHA PEL STEL ppm	ACGIH TLV TWA ppm	ACGIH TLV STEL ppm	LD50[a]	LC50[b]
*Toluene	Methyl benzene	9.6-62.7**	108-88-3	100	150	100	150	5000	4000[c]
*Xylene	Dimethyl benzene	0-10.4**	1330-20-7	100	150	100	150	4300	5000
*Ethyl benzene	Phenylethane	0-10.4**	100-41-4	100	125	100	125	3500	4000[c]
*Acetone	Dimethyl ketone	0-19.2**	67-64-1	750	1000	750	1000	5800	50100[c]
*Methyl ethyl ketone	MEK	9.8-39.3**	78-93-3	200	300	200	300	2737	23500[c]
Ethyl acetate	Acetic ether	0-18.4**	141-78-6	400	N.Av.	400	N.Av.	5620	16000[c]
Methyl propyl ketone	2-Pentanone	0-29.5**	107-87-9	200	250	200	250	3730	21000
*Methyl isobutyl ketone	4-Methyl-2-pentanone	0-29.5**	108-10-1	50	75	50	75	2080	8000
Isobutyl acetate	2-Methyl propyl acetate	0-18.4**	110-19-0	150	N.Av.	150	N.Av.	13400	40000[c]
N-Butyl acetate	Butyl ethanoate	0-18.4**	123-86-4	150	200	150	200	13100	21000
Propylene glycol methyl ether acetate	1-Methoxy-2 propanol acetate	0-18.4**	108-65-6	N.Av.	N.Av.	N.Av.	N.Av.	8532	46000
*Methyl alcohol	Methanol	0-2.9**	67-56-1	200 (Skin)	250 Skin	200 (Skin)	250 Skin	5628	64000
Ethyl alcohol	Ethanol	0-9.6**	64-17-5	1000	N.Av.	1000	N.Av.	7060	37000
Isopropyl alcohol	Isopropanol	0-9.6**	67-63-0	400	500	400	500	5045	16000[c]

*N-Butyl alcohol	Butanol	0-9.6**	71-36-3	50 (Skin) (Ceiling)	N.Av.	50 (Skin) (Ceiling)	N.Av.	790	8000
C5 to C8 Aliphatic hydrocarbons	N.Av.	0-42.1**	109-66-0[c]	600[c]	750[c]	600[c]	750[c]	N.Av.[c]	325[c,l]
C9 [redacted] Aliphatic hydr[redacted]ons	N.Av.	0-9.6**	64741-41-9[d]	100[d]	N.Av.	100[d]	N.Av.	>5000[d]	N.Av.
*1,1,1-Trichloroethane	Methyl chloroform	0-1.0**	71-55-6	350	450	350	450	10300	18000
*Methylene chloride	Dichloromethane	0-1.0**	75-09-2	500	2000[m]	50	174	1600	88000[k]
*Perchloroethylene	Tetrachloro-ethylene	0-1.0**	127-18-4	25	N.Av.	50	200	2629	34200[f]
Total chlorinated compounds		0-1.0**							

N.Av. = Not Available
*See Section X-Other Regulatory Information
**Even though the concentration range does not fall under the ranges prescribed by WHMIS, this is the actual range which varies with each batch of the product.

[a]Oral-Rat LD50 (mg/kg)
[b]Inhalation-Rat LC50 (ppm/4 hours)
[c]For Pentane
[d]For Stoddard Solvent
[e]Inhalation-Rat LCLo (ppm/4 hours)
[f]Inhalation-Rat LC50 (mg/m^3/8 hours)
[g]Inhalation-Rat LC50 (ppm/8 hours)
[i]Inhalation-Rat LC50 (ppm/6 hours)
[j]Inhalation-Rat LC50 (ppm/10 hours)
[k]Inhalation-Rat LC50 (mg/m^3/30 minutes)
[l]Inhalation-Mus LCLo (gm/m^3/2 hours)
[m]5 minutes in any 2 hours

SECTION III – PHYSICAL DATA

PHYSICAL STATE, APPEARANCE AND ODOR:	Clear, colorless liquid with a solvent odor.
ODOR THRESHOLD:	Not available.
B[redacted]NG POINT:	133°F to 342°F (56°C to 172°C) (based on a similar UNOCAL® product) (Approximately).
VAPOR PRESSURE:	94.7 mm Hg at 68°F (20°C) (based on a similar UNOCAL® product) (Approximately).
FREEZING POINT:	-200°F to -8°F (-129°C to -22°C) (Approximately).
EVAPORATION RATE:	3.7 (Butyl Acetate = 1) (based on a similar UNOCAL® product) (Approximately).
VOLATILE:	100%
VOLATILE ORGANIC COMPOUNDS:	6.9 lbs/gal; 830 g/l
DENSITY:	6.9 lbs/gal
VAPOR DENSITY:	2.2 to 3.9 (Air = 1) (Approximately).
SOLUBILITY IN WATER:	Partial.
pH	Not applicable.
SPECIFIC GRAVITY:	0.83 (Water = 1).
COEFFICIENT OF WATER/OIL DISTRIBUTION:	Not available.
[redacted]LECULAR WEIGHT:	65 to 114 (Approximately).

SECTION IV -- FIRE AND EXPLOSION HAZARD DATA

FLASH POINT:	< 100°F (< 37°C) Tag Closed Cup

AUTOIGNITION TEMPERATURE: Not available.

CONDITIONS OF FLAMMABILITY: Heat, sparks and flame.

FLAMMABLE LIMITS IN AIR: *LOWER:* 1.0 Vol.% (based on a similar UNOCAL® product) (Approximately).
UPPER: 13.2 Vol.% (based on a similar UNOCAL® product) (Approximately).

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

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

FIRE FIGHTING PROCEDURES -- SPECIAL: NFPA 704 Rating 2-3-0
Product could float on water and spread fire. Keep storage containers cool with water spray. Use self-contained breathing apparatus (SCBA).

HAZARDOUS COMBUSTION PRODUCTS: Thermal decomposition and burning may produce carbon monoxide.

SECTION V -- REACTIVITY DATA

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

INCOMPATIBILITY (MATERIALS AND CONDITIONS TO AVOID): Avoid acids, alkalies, oxidizing agents, heat, sparks and flame.

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

HAZARDOUS DECOMPOSITION PRODUCTS: None under normal temperatures and pressures. Thermal decomposition may produce carbon monoxide.

SECTION VI -- HEALTH HAZARD DATA AND TOXICOLOGICAL PROPERTIES

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

EXPOSURE LIMITS: See Section II.

SIGNS AND SYMPTOMS OF EXPOSURE:

ACUTE: *Eyes:* Contact may cause severe irritation. Vapors may cause noticeable redness, tearing, irritation and pain.

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

Inhalation (Breathing): Vapor or mist can be irritating to the respiratory tract, cause headaches, dizziness, confusion, nausea, vomiting, impaired coordination, anesthesia and may have other central nervous system effects, including unconsciousness in extreme cases.

Ingestion (Swallowing): Can cause burning of the mouth, throat and abdomen, nausea, vomiting, diarrhea, symptoms of central nervous system depression, including weakness, dizziness, slow and shallow respiration, unconsciousness and convulsions. Aspiration into the lungs during ingestion or vomiting may cause mild to severe pulmonary injury and possibly death.

CHRONIC: Conjunctivitis may occur upon chronic exposure. Prolonged and/or repeated skin contact may cause drying and cracking or dermatitis and inhalation may cause damage to the liver, kidney, spleen, lungs or nervous system.

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

CARCINOGENICITY:

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

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

Also see Section X.

OTHER POTENTIAL HEALTH HAZARDS:

Reports have associated prolonged and repeated occupational exposure to solvents with permanent brain and/or central nervous system damage. Intentional misuse by deliberately concentrating and inhaling this material may be harmful or fatal. Observe all appropriate control measures

The following information is required by Canadian WHMIS regulations. Irritancy is covered in Signs and Symptoms of Exposure in Section VI. There is no known human sensitization or toxicologically synergistic product associated with this product. Toluene and Xylene have demonstrated experimental effects for reproductive toxicity, mutagenicity and teratogenicity. Ethyl benzene and Ethyl alcohol have demonstrated experimental effects for teratogenicity and mutagenicity. Methyl ethyl ketone and 1,1,1-Trichloroethane have shown experimental effects for teratogenicity. There is limited experimental evidence of reproductive toxicity and bacterial mutagenicity associated with Methylene chloride.

SECTION VII -- EMERGENCY AND FIRST AID PROCEDURES

EYES:

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

SKIN:

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

INHALATION: (Breathing)

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

INGESTION: (Swallowing)

If conscious, drink 4 to 8 ounces of water and seek immediate medical attention. DO NOT induce vomiting.

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

SPILL PROCEDURES:

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

WASTE DISPOSAL METHODS:

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

HANDLING PRECAUTIONS:

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

SHIPPING AND STORING PRECAUTIONS:

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

PERSONAL HYGIENE:

Use good personal hygiene. Wash thoroughly with soap and water after handling and before eating, drinking or using tobacco products. Clean contaminated clothing, shoes and protective equipment before reuse.

SECTION IX – CONTROL MEASURES AND OTHER PREVENTIVE MEASURES

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

SECTION X – OTHER REGULATORY INFORMATION

DOT PROPER SHIPPING NAME:	PAINT RELATED MATERIAL
DOT CLASS:	Class 3
DOT ID NUMBER:	UN1263, Packing Group II
SARA TITLE III:	Product contains toxic chemicals subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372. Toxic constituents are listed with an asterisk in Section II of this Material Safety Data Sheet. Product poses the following physical and/or health hazards as defined in 40 CFR 370.3 (Sections 311, 312 of SARA Title III): Immediate (Acute) Health Hazard Delayed (Chronic) Health Hazard Fire Hazard
CALIFORNIA:	This product contains detectable amounts of Methylene chloride CAS No. 75-09-2 and Perchloroethylene CAS No. 127-18-4. These materials are listed by the State of California as known carcinogens.
TDGA:	PAINT RELATED MATERIAL, Class 3.2, UN1263, Packing Group II
WHMIS CLASSIFICATION:	Class B2 (Flammable and Combustible Materials, Flammable Liquid): Class D1B (Poisonous and Infectious Materials, Immediate and Serious Toxic Effects, Toxic Material): Class D2A (Poisonous and Infectious Materials, Other Toxic Effects, Very Toxic Material): Class D2B (Poisonous and Infectious Materials, Other Toxic Effects, Toxic Material)

SECTION XI -- PREPARATION INFORMATION

P[redacted]RED BY: Product MSDS Coordinator

FORM PART NO. 82343

ORIGINAL ISSUE DATE: July 20, 1989 *REVISED:* February 28, 1991 *SUPERSEDES:* December 1, 1989

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

safety-kleen

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

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

SK PART NUMBER: 6861, 699

FAMILY/CHEMICAL NAME: N/A

PRODUCT USAGE: REMOVING CARBON RESIDUE FROM PARTS

SECTION II -- HAZARDOUS COMPONENTS

	SYNONYM	TYPICAL % BY WT.	CAS NO.	OSHA PEL (ppm)	ACGIH TLV (ppm)
Aromatic 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
N-Methyl-2-Pyrrolidone	NMP		872-50-4	100 (BASF)	100 (BASF)
Dipropylene Glycol Methyl Ether	Dipropylene Glycol Monomethyl Ether		34590-94-8	100 150 STEL	100 150 STEL
Monoethanolamine	Ethanolamine		141-43-5	3 6 STEL	3 6 STEL
Oleic Acid	Red Oil		112-80-1	N/E	N/E
Water			7732-18-5	—	—
**(Total chlorinated solvents)		1.0 (Max)			

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

SECTION III -- PHYSICAL DATA

PHYSICAL STATE, APPEARANCE AND ODOR: Clear, reddish brown liquid with hydrocarbon odor.

BOILING RANGE: 210° - 439° F

MELTING POINT: < 10° F

EVAPORATION RATE: 1.0 (Water = 1)

PERCENT VOLATILE:	92 Wt. %
VAPOR DENSITY:	2.6 (Air = 1.0)
VAPOR PRESSURE:	10.9 mm Hg at 25° C
SOLUBILITY IN WATER:	Completely miscible in all proportions.
pH:	10.8, 50/50 (Water/Solvent)
SPECIFIC GRAVITY:	0.95 (Water = 1.0)
MOLECULAR WEIGHT:	127, Average molecular weight of components.
VOLATILE ORGANIC COMPOUNDS:	N/E

SECTION IV -- FIRE AND EXPLOSION HAZARD DATA

FLASH POINT:	SETA, 142° F (Min.)
AUTOIGNITION TEMPERATURE:	Not Known
CONDITIONS OF FLAMMABILITY:	Ignitable, if material is heated above its flash point.
FLAMMABLE LIMITS IN AIR - LOWER:	0.8 *UPPER:* 7.0
EXTINGUISHING MEDIA:	None Special
FIRE FIGHTING PROCEDURES - SPECIAL:	NFPA 704 Rating 2-2-0

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, oxides of nitrogen and acrid smoke.

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, oxides of nitrogen and acrid smoke. Glycol ethers have been shown to form explosive peroxides.
HAZARDOUS DECOMPOSITION PRODUCTS:	Normally none; however, incomplete burning may yield 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 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.

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:

Dipropylene glycol methyl ether is a mild allergen.

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: 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

EYES: 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.

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 neoprene 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 Fire Hazard Reactivity Hazard

SECTION XI -- PREPARATION INFORMATION

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

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

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

IMMERSION CLEANER/CARBURETOR AND COLD PARTS CLEANER 609

MATERIAL SAFETY DATA SHEET

c/c

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)
*resylic 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		16.3	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

MELTING POINT:	Not known
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

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

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

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

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

SAFETY-KLEEN MULTI-USE LACQUER THINNER 6301

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 6301

SK PART NUMBER: 6301

FAMILY/CHEMICAL NAME: N/A

PRODUCT USAGE: LACQUER THINNER

SECTION II -- HAZARDOUS COMPONENTS

NAME	SYNONYM	%	CAS NO.	OSHA PEL (ppm)	ACGIH TLV (ppm)
[redacted]	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 Locol 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	NE	NE

NE = 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)

POR PRESSURE:	73.6 mm Hg @ 20° C
LUBILITY IN WATER:	Appreciable
:	Not Applicable
EC[redacted]C GRAVITY:	– 0.8000 - 0.8438 (Water = 1)
OLECULAR WEIGHT:	Use molecular weight of individual components.
OLATILE ORGANIC COMPOUNDS:	800 - 844 g/L

SECTION IV – FIRE AND EXPLOSION HAZARD DATA

LASH POINT: < 20° F (TCC)

UTOIGNITION TEMPERATURE: Not Available

ONDITIONS OF FLAMMABILITY: Normal temperatures and pressure.

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

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

IRE 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.

UN[redacted]AL 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 [redacted]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 excessive 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 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

ENTILATION:	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.
ROTECTIVE LO[redacted]:	To protect against contact with skin, wear nitrile gloves.
YE ROTECTION:	Where there is likelihood of eye contact, wear chemical goggles. Contact lenses should not be worn.
ESPIRATORY ROTECTION:	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.
THER PROTECTIVE QUIPMENT:	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 prevent against spills or splash.

SECTION X – OTHER REGULATORY INFORMATION

OT PROPER HIPPING NAME:	Paint-Related Material
OT CLASS:	Flammable Liquid
OT ID NUMBER:	NA1263
ARA 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

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

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

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.

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

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:

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

ATTACHMENT II.A.4(e)

TRAINING PROGRAM

ATTACHMENT II.A.4(e)
PERSONNEL TRAINING

This section of the permit application describes Safety-Kleen's corporate training program. Training plan outlines, job descriptions, training content, frequency and techniques are described as well as the implementation of the training program. All positions described herein may not be present at all facilities.

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

DESCRIPTION OF TRAINING PROGRAM

Each employee is trained to operate and maintain the service center safely, and to understand hazards unique to his job assignment. New Branch Managers (Resource Recovery Branch Manager) and new Branch Facility managers must complete a formal introductory training program before starting their jobs, with annual review and update thereafter. New Sales Representatives must be trained prior to unsupervised customer visits. All other hazardous waste employees must undergo a combination of videotape and on-the-job training within six months of starting.

OUTLINE OF TRAINING PROGRAM

An outline of the training program, given both initially and annually to employees who manage or handle hazardous waste at the Service Center is presented in Table IIA.4(e)-1.

JOB TITLE/JOB DESCRIPTION

Job descriptions for employees who would be expected to manage or handle hazardous wastes, including the Branch Manager (Resource Recovery Branch Manager), Branch

TABLE II.A.4(e)-1

INTRODUCTORY AND CONTINUING TRAINING TOPICS FOR SERVICE CENTER EMPLOYEES

- Hazard Communication Safety Training
- Hazard Communication Understanding MSDSs
- Preventing Injuries and Illnesses
- Chemistry of Safety-Kleen Products
- Hazardous Materials Regulations
- Waste Analysis Plan
- Preparedness, Prevention and Contingency Plans
- Day Four - Ten Day Training - Haz Mat/POT/MANFST VID QUIZ
- Completion of New Employee Orientation Program *
- Initial Contingency Plan Training (Including Part B review) *
- Respirator Fit Testing and Training

* New employees only. Not a part of annual training.

Facility Manager, Branch Automotive Manager, Branch Industrial Manager, Branch Secretary (paperwork only), Sales Representatives, Warehouse Personnel, and Special Markets Sales Manager are provided in Tables II.A.4(e)-2 through II.A.4(e)-9.

TRAINING CONTENT, FREQUENCY, AND TECHNIQUES

Employee training is accomplished using classroom, videotape, written, and on-the-job methods. The Environment Health and Safety (EHS) Department of Safety-Kleen's Corporate Office prepares a training program for employees and they must provide documentation that the program has been executed. An employee is trained prior to starting or as soon as he or she begins working, (depending on his or her position), and is trained annually thereafter.

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

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

The training culminates in at least three weeks of training at his new service center, at least one day of which is devoted to environmental training with the Regional Environmental Engineer. Additional time is spent reviewing past environmental compliance at the Branch Manager's service center, the regulations unique to his state are discussed as well.

TABLE II.A.4(e)-2

JOB DESCRIPTION
RESOURCE RECOVERY BRANCH MANAGER

JOB DESCRIPTION:

The Resource Recovery Branch Manager has overall responsibility for the facility operations and maintenance, and directs sales activities within a certain geographic area defined by the corporate Marketing Department. He is responsible for the proper operations and profitability of the service center.

REPORTS TO:

Regional Manager of Sales

QUALIFICATION:

Minimum high school graduate with Safety-Kleen sales experience

PRINCIPAL RESPONSIBILITIES:

1. Plan, direct, and monitor activities of Sales Representatives.
2. Training of branch facility managers, sales representatives, and other branch personnel.
3. Assist or accompany sales representatives during their sales activities when necessary.
4. Tabulate daily sales and inventory figures and report them to the corporate offices.
5. Maintain adequate inventory of solvents, allied products, and equipment.
6. Carry out corporate policies and standards regarding facilities, equipment operation and maintenance.
7. Ensure the regular inspection of the facility and equipment and the implementation of any necessary repairs or remedial actions.
8. Represent Safety-Kleen Corp. in local community affairs and public relations activities.
9. Coordinate with corporate Technical Services and EHS Departments and implement necessary actions or plans for Regulatory compliance.
10. Be able to act as the primary emergency response coordinator.

TABLE II.A.4(e)-3

JOB DESCRIPTION
BRANCH FACILITY MANAGER

JOB DESCRIPTION:

Assures branch facility compliance with the Federal and State Environmental Protection Agencies (EPA), the Occupational, Safety and Health Administration (OSHA), the Department of Transportation (DOT), the Department of Labor (DOL) and other regulating agencies. Protects Company assets by implementing corporate systems to accurately monitor and track inventory, fleet safety conditions, and accuracy of documents.

REPORTS TO:

Branch Manager

QUALIFICATION:

Minimum high school graduate with Safety-Kleen route sales experience

PRINCIPAL RESPONSIBILITIES:

1. May function as the Emergency Response Coordinator for the facility.
2. Maintains a minimum FMIR score of 90.
3. Works with Technical Services and Environmental Department to correct problems in the facility or to enhance the facility to meet new demands.
4. Assures branch compliance related to the preparation and completion of hazardous waste paperwork and proper branch procedures for management and shipment of hazardous wastes.
5. Performs weekly/daily facility inspections.
6. Maintains and updates the Contingency Plan.
7. Maintains accurate records, including personnel training files.
8. Implements the Hazard Communication Standard ("Right-to-Know").
9. Implements a Respirator Protection Program.

TABLE II.A.4(e)-3 - Continued

JOB DESCRIPTION
BRANCH FACILITY MANAGER

10. Conducts Health and Safety Meetings.

11. Assures all necessary personnel are DOT certified.

12. Assures all vehicles are in compliance.

13. Performs weekly/daily fleet inspections.

TABLE II.A.4(e)-4

JOB DESCRIPTION
BRANCH AUTOMOTIVE MANAGER

JOB DESCRIPTION:

Develops and maintains automotive account business by presenting and providing the complete Automotive Fluid Recovery Service to customers in assigned territories. Trains, motivates, and controls the automotive sales staff within the assigned territories.

REPORTS TO:

Directly to the Resource Recovery Branch manager and indirectly to Regional Automotive Sales Manager. All Automotive and Oil Sales Representatives within assigned territories report directly to the BAM. In branches without a BFM, one or more Branch Secretaries report to the BAM, as assigned by the Resource Recovery Branch Manager.

QUALIFICATION:

Minimum high school graduate with above average Safety-Kleen route sales experience. Applicant should exhibit leadership abilities and be self-motivated, and pass Company testing.

PRINCIPAL RESPONSIBILITIES:

1. Markets and sells the total Automotive Fluid Recovery Service.
2. Signs automotive accounts to the Safety-Kleen Service Contract and Oil agreements where applicable.
3. Ensures that customers have the right kind of equipment which is properly labeled, and on the appropriate service interval, by completing machine condition reports.
4. Ensures that the Company's ethical standards are maintained.
5. Reviews weekly and period sales production summaries.
6. Ensures the timely completion of services.
7. Reviews and acts on accounts receivable standards.
8. Assures proper completion and administration of hazardous waste paperwork.

TABLE II.A.4(e)-4 - Continued

JOB DESCRIPTION
BRANCH AUTOMOTIVE MANAGER

9. Assures proper management, preparation, and shipment of hazardous waste (including packaging, placarding, transportation, and storage procedures).

10. Assures DOT compliance.

11. Trains personnel following the *Corporate Training 10-Day Action Plan.*

12. Conducts sales meetings.

13. Oversees career development by conducting selling skills training meetings (in conjunction with ASM).

14. Conducts health and safety meetings.

15. Develops team contests or rewards for set period objectives.

16. Develops rewards for achieved objectives.

17. Holds monthly goal setting sessions with assigned personnel.

18. Conducts quarterly performance reviews with assigned personnel.

19. Controls all personnel within the assigned territories by daily/weekly communication in regards to branch standards and goals.

TABLE II.A.4(e)-5

JOB DESCRIPTION
BRANCH INDUSTRIAL MANAGER

JOB DESCRIPTION:

Develops and maintains industrial account business by presenting and providing the complete Industrial Fluid Recovery Service to customers in assigned territories. Trains, motivates, and controls the industrial sales staff within the assigned territories.

REPORTS TO:

Directly to the Resource Recovery Branch Manager and indirectly to Regional Industrial Sales Manager. All Industrial Sales Representatives within assigned territories report directly to the BIM. In branches without a BFM, one or more Branch Secretaries report to the BIM, as assigned by the Resource Recovery Branch Manager.

QUALIFICATION:

Minimum high school graduate with above average Safety-Kleen route sales experience. Applicant should exhibit leadership abilities, be self-motivated, and pass Company testing. Good reading and letter writing skills are also required.

PRINCIPAL RESPONSIBILITIES:

1. Ensures that customers have the right kind of equipment which is properly labeled, and on the appropriate service interval, by completing machine condition reports.

2. Ensures that the Company's ethical standards are maintained.

3. Performs the required amount of cold calls, sample processing, and machine placements.

4. Reviews weekly and period sales production summaries.

5. Ensures the timely completion of services.

6. Reviews and acts on accounts receivable standards.

7. Assures proper completion and administration of hazardous waste paperwork.

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

JOB DESCRIPTION
BRANCH INDUSTRIAL MANAGER

8. Assures proper management, preparation, and shipment of hazardous waste (including packaging, placarding, transportation, and storage procedures).

9. Assures DOT compliance.

10. Trains personnel following the *Corporate Training 10-Day Action Plan.*

11. Conducts sales meetings.

12. Oversees career development by conducting selling skills training meetings (in conjunction with ISM).

13. Conducts health and safety meetings.

14. Develops team contests or rewards for set period objectives.

15. Develops rewards for achieved objectives.

16. Holds monthly goal setting sessions with assigned personnel.

17. Conducts quarterly performance reviews with assigned personnel.

18. Controls all personnel within the assigned territories by daily/weekly communication in regards to branch standards and goals.

TABLE 11.A.4(e)-6

JOB DESCRIPTION
BRANCH SECRETARY

JOB DESCRIPTION:

Performs duties to assist the branch manager, sales representatives, and customers with billing, scheduling, and recordkeeping. Performs secretarial duties at the branch.

REPORTS TO:

Branch Manager

QUALIFICATION:

Attended high school

PRINCIPAL RESPONSIBILITIES:

1. Maintain records in an orderly manner.
2. Assist sales representatives in scheduling services.
3. Ensure that all hazardous waste manifests are complete, and manage distribution and filing of copies.
4. Maintain Personnel Training Record files.
5. Maintain Facility Inspection Records.
6. Answer customer inquiries.
7. Manage customer billing.
8. Perform other related duties as assigned.

TABLE II.A.4(e)-7

JOB DESCRIPTION
SALES REPRESENTATIVE

JOB DESCRIPTION:

The Sales Representative is charged with the responsibility of generating new business and servicing established accounts within a certain defined geographic area.

REPORTS TO:

Branch Automotive Manager or Branch Industrial Manager

QUALIFICATION:

Minimum high school graduate

PRINCIPAL RESPONSIBILITIES:

1. Maintain his route truck and replenish his products on the truck before beginning his route sales.

2. Contact potential customers for the purpose of selling Safety-Kleen services and allied products.

3. Exchange used solvents with fresh solvent and replenish the inventory of Safety-Kleen's products for existing customers.

4. Make minor repairs of Safety-Kleen's parts washer equipment or lease new equipment to the customer.

5. Prepare the necessary paperwork for each service, and bill or credit the customer, as necessary.

6. At the end of each day, return the truck to the branch for cleaning and maintenance, and summarize the day's activities so the Branch Manager can tabulate the daily figures and forward them to the corporate office.

TABLE II.A.4(e)-8

JOB DESCRIPTION
WAREHOUSE PERSONNEL

JOB DESCRIPTION:

Perform duties to assist the sales representatives in loading and unloading the trucks. Perform janitorial duties at the warehouse.

REPORTS TO:

Branch Manager

QUALIFICATIONS:

Attended high school

PRINCIPAL RESPONSIBILITIES:

1. Maintain warehouse in clean and orderly manner.
2. Assist sales representatives in loading trucks and replacing solvent.
3. Refurbish drums as needed.
4. Park or move trucks as needed.
5. Stock inventory.
6. Replenish trucks with inventory.
7. Perform other related duties as assigned.

TABLE II.A.4(e)-9

JOB DESCRIPTION
SPECIAL MARKETS SALES MANAGER

JOB DESCRIPTION:

This position requires responsibility for Special Markets operations within the geographic area of a region(s) defined by Corporate Marketing. The primary function of this position is to direct and assist the Resource Recovery Branch Managers in attaining Corporate goals in the special markets. The position requires extensive travel within the region(s).

REPORTS TO:

Directly to Regional Manager of Sales

QUALIFICATION:

Minimum high school graduate

PRINCIPAL RESPONSIBILITIES:

1. Responsible for obtaining the sales objectives of Special Markets.
2. Responsible for training Branch Sales Managers.
3. Responsible for overseeing the training of representatives (i.e., conducting PRIDE Meetings) and riding with sales representatives.
4. Responsible for assisting the Branch Sales Managers in attaining new business.
5. Responsible for personally developing major accounts within the Region.
6. Presents and maintains a proper example in regard to the Corporate Ethics Policy.
7. Regularly inspects and assures branch compliance with Company and governmental regulations related to the proper shipment, treatment, and disposal of special markets hazardous materials and wastes.

TABLE II.A.4(e)-9 - Continued

JOB DESCRIPTION
SPECIAL MARKETS SALES MANAGER

8. Assures assigned sales quotas are met by planning, organizing, directing, and controlling special markets sales activities within the region.

9. Trains and motivates Resource Recovery Branch Managers and Branch Special Markets Managers and assists in the recruiting and training of Branch Special Markets Sales Specialists.

10. Assists the Resource Recovery Branch manager in developing assigned Special Markets personnel.

11. Assists the Resource Recovery Branch Manager in scheduling and attaining sales quotas.

12. Accurately tabulates and reports weekly sales results to the Regional Manager.

13. Assists the Regional Manager in other Special Markets sales or administrative related activities.

Training of New Branch Facility Managers: Branch Facility Managers report to Branch Managers and are responsible for administrative operations at branches. New Branch Facility Managers are trained for approximately 12 weeks before they begin their new positions. This training is both on location and in classroom modes. While being trained at the branch at which he or she will be stationed, a new Branch Facility Manager reviews all environmental records and learns the recordkeeping and inspection requirements. These records include: manifests, personnel records, training records, service center inspection records, and spill reports.

Approximately three weeks of training take place at Safety-Kleen's corporate headquarters. This training includes an introduction to environmental law (including the Resource Conservation and Recovery Act), health and safety issues, emergency response and inventory (including waste) reconciliation methods. Additional time is spent reviewing past environmental compliance at the Branch Facility Manager's site, the regulations unique to his or her state are discussed as well. The Branch Facility Manager may also be trained as the designee for performing the service center inspection.

Branch Automotive Managers, Branch Industrial Managers, and Special Markets Sales Managers receive training specified in Table II.A.4(e)-1.

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

Contingency, and Emergency Procedures Plan must be reviewed with the Branch Manager within the first two weeks of the Secretary starting work.

Training of New Sales Representatives: New Sales Representatives are trained on the job for two weeks during which they are introduced to manifests, service center inspection records, and training records. A Sales Representative may also be trained as the designee for performing the service center inspection. Additional training is in the form of videotape presentations and a review of the Preparedness, Prevention, Contingency, Emergency Procedures Plan. The Preparedness, Prevention, Contingency, and Emergency Procedures Plan must be reviewed with the Branch Manager before the Sales Representative formally begins his new position and annually thereafter. New Sales Representatives must complete Training Sheet I (Table II.A.4(e)-10) within six months.

Training of New Warehousemen: A warehouseman is trained to maintain the service center and assist the other branch employees in their tasks. He may be a designee for the service center inspection and must be trained by the Branch Manager as such. Within two weeks of the warehouseman's starting, the Branch Manager must review the Preparedness, Prevention, Contingency, and Emergency Procedures Plan with him, and within six months he must review the items listed in the outline presented in Table II.A.4(e)-1.

Annual Training: On an annual basis, employees are trained using a program prepared and updated annually the EHS Department which contains the topics in Table II.A.4(e)-1. This training also includes updates on environmental regulations, an in-depth review of the Preparedness, Prevention, Contingency, and Emergency Procedures Plan and a review of RCRA inspection criteria. This review is in the form of videotapes and a review and discussion of the storage service center permit/application. In addition,

TABLE II.A.4(e)-10

1560.____

ENVIRONMENT, HEALTH, & SAFETY TRAINING

TRAINING SUMMARY SHEET I

Branch Name :_____ Branch No. :_____

Employee Name :_____ Employee Number :_____

Hire Date :_____. 6 Mon. Training Compl. Date (target) :_____

Position / Title :_____ Termination Date :_____

** CORE HAZARDOUS MATERIALS TRAINING **

(Emergency Response Training must be completed before an employee works in an unsupervised position. Employees must be completely trained in all items listed below within six (6) months of starting and annually thereafter.)

DATE	TRAINING COMPLETED:	MGR. INIT.
_____	EHS VIDEO PART I - HAZ COM - Safety Training	_____
_____	EHS VIDEO PART II - HAZ COM - Understanding MSDSs	_____
_____	EHS VIDEO PART III - Preventing Injuries & Illnesses	_____
_____	EHS VIDEO PART IV - Hazards Associated w/ Mat'ls Handling	_____
_____	EHS VIDEO PART V - Chemistry of Safety - Kleen Products	_____
_____	EHS VIDEO PART VI - Hazardous Materials Regulations	_____
_____	EHS VIDEO PART VII - Waste Analysis Plan	_____
_____	EHS VIDEO PART VIII - Prep., Prvn., & Contingency Plans	_____
_____	Day Four - TEN DAY TRAINING - HAZ MAT/DOT/MANFST VID QUIZ	_____
_____	Completion of New Employee Orientation Program	_____
_____	Initial Contingency Plan Training (incl. Part B review)	_____
_____	Respirator Fit Testing & Training	_____

** CERTIFICATION by the employee that training has been received obligates the employee to discharge his/her duties in accordance with the training provided. Failure to comply with the requirements established during the training program may result in civil or criminal penalties against the employee. **

_____ Employee's Signature: _____

II.A.4(e)-4A

** CONTINUING TRAINING **

(On the following TRAINING SUMMARY SHEET IIs)

TABLE II.A.4(e)-10 (CONT.)

1560.____

ENVIRONMENT, HEALTH, & SAFETY TRAINING

TRAINING SUMMARY SHEET II

Branch Name :_____ Branch No. :_____

Employee Name :_____ Employee Number :_____

TRAINING COMPLETED:

DATE		MGR. INIT.

periodic memoranda on changes in environmental regulations are issued by the EHS Department and must be read and discussed by all branch personnel.

TRAINING DIRECTOR

The training is directed by Safety-Kleen's Training and Development and Environment, Health and Safety (EHS) Departments which operate out of the Corporate Office in Elgin, Illinois. Each regional environmental engineer who works in this department is responsible for compliance of the service centers in a given geographic area of the country. The cooperative effort of both departments must:

- Provide a training program which addresses the requirements of environmental regulations and corporate policy;
- Notify the proper authorities, oversee remedial actions, and submit a written report to the state after an emergency situation has occurred;
- Manage any environmental compliance issues which exceed the resources available at the service center level; and
- Participate in training new Branch Managers.

Qualifications for individuals that are members of the EHS Department and may conduct training at the Service Center are available upon request.

RELEVANCE OF TRAINING TO JOB POSITION

Each employee is trained to operate and maintain the service center safely and to understand hazards unique to the job assignment. Safety-Kleen's training programs are designed to give employees appropriate instruction regarding the hazardous waste management procedures they will encounter in performing their respective duties. Since

the handling of hazardous materials is a large part of the operations of the service center, all employees are given training in environmental regulations, transportation regulations, the Preparedness, Prevention, Contingency, and Emergency Procedures Plan.

TRAINING FOR HAZARDOUS WASTE MANAGEMENT

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

TRAINING FOR PREPAREDNESS, PREVENTION, CONTINGENCY, AND EMERGENCY PROCEDURES PLAN IMPLEMENTATION

All employees are trained in Preparedness, Prevention, Contingency, and Emergency Procedures Plan implementation, through both initial training and yearly refresher courses, as summarized in Table II.A.4(e)-1. Employees are trained on the contents of the Preparedness, Prevention, Contingency, and Emergency Procedures Plan as well as criteria for implementation.

TRAINING FOR EMERGENCY RESPONSE

All employees are trained in emergency response procedures, through both initial training and yearly refresher courses, as summarized in Table II.A.4(e)-1. The emergency training involves spill and fire prevention as well as remedial action procedures. Employees are also trained to recognize when evacuation and outside assistance may be necessary.

IMPLEMENTATION OF TRAINING PROGRAM

New Branch Managers, Branch Facility Managers, and Sales Representatives must complete an introductory training program discussed previously before starting their jobs,

with annual review and update thereafter. Branch Secretaries and Warehousemen are given instruction on the Preparedness, Prevention, Contingency, and Emergency Procedures Plan within two weeks of starting work, and are given the full hazardous waste training course, as outlined in Table II.A.4(e)-1, within six months of starting work. Warehousemen involved in direct handling of hazardous waste do not work unsupervised until they have completed the entire initial hazardous waste training course.

PERSONNEL TRAINING RECORD FORMS

Table II.A.4(e)-10 is a sample personnel training record form. This form, or one similar to it, will be used to record training. All training is documented and kept on file at the service center until closure. Additional forms may be used contingent upon the specific issue being addressed. All forms will show the training received, employee name, and the date of training.

ATTACHMENT II.A.5

WASTE ANALYSIS REPORT

ATTACHMENT II.A.5
WASTE ANALYSIS REPORT

In accordance with U.S. EPA Hazardous Waste Regulations, eight types of hazardous waste have been identified for collection at the service center:

1. The used mineral spirits solvent, returned from customers in separate containers, transferred, and stored in the aboveground tank awaiting shipment to the recycle facility, is considered to be an Ignitable Waste (D001) and a characteristic waste by TCLP (D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D023, D024, D025, D026, D027, D028, D029, D030, D032, D033, D034, D035, D036, D037, D038, D039, D040, D041, D042, and D043).

2. The used chlorinated solvent #609 (old), returned from customers in separate containers and remain in the same container for shipment to the recycle facility, is considered to be a Listed Waste from Non-Specific sources (F002 and F004); and a characteristic waste by TCLP (D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D023, D024, D025, D026, D027, D028, D029, D030, D032, D033, D034, D035, D036, D037, D038, D039, D040, D041, D042, and D043).

3. The used immersion cleaner #699 (new), returned from customers in separate containers and remaining in the same container for shipment to the recycle facility, is considered a characteristic waste by TCLP (D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D023, D024, D025, D026, D027, D028, D029, D030, D032, D033, D034, D035, D036, D037, D038, D039, D040, D041, D042, and D043).

4. Mineral spirits dumpster mud and tank bottom sludge, which will accumulate in the solvent return receptacles (wet dumpsters) and in the sludge tank, are considered to be an Ignitable Waste (D001) and a characteristic waste by TCLP (D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D023, D024, D025, D026, D027, D028, D029, D030, D032, D033, D034, D035, D036, D037, D038, D039, D040, D041, D042, and D043).

5. Dry cleaning wastes will consist of spent filter cartridges, powder residue from diatomaceous or other powder filter systems and still bottoms. While approximately 80 percent of the dry cleaning solvent returned by Safety-Kleen customers will be perchloroethylene (F002) and a characteristic waste by TCLP (D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D023, D024, D025, D026, D027, D028, D029, D030, D032, D033, D034, D035, D036, D037, D038, D039, D040, D041, D042, and D043), approximately 17 percent is mineral spirits (D001), and a characteristic waste by TCLP ((D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D023, D024, D025, D026, D027, D028, D029, D030, D032, D033, D034, D035, D036, D037, D038, D039, D040, D041, D042, and D043), and the remaining 3 percent is trichloro-trifluoroethane (F002) and a characteristic waste by TCLP leaching procedure ((D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D023, D024, D025, D026, D027, D028, D029, D030, D032, D033, D034, D035, D036, D037, D038, D039, D040, D041, D042, and D043).

6. Antifreeze waste is approximately one-third water with the remaining third being antifreeze (ethylene glycol) and contaminants. As a protective measure, the storage tank area for spent antifreeze will be permitted to store wastes with the following TCLP waste 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, and D043.

7. Paint wastes will consist of various lacquer thinners such as acetone, isopropyl alcohol, methyl ethyl ketone, methyl isobutyl ketone, toluene, xylenes, and acetate compounds (D001, F003, and F005) and is a characteristic waste by TCLP (D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D023, D024, D025, D026, D027, D028, D029, D030, D032, D033, D034, D035, D036, D037, D038, D039, D040, D041, D042, and D043). The waste will be collected in containers at the customer's place of business and the containers will then be palletized whenever possible and stored in the paint waste storage area of the accumulation center.

8. Due to the great variability in the composition of FRS wastes, their application or use, and the source industry, Safety-Kleen characterizes each stream from each generator separately. FRS wastes received at the facility are classified as characteristic wastes (D-waste codes), non-specific source wastes (F-waste codes), listed wastes from specific sources (K-wastes), commercial chemical products, manufacturing intermediates or off-specification chemical commercial products (U-waste codes). Most of the time, a waste stream will be some combination of specific components, and be categorized as a D- or F- waste. Table II.A.5-1 provides a list of the EPA waste codes managed at the facility under the FRS program. These wastes, except characteristic waste oil, are shipped in containers and are stored on pallets. The FRS wastes are handled as transfer wastes only.

A typical composition, and chemical physical analysis for each of the waste streams (except FRS) listed above are shown in the attached chemical analyses reports, based on existing data on these wastes generated from similar processes within Safety-Kleen's current and/or potential customers.

TABLE II.A.5-1

FLUID RECOVERY SERVICE WASTE TYPES

EPA Hazardous Waste No.	Description
D001	Solid waste that exhibits the characteristic of ignitability, but is not listed as a hazardous waste.
D002	Solid waste that exhibits the characteristic of corrosivity, but is not listed as a hazardous waste.
D004	Solid waste that exhibits the characteristic of toxicity for arsenic at 5.0 mg/L or more.
D005	Solid waste exhibiting the characteristic of toxicity for barium at 100 mg/L or more.
D006	Solid waste exhibiting the characteristic of toxicity for cadmium at 1.0 mg/L or more.
D007	Solid waste exhibiting the characteristic of toxicity for chromium at 5.0 mg/L or more.
D008	Solid waste exhibiting the characteristic of toxicity for lead at 5.0 mg/L or more.
D009	Solid waste exhibiting the characteristic of toxicity for mercury at 0.2 mg/L or more.
D010	Solid waste exhibiting the characteristic of toxicity for selenium at 1.0 mg/L or more.
D011	Solid waste exhibiting the characteristic of toxicity for silver at 5.0 mg/L or more.
D018	Solid waste exhibiting the characteristic of toxicity for benzene at 0.5 mg/L or more.
D019	Solid waste exhibiting the characteristic of toxicity for carbon tetrachloride at 0.5 mg/L or more.
D021	Solid waste exhibiting the characteristic of toxicity for chlorobenzene at 100.0 mg/L or more.
D022	Solid waste exhibiting the characteristic of toxicity for chloroform at 6.0 mg/L mg/L or more.

TABLE II.A.5-1 - Continued

FLUID RECOVERY SERVICE WASTE TYPES

EPA Hazardous Waste No.	Description
D023	Solid waste exhibiting the characteristic of toxicity for o-Cresol at 200.0 mg/L or more.
D024	Solid waste exhibiting the characteristic of toxicity for m-Cresol at 200.0 mg/L or more.
D025	Solid waste exhibiting the characteristic of toxicity for p-Cresol at 200.0 mg/L or more.
D026	Solid waste exhibiting the characteristic of toxicity for Cresol at 100.0 mg/L or more.
D027	Solid waste exhibiting the characteristic of toxicity for 1,4 Dichlorobenzene at 7.5 mg/L or more.
D028	Solid waste exhibiting the characteristic of toxicity for 1,2 Dichloroethane at 0.5 mg/L or more.
D029	Solid waste exhibiting the characteristic of toxicity for 1,1 Dichloroethylene at 0.7 mg/L or more.
D030	Solid waste exhibiting the characteristic of toxicity for 2,4 Dinitrotoluene at 0.13 mg/L or quantification limit.
D032	Solid waste exhibiting the characteristic of toxicity for Hexachlorobenzene at 0.13 mg/L or quantification limits.
D033	Solid waste exhibiting the characteristic of toxicity for Hexachlorobutadiene at 0.5 mg/L or more.
D034	Solid waste exhibiting the characteristic of toxicity for Hexachloroethane at above 3.0 mg/L or more.
D035	Solid waste exhibiting the characteristic of toxicity for Methyl Ethyl Ketone (MEK) at 200 mg/L or more.
D036	Solid waste exhibiting the characteristic of toxicity for Nitrobenzene at 2.0 mg/L or more.
D037	Solid waste exhibiting the characteristic of toxicity for Pentachlorophenol at 100.0 mg/L or more.

TABLE II.A.5-1 - Continued

FLUID RECOVERY SERVICE WASTE TYPES

EPA Hazardous Waste No.	Description
D038	Solid waste exhibiting the characteristic of toxicity for Pyridine at 5.0 mg/L or quantification limit.
D039	Solid waste exhibiting the characteristic of toxicity for Tetrachloroethylene at 0.7 mg/L or more.
D040	Solid waste exhibiting the characteristic of toxicity for Trichloroethylene at 0.5 mg/L or more.
D041	Solid waste exhibiting the characteristic of toxicity for 2,4,5-Trichlorophenol at 400.0 mg/L or more.
D042	Solid waste exhibiting the characteristic of toxicity for 2,4,6-Trichlorophenol at 2.0 mg/L or more.
D043	Solid waste exhibiting the characteristic of toxicity for Vinyl Chloride at 0.2 mg/L or more.
F001	The following spent halogenated solvents used in degreasing: tetrachloroethylene, trichloroethylene, methylene chloride, 1,1,1-trichloroethane, carbon tetrachloride, chlorinated fluorocarbons, spent solvent mixtures/blends used in degreasing, and still bottoms from the recovery of these spent solvents and spent solvent mixtures.
F002	The following spent halogenated solvents: tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, chlorobenzene, 1,1,2-trichloro-1,2,2-trifluoroethane, orthodichlorobenzene, trichlorofluoromethane, 1,1,2-trichloroethane, spent solvent mixtures and blends, and the still bottoms from the recovery of these spent solvents and spent solvent mixtures.
F003	The following spent non-halogenated solvents: xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, methyl isobutyl ketone, n-butyl alcohol, cyclohexanone, methanol, spent solvent mixtures and blends, and the still bottoms from the recovery of these spent solvents and spent solvent mixtures.
F004	The following spent non-halogenated solvents: cresols and cresylic acid, nitrobenzene, spent solvent mixtures and blends, and still bottoms from the recovery of these spent solvents and spent solvent mixtures.

TABLE II.A.5-1 - Continued

FLUID RECOVERY SERVICE WASTE TYPES

EPA Hazardous Waste No.	Description
F005	The following spent non-halogenated solvents: toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, benzene, 2-ethoxyethanol, 2-nitropropane, spent solvent mixtures and blends, and the still bottoms from the recovery of these spent solvents and spent solvent mixtures.
F006	Wastewater treatment sludges from electroplating operations except from the following processes: 1) sulfuric acid anodizing of aluminum; 2) tin plating on carbon steel; 3) zinc plating (segregated basis) on carbon steel; 4) aluminum or zinc-aluminum plating on carbon steel; 5) cleaning/stripping associated with tin, zinc and aluminum plating on carbon steel; and 6) chemical etching and milling of aluminum.
F019	Wastewater treatment sludges from the chemical conversion coating of aluminum.
F024	Wastes, including but not limited to, distillation residues, heavy ends, tars, and reactor clean-out wastes from the production of chlorinated aliphatic hydrocarbons, having carbon content from one to five, utilizing free radical catalyzed processes. (This listing does not include light ends, spent filters and filter aids, spent dessicants, wastewater, wastewater treatment sludges, spent catalysts and wastes listed in 261.32).
F039	Multisource leachate for wastes other than F020 - F023, F026, F027, and F028.
K006	Wastewater treatment sludge from the production of chrome oxide green pigments (anhydrous and hydrated).
K016	Heavy ends of distillation residues from the production of carbon tetrachloride.
K019	Heavy ends from the distillation of ethylene dichloride in ethylene dichloride production.
K022	Distillation bottom tars from the production of phenol/acetone from cumene.
K029	Waste from the product steam stripper in the production of 1,1,1-trichloroethane.
K030	Column bottoms or heavy ends from the combined production of trichloroethylene and perchloroethylene.

TABLE II.A.5-1 - Continued

FLUID RECOVERY SERVICE WASTE TYPES

EPA Hazardous Waste No.	Description
K031	By-product salts generated in the production of MSMA and cacodylic acid.
K048	Dissolved air flotation float from the petroleum refining industry.
K049	Slop oil emulsion solids from the petroleum refining industry.
K050	Heat exchanger bundle cleaning sludge from the petroleum refining industry.
K051	API separator sludge from the petroleum refining industry.
K052	Tank bottoms (leaded) from the petroleum refining industry.
K085	Distillation or fractionation column bottoms from the production of chlorobenzene.
K086	Solvent washes and sludges, caustic washes and sludges or water washes and sludges from cleaning tubs and equipment used in the formulation of ink from pigments, driers, soaps and stabilizers containing chromium and lead.
K095	Distillation bottoms from the production of 1,1,1-trichloroethane.
K096	Heavy ends from the heavy ends column from the production of 1,1,1-trichloroethane.
K009	Distillation bottoms from production of acetaldehyde from ethylene.
K010	Distillation side cuts from the production of acetaldehyde from ethylene.
K011	Bottom stream from the wastewater stripper in the production of acrylonitrile.
K013	Bottom stream from the acetonitrile column in the production of acrylonitrile.
K014	Bottoms from the acetonitrile purification column in the production of acrylonitrile.
K015	Still bottoms from the distillation of benzyl chloride.
K002	Wastewater treatment sludge from the production of chrome yellow and orange pigments.
K003	Wastewater treatment sludge from the production of molybdate orange pigments.
K004	Wastewater treatment sludge from the production of zinc yellow pigments.

TABLE II.A.5-1 - Continued

FLUID RECOVERY SERVICE WASTE TYPES

EPA Hazardous Waste No.	Description
K005	Wastewater treatment sludge from the production of chrome green pigments.
U001	Acetaldehyde
U002	Acetone
U003	Acetonitrile
U009	Acrylonitrile
U019	Benzene
U031	n-Butyl Alcohol
U037	Chlorobenzene
U043	Ethane, chloro-
U044	Chloroform
U051	Creosote
U052	Cresol (Cresylic Acid)
U055	Cumene
U056	Benzene, Hexahydro-
U057	Cyclohexanone
U068	Methylene bromide
U069	1,2 Benzenedicarboxylic Acid, dibutyl ester
U070	Benzene, 1,2 - dichloro-
U071	Benzene, 1,3 - dichloro-
U072	Benzene, 1,4 - dichloro-
U075	Methane Dichlorodifluoro-
U077	Ethane, 1,2, - dichloro-
U078	Ethene, 1,2 - dichloro-

TABLE II.A.5-1 - Continued

FLUID RECOVERY SERVICE WASTE TYPES

EPA Hazardous Waste No.	Description
U079	Ethene, 1,2 - dichloro-
U080	Methylene Chloride
U083	Propane, 1,2 - dichloro-
U084	1 - Propane, 1,3 - dichloro
U107	1,2 - Benzenedicarboxylic acid
U108	1,4-Diethyleneoxide
U110	Dipropylamine
U112	Ethyl acetate
U113	Ethyl acrylate
U117	Ethyl ether
U118	Ethyl methacrylate
U121	Trichloromonofluoromethane
U125	Furfural
U140	Isobutyl alcohol
U154	Methanol (Methyl Alcohol)
U159	Methyl ethyl ketone
U161	Methyl isobutyl ketone
U162	Methyl methacrylate
U165	Naphthalene
U169	Nitrobenzene
U171	2-Nitropropane
U188	Phenol
U191	2-Picoline

TABLE II.A.5-1 - Continued

FLUID RECOVERY SERVICE WASTE TYPES

EPA Hazardous Waste No.	Description
U196	Pyridine
U210	Tetrachloroethylene
U211	Methane, tetrachloro
U213	Tetrahydrofuran
U220	Toluene
U226	1,1,1 Trichloroethane
U227	1,1,2 Trichloroethane
U228	Trichloroethylene
U239	Xylene
U359	2-Ethoxyethanol

USED MINERAL SPIRITS

The clean mineral spirits solvent is labeled under the trade name of "Safety-Kleen 105 Solvent," or parts washer so-named because of the flash point of the solvent being 105°F (minimum). Chemically, the solvent primarily consists of petroleum hydrocarbon fractions (the mineral spirits) with a boiling point image between 310°F and 400°F. Impurities, such as light aromatic hydrocarbons (LAHC) and chlorinated hydrocarbons, usually constitute less than one percent of the total volume. The mineral spirits typically constituted over 99.5 percent of the total volume of the solvent.

The used mineral spirits solvent consists primarily of mineral spirits solvent plus water, insoluble solids, oil, and grease picked up in the various degreasing operations that Safety-Kleen's customers use. In most instances, no water is associated with the used solvent; however, at times, the water content may range from one percent to as much as 50 percent. The tank bottoms may range from 2 percent to 10 percent, by volume, in the used solvent. These tank bottoms are generated when the bulk tank is cleaned out.

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

USED IMMERSION CLEANER

The clean chlorinated solvent is labeled under the trade name of "Immersion Cleaner and Carburetor and Cold Parts Cleaner #609." It is a two-phase system consisting of an upper aqueous (water) layer and lower non-aqueous (solvent) layer. The water phase consists of water and Dresinate TX (a sodium soap of tall oil). The solvent phase is composed of methylene chloride, orthodichlorobenzene, cresylic acid, and an amines additive.

A new "Immersion Cleaner and Carburetor and Cold Parts Cleaner #699" is also being leased and will eventually replace the #609 immersion cleaner. It is a heavy aromatic

naphtha, N-methyl-2-pyrolidon dipropylene glycol methyl ether, monoethanolamine and oleic acid, and contains a maximum of 1 percent total chlorinated solvents.

Both the new and old used immersion cleaner are basically unchanged from their clean state, except oils, greases, and insoluble solids may be picked up during the various degreasing operations used by Safety-Kleen's customers. The spent solvent is non-flammable. It is regarded as toxic because it contains various toxic chemicals (see MSDSs in Attachment II.A.4(b)).

USED MINERAL SPIRITS BOTTOM SLUDGE

This is material settled from used mineral spirits in the aboveground tanks. It contains insoluble solids, oils and greases, and some water picked up in the degreasing operations, together with a small amount of mineral spirits. Analyses have shown that the sludge is an ignitable waste and some TCLP analyses have shown it to be toxic using TCLP standards while others have not. The same analyses applies to tank bottoms as applies to dumpster mud.

The sludge is removed from the aboveground tank periodically and shipped to Safety-Kleen's facility for reclamation. The estimated annual quantity is included in the estimate of used mineral spirits.

USED MINERAL SPIRITS DUMPSTER MUD

This waste material is accumulated in the wet dumpsters when emptying the used mineral spirits from the containers into the aboveground storage tanks. The nature of this waste is similar to the used mineral spirits bottom sludge, except with some small metal parts and less mineral spirits. It is regarded as an ignitable waste and often is also considered a characteristic waste using TCLP standards.

The sludge in the dumpsters is cleaned out frequently. The waste is containerized and shipped to Safety-Kleen's facility for recycling. Approximately 150 containers (1,500 gallons) of dumpster mud is anticipated to be removed from this service center each year.

DRY CLEANING WASTES

Solvent used in dry cleaning of clothing is commonly tetrachloroethylene (or perchloroethylene). Hence, waste generated from dry cleaning operations contains various concentrations of the solvent. Basically, wastes generated by dry cleaning facilities are in the following forms.

1. Cartridge Filter: In addition to the construction materials consisting of steel, paper, clay, and carbon, the used cartridge retains solvent, oil and grease, and undissolved elements such as lint and soil. Solvent retained in the filter cartridge generally amounts to less than 50 percent of the total cartridge weight.

2. Muck: At some dry cleaning facilities, a mixture of powdered materials is used as the filter medium for the dry cleaning solvent, in lieu of the cartridge filter. This filter medium normally consists of diatomaceous earth and carbon. In addition to lint, soil, oil, and grease retained by this medium, between 40 and 50 percent by weight of the "muck" is solvent.

3. Still Residue: After filtration, the dry cleaning solvent is distilled by the dry cleaning machine to remove the dissolved materials from the used solvent. The dissolved materials (still residues) are in liquid form and consist of primarily detergent, oil and grease, vinyl acetate (a sizing compound), and 20 to 30 percent of solvent.

ANTIFREEZE COLLECTION SERVICE

The spent antifreeze (ethylene glycol) is collected from automobile service stations. These wastes are deposited into a carboy or containers by the customer, on the

customer's premises, and the carboy is pumped into a tanker truck or containers by the sales representative. At the service center, it is then pumped into a 20,000-gallon storage tank (if handled in bulk) or placed in the container warehouse (if handled in containers) and held for shipment to a Safety-Kleen Recycle Center.

PAINT WASTES

Paint wastes consist of various lacquer thinners and paints. The waste is collected in containers at the customer's place of business and the containers are then palletized and stored in the container storage area of the warehouse.

FLUID RECOVERY SERVICE WASTES

Fluid Recovery Services (FRS) is a program managed by the Safety-Kleen Service Centers. Under this program, waste types similar to the FRS wastes provided by Safety-Kleen are collected by the service center and processed by the recycle centers. These wastes may or may not have been originally obtained from Safety-Kleen by the industrial customer. These wastes are handled as transfer wastes at the service center. Examples of the types of wastes that may be received from FRS customers include:

1. Spent hydrocarbon distillates, such as waste fuel, oil, petroleum, and naphtha, etc.

2. Lubricating, hydraulic oils, and machine oils.

3. Industrial halogenated solvents such as 1,1,1-trichloroethane, tetrachloroethylene, freon, and trichloroethane.

4. Paint and lacquer thinners and paint wastes.

5. Other hazardous and non-hazardous halogenated and non-halogenated solvents.

FRS wastes received at the facility are classified as characteristic wastes (D-waste codes, non-specific source wastes (F-waste codes), listed wastes from specific sources (K-wastes, commercial chemical products, manufacturing intermediates or off-specification chemical commercial products (U-waste codes). Most of the time, a waste stream will be some combination of specific components, and be categorized as a D- or F- waste. Table II.A.5-1 provides a list of the EPA waste codes managed at the facility under the FRS program.

Certain other wastes that result from the use of organic solvents are also managed through the service centers. These include the solids and sludges that settle out of the used solvent during handling and processing. Lint, paper, oils, greases, carbons, and metals are examples of materials which may settle or separate out of used solvent. In addition to the listed waste codes, these wastes may also exhibit a characteristic under the toxicity characteristic leaching procedure.

Certain solvents are not economically recoverable in their prime form. These are typically solvents of low intrinsic value (e.g., methanol), those where the user's specifications are unattainable or where the mixture cannot be efficiently separated because of the formation of azeotropes, overlapping or close boiling ranges. However, when properly blended and processed, these solvents can be a beneficial source of energy. The Safety-Kleen recycle centers are equipped to process non-recoverable solvent mixtures with still bottoms from recovery of their solvent to produce valuable solvent based fuels.

In each of these end use applications at facilities classified as Industrial Furnaces, the combustion conditions are orders of magnitude more destructive than those specified for incinerators. For each industrial furnace emission controls are in place and covered by existing regulations. Specifications are restrictive for PCBs, herbicides, pesticides, etc.,

and for other wastes that might adversely affect the operation of the unit or the properties of the finished product.

V. San Agustin

SAFETY-KLEEN
ENVIRONMENTAL AFFAIRS
SERVICE CENTER

BULLETIN

RECEIVED
APR 15 1992
SAFETY-KLEEN CORP.
ENVIRONMENTAL ENGINEER
TAMPA REGION

DATE: 4/2/92

TO: All Service Center Managers
All Accumulation Center Managers
All Regional Managers
All Regional Environmental Engineers

CC: Scott Fore
Dave Dattilo
Rick Peoples
Div. V.P.s
Div. E.M.s

FM: Bill Constantelos

RE: Annual Waste Stream Characterization

1. Enclosed is a copy of the 1991 Annual Waste Stream Characterization as developed by the Safety-Kleen Corporate laboratory and their contractor, Enseco Rocky Mountain Analytical Laboratory (RMAL, Arvada, CO).

2. You will also find a copy of the 1990 Annual Waste Stream Characterization. If you already have these data, please disregard. If not, you should file it in a newly designated file # 1130.

3. Please review the data.

4. You must retain these packages and file them in a newly designated file # 1130 in your EHS filing system.

5. Also update your "999" EHS File Index to reflect the additional file # 1130 and designate it as "Annual Waste Stream Characterizations".

SAFETY-KLEEN'S 1991 ANNUAL WASTE CHARACTERIZATION PROGRAM

Enseco Rocky Mountain Analytical Laboratory (RMAL, Arvada, CO) was selected to perform the 1991 waste stream recharacterization work. They are part of a national laboratory network and are certified in all states of interest to Safety-Kleen (see attached list of certifications).

The experimental plan was as follows:

Waste Streams Sampled -

Used Parts Washer Solvent - USEDPWS
Used Immersion Cleaner - USEDIC
Used Paint Gun Cleaner - 5 gal. - USEDPGC5
Used Paint Waste - 16 gal. - USEDPGC16
Used Dry Cleaner Bottoms - USEDDCBOT
Used Dry Cleaner Muck - USEDDCMUCK
Used Antifreeze - USEDAF
Dumpster Mud - DUMPMUD
Used Oil - USEDOIL
Distillation Bottoms, Parts Washer Solvent - DISTBOTPWS
Distillation Bottoms, Other - DISTBOTOTH
Wastewater, Chlorinated - WWCL
Wastewater, Nonchlorinated - WWNONCL
Used Parts Washer Solvent, 140°F Flash - 140PWS
Cooker Solids - COOKERSOLIDS

SK Recycle Centers Providing Samples -

Clayton, NJ - CL
Dolton, IL - DO
Hebron, OH - HE
E. Chicago, IL - EC
Denton, TX - DE
Elgin, IL - EL
Lexington, SC - LE

Small retains were collected from each shipment of a designated waste stream that arrived at a facility for a period of time from two to four weeks, depending on the number of shipments. These retains were sealed in glass vials and stored in a refrigerator at 4°C. At the end of the accumulation period, all retains were composited into larger glass containers supplied by RMAL and immediately shipped overnight in a cooler to their lab.

The tests performed were:

Toxic Characteristic Leaching Procedure - TCLP
[We ran metals, volatiles, and semi-volatiles (excluding pesticides and herbicides)].
Flash Point
pH
Specific Gravity

For samples that had to be extracted for TCLP analysis, rather than just filtered and run neat, we also ran total volatile and semi-volatile organics (as opposed to extractable organics) on the whole waste.

In a few cases, the difficulty of working with these waste stream samples caused the laboratory to exceed the allowable holding times. For those samples, the entire procedure of collecting samples, re-shipping the composite, and performing the missing analyses was started over. This is the reason that the report was not completed within calendar year 1991. However, all samples were taken within 1991.

Many of the analyses show reporting limits well above the TCLP regulatory limits. This merely confirms the Safety-Kleen position that TCLP and other SW-846 methods are neither appropriate nor useful for concentrated organic waste streams. The U.S. EPA has agreed with this position (Fed. Register, Feb. 8, 1990, p. 4440). In all of those instances where the reporting limit was above the regulatory limit, customer knowledge of the waste will have to be used to determine whether a characteristic is likely to be present.

If you have any questions concerning the sampling, analysis, or data, please call Dennis Brinkman at (312) 694-2700.

Enseco
A Corning Comp

PART WASHER SOLVENT SLUDGE

OTC Volatile Organics
TCLP Leachate
Method 8240

Parameter	Units	CL PWSSLUDGE 16 OCT 91 Result	Reporting Limit
Vinyl Chloride	mg/L	ND	10000
1,1 Dichloroethene	mg/L	ND	5000
Chloroform	mg/L	ND	5000
1,2 Dichloroethane	mg/L	ND	5000
2-Butanone	mg/L	ND	10000
Carbon Tetrachloride	mg/L	ND	5000
Trichloroethene	mg/L	ND	5000
Benzene	mg/L	ND	5000
Tetrachloroethene	mg/L	ND	5000
Chlorobenzene	mg/L	ND	5000

Enseco
A Corning Comp.

PART WASHER SOLVENT SLUDGE

OTC Semivolatile Organics
TCLP Leachate
Method 8270

Parameter	Units	CL PWS SLUDGE 16 OCT 91 Result	Reporting Limit
Pyridine	mg/L	ND	2000
1,4-Dichlorobenzene	mg/L	ND	1000
2-Methylphenol	mg/L	ND	1000
3/4-Methylphenol	mg/L	ND	1000
Hexachloroethane	mg/L	ND	1000
Nitrobenzene	mg/L	ND	1000
Hexachlorobutadiene	mg/L	ND	1000
2,4,6-Trichlorophenol	mg/L	ND	1000
2,4,5-Trichlorophenol	mg/L	ND	5000
2,4-Dinitrotoluene	mg/L	ND	1000
Hexachlorobenzene	mg/L	ND	1000
Pentachlorophenol	mg/L	ND	5000

PART WASHER SOLVENT SLUDGE

Total Metals
TCLP Leachate

Parameter	Units	QL PWS SLUDGE 16 OCT 91 Result	Reporting Limit
Arsenic	mg/L	ND	5.0
Barium	mg/L	4.5	0.5
Cadmium	mg/L	2.1	0.25
Chromium	mg/L	1.6	0.5
Lead	mg/L	25.1	2.5
Mercury	mg/L	0.016	0.002
Selenium	mg/L	ND	0.25
Silver	mg/L	ND	0.5

PART WASHER SOLVENT SLUDGE

General Inorganics

Parameter	Units	CL PWS SLUDGE 16 OCT 91 Result	Reporting Limit
Specific Gravity at 77 degrees F	g/cc	1 019	-
Ignitability	deg. F	115	-
pH	units	9 2	-

Enseco
A Corning Comp.

IMMERSION CLEANER SLUDGE

OTC Volatile Organics
TCLP Leachate
Method 8240

Parameter	Units	(NEW FORMULA) CLIC SLUDGE 02 JAN 92 Result	Reporting Limit	CLIC SLUDGE 19 DEC 91 Result	Reporting Limit
Vinyl Chloride	mg/L	ND	17	ND	40.0
1,1 Dichloroethene	mg/L	ND	8.4	ND	20.0
Chloroform	mg/L	ND	8.4	ND	20.0
1,2 Dichloroethane	mg/L	ND	8.4	ND	20.0
2-Butanone	mg/L	ND	17	ND	40.0
Carbon Tetrachloride	mg/L	ND	8.4	ND	20.0
Trichloroethene	mg/L	ND	8.4	ND	20.0
Benzene	mg/L	ND	8.4	ND	20.0
Tetrachloroethene	mg/L	ND	8.4	ND	20.0
Chlorobenzene	mg/L	ND	8.4	ND	20.0

IMMERSION CLEANER SLUDGE

OTC Semivolatile Organics
TCLP Leachate
Method 8270

Parameter	Units	(Chlorinated) CLIC SLUDGE 15 OCT 91 Result	Reporting Limit	NEW FORMULA CLIC SLUDGE 2 JAN 92 Result	Reporting Limit
Pyridine	mg/L	ND	40000	ND	50
1,4-Dichlorobenzene	mg/L	58000	20000	ND	25
2-Methylphenol	mg/L	70000	20000	26	25
3/4-Methylphenol	mg/L	74000	20000	ND	25
Hexachloroethene	mg/L	ND	20000	ND	25
Nitrobenzene	mg/L	ND	20000	ND	25
Hexachlorobutadiene	mg/L	ND	20000	ND	25
2,4,6-Trichlorophenol	mg/L	ND	20000	ND	25
2,4,5-Trichlorophenol	mg/L	ND	100000	ND	120
2,4 - Dinitrotoluene	mg/L	ND	20000	ND	25
Hexachlorobenzene	mg/L	ND	20000	ND	25
Pentachlorophenol	mg/L	ND	100000	ND	120

IMMERSION CLEANER SLUDGE

Total Metals

TCLP Leachate

Parameter	Units	CLIC SLUDGE 16 OCT 91 Result	CLIC SLUDGE 16 OCT 91 Reporting Limit	NEW FORMULA CLIC SLUDGE 2 JAN 92 Result	NEW FORMULA CLIC SLUDGE 2 JAN 92 Reporting Limit
Arsenic	mg/L	1.3	1.0	ND	1.0
Barium	mg/L	7.8	0.1	1.4	0.1
Cadmium	mg/L	45.3	0.05	2.5	0.05
Chromium	mg/L	31.9	0.1	1.1	0.1
Lead	mg/L	220	0.5	21	0.5
Mercury	mg/L	ND	0.1	ND	0.002
Selenium	mg/L	ND	0.5	ND	0.1
Silver	mg/L	ND	0.1	ND	0.1

IMMERSION CLEANER SLUDGE

General Inorganics

Parameter	Units	CLIC SLUDGE 02 JAN 92 Result	Reporting Limit	CLIC SLUDGE 16 OCT 91 Result	Reporting Limit
Specific Gravity at 77 degrees F	g/cc	1.06	-	1.19	-
Ignitability	deg. F	115	-	>160	-
pH	units	10.0	-	6.3	-

IMMERSION CLEANER SLUDGE

TCL Volatile Organics

Method 8240

Parameter	Units	CLIC SLUDGE 16 OCT 91 Result	CLIC SLUDGE 16 OCT 91 Reporting Limit	(NEW FORMULA) CLIC SLUDGE 02 JAN 92 Result	(NEW FORMULA) CLIC SLUDGE 02 JAN 92 Reporting Limit
Chloromethane	mg/kg	ND	4000	ND	330
Bromomethane	mg/kg	ND	4000	ND	330
Vinyl Chloride	mg/kg	ND	4000	ND	330
Chloroethane	mg/kg	ND	4000	ND	330
Methylene chloride	mg/kg	67000	2000	770	160
Acetone	mg/kg	ND	4000	ND	330
Carbon disulfide	mg/kg	ND	2000	ND	160
1,1-Dichloroethene	mg/kg	ND	2000	ND	160
1,1-Dichloroethane	mg/kg	ND	2000	ND	160
1,2-Dichloroethene (cis/trans)	mg/kg	ND	2000	ND	160
Chloroform	mg/kg	ND	2000	ND	160
1,2-Dichloroethane	mg/kg	ND	2000	ND	160
2-Butanone	mg/kg	ND	4000	ND	330
1,1,1-Trichloroethane	mg/kg	ND	2000	ND	160
Carbon tetrachloride	mg/kg	ND	4000	ND	330
Vinyl Acetate	mg/kg	ND	2000	ND	160
Bromodichloromethane	mg/kg	ND	2000	ND	160
1,2-Dichloropropane	mg/kg	ND	2000	ND	160
cis-1,3-Dichloropropene	mg/kg	ND	2000	ND	160
Trichloroethene	mg/kg	ND	2000	ND	160
Dibromochloromethane	mg/kg	ND	2000	ND	160
1,1,2-Trichloroethane	mg/kg	ND	2000	ND	160
Benzene	mg/kg	ND	2000	ND	160
trans-1,3-Dichloropropene	mg/kg	ND	2000	ND	160
2-Chloroethyl vinyl ether	mg/kg	ND	4000	ND	330
Bromoform	mg/kg	ND	2000	ND	160
4-Methyl-2-pentanone	mg/kg	ND	4000	ND	330
2-Hexanone	mg/kg	ND	4000	ND	330
1,1,2,2-Tetrachloroethane	mg/kg	ND	2000	ND	160
Tetrachloroethene	mg/kg	2500	2000	1400	160
Toluene	mg/kg	ND	2000	ND	160
Chlorobenzene	mg/kg	2200	2000	ND	160
Ethylbenzene	mg/kg	ND	2000	ND	160
Styrene	mg/kg	ND	2000	ND	160
Xylenes (total)	mg/kg	ND	2000	220	16

IMMERSION CLEANER SLUDGE

TCL Semivolatile Organics

Method 8270

Parameter	Units	NEW FORMULA CIC SLUDGE 2 JAN 92 Result	Reporting Limit
Phenol	mg/kg	ND	1900
bis(2 - Chloroethyl) ether	mg/kg	ND	1900
2 - Chlorophenol	mg/kg	ND	1900
1,3 - Dichlorobenzene	mg/kg	ND	1900
1,4 - Dichlorobenzene	mg/kg	ND	1900
Benzyl alcohol	mg/kg	ND	1900
1,2 - Dichlorobenzene	mg/kg	ND	1900
2 - Methylphenol	mg/kg	ND	1900
bis(2 - Chloroisopropyl) - ether	mg/kg	ND	1900
4 - Methylphenol	mg/kg	ND	1900
N - Nitroso - di - n - propylamine	mg/kg	ND	1900
Hexachloroethene	mg/kg	ND	1900
Nitrobenzene	mg/kg	ND	1900
Isophorone	mg/kg	ND	1900
2 - Nitrophenol	mg/kg	ND	1900
2,4 - Dimethylphenol	mg/kg	ND	1900
Benzoic acid	mg/kg	ND	9400
bis(2 - Chloroethoxy) - methane	mg/kg	ND	1900
2,4 - Dichlorophenol	mg/kg	ND	1900
1,2,4 - Trichlorobenzene	mg/kg	ND	1900
Napthalene	mg/kg	11000	1900
4 - Chloroaniline	mg/kg	ND	1900
Hexachlorobutadiene	mg/kg	ND	1900
4 - Chloro - 3 - methylphenol	mg/kg	ND	1900
2 - Methylnaphthalene	mg/kg	ND	1900
Hexachlorocyclopentadiene	mg/kg	ND	1900
2,4,6 - Trichlorophenol	mg/kg	ND	1900
2,4,5 - Trichlorophenol	mg/kg	ND	9400
2 - Chloronaphthalene	mg/kg	ND	1900
2 - Nitroaniline	mg/kg	ND	9400
Dimethyl phthalate	mg/kg	ND	1900
Acenaphthylene	mg/kg	ND	1900
3 - Nitroaniline	mg/kg	ND	9400
Acenaphthene	mg/kg	ND	1900
2,4 - Dinitrophenol	mg/kg	ND	9400
4 - Nitrophenol	mg/kg	ND	9400

IMMERSION CLEANER SLUDGE

- continued from previous page -

Dibenzofuran	mg/kg	ND	1900
2,4 - Dinitrotoluene	mg/kg	ND	1900
2,6 - Dinitrotoluene	mg/kg	ND	1900
Diethyl phthalate	mg/kg	ND	1900
4 - Chlorophenyl phenyl ether	mg/kg	ND	1900
Flourene	mg/kg	ND	1900
4 - Nitroaniline	mg/kg	ND	9400
4,6 - Dinitro-2 - Methylphenol	mg/kg	ND	9400
N - Nitrosodiphenylamine	mg/kg	ND	1900
4 - Bromophenyl phenyl ether	mg/kg	ND	1900
Hexachlorobenzene	mg/kg	ND	1900
Pentachlorophenol	mg/kg	ND	9400
Phenanthrene	mg/kg	ND	1900
Anthracene	mg/kg	ND	1900
Di - n - butyl phthalate	mg/kg	ND	1900
Flouranthene	mg/kg	ND	1900
Pyrene	mg/kg	ND	1900
Butyl benzyl phthalate	mg/kg	ND	1900
3,3' - Dichlorobenzidine	mg/kg	ND	3700
Benzo (a) anthracene	mg/kg	ND	1900
bis(2 - Ethylhexyl) phthalate	mg/kg	ND	1900
Chrysene	mg/kg	ND	1900
Di - n - octyl phthalate	mg/kg	ND	1900
Benzo (b) flouranthene	mg/kg	ND	1900
Benzo (k) flouranthene	mg/kg	ND	1900
Benzo (a) pyrene	mg/kg	ND	1900
Indeno (1,2,3 - cd) pyrene	mg/kg	ND	1900
Dibenz (a,h) anthracene	mg/kg	ND	1900
Benzo (g,h,i) perylene	mg/kg	ND	1900

IMMERSION CLEANER SLUDGE

- TCL Semivolatile Organics

Method 8270

Parameter	Units	NEW FORMULA CUC SLUDGE 19 DEC 91 Result	Reporting Limit
Phenol	mg/kg	5500	2500
bis(2-Chloroethyl) ether	mg/kg	ND	2500
2-Chlorophenol	mg/kg	ND	2500
1,3-Dichlorobenzene	mg/kg	9200	2500
1,4-Dichlorobenzene	mg/kg	21000	2500
Benzyl alcohol	mg/kg	ND	2500
1,2-Dichlorobenzene	mg/kg	11000	2500
2-Methylphenol	mg/kg	10000	2500
bis(2-Chloroisopropyl)-ether	mg/kg	ND	2500
4-Methylphenol	mg/kg	10000	2500
N-Nitroso-di-n-propylamine	mg/kg	ND	2500
Hexachloroethane	mg/kg	ND	2500
Nitrobenzene	mg/kg	ND	2500
Isophorone	mg/kg	ND	2500
2-Nitrophenol	mg/kg	ND	2500
2,4-Dimethylphenol	mg/kg	4800	2500
Benzoic acid	mg/kg	ND	12000
bis(2-Chloroethoxy)-methane	mg/kg	ND	2500
2,4-Dichlorophenol	mg/kg	ND	2500
1,2,4-Trichlorobenzene	mg/kg	ND	2500
Napthalene	mg/kg	ND	2500
4-Chloroaniline	mg/kg	ND	2500
Hexachlorobutadiene	mg/kg	ND	2500
4-Chloro-3-methylphenol	mg/kg	ND	2500
2-Methylnaphthalene	mg/kg	ND	2500
Hexachlorocyclopentadiene	mg/kg	ND	2500
2,4,6-Trichlorophenol	mg/kg	ND	2500
2,4,5-Trichlorophenol	mg/kg	ND	12000
2-Chloronaphtalene	mg/kg	ND	2500
2-Nitroaniline	mg/kg	ND	12000
Dimethyl phthalate	mg/kg	ND	2500
Acenaphthylene	mg/kg	ND	2500
3-Nitroaniline	mg/kg	ND	12000
Acenaphtene	mg/kg	ND	2500
2,4-Dinitrophenol	mg/kg	ND	12000
4-Nitrophenol	mg/kg	ND	12000

IMMERSION CLEANER SLUDGE

		- continued from previous page -	
Dibenzofuran	mg/kg	ND	2500
2,4 - Dinitrotoluene	mg/kg	ND	2500
2,6 - Dinitrotoluene	mg/kg	ND	2500
Diethyl phthalate	mg/kg	ND	2500
4 - Chlorophenyl phenyl ether	mg/kg	ND	2500
Flourene	mg/kg	ND	2500
4 - Nitroaniline	mg/kg	ND	12000
4,6 - Dinitro-2 - Methylphenol	mg/kg	ND	12000
N - Nitrosodiphenylamine	mg/kg	ND	2500
4 - Bromophenyl phenyl ether	mg/kg	ND	2500
Hexachlorobenzene	mg/kg	ND	2500
Pentachlorophenol	mg/kg	ND	12000
Phenanthrene	mg/kg	ND	2500
Anthracene	mg/kg	ND	2500
Di - n - butyl phthalate	mg/kg	ND	2500
Flouranthene	mg/kg	ND	2500
Pyrene	mg/kg	ND	2500
Butyl benzyl phthalate	mg/kg	ND	2500
3,3' - Dichlorobenzidine	mg/kg	ND	5000
Benzo (a) anthracene	mg/kg	ND	2500
bis(2 - Ethylhexyl) phthalate	mg/kg	ND	2500
Chrysene	mg/kg	ND	2500
Di - n - octyl phthalate	mg/kg	ND	2500
Benzo (b) flourenthene	mg/kg	ND	2500
Benzo (k) flouranthene	mg/kg	ND	2500
Benzo (a) pyrene	mg/kg	ND	2500
Indeno (1,2,3 - cd) pyrene	mg/kg	ND	2500
Dibenz (a,h) anthracene	mg/kg	ND	2500
Benzo (g,h,i) perylene	mg/kg	ND	2500

USED OIL

OTC Volatile Organics
TCLP Leachate
Method 8240

Parameter	Units	ELUSEDOIL 18 DEC 91 Result	Reporting Limit	BRESLUBE USED OIL COMP. 04 NOV 91 Result	Reporting Limit
Vinyl Chloride	mg/L	ND	10	ND	0.25
1,1 Dichloroethene	mg/L	ND	5	ND	0.13
Chloroform	mg/L	ND	5	ND	0.13
1,2 Dichloroethane	mg/L	ND	5	ND	0.13
2-Butanone	mg/L	ND	10	ND	1.3
Carbon Tetrachloride	mg/L	ND	5	ND	0.13
Trichloroethene	mg/L	ND	5	ND	0.13
Benzene	mg/L	ND	5	1.9	0.13
Tetrachloroethene	mg/L	15	5	ND	0.13
Chlorobenzene	mg/L	ND	5	ND	0.13

USED OIL

OTC Semivolatile Organics
TCLP Leachate
Method 8270

Parameter	Units	ELUSED OIL 17-OCT-91 Result	Reporting Limit	BRESLUBE USEDOIL 4-Nov-91 Result	Reporting Limit
Pyridine	mg/L	ND	2000	ND	0.04
1,4-Dichlorobenzene	mg/L	ND	1000	ND	0.04
2-Methylphenol	mg/L	ND	1000	0.13	0.04
3/4-Methylphenol	mg/L	ND	1000	0.13	0.04
Hexachloroethane	mg/L	ND	1000	ND	0.04
Nitrobenzene	mg/L	ND	1000	ND	0.04
Hexachlorobutadiene	mg/L	ND	1000	ND	0.04
2,4,6-Trichlorophenol	mg/L	ND	1000	ND	0.04
2,4,5-Trichlorophenol	mg/L	ND	5000	ND	0.04
2,4-Dinitrotoluene	mg/L	ND	1000	ND	0.04
Hexachlorobenzene	mg/L	ND	1000	ND	0.04
Pentachlorophenol	mg/L	ND	5000	ND	0.2

USED OIL

Total Metals
TCLP Leachate

Parameter	Units	EL USED OIL 17 OCT 91 Result	Reporting Limit	6PESLUGE USED OIL COMPOSITE 04 NOV 91 Result	Reporting Limit
Arsenic	mg/L	ND	5.0	ND	0.5
Barium	mg/L	15.1	0.5	0.1	0.1
Cadmium	mg/L	4	0.25	ND	0.1
Chromium	mg/L	2.6	0.5	ND	0.1
Lead	mg/L	41.2	2.5	ND	0.1
Mercury	mg/L	ND	0.002	ND	0.02
Selenium	mg/L	ND	0.5	ND	0.3
Silver	mg/L	ND	0.5	ND	0.1

USED OIL

General Inorganics

Parameter	Units	ELUSED OIL 17 OCT 91 Result	Reporting Limit	BRESLUBE USED OIL COMPOSITE 04 NOV 91 Result	Reporting Limit
Specific Gravity at 77 degrees F	g/cc	0.893	-	0.84	-
Ignitability	deg. F	>160	-	-	-
pH	units	7	-	NA	-
Flash point (FM1CC)	deg. F	-	-	84	-

USED OIL

TCL Volatile Organics
Method 8240

Parameter	Units	ELUSED OIL 17 OCT 91 Result	ELUSED OIL 17 OCT 91 Reporting Limit	EPESLUBE USED OIL COMPOSITE 04 NOV 91 Result	EPESLUBE USED OIL COMPOSITE 04 NOV 91 Reporting Limit
Chloromethane	mg/kg	ND	100	ND	50
Bromomethane	mg/kg	ND	100	ND	50
Vinyl Chloride	mg/kg	ND	100	ND	50
Chloroethane	mg/kg	ND	100	ND	50
Methylene chloride	mg/kg	ND	50	ND	25
Acetone	mg/kg	ND	100	ND	250
Carbon disulfide	mg/kg	ND	50	ND	25
1,1 - Dichloroethene	mg/kg	ND	50	ND	25
1,1 - Dichloroethane	mg/kg	ND	50	ND	25
1,2 - Dichloroethene (cis/trans)	mg/kg	ND	50	ND	25
Chloroform	mg/kg	ND	50	ND	25
1,2 - Dichloroethane	mg/kg	ND	50	ND	25
2 - Butanone	mg/kg	ND	100	ND	250
1,1,1 - Trichloroethane	mg/kg	470	50	ND	25
Carbon tetrachloride	mg/kg	ND	100	ND	25
Vinyl Acetate	mg/kg	ND	50	120	25
Bromodichloromethane	mg/kg	ND	50	ND	25
1,2 - Dichloropropane	mg/kg	ND	50	ND	25
cis - 1,3 - Dichloropropene	mg/kg	ND	50	ND	25
Trichloroethene	mg/kg	ND	50	ND	25
Dibromochloromethane	mg/kg	ND	50	ND	25
1,1,2 - Trichloroethane	mg/kg	ND	50	ND	25
Benzene	mg/kg	ND	50	160	25
trans - 1,3 - Dichloropropene	mg/kg	ND	50	ND	25
2 - Chloroethyl vinyl ether	mg/kg	ND	100	-	-
Bromoform	mg/kg	ND	50	ND	25
4 - Methyl - 2 - pentanone	mg/kg	ND	100	ND	250
2 - Hexanone	mg/kg	ND	130	ND	250
1,1,2,2 - Tetrachloroethane	mg/kg	ND	50	ND	25
Tetrachloroethene	mg/kg	250	50	110	25
Toluene	mg/kg	ND	50	520	25
Chlorobenzene	mg/kg	ND	50	ND	25
Ethylbenzene	mg/kg	ND	50	130	25
Styrene	mg/kg	ND	50	84	25
Xylenes (total)	mg/kg	ND	50	700	25

USED OIL

TCL Semivolatile Organics

Method 8270

Parameter	Units	EL USED OIL 17-OCT-91 Result	Reporting Limit	USED OIL COMP 04-NOV-91 Result	Reporting Limit
Phenol	mg/kg	ND	500	ND	1600
bis(2-Chloroethyl) ether	mg/kg	ND	500	ND	1600
2-Chlorophenol	mg/kg	ND	500	ND	1600
1,3-Dichlorobenzene	mg/kg	ND	500	ND	1600
1,4-Dichlorobenzene	mg/kg	ND	500	ND	1600
Benzyl alcohol	mg/kg	ND	500	ND	1600
1,2-Dichlorobenzene	mg/kg	ND	500	ND	1600
2-Methylphenol	mg/kg	ND	500	ND	1600
bis(2-Chloroisopropyl)-ether	mg/kg	ND	500	ND	1600
4-Methylphenol	mg/kg	ND	500	ND	1600
N-Nitroso-di-n-propylamine	mg/kg	ND	500	ND	1600
Hexachloroethane	mg/kg	ND	500	ND	1600
Nitrobenzene	mg/kg	ND	500	ND	1600
Isophorone	mg/kg	ND	500	ND	1600
2-Nitrophenol	mg/kg	ND	500	ND	1600
2,4-Dimethylphenol	mg/kg	ND	500	ND	1600
Benzoic acid	mg/kg	ND	2500	ND	8000
bis(2-Chloroethoxy)-methane	mg/kg	ND	500	ND	1600
2,4-Dichlorophenol	mg/kg	ND	500	ND	1600
1,2,4-Trichlorobenzene	mg/kg	ND	500	ND	1600
Naphthalene	mg/kg	ND	500	ND	1600
4-Chloroaniline	mg/kg	ND	500	ND	1600
Hexachlorobutadiene	mg/kg	ND	500	ND	1600
4-Chloro-3-methylphenol	mg/kg	ND	500	ND	1600
2-Methylnaphthalene	mg/kg	530	500	ND	1600
Hexachlorocyclopentadiene	mg/kg	ND	500	ND	1600
2,4,6-Trichlorophenol	mg/kg	ND	500	ND	1600
2,4,5-Trichlorophenol	mg/kg	ND	2500	ND	1600
2-Chloronaphthalene	mg/kg	ND	500	ND	1600
2-Nitroaniline	mg/kg	ND	2500	ND	8000
Dimethyl phthalate	mg/kg	ND	500	ND	1600
Acenaphthylene	mg/kg	ND	500	ND	1600
3-Nitroaniline	mg/kg	ND	2500	ND	8000
Acenaphthene	mg/kg	ND	500	ND	1600
2,4-Dinitrophenol	mg/kg	ND	2500	ND	8000
4-Nitrophenol	mg/kg	ND	2500	ND	8000

USED OIL

	continued from previous page				
Dibenzofuran	mg/kg	ND	500	ND	1600
2,4 - Dinitrotoluene	mg/kg	ND	500	ND	1600
2,6 - Dinitrotoluene	mg/kg	ND	500	ND	1600
Diethyl phthalate	mg/kg	ND	500	ND	1600
4 - Chlorophenyl phenyl ether	mg/kg	ND	500	ND	1600
Flourene	mg/kg	ND	500	ND	1600
4 - Nitroaniline	mg/kg	ND	2500	ND	8000
4,6 - Dinitro-2 - Methylphenol	mg/kg	ND	2500	ND	8000
N - Nitrosodiphenylamine	mg/kg	ND	500	ND	1600
4 - Bromophenyl phenyl ether	mg/kg	ND	500	ND	1600
Hexachlorobenzene	mg/kg	ND	500	ND	1600
Pentachlorophenol	mg/kg	ND	2500	ND	8000
Phenanthrene	mg/kg	ND	500	ND	1600
Anthracene	mg/kg	ND	500	ND	1600
Di - n - butyl phthalate	mg/kg	ND	500	ND	1600
Flouranthene	mg/kg	ND	500	ND	1600
Pyrene	mg/kg	ND	500	ND	1600
Butyl benzyl phthalate	mg/kg	ND	500	ND	1600
3,3' - Dichlorobenzidine	mg/kg	ND	1000	ND	3000
Benzo (a) anthracene	mg/kg	ND	500	ND	1600
bis(2 - Ethylhexyl) phthalate	mg/kg	ND	500	ND	1600
Chrysene	mg/kg	ND	500	ND	1600
Di - n - octyl phthalate	mg/kg	ND	500	ND	1600
Benzo (b) flouranthene	mg/kg	ND	500	ND	1600
Benzo (k) flouranthene	mg/kg	ND	500	ND	1600
Benzo (a) pyrene	mg/kg	ND	500	ND	1600
Indeno (1,2,3 - cd) pyrene	mg/kg	ND	500	ND	1600
Dibenz (a,h) anthracene	mg/kg	ND	500	ND	1600
Benzo (g,h,i) perylene	mg/kg	ND	500	ND	1600

COOKER SOLIDS

OTC Volatile Organics
TCLP Leachate
Method 8240

Parameter	Units	HE COOKER SOLIDS 24 OCT 91 Result	Reporting Limit
Vinyl Chloride	mg/L	ND	1.00
1,1 Dichloroethene	mg/L	ND	0.50
Chloroform	mg/L	ND	0.50
1,2 Dichloroethane	mg/L	ND	0.50
2-Butanone	mg/L	ND	1.00
Carbon Tetrachloride	mg/L	ND	0.50
Trichloroethene	mg/L	ND	0.50
Benzene	mg/L	ND	0.50
Tetrachloroethene	mg/L	10	0.50
Chlorobenzene	mg/L	ND	0.50

COOKER SOLIDS

OTC Semivolatile Organics
TCLP Leachate
Method 8270

Parameter	Units	EL COOKER SOLIDS 17 OCT 91 Result	Reporting Limit	HE COOKER SOLIDS 24 OCT 91 Result	Reporting Limit
Pyridine	mg/L	ND	0.40	ND	0.5
1,4-Dichlorobenzene	mg/L	ND	0.20	ND	0.25
2-Methylphenol	mg/L	ND	0.20	ND	0.25
3/4-Methylphenol	mg/L	ND	0.20	ND	0.25
Hexachloroethene	mg/L	ND	0.20	ND	0.25
Nitrobenzene	mg/L	ND	0.20	ND	0.25
Hexachlorobutadiene	mg/L	ND	0.20	ND	0.25
2,4,6-Trichlorophenol	mg/L	ND	0.20	ND	0.25
2,4,5-Trichlorophenol	mg/L	ND	1.00	ND	1.2
2,4-Dinitrotoluene	mg/L	ND	0.20	ND	0.25
Hexachlorobenzene	mg/L	ND	0.20	ND	0.25
Pentachlorophenol	mg/L	ND	1.00	ND	1.2

COOKER SOLIDS

Total Metals

TCLP Leachate

Parameter	Units	HECOOKERSOLIDS 24 OCT 91 Result	HECOOKERSOLIDS 24 OCT 91 Reporting Limit	EL COOKER SOLIDS 24-Oct-91 Result	EL COOKER SOLIDS 24-Oct-91 Reporting Limit
Arsenic	mg/L	ND	10.0	ND	1.0
Barium	mg/L	ND	1.0	0.8	0.1
Cadmium	mg/L	0.8	0.5	0.5	0.05
Chromium	mg/L	ND	1.0	ND	0.1
Lead	mg/L	ND	5.0	ND	0.5
Mercury	mg/L	ND	0.002	ND	0.002
Selenium	mg/L	ND	0.2	ND	0.1
Silver	mg/L	ND	1.0	ND	0.1

COOKER SOLIDS

General Inorganics

Parameter	Units	EL COOKER SOLIDS 17 OCT 91 Result	Reporting Limit	HE COOKER SOLIDS 17 OCT 91 Result	Reporting Limit
Specific Gravity at 77 degrees F	g/cc	-	-	-	-
Ignitability	deg F	>160	-	-	-
pH	units	7.2	-	6.8	-

COOKER SOLIDS

TCL Volatile Organics

Method 8240

Parameter	EL COOKER SOLID 17 OCT 91 Units	Result	Reporting Limit	HE COOKER SOLIDS 19 DEC 91 Units	Result	Reporting Limit
Chloromethane	ug/kg	ND	50	mg/kg	ND	20
Bromomethane	ug/kg	ND	50	mg/kg	ND	20
Vinyl Chloride	ug/kg	ND	50	mg/kg	ND	20
Chloroethane	ug/kg	ND	50	mg/kg	ND	20
Methylene chloride	ug/kg	29	25	mg/kg	ND	10
Acetone	ug/kg	160	50	mg/kg	ND	20
Carbon disulfide	ug/kg	ND	25	mg/kg	ND	10
1,1 - Dichloroethene	ug/kg	ND	25	mg/kg	ND	10
1,1 - Dichloroethane	ug/kg	ND	25	mg/kg	ND	10
1,2 - Dichloroethene (cis/trans)	ug/kg	ND	25	mg/kg	ND	10
Chloroform	ug/kg	ND	25	mg/kg	ND	10
1,2 - Dichloroethane	ug/kg	ND	25	mg/kg	ND	10
2 - Butanone	ug/kg	55	50	mg/kg	ND	20
1,1,1 - Trichloroethane	ug/kg	ND	25	mg/kg	ND	10
Carbon tetrachloride	ug/kg	ND	25	mg/kg	ND	20
Vinyl Acetate	ug/kg	ND	50	mg/kg	ND	10
Bromodichloromethane	ug/kg	ND	25	mg/kg	ND	10
1,2 - Dichloropropane	ug/kg	ND	25	mg/kg	ND	10
cis - 1,3 - Dichloropropene	ug/kg	ND	25	mg/kg	ND	10
Trichloroethene	ug/kg	ND	25	mg/kg	ND	10
Dibromochloromethane	ug/kg	ND	25	mg/kg	ND	10
1,1,2 - Trichloroethane	ug/kg	ND	25	mg/kg	ND	10
Benzene	ug/kg	ND	25	mg/kg	ND	10
trans - 1,3 - Dichloropropene	ug/kg	ND	25	mg/kg	ND	10
2 - Chloroethyl vinyl ether	ug/kg	-	-	mg/kg	ND	20
Bromoform	ug/kg	ND	25	mg/kg	ND	10
4 - Methyl - 2 - pentanone	ug/kg	ND	50	mg/kg	ND	20
2 - Hexanone	ug/kg	ND	50	mg/kg	ND	20
1,1,2,2 - Tetrachloroethane	ug/kg	ND	25	mg/kg	ND	10
Tetrachloroethene	ug/kg	ND	25	mg/kg	160	10
Toluene	ug/kg	ND	25	mg/kg	ND	10
Chlorobenzene	ug/kg	ND	25	mg/kg	ND	10
Ethylbenzene	ug/kg	ND	25	mg/kg	ND	10
Styrene	ug/kg	ND	25	mg/kg	ND	10
Xylenes (total)	ug/kg	ND	25	mg/kg	ND	10

Enseco
A Corning Company

COOKER SOLIDS

TCL Semivolatile Organics
Method 8270

Parameter	Units	HECOOKERSOLIDS 24 OCT 91 Result	Reporting Limit	EL COOKER SOLIDS 17 OCT 91 Result	Reporting Limit
Phenol	mg/kg	ND	67	ND	33
bis(2-Chloroethyl) ether	mg/kg	ND	67	ND	33
2-Chlorophenol	mg/kg	ND	67	ND	33
1,3-Dichlorobenzene	mg/kg	ND	67	ND	33
1,4-Dichlorobenzene	mg/kg	ND	67	ND	33
Benzyl alcohol	mg/kg	ND	67	ND	33
1,2-Dichlorobenzene	mg/kg	ND	67	ND	33
2-Methylphenol	mg/kg	ND	67	ND	33
bis(2-Chloroisopropyl)-ether	mg/kg	ND	67	ND	33
4-Methylphenol	mg/kg	ND	67	ND	33
N-Nitroso-di-n-propylamine	mg/kg	ND	67	ND	33
Hexachloroethene	mg/kg	ND	67	ND	33
Nitrobenzene	mg/kg	ND	67	ND	33
Isophorone	mg/kg	ND	67	ND	33
2-Nitrophenol	mg/kg	ND	67	ND	33
2,4-Dimethylphenol	mg/kg	ND	67	ND	33
Benzoic acid	mg/kg	ND	340	ND	160
bis(2-Chloroethoxy)-methane	mg/kg	ND	67	ND	33
2,4-Dichlorophenol	mg/kg	ND	67	ND	33
1,2,4-Trichlorobenzene	mg/kg	ND	67	ND	33
Napthalene	mg/kg	ND	67	ND	33
4-Chloroaniline	mg/kg	ND	67	ND	33
Hexachlorobutediene	mg/kg	ND	67	ND	33
4-Chloro-3-methylphenol	mg/kg	ND	67	ND	33
2-Methylnaphthalene	mg/kg	ND	67	ND	33
Hexachlorocyclopentadiene	mg/kg	ND	67	ND	33
2,4,6-Trichlorophenol	mg/kg	ND	67	ND	33
2,4,5-Trichlorophenol	mg/kg	ND	340	ND	160
2-Chloronaphthalene	mg/kg	ND	67	ND	33
2-Nitroaniline	mg/kg	ND	340	ND	160
Dimethyl phthalate	mg/kg	ND	67	ND	33
Acenaphthylene	mg/kg	ND	67	ND	33
3-Nitroaniline	mg/kg	ND	340	ND	160
Acenaphthene	mg/kg	ND	67	ND	33
2,4-Dinitrophenol	mg/kg	ND	340	ND	160
4-Nitrophenol	mg/kg	ND	340	ND	160

COOKER SOLIDS

	- continued from previous page -				
Dibenzofuran	mg/kg	ND	67	ND	33
2,4 - Dinitrotoluene	mg/kg	ND	67	ND	33
2,6 - Dinitrotoluene	mg/kg	ND	67	ND	33
Diethyl phthalate	mg/kg	ND	67	ND	33
4 - Chlorophenyl phenyl ether	mg/kg	ND	67	ND	33
Flourene	mg/kg	ND	67	ND	33
4 - Nitroaniline	mg/kg	ND	340	ND	160
4,6 - Dinitro-2 - Methylphenol	mg/kg	ND	340	ND	160
N - Nitrosodiphenylamine	mg/kg	ND	67	ND	33
4 - Bromophenyl phenyl ether	mg/kg	ND	67	ND	33
Hexachlorobenzene	mg/kg	ND	67	ND	33
Pentachlorophenol	mg/kg	ND	340	ND	160
Phenanthrene	mg/kg	ND	67	ND	33
Anthracene	mg/kg	ND	67	ND	33
Di - n - butyl phthalate	mg/kg	ND	67	ND	33
Flouranthene	mg/kg	ND	67	ND	33
Pyrene	mg/kg	ND	67	ND	33
Butyl benzyl phthalate	mg/kg	110	67	ND	33
3,3' - Dichlorobenzidine	mg/kg	ND	130	ND	66
Benzo (a) anthracene	mg/kg	ND	67	ND	33
bis(2 - Ethylhexyl) phthalate	mg/kg	300	67	130	33
Chrysene	mg/kg	ND	67	ND	33
Di - n - octyl phthalate	mg/kg	ND	67	ND	33
Benzo (b) flouranthene	mg/kg	ND	67	ND	33
Benzo (k) flouranthene	mg/kg	ND	67	ND	33
Benzo (a) pyrene	mg/kg	ND	67	ND	33
Indeno (1,2,3 - cd) pyrene	mg/kg	ND	67	ND	33
Dibenz (a,h) anthracene	mg/kg	ND	67	ND	33
Benzo (g,h,i) perylene	mg/kg	ND	67	ND	33

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DISTILLATION BOTTOMS OTHER

OTC Volatile Organics
TCLP Leachate
Method 8240

Parameter	Units	ELDIST BOT OTH 18 DEC 91 Result	ELDIST BOT OTH 18 DEC 91 Reporting Limit	CL DIST BOT OTHER 19 DEC 91 Result	CL DIST BOT OTHER 19 DEC 91 Reporting Limit	(NEW FORMULA) CL DIST BOT OTHER 02 JAN 91 Result	(NEW FORMULA) CL DIST BOT OTHER 02 JAN 91 Reporting Limit
Vinyl Chloride	mg/L	ND	1000	ND	10.0	ND	0.05
1,1 Dichloroethene	mg/L	ND	500	ND	5.0	ND	0.025
Chloroform	mg/L	ND	500	ND	5.0	ND	0.025
1,2 Dichloroethane	mg/L	ND	500	ND	5.0	ND	0.025
2-Butanone	mg/L	ND	1000	38	10.0	ND	0.05
Carbon Tetrachloride	mg/L	ND	500	ND	5.0	ND	0.025
Trichloroethene	mg/L	ND	500	ND	5.0	ND	0.025
Benzene	mg/L	ND	500	ND	5.0	ND	0.025
Tetrachloroethene	mg/L	ND	500	ND	5.0	ND	0.025
Chlorobenzene	mg/L	ND	500	ND	5.0	ND	0.025

Parameter	Units	EL USED BOT OTHER 18 DEC 91 Result	EL USED BOT OTHER 18 DEC 91 Reporting Limit
Vinyl Chloride	mg/L	ND	1000
1,1 Dichloroethene	mg/L	ND	500
Chloroform	mg/L	ND	500
1,2 Dichloroethane	mg/L	ND	500
2-Butanone	mg/L	ND	1000
Carbon Tetrachloride	mg/L	ND	500
Trichloroethene	mg/L	ND	500
Benzene	mg/L	ND	500
Tetrachloroethene	mg/L	ND	500
Chlorobenzene	mg/L	ND	500

DISTILLATION BOTTOMS OTHER

OTC Semivolatile Organics
TCLP Leachate
Method 8270

Parameter	Units	ELDIST BOT OTH 17 OCT 91 Result	Reporting Limit	CLDIST BOT OTHER 16 OCT 91 Result	Reporting Limit
Pyridine	mg/L	ND	4000	ND	2000
1,4-Dichlorobenzene	mg/L	ND	2000	1300	1000
2-Methylphenol	mg/L	ND	2000	2000	1000
3/4-Methylphenol	mg/L	ND	2000	2000	1000
Hexachloroethane	mg/L	ND	2000	ND	1000
Nitrobenzene	mg/L	ND	2000	ND	1000
Hexachlorobutadiene	mg/L	ND	2000	ND	1000
2,4,6-Trichlorophenol	mg/L	ND	2000	ND	1000
2,4,5-Trichlorophenol	mg/L	ND	10000	ND	5000
2,4-Dinitrotoluene	mg/L	ND	2000	ND	1000
Hexachlorobenzene	mg/L	ND	2000	ND	1000
Pentachlorophenol	mg/L	ND	10000	ND	5000

Parameter	Units	NEW FORMULA CLDISTBOTOTHER 2 JAN 92 Result	Reporting Limit
Pyridine	mg/L	ND	10
1,4-Dichlorobenzene	mg/L	ND	5
2-Methylphenol	mg/L	ND	5
3/4-Methylphenol	mg/L	ND	5
Hexachloroethane	mg/L	ND	5
Nitrobenzene	mg/L	ND	5
Hexachlorobutadiene	mg/L	ND	5
2,4,6-Trichlorophenol	mg/L	ND	5
2,4,5-Trichlorophenol	mg/L	ND	25
2,4-Dinitrotoluene	mg/L	ND	5
Hexachlorobenzene	mg/L	ND	5
Pentachlorophenol	mg/L	ND	25

DISTILLATION BOTTOMS OTHER

Total Metals

TCLP Leachate

Parameter	Units	CL DIST BOT OTHER 16 OCT 91 Result	Reporting Limit	EL DIST BOT OTH 17 OCT 91 Result	Reporting Limit	NEW FORMULA CL DIST BOT OTHER 2 JAN 91 Result	Reporting Limit
Arsenic	mg/L	ND	5.0	ND	5.0	ND	1.0
Barium	mg/L	17.5	0.5	0.96	0.5	0.51	0.1
Cadmium	mg/L	72.2	0.25	107	0.25	2.3	0.05
Chromium	mg/L	35.1	0.5	22.9	0.5	ND	0.1
Lead	mg/L	579	2.5	313	2.5	1.4	0.5
Mercury	mg/L	ND	0.002	0.0033	0.002	ND	0.002
Selenium	mg/L	ND	1	ND	0.25	ND	0.1
Silver	mg/L	ND	0.5	ND	0.5	ND	0.1

DISTILLATION BOTTOMS OTHER

General Inorganics

Parameter	Units	ELDIST BOT OTH 17 OCT 91 Result	ELDIST BOT OTH 17 OCT 91 Reporting Limit	CLDIST BOT OTHER 16 OCT 91 Result	CLDIST BOT OTHER 16 OCT 91 Reporting Limit	(NEW FORMULA) CLDIST BOT OTHER 02 JAN 92 Result	(NEW FORMULA) CLDIST BOT OTHER 02 JAN 92 Reporting Limit
Specific Gravity at 77 degrees F	g/cc	-	-	-	-	0.949	-
Ignitability	deg. F	>160	-	>160	-	>160	-
pH	units	7.0	-	9.3	-	8.4	-

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DISTILLATION BOTTOMS OTHER

TCL Volatile Organics

Method 8240

Parameter	Units	CL DIST BOT OTHER 16 OCT 91 Result	Reporting Limit	ELDIST BOT OTHER 17 OCT 91 Result	Reporting Limit	NEW FORMULA CL DIST BOT OTHER 02 JAN 92 Result	Reporting Limit
Chloromethane	mg/kg	ND	2000	ND	1000	ND	500
Bromomethane	mg/kg	ND	2000	ND	1000	ND	500
Vinyl Chloride	mg/kg	ND	2000	ND	1000	ND	500
Chloroethane	mg/kg	ND	2000	ND	1000	ND	500
Methylene chloride	mg/kg	21000	1000	ND	500	ND	250
Acetone	mg/kg	ND	2000	ND	1000	ND	500
Carbon disulfide	mg/kg	ND	1000	ND	500	ND	250
1,1 - Dichloroethene	mg/kg	ND	1000	ND	500	ND	250
1,1 - Dichloroethane	mg/kg	ND	1000	ND	500	ND	250
1,2 - Dichloroethene (cis/trans)	mg/kg	ND	1000	ND	500	ND	250
Chloroform	mg/kg	ND	1000	ND	500	ND	250
1,2 - Dichloroethane	mg/kg	ND	1000	ND	500	ND	250
2 - Butanone	mg/kg	ND	2000	ND	1000	ND	500
1,1,1 - Trichloroethane	mg/kg	ND	1000	ND	500	ND	250
Carbon tetrachloride	mg/kg	ND	1000	ND	500	ND	250
Vinyl Acetate	mg/kg	ND	2000	ND	1000	ND	500
Bromodichloromethane	mg/kg	ND	1000	ND	500	ND	250
1,2 - Dichloropropane	mg/kg	ND	1000	ND	500	ND	250
cis - 1,3 - Dichloropropene	mg/kg	ND	1000	ND	500	ND	250
Trichloroethene	mg/kg	ND	1000	ND	500	ND	250
Dibromochloromethane	mg/kg	ND	1000	ND	500	ND	250
1,1,2 - Trichloroethane	mg/kg	ND	1000	ND	500	ND	250
Benzene	mg/kg	ND	1000	ND	500	ND	250
trans - 1,3 - Dichloropropene	mg/kg	ND	1000	ND	500	ND	250
2 - Chloroethyl vinyl ether	mg/kg	ND	2000	ND	1000	ND	500
Bromoform	mg/kg	ND	1000	ND	500	ND	250
4 - Methyl - 2 - pentanone	mg/kg	ND	2000	ND	1000	ND	500
2 - Hexanone	mg/kg	ND	2000	ND	1000	ND	500
1,1,2,2 - Tetrachloroethane	mg/kg	ND	1000	ND	500	ND	250
Tetrachloroethene	mg/kg	1500	1000	ND	500	ND	250
Toluene	mg/kg	ND	1000	ND	500	ND	250
Chlorobenzene	mg/kg	1400	1000	ND	500	ND	250
Ethylbenzene	mg/kg	ND	1000	ND	500	ND	250
Styrene	mg/kg	ND	1000	ND	500	ND	250
Xylenes (total)	mg/kg	ND	1000	ND	500	ND	250

DISTILLATION BOTTOMS OTHER

TCL Semivolatile Organics

Method 8270

Parameter	Units	CLDIST BOT OTHER 16 OCT 91 Result	CLDIST BOT OTHER 16 OCT 91 Reporting Limit	ELDIST BOT OTH 17 OCT 91 Result	ELDIST BOT OTH 17 OCT 91 Reporting Limit	NEW FORMULA CLDIST BOT OTHER 2 JAN 92 Result	NEW FORMULA CLDIST BOT OTHER 2 JAN 92 Reporting Limit
Phenol	mg/kg	22000	10000	ND	2000	ND	3900
bis(2 - Chlorethyl) ether	mg/kg	ND	10000	ND	2000	ND	3900
2 - Chlorophenol	mg/kg	ND	10000	ND	2000	ND	3900
1,3 - Dichlorobenzene	mg/kg	14000	10000	ND	2000	ND	3900
1,4 - Dichlorobenzene	mg/kg	32000	10000	ND	2000	ND	3900
Benzyl alcohol	mg/kg	ND	10000	ND	2000	ND	3900
1,2 - Dichlorobenzene	mg/kg	110000	10000	ND	2000	ND	3900
2 - Methylphenol	mg/kg	25000	10000	ND	2000	ND	3900
bis(2 - Chloroisopropyl) - ether	mg/kg	ND	10000	ND	2000	ND	3900
4 - Methylphenol	mg/kg	25000	10000	ND	2000	ND	3900
N - Nitroso - di - n - propylamine	mg/kg	ND	10000	ND	2000	ND	3900
Hexachloroethane	mg/kg	ND	10000	ND	2000	ND	3900
Nitrobenzene	mg/kg	ND	10000	ND	2000	ND	3900
Isophorone	mg/kg	ND	10000	ND	2000	ND	3900
2 - Nitrophenol	mg/kg	ND	10000	ND	2000	ND	3900
2,4 - Dimethylphenol	mg/kg	ND	10000	ND	2000	ND	3900
Benzoic acid	mg/kg	ND	50000	ND	10000	ND	19000
bis(2 - Chloroethoxy) - methane	mg/kg	ND	10000	ND	2000	ND	3900
2,4 - Dichlorophenol	mg/kg	ND	10000	ND	2000	ND	3900
1,2,4 - Trichlorobenzene	mg/kg	ND	10000	ND	2000	ND	3900
Naphthalene	mg/kg	ND	10000	4400	2000	6500	3900
4 - Chloroaniline	mg/kg	ND	10000	ND	2000	ND	3900
Hexachlorobutadiene	mg/kg	ND	10000	ND	2000	ND	3900
4 - Chloro - 3 - methylphenol	mg/kg	ND	10000	ND	2000	ND	3900
2 - Methylnaphthalene	mg/kg	ND	10000	ND	2000	ND	3900
Hexachlorocyclopentadiene	mg/kg	ND	10000	ND	2000	ND	3900
2,4,6 - Trichlorophenol	mg/kg	ND	10000	ND	2000	ND	3900
2,4,5 - Trichlorophenol	mg/kg	ND	50000	ND	10000	ND	19000
2 - Chloronaphthalene	mg/kg	ND	10000	ND	2000	ND	3900
2 - Nitroaniline	mg/kg	ND	50000	ND	10000	ND	19000
Dimethyl phthalate	mg/kg	ND	10000	ND	2000	ND	3900
Acenaphthylene	mg/kg	ND	10000	ND	2000	ND	3900
3 - Nitroaniline	mg/kg	ND	50000	ND	10000	ND	19000
Acenaphthene	mg/kg	ND	10000	ND	2000	ND	3900
2,4 - Dinitrophenol	mg/kg	ND	50000	ND	10000	ND	19000
4 - Nitrophenol	mg/kg	ND	50000	ND	10000	ND	19000

DISTILLATION BOTTOMS OTHER

- continued from previous page -

Dibenzofuran	mg/kg	ND	10000	ND	2000	ND	3900
2,4 - Dinitrotoluene	mg/kg	ND	10000	ND	2000	ND	3900
2,6 - Dinitrotoluene	mg/kg	ND	10000	ND	2000	ND	3900
Diethyl phthalate	mg/kg	ND	10000	ND	2000	ND	3900
4 - Chlorophenyl phenyl ether	mg/kg	ND	10000	ND	2000	ND	3900
Flourene	mg/kg	ND	10000	ND	2000	ND	3900
4 - Nitroaniline	mg/kg	ND	50000	ND	10000	ND	19000
4,6 - Dinitro-2 - Methylphenol	mg/kg	ND	50000	ND	10000	ND	19000
N - Nitrosodiphenylamine	mg/kg	ND	10000	ND	2000	ND	3900
4 - Bromophenyl phenyl ether	mg/kg	ND	10000	ND	2000	ND	3900
Hexachlorobenzene	mg/kg	ND	10000	ND	2000	ND	3900
Pentachlorophenol	mg/kg	ND	50000	ND	10000	ND	19000
Phenanthrene	mg/kg	ND	10000	ND	2000	ND	3900
Anthracene	mg/kg	ND	10000	ND	2000	ND	3900
Di - n - butyl phthalate	mg/kg	ND	10000	ND	2000	ND	3900
Flouranthene	mg/kg	ND	10000	ND	2000	ND	3900
Pyrene	mg/kg	ND	10000	ND	2000	ND	3900
Butyl benzyl phthalate	mg/kg	ND	10000	ND	2000	ND	3900
3,3' - Dichlorobenzidine	mg/kg	ND	20000	ND	4000	ND	7800
Benzo (a) anthracene	mg/kg	ND	10000	ND	2000	ND	3900
bis(2 - Ethylhexyl) phthalate	mg/kg	ND	10000	ND	2000	ND	3900
Chrysene	mg/kg	ND	10000	ND	2000	ND	3900
Di - n - octyl phthalate	mg/kg	ND	10000	ND	2000	ND	3900
Benzo (b) flourenthene	mg/kg	ND	10000	ND	2000	ND	3900
Benzo (k) flouranthene	mg/kg	ND	10000	ND	2000	ND	3900
Benzo (a) pyrene	mg/kg	ND	10000	ND	2000	ND	3900
Indeno (1,2,3 - cd) pyrene	mg/kg	ND	10000	ND	2000	ND	3900
Dibenz (a,h) anthracene	mg/kg	ND	10000	ND	2000	ND	3900
Benzo (g,h,i) perylene	mg/kg	ND	10000	ND	2000	ND	3900

DISTILLATION BOTTOMS PART WASHER SOLVENT

OTC Volatile Organics
TCLP Leachate
Method 8240

Parameter	Units	CL DIST BOT PWS 19 DEC 91 Result	Reporting Limit
Vinyl Chloride	mg/L	ND	0.05
1,1 Dichloroethene	mg/L	ND	0.025
Chloroform	mg/L	ND	0.025
1,2 Dichloroethane	mg/L	ND	0.025
2-Butanone	mg/L	ND	0.05
Carbon Tetrachloride	mg/L	ND	0.025
Trichloroethene	mg/L	ND	0.025
Benzene	mg/L	ND	0.025
Tetrachloroethene	mg/L	ND	0.025
Chlorobenzene	mg/L	ND	0.025

DISTILLATION BOTTOMS PART WASHER SOLVENT

OTC Semivolatile Organics
TCLP Leachate
Method 8270

Parameter	Units	ELDIST BOT PWS 17 OCT 91 Result	ELDIST BOT PWS 17 OCT 91 Reporting Limit	CLDIST BOT PWS 16 OCT 91 Result	CLDIST BOT PWS 16 OCT 91 Reporting Limit
Pyridine	mg/L	ND	0.10	ND	400
1,4-Dichlorobenzene	mg/L	ND	0.05	ND	200
2-Methylphenol	mg/L	ND	0.05	ND	200
3/4-Methylphenol	mg/L	ND	0.05	ND	200
Hexachloroethane	mg/L	ND	0.05	ND	200
Nitrobenzene	mg/L	ND	0.05	ND	200
Hexachlorobutadiene	mg/L	ND	0.05	ND	200
2,4,6-Trichlorophenol	mg/L	ND	0.05	ND	200
2,4,5-Trichlorophenol	mg/L	ND	0.25	ND	1000
2,4-Dinitrotoluene	mg/L	ND	0.05	ND	200
Hexachlorobenzene	mg/L	ND	0.05	ND	200
Pentachlorophenol	mg/L	ND	0.25	ND	1000

DISTILLATION BOTTOMS PART WASHER SOLVENT

Total Metals

TCLP Leachate

Parameter	Units	CL DIST BOT PWS 09 OCT 91 Result	CL DIST BOT PWS 09 OCT 91 Reporting Limit	EL DIST BOT PWS 17 OCT 91 Result	EL DIST BOT PWS 17 OCT 91 Reporting Limit
Arsenic	mg/L	ND	5.0	ND	5.0
Barium	mg/L	32.9	0.5	28.8	0.5
Cadmium	mg/L	7.7	0.25	6.5	0.25
Chromium	mg/L	5.3	0.5	5.8	0.5
Lead	mg/L	122	2.5	132	2.5
Mercury	mg/L	ND	0.002	ND	0.002
Selenium	mg/L	ND	0.5	ND	1.0
Silver	mg/L	ND	0.5	ND	0.5

DISTILLATION BOTTOMS PART WASHER SOLVENT

General Inorganics

Parameter	Units	ELDIST BOT PWS 17 OCT 91 Result	ELDIST BOT PWS 17 OCT 91 Reporting Limit	CLDIST BOT PWS 16 OCT 91 Result	CLDIST BOT PWS 16 OCT 91 Reporting Limit
Specific Gravity at 77 degrees F	g/cc	-	-	-	-
Ignitability	deg. F	>160	-	>160	-
pH	units	7.2	-	9.4	-

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DISTILLATION BOTTOMS PART WASHER SOLVENT

TCL Volatile Organics

Method 8240

Parameter	Units	CL DIST BOT PWS 16 OCT 91 Result	Reporting Limit	EL DIST BOT PWS 17 OCT 91 Result	Reporting Limit
Chloromethane	mg/kg	ND	1000	ND	20
Bromomethane	mg/kg	ND	1000	ND	20
Vinyl Chloride	mg/kg	ND	1000	ND	20
Chloroethane	mg/kg	ND	1000	ND	20
Methylene chloride	mg/kg	ND	500	ND	10
Acetone	mg/kg	ND	1000	ND	20
Carbon disulfide	mg/kg	ND	500	ND	10
1,1 - Dichloroethene	mg/kg	ND	500	ND	10
1,1 - Dichloroethane	mg/kg	ND	500	ND	10
1,2 - Dichloroethene (cis/trans)	mg/kg	ND	500	ND	10
Chloroform	mg/kg	ND	500	ND	10
1,2 - Dichloroethane	mg/kg	ND	500	ND	10
2 - Butanone	mg/kg	ND	1000	ND	20
1,1,1 - Trichloroethane	mg/kg	ND	500	ND	10
Carbon tetrachloride	mg/kg	ND	1000	ND	20
Vinyl Acetate	mg/kg	ND	500	ND	10
Bromodichloromethane	mg/kg	ND	500	ND	10
1,2 - Dichloropropane	mg/kg	ND	500	ND	10
cis - 1,3 - Dichloropropene	mg/kg	ND	500	ND	10
Trichloroethene	mg/kg	ND	500	ND	10
Dibromochloromethane	mg/kg	ND	500	ND	10
1,1,2 - Trichloroethane	mg/kg	ND	500	ND	10
Benzene	mg/kg	ND	500	ND	10
trans - 1,3 - Dichloropropene	mg/kg	ND	500	ND	10
2 - Chloroethyl vinyl ether	mg/kg	ND	1000	ND	20
Bromoform	mg/kg	ND	500	ND	10
4 - Methyl - 2 - pentanone	mg/kg	ND	1000	ND	20
2 - Hexanone	mg/kg	ND	1000	ND	20
1,1,2,2 - Tetrachloroethane	mg/kg	ND	500	ND	10
Tetrachloroethene	mg/kg	ND	500	ND	10
Toluene	mg/kg	ND	500	ND	10
Chlorobenzene	mg/kg	ND	500	ND	10
Ethylbenzene	mg/kg	ND	500	ND	10
Styrene	mg/kg	ND	500	ND	10
Xylenes (total)	mg/kg	ND	500	ND	10

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DISTILLATION BOTTOMS PART WASHER SOLVENT

TCL Semivolatile Organics
Method 8270

Parameter	Units	CL DIST BOT PWS 16 OCT 91 Result	CL DIST BOT PWS 16 OCT 91 Reporting Limit	ELDIST BOT PWS 17 OCT 91 Result	ELDIST BOT PWS 17 OCT 91 Reporting Limit
Phenol	mg/kg	ND	1900	ND	500
bis(2-Chlorethyl) ether	mg/kg	ND	1900	ND	500
2-Chlorophenol	mg/kg	ND	1900	ND	500
1,3-Dichlorobenzene	mg/kg	ND	1900	ND	500
1,4-Dichlorobenzene	mg/kg	ND	1900	ND	500
Benzyl alcohol	mg/kg	ND	1900	ND	500
1,2-Dichlorobenzene	mg/kg	ND	1900	ND	500
2-Methylphenol	mg/kg	ND	1900	ND	500
bis(2-Chloroisopropyl)-ether	mg/kg	ND	1900	ND	500
4-Methylphenol	mg/kg	ND	1900	ND	500
N-Nitroso-di-n-propylamine	mg/kg	ND	1900	ND	500
Hexachloroethane	mg/kg	ND	1900	ND	500
Nitrobenzene	mg/kg	ND	1900	ND	500
Isophorone	mg/kg	ND	1900	ND	500
2-Nitrophenol	mg/kg	ND	1900	ND	500
2,4-Dimethylphenol	mg/kg	ND	1900	ND	500
Benzoic acid	mg/kg	ND	9600	ND	2500
bis(2-Chloroethoxy)-methane	mg/kg	ND	1900	ND	500
2,4-Dichlorophenol	mg/kg	ND	1900	ND	500
1,2,4-Trichlorobenzene	mg/kg	ND	1900	ND	500
Napthalene	mg/kg	ND	1900	ND	500
4-Chloroaniline	mg/kg	ND	1900	ND	500
Hexachlorobutadiene	mg/kg	ND	1900	ND	500
4-Chloro-3-methylphenol	mg/kg	ND	1900	ND	500
2-Methylnaphthalene	mg/kg	ND	1900	510	500
Hexachlorocyclopentadiene	mg/kg	ND	1900	ND	500
2,4,6-Trichlorophenol	mg/kg	ND	1900	ND	500
2,4,5-Trichlorophenol	mg/kg	ND	9600	ND	2500
2-Chloronaphthalene	mg/kg	ND	1900	ND	500
2-Nitroaniline	mg/kg	ND	9600	ND	2500
Dimethyl phthalate	mg/kg	ND	1900	ND	500
Acenaphthylene	mg/kg	ND	1900	ND	500
3-Nitroaniline	mg/kg	ND	9600	ND	2500
Acenaphthene	mg/kg	ND	1900	ND	500
2,4-Dinitrophenol	mg/kg	ND	9600	ND	2500
4-Nitrophenol	mg/kg	ND	9600	ND	2500

DUMPSTER MUD

OTC Volatile Organics
TCLP Leachate
Method 8240

Parameter	Units	HEDUMPMUD 24 OCT 91 Result	HEDUMPMUD 24 OCT 91 Reporting Limit	CLICDUMPMUD 19 DEC 91 Result	CLICDUMPMUD 19 DEC 91 Reporting Limit	CLPWS DUMP MUD 19 DEC 91 Result	CLPWS DUMP MUD 19 DEC 91 Reporting Limit
Vinyl Chloride	mg/L	ND	0.20	ND	50	ND	0.2
1,1 Dichloroethene	mg/L	ND	0.10	ND	25	ND	0.1
Chloroform	mg/L	ND	0.10	ND	25	ND	0.1
1,2 Dichloroethane	mg/L	ND	0.10	ND	25	ND	0.1
2-Butanone	mg/L	ND	0.20	ND	50	ND	0.2
Carbon Tetrachloride	mg/L	ND	0.10	ND	25	ND	0.1
Trichloroethene	mg/L	ND	0.10	ND	25	ND	0.1
Benzene	mg/L	ND	0.10	ND	25	0.17	0.1
Tetrachloroethene	mg/L	0.28	0.10	ND	25	0.32	0.1
Chlorobenzene	mg/L	ND	0.10	ND	25	ND	0.1

Parameter	Units	CL DUMP MUD NEW FORMULA 02 JAN 92 Result	CL DUMP MUD NEW FORMULA 02 JAN 92 Reporting Limit
Vinyl Chloride	mg/L	ND	6.20
1,1 Dichloroethene	mg/L	ND	3.10
Chloroform	mg/L	ND	3.10
1,2 Dichloroethane	mg/L	ND	3.10
2-Butanone	mg/L	ND	6.20
Carbon Tetrachloride	mg/L	ND	3.10
Trichloroethene	mg/L	ND	3.10
Benzene	mg/L	ND	3.10
Tetrachloroethene	mg/L	ND	3.10
Chlorobenzene	mg/L	ND	3.10

DUMPSTER MUD

OTC Semivolatile Organics
TCLP Leachate
Method 8270

Parameter	Units	HEDUMPMUD 24 OCT 91 Result	Reporting Limit	CLIC DUMPMUD 16 OCT 91 Result	Reporting Limit	CL PWS DUMP MUD 16 OCT 91 Result	Reporting Limit
Pyridine	mg/L	ND	0.5	ND	20	ND	20
1,4-Dichlorobenzene	mg/L	ND	0.25	ND	10	ND	10
2-Methylphenol	mg/L	1.3	0.25	94	10	ND	10
3/4-Methylphenol	mg/L	1.2	0.25	100	10	ND	10
Hexachloroethane	mg/L	ND	0.25	ND	10	ND	10
Nitrobenzene	mg/L	ND	0.25	ND	10	ND	10
Hexachlorobutadiene	mg/L	ND	0.25	ND	10	ND	10
2,4,6-Trichlorophenol	mg/L	ND	0.25	ND	10	ND	10
2,4,5-Trichlorophenol	mg/L	ND	1.2	ND	50	ND	50
2,4 - Dinitrotoluene	mg/L	ND	0.25	ND	10	ND	10
Hexachlorobenzene	mg/L	ND	0.25	ND	10	ND	10
Pentachlorophenol	mg/L	ND	1.2	ND	50	ND	50

Parameter	Units	NEW FORMULA CLDUMPMUD 2 JAN 92 Result	Reporting Limit
Pyridine	mg/L	ND	50
1,4-Dichlorobenzene	mg/L	ND	25
2-Methylphenol	mg/L	37	25
3/4-Methylphenol	mg/L	ND	25
Hexachloroethane	mg/L	ND	25
Nitrobenzene	mg/L	ND	25
Hexachlorobutadiene	mg/L	ND	25
2,4,6-Trichlorophenol	mg/L	ND	25
2,4,5-Trichlorophenol	mg/L	ND	120
2,4 - Dinitrotoluene	mg/L	ND	25
Hexachlorobenzene	mg/L	ND	25
Pentachlorophenol	mg/L	ND	120

DUMPSTER MUD

Total Metals

TCLP Leachate

Parameter	Units	CL PWS DUMP MUD 16 OCT 91 Result	Reporting Limit	HEDUMPMUD 24 OCT 91 Result	Reporting Limit	CL IC DUMPMUD 16 OCT 91 Result	Reporting Limit
Arsenic	mg/L	ND	1.0	ND	1.0	ND	1.0
Barium	mg/L	0.73	0.1	1.2	0.1	0.33	0.1
Cadmium	mg/L	1.1	0.05	0.71	0.05	0.67	0.05
Chromium	mg/L	ND	0.1	ND	0.1	ND	0.1
Lead	mg/L	5.4	0.5	2.4	0.5	0.87	0.5
Mercury	mg/L	ND	0.002	ND	0.002	ND	0.002
Selenium	mg/L	ND	0.05	ND	0.1	ND	0.1
Silver	mg/L	ND	0.1	ND	0.1	ND	0.1

Parameter	Units	NEW FORMULA CL DUMP MUD 2 JAN 92 Result	Reporting Limit
Arsenic	mg/L	ND	1.0
Barium	mg/L	1.5	0.1
Cadmium	mg/L	2	0.05
Chromium	mg/L	2.2	0.1
Lead	mg/L	14.9	0.5
Mercury	mg/L	ND	0.002
Selenium	mg/L	ND	0.1
Silver	mg/L	ND	0.1

DUMPSTER MUD

General Inorganics

Parameter	Units	HEDUMPMUD 24 OCT 91 Result	Reporting Limit	CLIC DUMPMUD 18 OCT 91 Result	Reporting Limit	CLPWS DUMPMUD 18 OCT 91 Result	Reporting Limit
Specific Gravity at 77 degrees F	g/cc	1.503	-	1.313	-	1.422	-
Ignitability	deg. F	113	-	77	-	106	-
pH	units	8	-	8.8	-	8.3	-

Parameter	Units	(NEW FORMULA) CL DUMP MUD 02 JAN 92 Result	Reporting Limit
Specific Gravity at 77 degrees F	g/cc	1.108	-
Ignitability	deg. F	124	-
pH	units	10.1	-

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DUMPSTER MUD

TCL Volatile Organics
Method 8240

Parameter	Units	CLIC DUMPMUD 16 OCT 91 Result	CLIC DUMPMUD 16 OCT 91 Reporting Limit	HEDUMPMUD 19 DEC 91 Result	HEDUMPMUD 19 DEC 91 Reporting Limit
Chloromethane	mg/kg	ND	10000	ND	500
Bromomethane	mg/kg	ND	10000	ND	500
Vinyl Chloride	mg/kg	ND	10000	ND	500
Chloroethane	mg/kg	ND	10000	ND	500
Methylene chloride	mg/kg	21000	5000	ND	250
Acetone	mg/kg	ND	10000	ND	500
Carbon disulfide	mg/kg	ND	5000	ND	250
1,1 - Dichloroethene	mg/kg	ND	5000	ND	250
1,1 - Dichloroethane	mg/kg	ND	5000	ND	250
1,2 - Dichloroethene (cis/trans)	mg/kg	ND	5000	ND	250
Chloroform	mg/kg	ND	5000	ND	250
1,2 - Dichloroethane	mg/kg	ND	5000	ND	250
2 - Butanone	mg/kg	ND	10000	ND	500
1,1,1 - Trichloroethane	mg/kg	ND	5000	ND	250
Carbon tetrachloride	mg/kg	ND	5000	ND	250
Vinyl Acetate	mg/kg	ND	10000	ND	500
Bromodichloromethane	mg/kg	ND	5000	ND	250
1,2 - Dichloropropane	mg/kg	ND	5000	ND	250
cis - 1,3 - Dichloropropene	mg/kg	ND	5000	ND	250
Trichloroethene	mg/kg	ND	5000	ND	250
Dibromochloromethane	mg/kg	ND	5000	ND	250
1,1,2 - Trichloroethane	mg/kg	ND	5000	ND	250
Benzene	mg/kg	ND	5000	ND	250
trans - 1,3 - Dichloropropene	mg/kg	ND	5000	ND	250
2 - Chloroethyl vinyl ether	mg/kg	ND	10000	ND	500
Bromoform	mg/kg	ND	5000	ND	250
4 - Methyl - 2 - pentanone	mg/kg	ND	10000	ND	500
2 - Hexanone	mg/kg	ND	10000	ND	500
1,1,2,2 - Tetrachloroethene	mg/kg	ND	5000	ND	250
Tetrachloroethene	mg/kg	ND	5000	310	250
Toluene	mg/kg	ND	5000	610	250
Chlorobenzene	mg/kg	ND	5000	ND	250
Ethylbenzene	mg/kg	ND	5000	ND	250
Styrene	mg/kg	ND	5000	ND	250
Xylenes (total)	mg/kg	ND	5000	910	250

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DUMPSTER MUD

TCL Volatile Organics
Method 8240

Parameter	Units	NEW FORMULA CL DUMP MUD 02 JAN 92 Result	Reporting Limit	CL PWS DUMPMUD 16 OCT 91 Result	Reporting Limit
Chloromethane	mg/kg	ND	500	ND	2000
Bromomethane	mg/kg	ND	500	ND	2000
Vinyl Chloride	mg/kg	ND	500	ND	2000
Chloroethane	mg/kg	ND	500	ND	2000
Methylene chloride	mg/kg	570	250	ND	1000
Acetone	mg/kg	ND	500	ND	2000
Carbon disulfide	mg/kg	ND	250	ND	1000
1,1 - Dichloroethene	mg/kg	ND	250	ND	1000
1,1 - Dichloroethane	mg/kg	ND	250	ND	1000
1,2 - Dichloroethene (cis/trans)	mg/kg	ND	250	ND	1000
Chloroform	mg/kg	ND	250	ND	1000
1,2 - Dichloroethane	mg/kg	ND	250	ND	1000
2 - Butanone	mg/kg	ND	500	ND	2000
1,1,1 - Trichloroethane	mg/kg	ND	250	ND	1000
Carbon tetrachloride	mg/kg	ND	250	ND	1000
Vinyl Acetate	mg/kg	ND	500	ND	2000
Bromodichloromethane	mg/kg	ND	250	ND	1000
1,2 - Dichloropropane	mg/kg	ND	250	ND	1000
cis - 1,3 - Dichloropropene	mg/kg	ND	250	ND	1000
Trichloroethene	mg/kg	ND	250	ND	1000
Dibromochloromethane	mg/kg	ND	250	ND	1000
1,1,2 - Trichloroethane	mg/kg	ND	250	ND	1000
Benzene	mg/kg	ND	250	ND	1000
trans - 1,3 - Dichloropropene	mg/kg	ND	250	ND	1000
2 - Chloroethyl vinyl ether	mg/kg	ND	500	ND	2000
Bromoform	mg/kg	ND	250	ND	1000
4 - Methyl - 2 - pentanone	mg/kg	ND	500	ND	2000
2 - Hexanone	mg/kg	ND	500	ND	2000
1,1,2,2 - Tetrachloroethane	mg/kg	ND	250	ND	1000
Tetrachloroethene	mg/kg	ND	250	ND	1000
Toluene	mg/kg	ND	250	ND	1000
Chlorobenzene	mg/kg	ND	250	ND	1000
Ethylbenzene	mg/kg	ND	250	ND	1000
Styrene	mg/kg	ND	250	ND	1000
Xylenes (total)	mg/kg	ND	250	ND	1000

DUMPSTER MUD

TCL Semivolatile Organics
Method 8270

Parameter	Units	CLIC DUMPMUD 18 OCT 91 Result	Reporting Limit	HEDUMPMUD 24 OCT 91 Result	Reporting Limit	CLPWS DUMPMUD 18 OCT 91 Result	Reporting Limit
Phenol	mg/kg	8900	5000	ND	330	ND	3300
bis(2-Chlorethyl) ether	mg/kg	ND	5000	ND	330	ND	3300
2-Chlorophenol	mg/kg	ND	5000	ND	330	ND	3300
1,3-Dichlorobenzene	mg/kg	10000	5000	ND	330	ND	3300
1,4-Dichlorobenzene	mg/kg	24000	5000	ND	330	ND	3300
Benzyl alcohol	mg/kg	ND	5000	ND	330	ND	3300
1,2-Dichlorobenzene	mg/kg	75000	5000	ND	330	ND	3300
2-Methylphenol	mg/kg	12000	5000	ND	330	ND	3300
bis(2-Chloroisopropyl)-ether	mg/kg	ND	5000	ND	330	ND	3300
4-Methylphenol	mg/kg	12000	5000	ND	330	ND	3300
N-Nitroso-di-n-propylamine	mg/kg	ND	5000	ND	330	ND	3300
Hexachloroethene	mg/kg	ND	5000	ND	330	ND	3300
Nitrobenzene	mg/kg	ND	5000	ND	330	ND	3300
Isophorone	mg/kg	ND	5000	ND	330	ND	3300
2-Nitrophenol	mg/kg	ND	5000	ND	330	ND	3300
2,4-Dimethylphenol	mg/kg	ND	5000	ND	330	ND	3300
Benzoic acid	mg/kg	ND	25000	ND	1600	ND	16000
bis(2-Chloroethoxy)-methane	mg/kg	ND	5000	ND	330	ND	3300
2,4-Dichlorophenol	mg/kg	ND	5000	ND	330	ND	3300
1,2,4-Trichlorobenzene	mg/kg	ND	5000	ND	330	ND	3300
Naphthalene	mg/kg	ND	5000	ND	330	ND	3300
4-Chloroaniline	mg/kg	ND	5000	ND	330	ND	3300
Hexachlorobutadiene	mg/kg	ND	5000	ND	330	ND	3300
4-Chloro-3-methylphenol	mg/kg	ND	5000	ND	330	ND	3300
2-Methylnaphthalene	mg/kg	ND	5000	ND	330	ND	3300
Hexachlorocyclopentadiene	mg/kg	ND	5000	ND	330	ND	3300
2,4,6-Trichlorophenol	mg/kg	ND	5000	ND	330	ND	3300
2,4,5-Trichlorophenol	mg/kg	ND	25000	ND	1600	ND	16000
2-Chloronaphthalene	mg/kg	ND	5000	ND	330	ND	3300
2-Nitroaniline	mg/kg	ND	25000	ND	1600	ND	16000
Dimethyl phthalate	mg/kg	ND	5000	ND	330	ND	3300
Acenaphthylene	mg/kg	ND	5000	ND	330	ND	3300
3-Nitroaniline	mg/kg	ND	25000	ND	1600	ND	16000
Acenaphthene	mg/kg	ND	5000	ND	330	ND	3300
2,4-Dinitrophenol	mg/kg	ND	25000	ND	1600	ND	16000
4-Nitrophenol	mg/kg	ND	25000	ND	1600	ND	16000

DUMSTER MUD

- continued from previous page -

Dibenzofuran	mg/kg	ND	5000	ND	330	ND	3300
2,4 - Dinitrotoluene	mg/kg	ND	5000	ND	330	ND	3300
2,6 - Dinitrotoluene	mg/kg	ND	5000	ND	330	ND	3300
Diethyl phthalate	mg/kg	ND	5000	ND	330	ND	3300
4 - Chlorophenyl phenyl ether	mg/kg	ND	5000	ND	330	ND	3300
Flourene	mg/kg	ND	5000	ND	330	ND	3300
4 - Nitroaniline	mg/kg	ND	25000	ND	1600	ND	16000
4,6 - Dinitro-2 - Methylphenol	mg/kg	ND	25000	ND	1600	ND	16000
N - Nitrosodiphenylamine	mg/kg	ND	5000	ND	330	ND	3300
4 - Bromophenyl phenyl ether	mg/kg	ND	5000	ND	330	ND	3300
Hexachlorobenzene	mg/kg	ND	5000	ND	330	ND	3300
Pentachlorophenol	mg/kg	ND	25000	ND	1600	ND	16000
Phenanthrene	mg/kg	ND	5000	ND	330	ND	3300
Anthracene	mg/kg	ND	5000	ND	330	ND	3300
Di - n - butyl phthalate	mg/kg	ND	5000	ND	330	ND	3300
Flouranthene	mg/kg	ND	5000	ND	330	ND	3300
Pyrene	mg/kg	ND	5000	ND	330	ND	3300
Butyl benzyl phthalate	mg/kg	ND	5000	ND	330	ND	3300
3,3' - Dichlorobenzidine	mg/kg	ND	10000	ND	660	ND	6600
Benzo (a) anthracene	mg/kg	ND	5000	ND	330	ND	3300
bis(2 - Ethylhexyl) phthalate	mg/kg	ND	5000	ND	330	ND	3300
Chrysene	mg/kg	ND	5000	ND	330	ND	3300
Di - n - octyl phthalate	mg/kg	ND	5000	ND	330	ND	3300
Benzo (b) flourenthene	mg/kg	ND	5000	ND	330	ND	3300
Benzo (k) flouranthene	mg/kg	ND	5000	ND	330	ND	3300
Benzo (a) pyrene	mg/kg	ND	5000	ND	330	ND	3300
Indeno (1,2,3 - cd) pyrene	mg/kg	ND	5000	ND	330	ND	3300
Dibenz (a,h) anthracene	mg/kg	ND	5000	ND	330	ND	3300
Benzo (g,h,i) perylene	mg/kg	ND	5000	ND	330	ND	3300

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DUMPSTER MUD

TCL Semivolatile Organics
Method 8270

NEW FORMULA
CL DUMP MUD
2 Jan 92

Parameter	Units	Result	Reporting Limit
Phenol	mg/kg	ND	1800
bis(2 - Chloroethyl) ether	mg/kg	ND	1800
2 - Chlorophenol	mg/kg	ND	1800
1,3 - Dichlorobenzene	mg/kg	ND	1800
1,4 - Dichlorobenzene	mg/kg	ND	1800
Benzyl alcohol	mg/kg	ND	1800
1,2 - Dichlorobenzene	mg/kg	ND	1800
2 - Methylphenol	mg/kg	ND	1800
bis(2 - Chloroisopropyl) - ether	mg/kg	ND	1800
4 - Methylphenol	mg/kg	ND	1800
N - Nitroso - di - n - propylamine	mg/kg	ND	1800
Hexachloroethene	mg/kg	ND	1800
Nitrobenzene	mg/kg	ND	1800
Isophorone	mg/kg	ND	1800
2 - Nitrophenol	mg/kg	ND	1800
2,4 - Dimethylphenol	mg/kg	ND	1800
Benzoic acid	mg/kg	ND	9200
bis(2 - Chloroethoxy) - methane	mg/kg	ND	1800
2,4 - Dichlorophenol	mg/kg	ND	1800
1,2,4 - Trichlorobenzene	mg/kg	ND	1800
Napthalene	mg/kg	7000	1800
4 - Chloroaniline	mg/kg	ND	1800
Hexachlorobutadiene	mg/kg	ND	1800
4 - Chloro - 3 - methylphenol	mg/kg	ND	1800
2 - Methylnaphthalene	mg/kg	ND	1800
Hexachlorocyclopentadiene	mg/kg	ND	1800
2,4,6 - Trichlorophenol	mg/kg	ND	1800
2,4,5 - Trichlorophenol	mg/kg	ND	9200
2 - Chloronapthalene	mg/kg	ND	1800
2 - Nitroaniline	mg/kg	ND	9200
Dimethyl phthalate	mg/kg	ND	1800
Acenaphthylene	mg/kg	ND	1800
3 - Nitroaniline	mg/kg	ND	9200
Acenaphthene	mg/kg	ND	1800
2,4 - Dinitrophenol	mg/kg	ND	9200
4 - Nitrophenol	mg/kg	ND	9200

DUMSTER MUD

		- continued from previous page -	
Dibenzofuran	mg/kg	ND	1900
2,4 - Dinitrotoluene	mg/kg	ND	1900
2,6 - Dinitrotoluene	mg/kg	ND	1800
Diethyl phthalate	mg/kg	ND	1800
4 - Chlorophenyl phenyl ether	mg/kg	ND	1800
Flourene	mg/kg	ND	1800
4 - Nitroaniline	mg/kg	ND	9200
4,6 - Dinitro- 2 - Methylphenol	mg/kg	ND	9200
N - Nitrosodiphenylamine	mg/kg	ND	1800
4- Bromophenyl phenyl ether	mg/kg	ND	1800
Hexachlorobenzene	mg/kg	ND	1800
Pentachlorophenol	mg/kg	ND	9200
Phenanthrene	mg/kg	ND	1800
Anthracene	mg/kg	ND	1800
Di - n - butyl phthalate	mg/kg	ND	1800
Flouranthene	mg/kg	ND	1800
Pyrene	mg/kg	ND	1800
Butyl benzyl phthalate	mg/kg	ND	1800
3,3' - Dichlorobenzidine	mg/kg	ND	3700
Benzo (a) anthracene	mg/kg	ND	1800
bis(2 - Ethylhexyl) phthalate	mg/kg	ND	1800
Chrysene	mg/kg	ND	1800
Di - n - octyl phthalate	mg/kg	ND	1800
Benzo (b) flouranthene	mg/kg	ND	1800
Benzo (k) flouranthene	mg/kg	ND	1800
Benzo (a) pyrene	mg/kg	ND	1800
Indeno (1,2,3 - cd) pyrene	mg/kg	ND	1800
Dibenz (a,h) anthracene	mg/kg	ND	1800
Benzo (g,h,i) perylene	mg/kg	ND	1800

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A Corning Comp

140 PART WASHER SOLVENT

OTC Volatile Organics
TCLP Leachate
Method 8240

Parameter	Units	LE 140 PWS 26 DEC 91 Result	LE 140 PWS 26 DEC 91 Reporting Limit	DENTON V-140 25 OCT 91 Result	DENTON V-140 25 OCT 91 Reporting Limit	EL 140 PWS 17 DEC 91 Result	EL 140 PWS 17 DEC 91 Reporting Limit
Vinyl Chloride	mg/L	ND	10000	ND	5000	ND	5
1,1 Dichloroethene	mg/L	ND	5000	ND	2500	ND	2.5
Chloroform	mg/L	ND	5000	ND	2500	ND	2.5
1,2 Dichloroethane	mg/L	ND	5000	ND	2500	ND	2.5
2-Butanone	mg/L	ND	10000	ND	5000	ND	5
Carbon Tetrachloride	mg/L	ND	5000	ND	2500	ND	2.5
Trichloroethene	mg/L	ND	5000	ND	2500	ND	2.5
Benzene	mg/L	ND	5000	ND	2500	ND	2.5
Tetrachloroethene	mg/L	ND	5000	15000	2500	ND	2.5
Chlorobenzene	mg/L	ND	5000	ND	2500	ND	2.5

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140 PART WASHER SOLVENT

OTC Semivolatile Organics
TCLP Leachate
Method 8270

Parameter	Units	LE 140 PWS 09 OCT 91 Result	LE 140 PWS 09 OCT 91 Reporting Limit	DENTON V-140 25 OCT 91 Result	DENTON V-140 25 OCT 91 Reporting Limit	EL 140 PWS 17 OCT 91 Result	EL 140 PWS 17 OCT 91 Reporting Limit
Pyridine	mg/L	ND	4000	ND	200	ND	10000
1,4-Dichlorobenzene	mg/L	ND	2000	ND	200	ND	5000
2-Methylphenol	mg/L	ND	2000	ND	200	ND	5000
3/4-Methylphenol	mg/L	ND	2000	ND	200	ND	5000
Hexachloroethane	mg/L	ND	2000	ND	200	ND	5000
Nitrobenzene	mg/L	ND	2000	ND	200	ND	5000
Hexachlorobutadiene	mg/L	ND	2000	ND	200	ND	5000
2,4,6-Trichlorophenol	mg/L	ND	2000	ND	200	ND	5000
2,4,5-Trichlorophenol	mg/L	ND	10000	ND	200	ND	25000
2,4-Dinitrotoluene	mg/L	ND	2000	ND	200	ND	5000
Hexachlorobenzene	mg/L	ND	2000	ND	200	ND	5000
Pentachlorophenol	mg/L	ND	10000	ND	1000	ND	25000

140 PART WASHER SOLVENT

Total Metals

TCLP Leachate

Parameter	Units	LE 140 PWS 09 OCT 91 Result	LE 140 PWS 09 OCT 91 Reporting Limit	DENTON V-140 25 OCT 91 Result	DENTON V-140 25 OCT 91 Reporting Limit	EL 140 PWS 17 OCT 91 Result	EL 140 PWS 17 OCT 91 Reporting Limit
Arsenic	mg/L	ND	1.0	ND	0.1	ND	5.0
Barium	mg/L	ND	0.1	ND	0.1	ND	0.5
Cadmium	mg/L	ND	0.05	ND	0.1	ND	0.25
Chromium	mg/L	ND	0.1	ND	0.1	0.61	0.5
Lead	mg/L	ND	0.5	ND	0.1	ND	2.5
Mercury	mg/L	ND	0.002	ND	0.02	ND	0.002
Selenium	mg/L	ND	0.05	ND	0.3	ND	0.5
Silver	mg/L	ND	0.1	ND	0.1	ND	0.5

140 PART WASHER SOLVENT

General Inorganics

Parameter	Units	DENTON V-140 25 OCT 91 Result	DENTON V-140 25 OCT 91 Reporting Limit	LE 140 PWS 10 OCT 91 Result	LE 140 PWS 10 OCT 91 Reporting Limit	EL 140 PWS 17 OCT 91 Result	EL 140 PWS 17 OCT 91 Reporting Limit
Specific Gravity at 77 degrees F	g/cc	0.82	-	0.78	-	0.799	-
Ignitability	deg. F	-	-	142	-	151	-
pH	units	7.3	-	7.0	-	7.1	-
Flash point (PMCC)	deg. F	120	-	-	-	-	-

USED ANTIFREEZE

OTC Volatile Organics
TCLP Leachate
Method 8240

Parameter	Units	ELUSEDAF 17 DEC 91 Result	Reporting Limit	6RESLUBE USED ANTIFREEZE COMP 04 NOV 91 Result	Reporting Limit	HE USED AF 24 OCT 91 Result	Reporting Limit
Vinyl Chloride	mg/L	ND	2.50	ND	0.05	ND	0.2
1,1 Dichloroethene	mg/L	ND	1.20	ND	0.025	ND	0.1
Chloroform	mg/L	ND	1.20	ND	0.025	ND	0.1
1,2 Dichloroethane	mg/L	ND	1.20	ND	0.025	ND	0.1
2-Butanone	mg/L	ND	2.50	ND	0.25	0.7	0.2
Carbon Tetrachloride	mg/L	ND	1.20	ND	0.025	ND	0.1
Trichloroethene	mg/L	ND	1.20	ND	0.025	0.11	0.1
Benzene	mg/L	ND	1.20	0.28	0.025	0.15	0.1
Tetrachloroethene	mg/L	ND	1.20	0.16	0.025	0.94	0.1
Chlorobenzene	mg/L	ND	1.20	ND	0.025	ND	0.1

USED ANTIFREEZE

OTC Semivolatile Organics
TCLP Leachate
Method 8270

Parameter	Units	ELUSEDAF 17 OCT 91 Result	ELUSEDAF 17 OCT 91 Reporting Limit	BRESLUBE USED ANTIFREEZE COMP 04 NOV 91 Result	BRESLUBE USED ANTIFREEZE COMP 04 NOV 91 Reporting Limit	HE USED AF 24 OCT 91 Result	HE USED AF 24 OCT 91 Reporting Limit
Pyridine	mg/L	ND	40	ND	0.04	ND	20
1,4-Dichlorobenzene	mg/L	ND	2.0	ND	0.04	ND	10
2-Methylphenol	mg/L	2.1	2.0	ND	0.04	ND	10
3/4-Methylphenol	mg/L	ND	2.0	ND	0.04	ND	10
Hexachloroethene	mg/L	ND	2.0	ND	0.04	ND	10
Nitrobenzene	mg/L	ND	2.0	ND	0.04	ND	10
Hexachlorobutadiene	mg/L	ND	2.0	ND	0.04	ND	10
2,4,6-Trichlorophenol	mg/L	ND	2.0	ND	0.04	ND	10
2,4,5-Trichlorophenol	mg/L	ND	10.0	ND	0.04	ND	50
2,4-Dinitrotoluene	mg/L	ND	2.0	ND	0.04	ND	10
Hexachlorobenzene	mg/L	ND	2.0	ND	0.04	ND	10
Pentachlorophenol	mg/L	ND	10.0	ND	0.2	ND	50

USED ANTIFREEZE

Total Metals
TCLP Leachate

Parameter	Units	ELUSEDAF 17 OCT 91 Result	Reporting Limit	BRESLUBE USED ANTIFREEZE COMP. 04 NOV 91 Result	Reporting Limit	HE USED AF 24 OCT 91 Result	Reporting Limit
Arsenic	mg/L	2.5	1.0	ND	0.5	3.7	1.0
Barium	mg/L	ND	0.1	0.5	0.1	ND	0.1
Cadmium	mg/L	ND	0.05	ND	0.1	0.058	0.05
Chromium	mg/L	ND	0.1	ND	0.1	ND	0.1
Lead	mg/L	2.8	0.5	0.2	0.1	1.1	0.5
Mercury	mg/L	ND	0.002	ND	0.02	ND	0.002
Selenium	mg/L	ND	20	ND	0.3	ND	50
Silver	mg/L	ND	0.1	ND	0.1	ND	0.1

USED ANTIFREEEZE

General Inorganics

Parameter	Units	ELUSEDAF 17 OCT 91 Result	Reporting Limit	BRESLUBE USED ANTIFREEZE 04 NOV 91 Result	Reporting Limit	HE USED AF 24 OCT 91 Result	Reporting Limit
Specific Gravity at 77 degrees F	g/cc	1.073	-	1.01	-	0.957	-
Ignitability	deg. F	>160	-	-	-	>160	-
pH	units	8.3	-	NA	-	8.2	-
Flash point (PMCC)	deg. F	-	-	101	-	-	-

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A Corning Comp.

USED PAINT GUN CLEANER 16

OTC Volatile Organics
TCLP Leachate
Method 8240

Parameter	Units	LE USED GC16 26 DEC 91 Result	LE USED GC16 26 DEC 91 Reporting Limit	DOUSEDPGC16 07 OCT 91 Result	DOUSEDPGC16 07 OCT 91 Reporting Limit
Vinyl Chloride	mg/L	ND	20000	ND	250
1,1 Dichloroethene	mg/L	ND	10000	ND	120
Chloroform	mg/L	ND	10000	ND	120
1,2 Dichloroethane	mg/L	ND	10000	ND	120
2-Butanone	mg/L	23000	20000	ND	250
Carbon Tetrachloride	mg/L	ND	10000	ND	120
Trichloroethene	mg/L	ND	10000	ND	120
Benzene	mg/L	ND	10000	ND	120
Tetrachloroethene	mg/L	ND	10000	ND	120
Chlorobenzene	mg/L	ND	10000	ND	120

USED PAINT GUN CLEANER 16

OTC Semivolatile Organics
TCLP Leachate
Method 8270

Parameter	Units	DOUSEDPGC16 07 OCT 31 Result	Reporting Limit	LE USED GC16 09 OCT 31 Result	Reporting Limit
Pyridine	mg/L	ND	10.0	ND	10.0
1,4-Dichlorobenzene	mg/L	ND	5.0	ND	5.0
2-Methylphenol	mg/L	ND	5.0	ND	5.0
3/4-Methylphenol	mg/L	ND	5.0	ND	5.0
Hexachloroethane	mg/L	ND	5.0	ND	5.0
Nitrobenzene	mg/L	ND	5.0	ND	5.0
Hexachlorobutadiene	mg/L	ND	5.0	ND	5.0
2,4,6-Trichlorophenol	mg/L	ND	5.0	ND	5.0
2,4,5-Trichlorophenol	mg/L	ND	25.0	ND	25.0
2,4-Dinitrotoluene	mg/L	ND	5.0	ND	5.0
Hexachlorobenzene	mg/L	ND	5.0	ND	5.0
Pentachlorophenol	mg/L	ND	25.0	ND	25.0

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USED PAINT GUN CLEANER 16

Total Metals

TCLP Leachate

Parameter	Units	D-USEDPGC16 07 OCT 91 Result	Reporting Limit	LE USED GC16 09 OCT 91 Result	Reporting Limit
Arsenic	mg/L	ND	1.0	ND	1.0
Barium	mg/L	ND	0.1	1.0	0.1
Cadmium	mg/L	ND	0.05	0.47	0.5
Chromium	mg/L	0.17	0.1	1.1	0.1
Lead	mg/L	ND	0.5	0.71	0.5
Mercury	mg/L	ND	0.002	ND	0.002
Selenium	mg/L	ND	0.05	ND	0.1
Silver	mg/L	ND	0.1	ND	0.1

USED PAINT GUN CLEANER 16

General Inorganics

Parameter	Units	DCUSEDPGC16 07-OCT-91 Result	Reporting Limit	LE USED GC16 09-OCT-91 Result	Reporting Limit
Specific Gravity at 77 degrees F	g/cc	0.869	-	0.872	-
Ignitability	deg. F	77	-	73	-
pH	units	6.6	-	9.2	-

USED PAINT GUN CLEANER 5

OTC Volatile Organics
TCLP Leachate
Method 8240

Parameter	Units	LE USED GCS 26 DEC 91 Result	LE USED GCS 26 DEC 91 Reporting Limit	DOUSEDPCS 07 OCT 91 Result	DOUSEDPCS 07 OCT 91 Reporting Limit
Vinyl Chloride	mg/L	ND	4400	ND	1000
1,1 Dichloroethene	mg/L	ND	2200	ND	500
Chloroform	mg/L	ND	2200	ND	500
1,2 Dichloroethane	mg/L	ND	2200	ND	500
2-Butanone	mg/L	5500	4400	ND	1000
Carbon Tetrachloride	mg/L	ND	2200	ND	500
Trichloroethene	mg/L	ND	2200	ND	500
Benzene	mg/L	ND	2200	ND	500
Tetrachloroethene	mg/L	ND	2200	ND	500
Chlorobenzene	mg/L	ND	2200	ND	500

USED PAINT GUN CLEANER 5

OTC Semivolatile Organics
TCLP Leachate
Method 8270

Parameter	Units	D-USEDPGC5 07 OCT 91 Result	Reporting Limit	LE USED GC5 09 OCT 91 Result	Reporting Limit
Pyridine	mg/L	ND	360	ND	10.0
1,4-Dichlorobenzene	mg/L	ND	180	ND	5.0
2-Methylphenol	mg/L	ND	180	ND	5.0
3/4-Methylphenol	mg/L	ND	180	ND	5.0
Hexachloroethane	mg/L	ND	180	ND	5.0
Nitrobenzene	mg/L	ND	180	ND	5.0
Hexachlorobutadiene	mg/L	ND	180	ND	5.0
2,4,6-Trichlorophenol	mg/L	ND	180	ND	5.0
2,4,5-Trichlorophenol	mg/L	ND	900	ND	25.0
2,4-Dinitrotoluene	mg/L	ND	180	ND	5.0
Hexachlorobenzene	mg/L	ND	180	ND	5.0
Pentachlorophenol	mg/L	ND	900	ND	25.0

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USED PAINT GUN CLEANER 5

Total Metals
TCLP Leachate

Parameter	Units	DOUSEDPGC5 07 OCT 91 Result	DOUSEDPGC5 07 OCT 91 Reporting Limit	LE USED GC5 09 OCT 91 Result	LE USED GC5 09 OCT 91 Reporting Limit
Arsenic	mg/L	ND	1.6	ND	1.0
Barium	mg/L	8.2	0.016	1.4	0.1
Cadmium	mg/L	0.73	0.079	0.41	0.05
Chromium	mg/L	1.6	0.16	0.89	0.1
Lead	mg/L	1.9	0.79	ND	0.5
Mercury	mg/L	ND	0.016	ND	0.002
Selenium	mg/L	ND	0.16	ND	0.1
Silver	mg/L	ND	0.16	ND	0.1

USED PAINT GUN CLEANER 5

General Inorganics

Parameter	Units	DOUSEDPGC5 07 OCT 91 Result	Reporting Limit	LE USED GC5 10 OCT 91 Result	Reporting Limit
Specific Gravity at 77 degrees F	g/cc	0.731	-	0.864	-
Ignitability	deg. F	64	-	73	-
pH	units	5.6	-	6.2	-

USED DRYCLEANER MUCK

OTC Volatile Organics
TCLP Leachate
Method 8240

Parameter	Units	HEUSEDDCMUCK 24 OCT 91 Result	Reporting Limit	DENTON PERC MUCK 25 OCT 91 Result	Reporting Limit
Vinyl Chloride	mg/L	ND	170	ND	100
1,1 Dichloroethene	mg/L	ND	84	ND	50
Chloroform	mg/L	ND	84	ND	50
1,2 Dichloroethane	mg/L	ND	84	ND	50
2-Butanone	mg/L	ND	170	ND	500
Carbon Tetrachloride	mg/L	ND	84	ND	50
Trichloroethene	mg/L	ND	84	ND	50
Benzene	mg/L	ND	84	ND	50
Tetrachloroethene	mg/L	490	84	790	50
Chlorobenzene	mg/L	ND	84	ND	50

USED DRYCLEANER MUCK

OTC Semivolatile Organics
TCLP Leachate
Method 8270

Parameter	Units	HEUSEDOCMUCK 24 OCT 91 Result	HEUSEDOCMUCK 24 OCT 91 Reporting Limit	DENTON PERC MUCK 25 OCT 91 Result	DENTON PERC MUCK 25 OCT 91 Reporting Limit
Pyridine	mg/L	ND	4.0	ND	2
1,4-Dichlorobenzene	mg/L	ND	2.0	ND	2
2-Methylphenol	mg/L	ND	2.0	ND	2
3/4-Methylphenol	mg/L	ND	2.0	ND	2
Hexachloroethene	mg/L	ND	2.0	ND	2
Nitrobenzene	mg/L	ND	2.0	ND	2
Hexachlorobutadiene	mg/L	ND	2.0	ND	2
2,4,6-Trichlorophenol	mg/L	ND	2.0	ND	2
2,4,5-Trichlorophenol	mg/L	ND	10.0	ND	2
2,4-Dinitrotoluene	mg/L	ND	2.0	ND	2
Hexachlorobenzene	mg/L	ND	2.0	ND	2
Pentachlorophenol	mg/L	ND	10.0	ND	10

USED DRYCLEANER MUCK

Total Metals
TCLP Leachate

Parameter	Units	HEUSEDDCMUCK 24 OCT 91 Result	Reporting Limit	DENTON PERCMUCK 25 OCT 91 Result	Reporting Limit
Arsenic	mg/L	ND	1.0	ND	0.5
Barium	mg/L	0.12	0.1	0.5	0.1
Cadmium	mg/L	0.15	0.05	ND	0.1
Chromium	mg/L	ND	0.1	1	0.1
Lead	mg/L	ND	0.5	0.8	0.1
Mercury	mg/L	ND	0.002	ND	0.02
Selenium	mg/L	ND	0.5	ND	0.3
Silver	mg/L	ND	0.1	ND	0.1

USED DRYCLEANER MUCK

General Inorganics

Parameter	Units	HEUSEDDCMUCK 24 OCT 91 Result	HEUSEDDCMUCK 24 OCT 91 Reporting Limit	DENTON PERC MUCK 25 OCT 91 Result	DENTON PERC MUCK 25 OCT 91 Reporting Limit
Specific Gravity at 77 degrees F	g/cc	0.976	-	-	-
Ignitability	deg. F	>160	-	-	-
pH	units	5.5	-	5	-
Flash point (PMCC)	deg. F	-	-	>180	-

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USED DRYCLEANER BOTTOMS

OTC Volatile Organics
TCLP Leachate
Method 8240

Parameter	Units	HEUSEDDCBOT 23 OCT 91 Result	Reporting Limit	DENTON PERC COOKER SOLIDS 25 OCT 91 Result	Reporting Limit
Vinyl Chloride	mg/L	ND	2000	ND	0.08
1,1 Dichloroethene	mg/L	ND	1000	ND	0.04
Chloroform	mg/L	ND	1000	ND	0.04
1,2 Dichloroethane	mg/L	ND	2000	ND	0.04
2-Butanone	mg/L	ND	1000	ND	0.4
Carbon Tetrachloride	mg/L	ND	1000	ND	0.04
Trichloroethene	mg/L	ND	1000	ND	0.04
Benzene	mg/L	ND	1000	ND	0.04
Tetrachloroethene	mg/L	4800	1000	0.9	0.04
Chlorobenzene	mg/L	ND	1000	ND	0.04

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USED DRYCLEANER BOTTOM

OTC Semivolatile Organics
TCLP Leachate
Method 8270

Parameter	Units	HEUSEDDCBOT 19 DEC 91 Result	Reporting Limit	DENTON PERC COOKER SOLIDS 25 OCT 91 Result	Reporting Limit
Pyridine	mg/L	ND	2.0	ND	0.04
1,4-Dichlorobenzene	mg/L	ND	1.0	ND	0.04
2-Methylphenol	mg/L	ND	1.0	0.34	0.04
3/4-Methylphenol	mg/L	ND	1.0	0.34	0.04
Hexachloroethane	mg/L	ND	1.0	ND	0.04
Nitrobenzene	mg/L	ND	1.0	ND	0.04
Hexachlorobutadiene	mg/L	ND	1.0	ND	0.04
2,4,6-Trichlorophenol	mg/L	ND	1.0	ND	0.04
2,4,5-Trichlorophenol	mg/L	ND	5.0	ND	0.04
2,4-Dinitrotoluene	mg/L	ND	1.0	ND	0.04
Hexachlorobenzene	mg/L	ND	1.0	ND	0.04
Pentachlorophenol	mg/L	ND	5.0	ND	0.2

USED DRY CLEANER BOTTOMS

Total Metals

TCLP Leachate

Parameter	Units	DENTON HEUSEDDCBOT 23 OCT 91 Result	Reporting Limit	DENTON PERC COOKER SOLIDS 25 OCT 91 Result	Reporting Limit
Arsenic	mg/L	ND	1.4	ND	0.5
Barium	mg/L	1.6	0.14	0.4	0.1
Cadmium	mg/L	0.19	0.069	0.7	0.1
Chromium	mg/L	17.4	0.14	0.2	0.1
Lead	mg/L	4.9	0.69	55	0.1
Mercury	mg/L	ND	0.011	ND	0.02
Selenium	mg/L	ND	0.28	ND	0.3
Silver	mg/L	ND	0.14	ND	0.1

USED DRYCLEANER BOTTOM

General Inorganics

Parameter	Units	HEUSEDOCBOT 23 OCT 91 Result	Reporting Limit	DENTON PERC COOKER SOLIDS 25 OCT 91 Result	Reporting Limit
Specific Gravity at 77 degrees F	g/cc	1.05	-	-	-
Ignitability	deg. F	>160	-	-	-
pH	units	6.3	-	7	-
Flash point (PMCC)	deg. F	-	-	>180	-

NONCHLORINATED WASTE WATER

OTC Volatile Organics
TCLP Leachate
Method 8240

Parameter	Units	ELWWNON-CL PWS 20 DEC 91 Result	ELWWNON-CL PWS 20 DEC 91 Reporting Limit	ELWWNOWCL 10 DEC 91 Result	ELWWNOWCL 10 DEC 91 Reporting Limit	CLWW NON CL 16 OCT 91 Result	CLWW NON CL 16 OCT 91 Reporting Limit
Vinyl Chloride	mg/L	ND	500	ND	2.5	ND	10
1,1 Dichloroethene	mg/L	ND	250	ND	1.2	ND	5.0
Chloroform	mg/L	ND	250	ND	1.2	ND	5.0
1,2 Dichloroethene	mg/L	ND	250	ND	1.2	ND	5.0
2-Butanone	mg/L	ND	500	ND	2.5	10	10
Carbon Tetrachloride	mg/L	ND	250	ND	1.2	ND	5.0
Trichloroethene	mg/L	ND	250	ND	1.2	ND	5.0
Benzene	mg/L	ND	250	ND	1.2	ND	5.0
Tetrachloroethene	mg/L	ND	250	ND	1.2	ND	5.0
Chlorobenzene	mg/L	ND	250	ND	1.2	ND	5.0

NONCHLORINATED WASTE WATER

OTC Semivolatile Organics
TCLP Leachate
Method 8270

Parameter	Units	ELWWNOWCL 17 OCT 91 Result	Reporting Limit	CL WW NON CL 16 OCT 91 Result	Reporting Limit
Pyridine	mg/L	ND	50	ND	1000
1,4-Dichlorobenzene	mg/L	ND	25	ND	500
2-Methylphenol	mg/L	ND	25	ND	500
3/4-Methylphenol	mg/L	ND	25	ND	500
Hexachloroethane	mg/L	ND	25	ND	500
Nitrobenzene	mg/L	ND	25	ND	500
Hexachlorobutadiene	mg/L	ND	25	ND	500
2,4,6-Trichlorophenol	mg/L	ND	25	ND	500
2,4,5-Trichlorophenol	mg/L	ND	120	ND	2500
2,4 - Dinitrotoluene	mg/L	ND	25	ND	500
Hexachlorobenzene	mg/L	ND	25	ND	500
Pentachlorophenol	mg/L	ND	120	ND	2500

Parameter	Units	EL WW NON-CL (IC) 10 DEC 91 Result	Reporting Limit
Pyridine	mg/L	ND	1000
1,4-Dichlorobenzene	mg/L	ND	500
2-Methylphenol	mg/L	ND	500
3/4-Methylphenol	mg/L	ND	500
Hexachloroethane	mg/L	ND	500
Nitrobenzene	mg/L	ND	500
Hexachlorobutadiene	mg/L	ND	500
2,4,6-Trichlorophenol	mg/L	ND	500
2,4,5-Trichlorophenol	mg/L	ND	2500
2,4 - Dinitrotoluene	mg/L	ND	500
Hexachlorobenzene	mg/L	ND	500
Pentachlorophenol	mg/L	ND	2500

NONCHLORINATED WASTE WATER

Total Metals

TCLP Leachate

Parameter	Units	ELWWNOWCL 17 OCT 91 Result	ELWWNOWCL 17 OCT 91 Reporting Limit	CL WW NON CL 16 OCT 91 Result	CL WW NON CL 16 OCT 91 Reporting Limit	FROM IC PROCESSING ELWWNOWCL 17 OCT 91 Result	FROM IC PROCESSING ELWWNOWCL 17 OCT 91 Reporting Limit
Arsenic	mg/L	ND	1.0	ND	1.0	1.1	1.0
Barium	mg/L	0.24	0.1	0.35	0.1	11.4	0.1
Cadmium	mg/L	0.55	0.05	0.98	0.05	1.6	0.05
Chromium	mg/L	0.11	0.1	0.53	0.1	5.6	0.1
Lead	mg/L	0.83	0.5	3.2	0.5	38.7	0.5
Mercury	mg/L	0.003	0.002	ND	0.002	0.022	0.002
Selenium	mg/L	ND	1	ND	0.5	ND	1.0
Silver	mg/L	ND	0.1	ND	0.1	ND	0.1

NONCHLORINATED WASTE WATER

General Inorganics

						FROM IC PROCESSING	
		EL WW NOWCL 17 OCT 91		CL WW NON CL 16 OCT 91		EL WW NOWCL 17 OCT 91	
Parameter	Units	Result	Reporting Limit	Result	Reporting Limit	Result	Reporting Limit
Specific Gravity at 77 degrees F	g/cc	-	-	-	-	-	-
Ignitability	deg. F	-	-	-	-	-	-
pH	units	6.5	-	8.3	-	9.5	-

CHLORINATED WASTE WATER

OTC Volatile Organics
TCLP Leachate
Method 8240

Parameter	Units	CL WASTE WATER CHLORINATED 16 OCT91 Result	Reporting Limit
Vinyl Chloride	mg/L	ND	200
1,1 Dichloroethene	mg/L	ND	100
Chloroform	mg/L	ND	100
1,2 Dichloroethane	mg/L	ND	100
2-Butanone	mg/L	ND	200
Carbon Tetrachloride	mg/L	ND	100
Trichloroethene	mg/L	ND	100
Benzene	mg/L	ND	100
Tetrachloroethene	mg/L	ND	100
Chlorobenzene	mg/L	ND	100

CHLORINATED WASTE WATER

OTC Semivolatile Organics
TCLP Leachate
Method 8270

Parameter	Units	CL WASTE WATER CHLORINATED 16 OCT 91 Result	Reporting Limit
Pyridine	mg/L	ND	500
1,4-Dichlorobenzene	mg/L	ND	250
2-Methylphenol	mg/L	1600	250
3/4-Methylphenol	mg/L	1600	250
Hexachloroethane	mg/L	ND	250
Nitrobenzene	mg/L	ND	250
Hexachlorobutadiene	mg/L	ND	250
2,4,6-Trichlorophenol	mg/L	ND	250
2,4,5-Trichlorophenol	mg/L	ND	1200
2,4-Dinitrotoluene	mg/L	ND	250
Hexachlorobenzene	mg/L	ND	250
Pentachlorophenol	mg/L	ND	1200

CHLORINATED WASTE WATER

Total Metals

TCLP Leachate

Parameter	Units	CL WASTE WATER CHLORINATED 16 OCT 91 Result	Reporting Limit
Arsenic	mg/L	ND	1.0
Barium	mg/L	0.19	0.1
Cadmium	mg/L	0.21	0.05
Chromium	mg/L	8.3	0.1
Lead	mg/L	6.2	0.5
Mercury	mg/L	ND	0.002
Selenium	mg/L	ND	0.2
Silver	mg/L	ND	0.1

CHLORINATED WASTE WATER

General Inorganics

Parameter	Units	WW CL WASTE WATER CHLORINATED 16 OCT 91 Result	Reporting Limit
Specific Gravity at 77 degrees F	g/cc	-	-
Ignitability	deg. F	-	-
pH	units	8.3	-

USED PART WASHER SOLVENT

OTC Volatile Organics
TCLP Leachate
Method 8240

Parameter	Units	CL USED PWS 16 OCT 91 Result	CL USED PWS 16 OCT 91 Reporting Limit	EL USED PWS 17 DEC 91 Result	EL USED PWS 17 DEC 91 Reporting Limit
Vinyl Chloride	mg/L	ND	10000	ND	250
1,1 Dichloroethene	mg/L	ND	5000	ND	120
Chloroform	mg/L	ND	5000	ND	120
1,2 Dichloroethane	mg/L	ND	5000	ND	120
2-Butanone	mg/L	ND	10000	ND	250
Carbon Tetrachloride	mg/L	ND	5000	ND	120
Trichloroethene	mg/L	ND	5000	ND	120
Benzene	mg/L	ND	5000	ND	120
Tetrachloroethene	mg/L	ND	5000	ND	120
Chlorobenzene	mg/L	ND	5000	ND	120

USED PART WASHER SOLVENT

OTC Semivolatile Organics
TCLP Leachate
Method 8270

Parameter	Units	CL USED PWS 16 OCT 91 Result	CL USED PWS 16 OCT 91 Reporting Limit	EL USED PWS 17 OCT 91 Result	EL USED PWS 17 OCT 91 Reporting Limit
Pyridine	mg/L	ND	20000	ND	10000
1,4-Dichlorobenzene	mg/L	ND	10000	ND	5000
2-Methylphenol	mg/L	ND	10000	ND	5000
3/4-Methylphenol	mg/L	ND	10000	ND	5000
Hexachloroethane	mg/L	ND	10000	ND	5000
Nitrobenzene	mg/L	ND	10000	ND	5000
Hexachlorobutadiene	mg/L	ND	10000	ND	5000
2,4,6-Trichlorophenol	mg/L	ND	10000	ND	5000
2,4,5-Trichlorophenol	mg/L	ND	50000	ND	25000
2,4 - Dinitrotoluene	mg/L	ND	10000	ND	5000
Hexachlorobenzene	mg/L	ND	10000	ND	5000
Pentachlorophenol	mg/L	ND	50000	ND	25000

USED PART WASHER SOLVENT

Total Metals
TCLP Leachate

Parameter	Units	ELUSED PWS 17 OCT 91 Result	Reporting Limit	CLUSED PWS 16 OCT 91 Result	Reporting Limit
Arsenic	mg/L	ND	5.0	ND	5.0
Barium	mg/L	3.3	0.5	3.1	0.5
Cadmium	mg/L	0.78	0.25	0.93	0.25
Chromium	mg/L	1.2	0.5	1.8	0.5
Lead	mg/L	7.9	2.5	14.5	2.5
Mercury	mg/L	ND	0.002	ND	0.002
Selenium	mg/L	ND	0.5	ND	0.5
Silver	mg/L	ND	0.5	ND	0.05

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USED PART WASHER SOLVENT

General Inorganics

Parameter	Units	ELUSED PWS 17 OCT 91 Result	Reporting Limit	CLUSED PWS 16 OCT 91 Result	Reporting Limit
Specific Gravity at 77 degrees F	g/cc	0.79	-	0.785	-
Ignitebility	deg F	124	-	117	-
pH	units	8.2	-	8	-

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USED IMMERSION CLEANER

OTC Volatile Organics
TCLP Leachate
Method 8240

Parameter	Units	LE USED IC 25 DEC 91 Result	LE USED IC 25 DEC 91 Reporting Limit	EL USED IC 18 DEC 91 Result	EL USED IC 18 DEC 91 Reporting Limit	NEW FORMULA CL USED IC 10 DEC 91 Result	NEW FORMULA CL USED IC 10 DEC 91 Reporting Limit
Vinyl Chloride	mg/L	ND	6600	ND	5000	ND	5000
1,1 Dichloroethene	mg/L	ND	3300	ND	2500	ND	2500
Chloroform	mg/L	ND	3300	ND	2500	ND	2500
1,2 Dichloroethane	mg/L	ND	3300	ND	2500	ND	2500
2-Butanone	mg/L	ND	6600	ND	5000	ND	5000
Carbon Tetrachloride	mg/L	ND	3300	ND	2500	ND	2500
Trichloroethene	mg/L	ND	3300	ND	2500	ND	2500
Benzene	mg/L	ND	3300	ND	2500	ND	2500
Tetrachloroethene	mg/L	ND	3300	ND	2500	ND	2500
Chlorobenzene	mg/L	ND	3300	ND	2500	ND	2500

Parameter	Units	CL USED IC (CHLORINATED) 16 Oct 91 Result	CL USED IC (CHLORINATED) 16 Oct 91 Reporting Limit
Vinyl Chloride	mg/L	ND	200
1,1 Dichloroethene	mg/L	ND	100
Chloroform	mg/L	ND	100
1,2 Dichloroethene	mg/L	ND	100
2-Butanone	mg/L	ND	200
Carbon Tetrachloride	mg/L	ND	100
Trichloroethene	mg/L	ND	100
Benzene	mg/L	ND	100
Tetrachloroethene	mg/L	ND	100
Chlorobenzene	mg/L	ND	100

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USED IMMERSION CLEANER

OTC Semivolatile Organics
TCLP Leachate
Method 8270

Parameter	Units	LE USED IC 09 OCT 91 Result	LE USED IC 09 OCT 91 Reporting Limit	EL USED IC 17 OCT 91 Result	EL USED IC 17 OCT 91 Reporting Limit	NEW FORMULA CL USED IC 10 DEC 91 Result	NEW FORMULA CL USED IC 10 DEC 91 Reporting Limit
Pyridine	mg/L	ND	10.0	ND	200	ND	20.0
1,4-Dichlorobenzene	mg/L	ND	5.0	ND	100	ND	10.0
2-Methylphenol	mg/L	ND	5.0	ND	100	ND	10.0
3/4-Methylphenol	mg/L	ND	5.0	ND	100	ND	10.0
Hexachloroethene	mg/L	ND	5.0	ND	100	ND	10.0
Nitrobenzene	mg/L	ND	5.0	ND	100	ND	10.0
Hexachlorobutadiene	mg/L	ND	5.0	ND	100	ND	10.0
2,4,6-Trichlorophenol	mg/L	ND	5.0	ND	100	ND	10.0
2,4,5-Trichlorophenol	mg/L	ND	25.0	ND	500	ND	50.0
2,4-Dinitrotoluene	mg/L	ND	5.0	ND	100	ND	10.0
Hexachlorobenzene	mg/L	ND	5.0	ND	100	ND	10.0
Pentachlorophenol	mg/L	ND	25.0	ND	500	ND	50.0

Parameter	Units	CL USED IC (Chlorinated) 16 OCT 91 Result	CL USED IC (Chlorinated) 16 OCT 91 Reporting Limit
Pyridine	mg/L	ND	40000
1,4-Dichlorobenzene	mg/L	72000	20000
2-Methylphenol	mg/L	58000	20000
3/4-Methylphenol	mg/L	54000	20000
Hexachloroethane	mg/L	ND	20000
Nitrobenzene	mg/L	ND	20000
Hexachlorobutadiene	mg/L	ND	20000
2,4,6-Trichlorophenol	mg/L	ND	20000
2,4,5-Trichlorophenol	mg/L	ND	100000
2,4-Dinitrotoluene	mg/L	ND	20000
Hexachlorobenzene	mg/L	ND	20000
Pentachlorophenol	mg/L	ND	100000

USED IMMERSION CLEANER

TCL Volatile Organics

Method 8240

Parameter	Units	(NEW FORMULA) CL USED IC 10 DEC 91 Result	Reporting Limit
Chloromethane	mg/kg	ND	5000
Bromomethane	mg/kg	ND	5000
Vinyl Chloride	mg/kg	ND	5000
Chloroethane	mg/kg	ND	5000
Methylene chloride	mg/kg	ND	2500
Acetone	mg/kg	ND	5000
Carbon disulfide	mg/kg	ND	2500
1,1 - Dichloroethene	mg/kg	ND	2500
1,1 - Dichloroethane	mg/kg	ND	2500
1,2 - Dichloroethene (cis/trans)	mg/kg	ND	2500
Chloroform	mg/kg	ND	2500
1,2 - Dichloroethane	mg/kg	ND	2500
2 - Butanone	mg/kg	ND	5000
1,1,1 - Trichloroethane	mg/kg	ND	2500
Carbon tetrachloride	mg/kg	ND	2500
Vinyl Acetate	mg/kg	ND	5000
Bromodichloromethane	mg/kg	ND	2500
1,2 - Dichloropropane	mg/kg	ND	2500
cis - 1,3 - Dichloropropene	mg/kg	ND	2500
Trichloroethene	mg/kg	ND	2500
Dibromochloromethane	mg/kg	ND	2500
1,1,2 - Trichloroethane	mg/kg	ND	2500
Benzene	mg/kg	ND	2500
trans - 1,3 - Dichloropropene	mg/kg	ND	2500
2 - Chloroethyl vinyl ether	mg/kg	ND	5000
Bromoform	mg/kg	ND	2500
4 - Methyl - 2 - pentanone	mg/kg	ND	5000
2 - Hexanone	mg/kg	ND	5000
1,1,2,2 - Tetrachloroethane	mg/kg	ND	2500
Tetrachloroethene	mg/kg	ND	2500
Toluene	mg/kg	ND	2500
Chlorobenzene	mg/kg	ND	2500
Ethylbenzene	mg/kg	ND	2500
Styrene	mg/kg	ND	2500
Xylenes (total)	mg/kg	ND	2500

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USED IMMERSION CLEANER

TCL Semivolatile Organics

Method 8270

NEW FORMULA
CL USED IC
10 DEC 91

Parameter	Units	Result	Reporting Limit
Phenol	mg/kg	ND	10000
bis(2-Chloroethyl) ether	mg/kg	ND	10000
2-Chlorophenol	mg/kg	ND	10000
1,3-Dichlorobenzene	mg/kg	ND	10000
1,4-Dichlorobenzene	mg/kg	ND	10000
Benzyl alcohol	mg/kg	ND	10000
1,2-Dichlorobenzene	mg/kg	ND	10000
2-Methylphenol	mg/kg	ND	10000
bis(2-Chloroisopropyl)-ether	mg/kg	ND	10000
4-Methylphenol	mg/kg	ND	10000
N-Nitroso-di-n-propylamine	mg/kg	ND	10000
Hexachloroethane	mg/kg	ND	10000
Nitrobenzene	mg/kg	ND	10000
Isophorone	mg/kg	ND	10000
2-Nitrophenol	mg/kg	ND	10000
2,4-Dimethylphenol	mg/kg	ND	10000
Benzoic acid	mg/kg	ND	50000
bis(2-Chloroethoxy)-methane	mg/kg	ND	10000
2,4-Dichlorophenol	mg/kg	ND	10000
1,2,4-Trichlorobenzene	mg/kg	ND	10000
Naphthalene	mg/kg	47000	10000
4-Chloroaniline	mg/kg	ND	10000
Hexachlorobutadiene	mg/kg	ND	10000
4-Chloro-3-methylphenol	mg/kg	ND	10000
2-Methylnaphthalene	mg/kg	ND	10000
Hexachlorocyclopentadiene	mg/kg	ND	10000
2,4,6-Trichlorophenol	mg/kg	ND	10000
2,4,5-Trichlorophenol	mg/kg	ND	50000
2-Chloronaphthalene	mg/kg	ND	10000
2-Nitroaniline	mg/kg	ND	50000
Dimethyl phthalate	mg/kg	ND	10000
Acenaphthylene	mg/kg	ND	10000
3-Nitroaniline	mg/kg	ND	50000
Acenaphthene	mg/kg	ND	10000
2,4-Dinitrophenol	mg/kg	ND	50000
4-Nitrophenol	mg/kg	ND	50000

USED IMMERSION CLEANER

		- continued from previous page -	
Dibenzofuran	mg/kg	ND	10000
2,4 - Dinitrotoluene	mg/kg	ND	10000
2,6 - Dinitrotoluene	mg/kg	ND	10000
Diethyl phthalate	mg/kg	ND	10000
4 - Chlorophenyl phenyl ether	mg/kg	ND	10000
Flourene	mg/kg	ND	10000
4 - Nitroaniline	mg/kg	ND	50000
4,6 - Dinitro-2 - Methylphenol	mg/kg	ND	50000
N - Nitrosodiphenylamine	mg/kg	ND	10000
4- Bromophenyl phenyl ether	mg/kg	ND	10000
Hexachlorobenzene	mg/kg	ND	10000
Pentachlorophenol	mg/kg	ND	50000
Phenanthrene	mg/kg	ND	10000
Anthracene	mg/kg	ND	10000
Di - n - butyl phthalate	mg/kg	ND	10000
Flouranthene	mg/kg	ND	10000
Pyrene	mg/kg	ND	10000
Butyl benzyl phthalate	mg/kg	ND	10000
3,3' - Dichlorobenzidine	mg/kg	ND	20000
Benzo (a) anthracene	mg/kg	ND	10000
bis(2 - Ethylhexyl) phthalate	mg/kg	ND	10000
Chrysene	mg/kg	ND	10000
Di - n - octyl phthalate	mg/kg	ND	10000
Benzo (b) flourenthene	mg/kg	ND	10000
Benzo (k) flouranthene	mg/kg	ND	10000
Benzo (a) pyrene	mg/kg	ND	10000
Indeno (1,2,3 - cd) pyrene	mg/kg	ND	10000
Dibenz (a,h) anthracene	mg/kg	ND	10000
Benzo (g,h,i) perylene	mg/kg	ND	10000

USED IMMERSION CLEANER

Total Metals

TCLP Leachate

Parameter	Units	LE USED IC 09 OCT 91 Result	Reporting Limit	EL USED IC 17 OCT 91 Result	Reporting Limit	CLUSEIC(New Formula) 10 DEC 91 Result	Reporting Limit
Arsenic	mg/L	ND	5.0	1.8	1.0	2.1	1.0
Barium	mg/L	0.54	0.5	0.58	0.1	1.4	0.1
Cadmium	mg/L	12.9	0.25	9.2	0.05	11.6	0.05
Chromium	mg/L	4.7	0.5	1.5	0.1	50.5	0.1
Lead	mg/L	43.4	2.5	86.8	0.5	55.1	0.5
Mercury	mg/L	ND	0.002	ND	0.002	ND	0.002
Selenium	mg/L	ND	0.5	ND	2.0	ND	0.1
Silver	mg/L	ND	0.5	ND	0.1	0.1	0.1

Parameter	Units	CL USED IC CHLORINATED 16 OCT 91 Result	Reporting Limit
Arsenic	mg/L	ND	1.0
Barium	mg/L	3.7	0.1
Cadmium	mg/L	45.6	0.05
Chromium	mg/L	27.8	0.1
Lead	mg/L	159	0.5
Mercury	mg/L	ND	0.002
Selenium	mg/L	ND	0.25
Silver	mg/L	ND	0.1

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USED IMMERSION CLEANER

General Inorganics

Parameter	Units	LE USED IC 09 OCT 91 Result	Reporting Limit	EL USED IC 17 OCT 91 Result	Reporting Limit	CLUSEIC(New Formula) 10 DEC 91 Result	Reporting Limit
Specific Gravity at 77 degrees F	g/cc	0.939	-	0.958	-	0.945	-
Ignitability	deg. F	>160	-	>160	-	>160	-
pH	units	9.6	-	9.8	-	9.6	-

Parameter	Units	(CHLORINATED) CL USED IC 16 OCT 91 Result	Reporting Limit
Specific Gravity at 77 degrees F	g/cc	1.119	-
Ignitability	deg. F	139	-
pH	units	9.4	-

safety-kleen

1990 ANNUAL RECHARACTERIZATION DATA

The attached data package covers TCLP analyses of materials obtained from Safety-Kleen Recycle Centers during July of 1990. Each Recycle Center prepared samples for each waste stream received and/or generated. Each sample represents a composite of individual samples received for testing over a fixed period of time. For example, the Parts Washer Solvent sample at each Recycle Center was generated by keeping in a refrigerator a small retain from each tanker received from individual SK Branches over a two week period. At the end of the two weeks, all the retains were combined into one jar.

All composited materials were shipped in coolers immediately upon generation with formal chain-of-custody forms to GT Environmental Laboratories certified for the states involved with each individual recycle center. These laboratories performed the analyses, making sure all holding time restrictions were met.

The resulting data is presented in several different formats. The first page of each set includes a summary of physical and chemical properties their mean and range. It is important to note that all samples, including liquids, were extracted for the TCLP organic phase of the work.

The next set shows volatiles data for whole samples. These samples had to be diluted considerably to bring everything on scale. Thus, the detection limits are relatively high. These data can be used where the sample would normally just be filtered and analyzed for TCLP organic constituent content.

The third set of data is a comparison of the TCLP extracted and non-extracted components. This is useful where one is close to the regulatory limits.

The final page of each set is the detailed, site-by-site data from which the initial summary page was generated. Again, the organic data is for a TCLP extract of the whole sample.

The data summaries have been provided to the Recycle Centers, who in turn have sent the data to the individual SK Branches whose waste streams were included in the composites.

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Abbreviation Key

acenaphthe	Acenaphthene
acenaphthy	Acenaphthylene
acetone	Acetone
Ag	Silver
anthracene	Anthracene
As	Arsenic
b2ethhexph	bis(2–Ethylhexyl)phthalate
Ba	Barium
benz acid	Benzoic Acid
benzene	Benzene
benzyl 'ol	Benzyl Alcohol
ben(a)anthr	Benzo(a)anthracene
ben(a)pyren	Benzo(a)pyrene
ben(b)fluor	Benzo(b)fluoranthene
ben(ghi)per	Benzo(g,h,i)perylene
ben(k)fluor	Benzo(k)fluoranthene
butbenphth	Butylbenzylphthalate
b–2Clethox	bis(2–Chlorethoxy)methane
b–2Cl–ethr	bis(2–Chloroethyl) Ether
b–2Cl–IPE	bis(2–Chloroisopropyl) Ether
4Brphenph	4–Bromophenyl phenyl Ether
C2Cl6	Hexachloroethane
C2H3Cl	Vinyl Chloride
C2H5Cl	Chloroethane
CCl4	Carbon Tetrachloride
Cd	Cadmium
CH2Cl2	Methylene Chloride
CH3Br	Bromomethane
CH3Cl	Chloromethane
CHBr2Cl	Dibromochloromethane
CHBr3	Bromoform
CHBrCl2	Bromodichloromethane
CHCl3	Chloroform
chrysene	Chrysene
4–Claniline	4–Chloroaniline
Clbenz	Chlorobenzene
Cl–benz	Chlorobenzene
Cl6–benz	Hexachlorobenzene
Cl6benzene	Hexachlorobenzene
Cl6butadien	Hexachlorobutadiene
Cl6–13–but	Hexachlorobutadiene
Cl6cycpent	Hexachlorocyclopentadiene
3,3'Cl2benz	3,3'–Dichlorobenzidine
Cl6–eth	Hexachloroethane
4Cl3Mephnl	4–Chloro–3–methylphenol
2–Clnaph	2–Chloronaphthalene
Cl5phenol	Pentachlorophenol
Cl5–phenol	Pentachlorophenol
2Cl–phenol	2–Chlorophenol
4Clphenph	4–Chlorophenyl phenyl Ether
2–CVE	2–Chloroethyl Vinyl Ether
Cr	Chromium
cresol	Methylphenols (total)
CS2	Carbon Disulfide
c–1,3–DCP	cis–1,3–Dichloropropene
dben(a,h)an	Dibenzo(a,h)anthracene
1,1–DCA	1,1–Dichloroethane
1,2–DCA	1,2–Dichloroethane
1,1–DCE	1,1–Dichloroethene
1,2–DCE	1,2–Dichloroethene (total)
1,2–DClB	1,2–Dichlorobenzene
1,3–DClB	1,3–Dichlorobenzene
1,4–DClB	1,4–Dichlorobenzene
2,4–dClph	2,4–Dichlorophenol
dethphthal	Diethylphthalate
dibenfuran	Dibenzofuran
d–n–butpht	Di–n–butylphthalate
d–n–octpht	Di–n–octylphthalate
2,4dntrophe	2,4–Dinitrophenol
2,4–DNT	2,4–Dinitrotoluene
4,6dn2Mep	4,6–Dinitro–2–methylphenol
1,2–DCPA	1,2–Dichloropropane
2,6–DNT	2,6–Dinitrotoluene
eth–benz	Ethylbenzene
fluoranthen	Fluoranthene
fluorene	Fluorene
FP	flashpoint
2–hex'one	2–Hexanone
Hg	Mercury
ind(123–cd[	Indeno(1,2,3–c,d)pyrene
isophorone	Isophorone
MEK	2–Butanone (methyl ethyl ketone)
2–Menaph	2–Methylnaphthalene
4–Me–2–pe	4–Methyl–2–pentanone
2Me–pheno	2–Methylphenol
4Me–pheno	4–Methylphenol
2,4Meph'ol	2,4–Dimethylphenol
Me2phthal	Dimethylphthalate
Naph'ene	Naphthalene
2–ntroanil	2–Nitroaniline
3–ntroanil	3–Nitroaniline
4–ntroanil	4–Nitroaniline
nitrobenz	Nitrobenzene
N–nitroso	N–Nitrosodiphenylamined
N–nitroso	N–Nitroso–di–n–propylamine
4ntrophenol	4–Nitrophenol
2ntroph'ol	2–Nitrophenol
Pb	Lead
1,1,2,2PCA	1,1,2,2–Tetrachloroethane
PCE	Tetrachloroethene
pH	pH
phenanthre	Phenanthrene
phenol	Phenol
pyrene	Pyrene
pyridine	Pyridine
Se	Selenium
SG	specific gravity
styrene	Styrene
1,1,1–TCA	1,1,1–Trichloroethane
1,1,2–TCA	1,1,2–Trichloroethene
TCE	Trichloroethene
t–1,3–DCPE	trans–1,3–Dichloropropene
1,2,4–TClB	1,2,4–Trichlorobenzene
2,4,5tClph	2,4,5–Trichlorophenol
2,4,5–TCP	2,4,5–Trichlorophenol
2,4,6tClph	2,4,6–Trichlorophenol
2,4,6–TCP	2,4,6–Trichlorophenol
toluene	Toluene
VChloride	Vinyl Chloride
v–acetate	Vinyl Acetate
xylenes	Xylenes (total)

na	not applicable
matrix	matrix effect – no analysis
coc	coc error no analysis

Antifreeze Wastes

Volatile Organics (EPA 8240) Analysis, ppm

Parameter		CH3Cl	CH3Br	C2H3Cl	C2H5Cl	CH2Cl2	acetone	CS2	1.1-DCE	1.1-DCA	1.2-DCE	CHCl3
LAB	SITE											
W	BU	< 0.95	< 0.95	< 0.95	< 0.95	12	13	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48
W	EL	< 9.0	< 9.0	< 9.0	< 9.0	< 4.5	< 90	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5
W	WL	< 1.9	< 1.9	< 1.9	< 1.9	25	32	< 0.93	< 0.93	< 0.93	< 0.93	< 0.93

Parameter		1,2-DCA	MEK	1.1.1-TCA	CCl4	v-acetate	CHBrCl2	1.2-DCPA	1.3-DCPE	TCE	CHBr2Cl	1.1.2-TCA
LAB	SITE											
W	BU	< 0.48	35	26	< 0.48	< 4.8	< 0.48	< 0.48	< 0.48	15	< 0.48	< 0.48
W	EL	< 4.5	< 90	6.9	< 4.5	< 45	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5
W	WL	< 0.93	< 19	1.9	< 0.93	< 9.3	< 0.93	< 0.93	< 0.93	< 0.93	< 0.93	< 0.93

Parameter		benzene	2-CVE	1.3-DCPE	CHBr3	Me-2-pen	2-hex'one	PCE	1.1.2.2PCA	toluene	Cl-benz	eth-benz
LAB	SITE											
W	BU	< 0.48	< 0.95	< 0.48	< 0.48	< 4.8	< 4.8	1.3	< 0.48	16	< 0.48	< 0.48
W	EL	< 4.5	< 9.0	< 4.5	< 4.5	< 45	< 45	< 4.5	< 4.5	6.8	< 4.5	< 4.5
W	WL	< 0.93	< 1.9	< 0.93	< 0.93	< 9.3	< 9.3	< 0.93	< 0.93	2.4	< 0.93	< 0.93

Parameter		styrene	xylenes	1.2-DCIB	1.3-DCIB	1.4-DCIB
LAB	SITE					
W	BU	< 0.48	1.6	< 0.48	< 0.48	< 0.48
W	EL	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5
W	WL	< 0.93	1.8	< 0.93	< 0.93	< 0.93

Antifreeze Wastes

Semivolatile Organics (EPA 8270) Analysis, ppm

Parameter		phenol	b-2Cl-ethr	2Cl-phenol	1.3-DClB	1.4-DClB	benzyl 'ol	1.2-DClB	2Me-pheno	b-2Cl-IPE	4Me-pheno	N-nitroso
LAB	*SITE*											
W	*BU*	< 930	< 930	< 930	< 930	< 930	< 1900	< 930	< 930	< 930	< 930	< 930
W	*EL*	< 910	< 910	< 910	< 910	< 910	< 1800	< 910	< 910	< 910	< 910	< 910
W	*WL*	< 930	< 930	< 930	< 930	< 930	< 1900	< 930	< 930	< 930	< 930	< 930

Parameter		C2Cl6	nitrobenz	Isophorone	2ntroph'ol	2,4Meph'ol	benz acid	b-2Clethox	2,4-dClph	1,2,4-TClB	Naph'ene	4-Clanilline
LAB	*SITE*											
W	*BU*	< 930	< 930	< 930	< 930	< 930	< 4700	< 930	< 930	< 930	< 930	< 1900
W	*EL*	< 910	< 910	< 910	< 910	< 910	< 4600	< 910	< 910	< 910	< 910	< 1800
W	*WL*	< 930	< 930	< 930	< 930	< 930	< 4700	< 930	< 930	< 930	< 930	< 1900

Parameter		Cl6buladien	4Cl3Mephnl	2-Menaph	Cl6cycpent	2,4,6tClph	2,4,5tClph	2-Clnaph	2-ntroanil	Me2phthal	acenaphthy	2,6-DNT
LAB	*SITE*											
W	*BU*	< 930	< 1900	< 930	< 930	< 930	< 930	< 930	< 4700	< 930	< 930	< 930
W	*EL*	< 910	< 1800	< 910	< 910	< 910	< 910	< 910	< 4600	< 910	< 910	< 910
W	*WL*	< 930	< 1900	< 930	< 930	< 930	< 930	< 930	< 4700	< 930	< 930	< 930

Parameter		3-nitroanil	acenaphthe	2,4dnitrophe	4ntrophenol	dibenfuran	2,4-DNT	dethphthal	4Clphenphe	fluorene	4-ntroanil	4,6dn2Mep
LAB	*SITE*											
W	*BU*	< 4700	< 930	< 4700	< 4700	< 930	< 930	< 930	< 930	< 930	< 4700	< 4700
W	*EL*	< 4600	< 910	< 4600	< 4600	< 910	< 910	< 910	< 910	< 910	< 4600	< 4600
W	*WL*	< 4700	< 930	< 4700	< 4700	< 930	< 930	< 930	< 930	< 930	< 4700	< 4700

Antifreeze Wastes

Semivolatile Organics (EPA 8270) Analysis, ppm

Parameter		N-nitroso	4Brphenph	Cl6benzene	Cl5phenol	phenanthre	anthracene	d-n-butpht	fluoranthen	pyrene	butbenphth	3,3'Cl2benz
LAB	SITE											
W	BU	< 930	< 930	< 930	< 4700	< 930	< 930	< 930	< 930	< 930	< 930	< 1900
W	EL	< 910	< 910	< 910	< 4600	< 910	< 910	< 910	< 910	< 910	< 910	< 1800
W	WL	< 930	< 930	< 930	< 4700	< 930	< 930	< 930	< 930	< 930	< 930	< 1900

Parameter		ben[a]anthr	chrysene	b2ethhexph	d-n-octpht	ben[b]fluor	ben[k]fluor	ben[a]pyren	Ind[123-cd]	dben[a,h]an	ben[ghi]per
LAB	SITE										
W	BU	< 930	< 930	< 930	< 930	< 930	< 930	< 930	< 930	< 930	< 930
W	EL	< 910	< 910	< 910	< 910	< 910	< 910	< 910	< 910	< 910	< 910
W	WL	< 930	< 930	< 930	< 930	< 930	< 930	< 930	< 930	< 930	< 930

Antifreeze Wastes

Physical Properties and TCLP Metals Analysis, ppm

	Parameter	pH	SG	FP	As	Ba	Cd	Cr	Pb	Hg	Se	Ag
	Reg. Limit	<2 or >10	na	< 100	5	100	1	5	5	0.2	1	5
LAB	*SITE*											
W	*BU*	7.5	1.04	> 200	< 0.05	< 0.3	< 0.05	< 0.05	0.3	< 0.01	< 0.05	< 0.05
W	*EL*	8	1.13	> 200	< 0.05	0.3	< 0.05	< 0.05	< 0.1	< 0.01	< 0.05	< 0.05
W	*WL*	8.5	1.05	> 200	< 0.05	< 0.3	< 0.05	< 0.05	0.2	< 0.01	< 0.05	< 0.05

TCLP Semi Volatiles Analysis, ppm

	Parameter	cresol	2.4-DNT	Cl6-benz	Cl6-13-but	Cl6-eth	nitrobenz	Cl5-phenol	pyridine	2.4.5-TCP	2.4.6-TCP
	Reg. Limit	200	0.13	0.13	0.5	3	2	100	5	400	2
LAB	*SITE*										
W	*BU*	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.2	< 0.2	< 0.04	< 0.04
W	*EL*	0.2	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07	< 0.35	< 0.35	< 0.07	< 0.07
W	*WL*	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.25	< 0.25	< 0.05	< 0.05

TCLP Volatiles Analysis, ppm

	Parameter	benzene	CCl4	Clbenz	CHCl3	1.4-DClB	1.2-DCA	1.1-DCE	MEK	PCE	TCE	VChloride
	Reg. Limit	0.5	0.5	100	6	7.5	0.5	0.7	200	0.7	0.5	0.2
LAB	*SITE*											
W	*BU*	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 2.0	0.13	0.97	< 0.20
W	*EL*	0.32	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 2.0	0.12	< 0.10	< 0.20
W	*WL*	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 2.0	0.51	< 0.10	< 0.10

Chlorinated Water Wastes

Physical Properties and TCLP Metals Analysis, ppm

	Parameter	pH	SG	FP	As	Ba	Cd	Cr	Pb	Hg	Se	Ag
	Reg. Limit	<2 or >10	na	< 100	5	100	1	5	5	0.2	1	5
LAB	*SITE*											
M	*CH*	7	na	na	< 0.5	0.37	< 0.01	0.018	< 0.1	< 0.001	< 0.2	< 0.01
M	*CL*	10	na	95	< 0.5	0.74	0.18	10	12	0.046	< 0.2	< 0.01
W	*DE*	10	na	na	0.17	1.2	0.14	4.9	6.7	0.012	< 0.05	< 0.05
M	*LE*	9.5	na	na	< 0.5	< 0.2	0.18	0.45	2.9	0.81	< 0.2	< 0.01
M	*MA*	7	na	na	< 0.5	< 1.0	< 0.01	0.18	< 0.1	< 0.001	< 0.2	< 0.01
M	*PE*	7	na	na	< 0.5	< 0.2	< 0.01	< 0.01	0.12	< 0.001	< 0.2	< 0.01

TCLP Semi Volatiles Analysis, ppm

	Parameter	cresol	2.4-DNT	Cl6-benz	Cl6-13-but	Cl6-eth	nitrobenz	Cl5-phenol	pyridine	2.4.5-TCP	2.4.6-TCP
	Reg. Limit	200	0.13	0.13	0.5	3	2	100	5	400	2
LAB	*SITE*										
M	*CH*	< 330	< 330	< 330	< 330	< 330	< 330	< 1700	< 1700	< 330	< 330
M	*CL*	coc	coc	coc	coc	coc	coc	coc	coc	coc	coc
W	*DE*	coc	coc	coc	coc	coc	coc	coc	coc	coc	coc
M	*LE*	6600	< 400	< 400	< 400	< 400	< 400	< 2000	< 2000	< 400	< 400
M	*MA*	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 1.8	< 1.8	< 0.36	< 0.36
M	*PE*	58	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3	< 17	< 17	< 3.3	< 3.3

TCLP Volatiles Analysis, ppm

	Parameter	benzene	CCl4	Clbenz	CHCl3	1.4-DClB	1.2-DCA	1.1-DCE	MEK	PCE	TCE	VChloride
	Reg. Limit	0.5	0.5	100	6	7.5	0.5	0.7	200	0.7	0.5	0.2
LAB	*SITE*											
M	*CH*	< 0.10	< 0.10	< 0.10	< 0.10	> 4.4	< 0.10	< 0.10	< 2.0	1.3	2.1	< 0.20
M	*CL*	< 5.0	< 5.0	10	< 5.0	33	< 5.0	< 5.0	< 100	< 5.0	< 5.0	< 10
W	*DE*	coc	coc	coc	coc	coc	coc	coc	coc	coc	coc	coc
M	*LE*	< 0.10	< 0.10	2.8	< 0.10	> 4.4	< 0.10	< 0.10	> 4.4	3.4	0.85	< 0.20
M	*MA*	< 0.25	< 0.25	< 0.25	4.5	< 0.50	1.8	< 0.25	< 5.0	< 0.25	< 0.25	< 0.50
M	*PE*	< 0.10	< 0.10	< 0.10	< 0.10	0.28	< 0.10	< 0.10 *	3	< 0.10	< 0.10	< 0.20

Dry Cleaner Cooker Solids Wastes

Volatile Organics (EPA 8240) Analysis, ppm

Parameter		CH3Cl	CH3Br	C2H3Cl	C2H5Cl	CH2Cl2	acetone	CS2	1.1-DCE	1.1-DCA	1.2-DCE	CHCl3
LAB	SITE											
W	HE	< 100	< 100	< 100	< 100	< 50	< 1000	< 50	< 50	< 50	< 50	< 50
M	LE	< 240	< 240	< 240	< 240	470	< 2400	< 120	< 120	< 120	< 120	< 120

Parameter		1,2-DCA	MEK	1.1.1-TCA	CCl4	v-acetate	ClBrCl2	1.2-DCPA	1.3-DCPE	TCE	CHBr2Cl	1.1.2-TCA
LAB	SITE											
W	HE	< 50	< 1000	< 50	< 50	< 500	< 50	< 50	< 50	< 50	< 50	< 50
M	LE	< 120	< 2400	600	< 120	< 1200	< 120	< 120	< 120	270	< 120	< 120

Parameter		benzene	2-CVE	1.3-DCPE	ClBr3	Me-2-pen	2-hex'one	PCE	1.1.2.2PCA	toluene	Cl-benz	eth-benz
LAB	SITE											
W	HE	< 50	< 100	< 50	< 50	< 500	< 500	1700	< 50	< 50	< 50	< 50
M	LE	< 120	< 240	< 120	< 120	< 1200	< 1200	670	< 120	9100	< 120	1200

Parameter		styrene	xylenes	1.2-DClB	1.3-DClB	1.4-DClB
LAB	SITE					
W	HE	< 50	< 50	< 50	< 50	< 50
M	LE	< 120	6300	<120	<120	<120

Dry Cleaner Cooker Solids Wastes

Semivolatile Organics (EPA 8270) Analysis, ppm

Parameter		phenol	b-2Cl-ethr	2Cl-phenol	1.3-DClB	1.4-DClB	benzyl 'ol	1.2-DClB	2Me-pheno	b-2Cl-IPE	4Me-pheno	N-nitroso
LAB	SITE											
W	HE	< 12	< 12	< 12	< 12	< 12	< 25	< 12	< 12	< 12	< 12	< 12
M	LE	110	< 40	< 40	< 40	< 40	< 80	< 40	< 40	< 40	< 40	< 40

Parameter		C2Cl6	nitrobenz	Isophorone	2ntroph'ol	2.4Meph'ol	benz acid	b-2Clethox	2.4-dClph	1.2.4-TClB	Naph'ene	4-Clanilline
LAB	SITE											
W	HE	< 12	< 12	< 12	< 12	< 12	< 62	< 12	< 12	< 12	< 12	< 25
M	LE	< 40	< 40	< 40	< 40	< 40	< 190	< 40	< 40	< 40	< 40	< 80

Parameter		Cl6butadien	4Cl3Mephnl	2-Menaph	Cl6cycpent	2.4.6tClph	2.4.5tClph	2-Clnaph	2-nitroanil	Me2phthal	acenaphthy	2.6-DNT
LAB	SITE											
W	HE	< 12	< 25	< 12	< 12	< 12	< 12	< 12	< 62	< 12	< 12	< 12
M	LE	< 40	< 80	< 40	< 40	< 40	< 40	< 40	< 190	< 40	< 40	< 40

Parameter		3-nitroanil	acenaphthe	2.4dntrophe	4ntrophenol	dibenfuran	2.4-DNT	dethphthal	4Clphenphe	fluorene	4-ntroanil	4.6dn2Mep
LAB	SITE											
W	HE	< 62	< 12	< 62	< 62	< 12	< 12	< 12	< 12	< 12	< 62	< 62
M	LE	< 190	< 40	< 190	< 190	< 40	< 40	< 40	< 40	< 40	< 190	< 190

Dry Cleaner Cooker Solids Wastes

Semivolatile Organics (EPA 8270) Analysis, ppm

Parameter		N-nitroso	4Brphenph	Cl6benzene	Cl5phenol	phenanthre	anthracene	d-n-butpht	fluoranthen	pyrene	butbenphth	3.3'Cl2benz
LAB	*SITE*											
W	*HE*	< 12	< 12	< 12	< 62	< 12	< 12	< 12	< 12	< 12	13	< 25
M	*LE*	< 40	< 40	< 40	< 190	< 40	< 40	< 40	< 40	< 40	< 40	< 80

Parameter		ben[a]anthr	chrysene	b2ethhexph	d-n-octpht	ben[b]fluor	ben[k]fluor	ben[a]pyren	ind[123-cd]	dben[a.h]an	ben[ghi]per
LAB	*SITE*										
W	*HE*	< 12	< 12	26	< 12	< 12	< 12	< 12	< 12	< 12	< 12
M	*LE*	< 40	< 40	64	< 40	< 40	< 40	< 40	< 40	< 40	< 40

Dry Cleaner Cooker Solids Wastes

Physical Properties and TCLP Metals Analysis, ppm

	Parameter	pH	SG	FP	As	Ba	Cd	Cr	Pb	Hg	Se	Ag
	Reg. Limit	<2 or >10	na	< 100	5	100	1	5	5	0.2	1	5
LAB	*SITE*											
W	*HE*	6	na	130	< 0.05	0.3	0.5	0.12	1	< 0.01	< 0.05	< 0.05
M	*LE*	10	na	> 160	< 0.5	0.47	0.34	0.25	0.74	< 0.001	< 0.2	< 0.01

TCLP Semi Volatiles Analysis, ppm

	Parameter	cresol	2.4-DNT	Cl6-benz	Cl6-13-but	Cl6-eth	nitrobenz	Cl5-phenol	pyridine	2.4.5-TCP	2.4.6-TCP
	Reg. Limit	200	0.13	0.13	0.5	3	2	100	5	400	2
LAB	*SITE*										
W	*HE*	0.27	< 0.067	< 0.067	< 0.067	< 0.067	< 0.067	< 0.34	< 0.34	< 0.067	< 0.067
M	*LE*	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.17	< 0.17	< 0.033	< 0.033

TCLP Volatiles Analysis, ppm

	Parameter	benzene	CCl4	Clbenz	ClHCl3	1.4-DClB	1.2-DCA	1.1-DCE	MEK	PCE	TCE	VChloride
	Reg. Limit	0.5	0.5	100	6	7.5	0.5	0.7	200	0.7	0.5	0.2
LAB	*SITE*											
W	*HE*	< 0.10	< 0.10	< 0.10	0.4	< 0.10	< 0.10	< 0.10	< 2.0	3.8	0.12	< 0.20
M	*LE*	< 0.10	< 0.10	< 0.10	< 0.10	< 0.20	< 0.10	< 0.10	< 2.0	1.7	< 0.10	< 0.20

Dry Cleaner Solvent Wastes

Volatile Organics (EPA 8240) Analysis, ppm

Parameter		CH3Cl	CH3Br	C2H3Cl	C2H5Cl	CH2Cl2	acetone	CS2	1.1-DCE	1.1-DCA	1.2-DCE	CHCl3
LAB	SITE											
W	DE	< 10	< 10	< 10	< 10	< 5.0	200	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
W	HE	< 7700	< 7700	< 7700	< 7700	< 3900	< 77000	< 3900	< 3900	< 3900	< 3900	< 3900
M	LE	< 300	< 300	< 300	< 300	< 150	< 3000	< 150	< 150	< 150	< 150	< 150

Parameter		1,2-DCA	MEK	1.1.1-TCA	CCl4	v-acetate	ClHBrCl2	1.2-DCPA	1.3-DCPE	TCE	CHBr2Cl	1.1.2-TCA
LAB	SITE											
W	DE	< 5.0	< 100	18	< 5.0	< 50	< 5.0	< 5.0	< 5.0	6.4	< 5.0	< 5.0
W	HE	< 3900	< 3900	< 3900	< 3900	< 39000	< 3900	< 3900	< 3900	< 3900	< 3900	< 3900
M	LE	< 150	< 3000	< 150	< 150	< 1500	< 150	< 150	< 150	< 150	< 150	< 150

Parameter		benzene	2-CVE	1.3-DCPE	CHBr3	Me-2-pen	2-hex'one	PCE	1.1.2.2PCA	toluene	Cl-benz	eth-benz
LAB	SITE											
W	DE	< 5.0	< 10	< 5.0	< 5.0	< 50	< 50	25000	< 5.0	32	< 5.0	< 5.0
W	HE	< 3900	< 7700	< 3900	< 3900	< 39000	< 39000	510000	< 3900	4800	< 3900	< 3900
M	LE	< 150	< 300	< 150	< 150	< 1500	< 1500	72000	< 150	< 150	< 150	< 150

Parameter		styrene	xylenes	1.2-DCIB	1.3-DCIB	1.4-DCIB
LAB	SITE					
W	DE	< 5.0	62	130	36	76
W	HE	< 3900	14000	< 3900	< 3900	< 3900
M	LE	< 150	< 150	< 150	< 150	< 150

Dry Cleaner Solvent Wastes

Semivolatile Organics (EPA 8270) Analysis, ppm

Parameter		phenol	b-2Cl-ethr	2Cl-phenol	1.3-DClB	1.4-DClB	benzyl 'ol	1.2-DClB	2Me-pheno	b-2Cl-IPE	4Me-pheno	N-nitroso
LAB	SITE											
W	DE	< 3.0	< 3.0	< 3.0	3.8	3.8	< 3.0	< 3.0	13	< 3.0	15	< 3.0
W	HE	< 770	< 770	< 770	< 770	< 770	< 1500	< 770	< 770	< 770	< 770	< 770
M	LE	74	< 42	< 42	< 42	< 42	< 84	< 42	< 42	< 42	< 42	< 42

Parameter		C2Cl6	nitrobenz	Isophorone	2ntroph'ol	2,4Meph'ol	benz acid	b-2Clethox	2,4-dClph	1.2.4-TClB	Naph'ene	4-Claniline
LAB	SITE											
W	DE	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 15	< 3.0	< 3.0	< 3.0	27	< 3.0
W	HE	< 770	< 770	< 770	< 770	< 770	< 3900	< 770	< 770	< 770	< 770	< 1500
M	LE	< 42	< 42	< 42	< 42	< 42	< 200	< 42	< 42	< 42	< 42	< 84

Parameter		Cl6butadien	4Cl3Mephnl	2-Menaph	Cl6cycpent	2,4,6tClph	2,4,5tClph	2-Clnaph	2-ntroanil	Me2phthal	acenaphthy	2,6-DNT
LAB	SITE											
W	DE	< 3.0	< 3.0	3.9	< 3.0	< 3.0	< 15	< 3.0	< 15	< 3.0	< 3.0	< 3.0
W	HE	< 770	< 1500	< 770	< 770	< 770	< 770	< 770	< 3900	< 770	< 770	< 770
M	LE	< 42	< 84	< 42	< 42	< 42	< 42	< 42	< 200	< 42	< 42	< 42

Parameter		3-ntroanil	acenaphthe	2,4dntrophe	4ntrophenol	dibenfuran	2,4-DNT	dethphthal	4Clphenphe	fluorene	4-ntroanil	4,6dn2Mep
LAB	SITE											
W	DE	< 15	< 3.0	< 15	< 15	< 3.0	< 3.0	9	< 3.0	< 3.0	< 15	< 15
W	HE	< 3900	< 770	< 3900	< 3900	< 770	< 770	< 770	< 770	< 770	< 3900	< 3900
M	LE	< 200	< 42	< 200	< 200	< 42	< 42	< 42	< 42	< 42	< 200	< 200

Dry Cleaner Solvent Wastes

Semivolatile Organics (EPA 8270) Analysis, ppm

Parameter		N-nitroso	4Brphenph	Cl6benzene	Cl5phenol	phenanthre	anthracene	d-n-butpht	fluoranthen	pyrene	butbenphth	3.3'Cl2benz
LAB	SITE											
W	DE	< 3.0	< 3.0	< 3.0	< 15	< 3.0	< 3.0	28	< 3.0	< 3.0	180	< 6.0
W	HE	< 770	< 770	< 770	< 3900	< 770	< 770	< 770	< 770	< 770	< 770	< 1500
M	LE	< 42	< 42	< 42	< 200	< 42	< 42	< 42	< 42	< 42	110	< 84

Parameter		ben[a]anthr	chrysene	b2ethhexph	d-n-octpht	ben[b]fluor	ben[k]fluor	ben[a]pyren	Ind[123-cd]	dben[a,h]an	ben[ghi]per
LAB	SITE										
W	DE	< 3.0	< 3.0	320	34	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
W	HE	< 770	< 770	< 770	< 770	< 770	< 770	< 770	< 770	< 770	< 770
M	LE	< 42	< 42	64	< 42	< 42	< 42	< 42	< 42	< 42	< 42

Dry Cleaner Solvent Wastes

Physical Properties and TCLP Metals Analysis, ppm

	Parameter	pH	SG	FP	As	Ba	Cd	Cr	Pb	Hg	Se	Ag
	Reg. Limit	<2 or >10	na	< 100	5	100	1	5	5	0.2	1	5
LAB	*SITE*											
W	*DE*	7	1.03	80	< 0.05	0.8	0.24	0.15	1.7	< 0.01	< 0.05	< 0.05
W	*HE*	6	1.25	85	< 0.05	0.4	0.05	0.13	0.2	< 0.01	< 0.05	< 0.05
M	*LE*	8	matrix	105	< 0.5	0.37	0.45	0.26	1.1	< 0.001	< 0.2	< 0.01

TCLP Semi Volatiles Analysis, ppm

	Parameter	cresol	2.4-DNT	Cl6-benz	Cl6-13-but	Cl6-eth	nitrobenz	Cl5-phenol	pyridine	2.4.5-TCP	2.4.6-TCP
	Reg. Limit	200	0.13	0.13	0.5	3	2	100	5	400	2
LAB	*SITE*										
W	*DE*	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 1.7	< 1.7	< 0.33	< 0.33
W	*HE*	< 0.060	< 0.060	< 0.060	< 0.060	< 0.060	< 0.060	< 0.30	< 0.30	< 0.060	< 0.060
M	*LE*	0.059	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.17	< 0.17	< 0.033	< 0.033

TCLP Volatiles Analysis, ppm

	Parameter	benzene	CCl4	Clbenz	CHCl3	1.4-DClB	1.2-DCA	1.1-DCE	MEK	PCE	TCE	VChloride
	Reg. Limit	0.5	0.5	100	6	7.5	0.5	0.7	200	0.7	0.5	0.2
LAB	*SITE*											
W	*DE*	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 2.0	> 4.4	< 0.10	< 0.20
W	*HE*	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.14	< 2.0	> 4.4	0.17	< 0.20
M	*LE*	< 0.10	< 0.10	< 0.10	< 0.10	< 0.20	< 0.10	< 0.10	< 2.0	> 4.4	< 0.10	< 0.20

Dikewater Wastes

Volatile Organics (EPA 8240) Analysis, ppm

Parameter		CH3Cl	CH3Br	C2H3Cl	C2H5Cl	CH2Cl2	acetone	CS2	1.1-DCE	1.1-DCA	1.2-DCE	CHCl3
LAB	SITE											
M	CH	< 0.20	< 0.20	< 0.20	< 0.20	34	4.7	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
M	CL	< 0.010	< 0.010	< 0.010	< 0.010	0.012	< 0.10	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
W	CV	< 0.20	< 0.20	< 0.20	< 0.20	< 0.10	< 2.0	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
W	DE	< 0.20	< 0.20	< 0.20	< 0.20	< 0.10	< 2.0	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
W	DO	< 0.050	< 0.050	< 0.050	< 0.050	< 0.025	< 0.50	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025
W	HE	< 0.20	< 0.20	< 0.20	< 0.20	7	< 2.0	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
M	LE	< 0.010	< 0.010	< 0.010	< 0.010	< 0.005	< 0.10	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
M	LI	< 0.010	< 0.010	< 0.010	< 0.010	1	2.3	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
M	MA	< 0.20	< 0.20	< 0.20	< 0.20	20	14	< 0.10	< 0.10	< 0.10	< 0.10	0.14
M	MA	< 0.010	< 0.010	< 0.010	< 0.010	0.15	0.6	18	< 0.005	< 0.005	< 0.005	< 0.005
M	PE	< 0.010	< 0.010	< 0.010	< 0.010	< 0.005	0.011	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005

Parameter		1,2-DCA	MEK	1.1.1-TCA	CCl4	v-acetate	ClBrCl2	1.2-DCPA	1.3-DCPE	TCE	CHBr2Cl	1.1.2-TCA
LAB	SITE											
M	CH	< 0.10	2.3	1.1	< 0.10	< 1.0	< 0.10	< 0.10	< 0.10	0.15	< 0.10	< 0.10
M	CL	< 0.005	< 0.10	< 0.005	< 0.005	< 0.050	< 0.050	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
W	CV	< 0.10	< 2.0	< 0.10	< 0.10	< 1.0	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
W	DE	< 0.10	< 2.0	< 0.10	< 0.10	< 1.0	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
W	DO	< 0.025	< 0.50	0.22	< 0.025	< 0.25	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025
W	HE	< 0.10	< 2.0	< 0.10	< 0.10	< 1.0	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
M	LE	< 0.005	< 0.10	< 0.005	< 0.005	< 0.050	< 0.050	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
M	LI	< 0.005	0.26	< 0.005	< 0.005	< 0.050	< 0.050	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
M	MA	< 0.10	< 2.0	0.34	< 0.10	< 1.0	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
M	MA	< 0.005	< 0.10	< 0.005	< 0.005	< 0.050	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
M	PE	< 0.005	< 0.10	< 0.005	< 0.005	< 0.050	< 0.050	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005

Note: Dikewater 8240 analyses are from the same analytical runs as the TCLP results

Dikewater Wastes

Volatile Organics (EPA 8240) Analysis, ppm

Parameter		benzene	2-CVE	1.3-DCPE	CHBr3	Me-2-pen	2-hex'one	PCE	1.1.2.2PCA	toluene	Cl-benz	eth-benz
LAB	SITE											
M	CH	< 0.10	< 0.20	< 0.10	< 0.10	< 1.0	< 1.0	< 0.10	< 0.10	25	< 0.10	< 0.10
M	CL	< 0.005	< 0.010	< 0.005	< 0.005	< 0.050	< 0.050	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
W	CV	< 0.10	< 2.0	< 0.10	< 0.10	< 1.0	< 1.0	1.3	< 0.10	< 0.10	< 0.10	< 0.10
W	DE	< 0.10	< 0.20	< 0.10	< 0.10	< 1.0	< 1.0	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
W	DO	< 0.025	< 0.050	< 0.025	< 0.025	< 0.25	< 0.25	2	< 0.025	< 0.025	< 0.025	< 0.025
W	HE	< 0.10	< 0.20	< 0.10	< 0.10	< 1.0	< 1.0	2.7	< 0.10	0.13	< 0.10	< 0.10
M	LE	< 0.005	< 0.010	< 0.005	< 0.005	< 0.050	< 0.050	0.063	< 0.005	< 0.005	< 0.005	< 0.005
M	LI	< 0.005	< 0.010	< 0.005	< 0.005	0.26	< 0.050	< 0.050	< 0.005	0.009	< 0.005	< 0.005
M	MA	< 0.10	< 0.20	< 0.10	< 0.10	1.2	< 1.0	< 0.10	< 0.10	0.85	< 0.10	2.1
M	MA	< 0.005	< 0.010	< 0.005	< 0.005	0.02	< 0.050	< 0.005	< 0.005	0.007	< 0.005	0.021
M	PE	< 0.005	< 0.010	< 0.005	< 0.005	< 0.050	< 0.050	< 0.005	< 0.005	0.007	< 0.005	< 0.005

Parameter		styrene	xylenes	1.2-DCIB	1.3-DCIB	1.4-DCIB
LAB	SITE					
M	CH	< 0.10	< 0.10	40	< 0.10	0.76
M	CL	< 0.005	< 0.005	< 0.010	< 0.010	< 0.010
W	CV	< 0.10	0.31	< 0.10	< 0.10	< 0.10
W	DE	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
W	DO	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025
W	HE	< 0.10	0.61	0.16	< 0.10	< 0.10
M	LE	< 0.005	< 0.005	< 0.010	< 0.010	< 0.010
M	LI	< 0.005	< 0.005	0.035	< 0.010	< 0.010
M	MA	< 0.10	12	< 0.20	< 0.20	< 0.20
M	MA	< 0.005	0.14	< 0.010	< 0.010	< 0.010
M	PE	< 0.005	0.012	< 0.010	< 0.010	< 0.010

Note: Dikewater 8240 analyses are from the same analytical runs as the TCLP results

Dikewater Wastes

Semivolatile Organics (EPA 8270) Analysis, ppm

Parameter		phenol	b-2Cl-ethr	2Cl-phenol	1.3-DCIB	1.4-DCIB	benzyl 'ol	1.2-DCIB	2Me-pheno	b-2Cl-IPE	4Me-pheno	N-nitroso
LAB	SITE											
M	CH	< 130	< 130	< 130	< 130	< 130	< 270	< 130	< 130	< 130	< 130	< 130
M	CL	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.067	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033
W	CV	< 0.027	< 0.027	< 0.027	< 0.027	< 0.027	< 0.054	0.074	< 0.027	< 0.027	< 0.027	< 0.027
W	DE	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
W	DO	< 0.022	< 0.022	< 0.022	< 0.022	< 0.022	< 0.044	< 0.022	< 0.022	< 0.022	< 0.022	< 0.022
W	HE	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.26	0.18	0.26	< 0.13	< 0.13	< 0.13
M	LE	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.067	0.051	< 0.033	< 0.033	< 0.033	< 0.033
M	LI	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	0.12	0.18	< 0.033	< 0.033	< 0.033	< 0.033
M	MA	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.067	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033
M	MA	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.067	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033
M	PE	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.67	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33

Parameter		C2Cl6	nitrobenz	isophorone	2ntroph'ol	2.4Meph'ol	benz acid	b-2Clethox	2.4-dClph	1.2.4-TCIB	Naph'ene	4-Clanilline
LAB	SITE											
M	CH	< 130	< 130	< 130	< 130	< 130	< 660	< 130	< 130	< 130	< 130	< 270
M	CL	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.17	< 0.033	< 0.033	< 0.033	< 0.033	< 0.067
W	CV	< 0.027	< 0.027	< 0.027	< 0.027	< 0.027	< 0.14	< 0.027	< 0.027	< 0.027	0.31	< 0.054
W	DE	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.050	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
W	DO	< 0.022	< 0.022	< 0.022	< 0.022	< 0.022	< 0.022	< 0.11	< 0.022	< 0.022	< 0.022	< 0.044
W	HE	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.65	< 0.13	< 0.13	< 0.13	770	< 0.26
M	LE	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.17	< 0.033	< 0.033	< 0.033	< 0.033	< 0.067
M	LI	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.17	< 0.033	0.047	< 0.033	< 0.033	< 0.067
M	MA	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.17	< 0.033	< 0.033	< 0.033	< 0.033	< 0.067
M	MA	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.17	< 0.033	< 0.033	< 0.033	< 0.033	< 0.067
M	PE	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 1.7	< 0.33	< 0.33	< 0.33	< 0.33	< 0.67

Note: Dikewater 8270 analyses are from the same analytical runs as the TCLP results

Dikewater Wastes

Semivolatile Organics (EPA 8270) Analysis, ppm

Parameter		Cl6butadien	4Cl3Mephnl	2-Menaph	Cl6cycpent	2.4.6tClph	2.4.5tClph	2-Clnaph	2-ntroanil	Me2phthal	acenaphthy	2.6-DNT
LAB	SITE											
M	CH	< 130	< 270	< 130	< 130	< 130	< 130	< 130	< 660	< 130	< 130	< 130
M	CL	< 0.033	< 0.067	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.17	< 0.033	< 0.033	< 0.033
W	CV	< 0.027	< 0.054	0.062	< 0.027	< 0.027	< 0.027	< 0.027	< 0.14	< 0.027	< 0.027	< 0.027
W	DE	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.050	< 0.010	< 0.050	< 0.010	< 0.010	< 0.010
W	DO	< 0.022	< 0.044	< 0.022	< 0.022	< 0.022	< 0.022	< 0.022	< 0.11	< 0.022	< 0.022	< 0.022
W	HE	< 0.13	< 0.26	0.23	< 0.13	< 0.13	< 0.13	< 0.13	< 0.65	< 0.13	< 0.13	< 0.13
M	LE	< 0.033	< 0.067	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.17	< 0.033	< 0.033	< 0.033
M	LI	< 0.033	< 0.067	< 0.033	< 0.033	< 0.033	0.045	< 0.033	< 0.17	< 0.033	< 0.033	< 0.033
M	MA	< 0.033	< 0.067	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.17	< 0.033	< 0.033	< 0.033
M	MA	< 0.033	< 0.067	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.17	< 0.033	< 0.033	< 0.033
M	PE	< 0.33	< 0.67	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 1.7	< 0.33	< 0.33	< 0.33

Parameter		3-ntroanil	acenaphthe	2.4dntrophe	4ntrophenol	dibenfuran	2.4-DNT	dethphthal	4Clphenphe	fluorene	4-ntroanil	4.6dn2Mep
LAB	SITE											
M	CH	< 660	< 130	< 660	< 660	< 130	< 130	< 130	< 130	< 130	< 660	< 660
M	CL	< 0.17	< 0.033	< 0.17	< 0.17	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.17	< 0.17
W	CV	< 0.14	< 0.027	< 0.14	< 0.14	< 0.027	< 0.027	< 0.027	< 0.027	< 0.027	< 0.14	< 0.027
W	DE	< 0.050	< 0.010	< 0.050	< 0.050	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.050	< 0.050
W	DO	< 0.11	< 0.022	< 0.11	< 0.11	< 0.022	< 0.022	< 0.022	< 0.022	< 0.022	< 0.11	< 0.11
W	HE	< 0.65	< 0.13	< 0.65	< 0.65	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.65	< 0.65
M	LE	< 0.17	< 0.033	< 0.17	< 0.17	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.17	< 0.17
M	LI	< 0.17	< 0.033	< 0.17	< 0.17	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.17	< 0.17
M	MA	< 0.17	< 0.033	< 0.17	< 0.17	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.17	< 0.17
M	MA	< 0.17	< 0.033	< 0.17	< 0.17	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.17	< 0.17
M	PE	< 1.7	< 0.33	< 1.7	< 1.7	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 1.7	< 1.7

Dikewater Wastes

Semivolatile Organics (EPA 8270) Analysis, ppm

Parameter		N-nitroso	4Brphenph	Cl6benzene	Cl5phenol	phenanthre	anthracene	d-n-bulpht	fluoranthen	pyrene	butbenphth	3.3'Cl2benz
LAB	SITE											
M	CH	< 130	< 130	< 130	< 660	< 130	< 130	< 130	< 130	< 130	< 130	< 270
M	CL	< 0.033	< 0.033	< 0.033	< 0.17	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.067
W	CV	< 0.14	< 0.027	< 0.027	< 0.14	< 0.027	< 0.027	< 0.027	< 0.027	< 0.027	< 0.027	< 0.054
W	DE	< 0.010	< 0.010	< 0.010	< 0.050	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.020
W	DO	< 0.022	< 0.022	< 0.022	< 0.11	< 0.022	< 0.022	< 0.022	< 0.022	< 0.022	< 0.022	< 0.044
W	HE	< 0.13	< 0.13	< 0.13	< 0.65	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.26
M	LE	< 0.033	< 0.033	< 0.033	< 0.17	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.067
M	LI	< 0.033	< 0.033	< 0.033	< 0.17	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.067
M	MA	< 0.033	< 0.033	< 0.033	< 0.17	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.067
M	MA	< 0.033	< 0.033	< 0.033	< 0.17	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.067
M	PE	< 0.33	< 0.33	< 0.33	< 1.7	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.67

Parameter		ben[a]anthr	chrysene	b2ethhexph	d-n-octpht	ben[b]fluor	ben[k]fluor	ben[a]pyren	ind[123-cd]	dben[a.h]an	ben[ghi]per
LAB	SITE										
M	CH	< 130	< 130	< 130	< 130	< 130	< 130	< 130	< 130	< 130	< 130
M	CL	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033
W	CV	< 0.027	< 0.027	< 0.027	< 0.027	< 0.027	< 0.027	< 0.027	< 0.027	< 0.027	< 0.027
W	DE	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
W	DO	< 0.022	< 0.022	< 0.022	< 0.022	< 0.022	< 0.022	< 0.022	< 0.022	< 0.022	< 0.022
W	HE	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13
M	LE	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033
M	LI	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033
M	MA	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033
M	MA	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033
M	PE	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33

Note: Dikewater 8270 analyses are from the same analytical runs as the TCLP results

Dikewater Wastes

Physical Properties and TCLP Metals Analysis, ppm

	Parameter	pH	SG	FP	As	Ba	Cd	Cr	Pb	Hg	Se	Ag
	Reg. Limit	<2 or >10	na	< 100	5	100	1	5	5	0.2	1	5
LAB	*SITE*											
M	*CH*	7	na	na	< 0.5	< 0.2	< 0.01	0.024	< 0.1	< 0.001	< 0.2	< 0.01
M	*CL*	5	na	na	< 0.5	< 0.2	< 0.01	< 0.01	< 0.1	< 0.001	< 0.2	< 0.01
W	*CV*	7.5	na	na	< 0.05	0.7	< 0.05	< 0.05	0.1	< 0.01	< 0.05	< 0.05
W	*DE*	6.5	na	na	< 0.05	0.4	< 0.05	< 0.05	0.1	< 0.01	< 0.05	< 0.05
W	*DO*	7	na	na	< 0.05	0.8	< 0.05	< 0.05	< 0.1	< 0.01	< 0.05	< 0.05
W	*HE*	7	na	na	< 0.05	0.4	< 0.05	< 0.05	< 0.1	< 0.01	< 0.05	< 0.05
M	*LE*	6	na	na	< 0.5	< 0.2	< 0.01	0.012	< 0.1	< 0.001	< 0.2	< 0.02
M	*LI*	7	na	na	< 0.5	< 0.2	< 0.01	< 0.01	< 0.1	< 0.001	< 0.2	< 0.01
M	*MA*	9	na	na	< 0.5	< 1.0	< 0.01	0.012	< 0.1	0.0013	< 0.2	< 0.01
M	*MA*	8	na	na	< 0.5	< 1.0	< 0.01	< 0.01	< 0.1	0.0011	< 0.2	< 0.01
M	*PE*	6	na	na	< 0.5	< 0.2	< 0.01	0.011	0.32	< 0.001	< 0.2	< 0.01

TCLP Semi Volatiles Analysis, ppm

	Parameter	cresol	2.4-DNT	Cl6-benz	Cl6-13-but	Cl6-eth	nitrobenz	Cl5-phenol	pyridine	2.4.5-TCP	2.4.6-TCP
	Reg. Limit	200	0.13	0.13	0.5	3	2	100	5	400	2
LAB	*SITE*										
M	*CH*	< 130	< 130	< 130	< 130	< 130	< 130	< 660	< 660	< 130	< 130
M	*CL*	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.17	< 0.17	< 0.033	< 0.033
W	*CV*	< 0.027	< 0.027	< 0.027	< 0.027	< 0.027	< 0.027	< 0.14	< 0.14	< 0.027	< 0.027
W	*DE*	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.17	< 0.17	< 0.033	< 0.033
W	*DO*	< 0.022	< 0.022	< 0.022	< 0.022	< 0.022	< 0.022	< 0.11	< 0.11	< 0.022	< 0.022
W	*HE*	0.26	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.65	< 0.65	< 0.13	< 0.13
M	*LE*	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.17	< 0.17	< 0.033	< 0.033
M	*LI*	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.17	< 0.17	0.045	< 0.033
M	*MA*	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.17	< 0.17	< 0.033	< 0.033
M	*MA*	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.17	< 0.17	< 0.033	< 0.033
M	*PE*	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 1.7	< 1.7	< 0.33	< 0.33

Dikewater Wastes

TCLP Volatiles Analysis, ppm

	Parameter	benzene	CCl4	Clbenz	CHCl3	1.4-DClB	1.2-DCA	1.1-DCE	MEK	PCE	TCE	VChloride
	Reg. Limit	0.5	0.5	100	6	7.5	0.5	0.7	200	0.7	0.5	0.2
LAB	*SITE*											
M	*CH*	< 0.10	< 0.10	< 0.10	< 0.10	0.76	< 0.10	< 0.10	2.3	< 0.10	0.15	< 0.20
M	*CL*	< 0.005	< 0.005	< 0.005	< 0.005	< 0.010	< 0.005	< 0.005	< 0.10	0.06	< 0.005	< 0.010
W	*CV*	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 2.0	1.3	< 0.10	< 0.20
W	*DE*	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 2.0	< 0.10	< 0.10	< 0.20
W	*DO*	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.5	2	< 0.025	< 0.050
W	*HE*	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 2.0	2.7	< 0.10	< 0.20
M	*LE*	< 0.005	< 0.005	< 0.005	< 0.005	< 0.010	< 0.005	< 0.005	< 0.10	0.041	< 0.005	< 0.010
M	*LI*	< 0.005	< 0.005	< 0.005	< 0.005	< 0.010	< 0.005	< 0.005	0.26	< 0.005	< 0.005	< 0.010
M	*MA*	< 0.10	< 0.10	< 0.10	0.14	< 0.20	< 0.10	< 0.10	< 2.0	< 0.10	< 0.10	< 0.20
M	*MA*	< 0.005	< 0.005	< 0.005	< 0.005	< 0.010	< 0.005	< 0.005	< 0.10	< 0.005	< 0.005	< 0.010
M	*PE*	< 0.10	< 0.10	< 0.10	< 0.10	< 0.20	< 0.10	< 0.10	< 2.0	< 0.10	< 0.10	< 0.20

Dumpster Mud Wastes

Volatile Organics (EPA 8240) Analysis, ppm

Parameter		CH3Cl	CH3Br	C2H3Cl	C2H5Cl	CH2Cl2	acetone	CS2	1.1-DCE	1.1-DCA	1.2-DCE	CHCl3
LAB	SITE											
M	CL	< 100	< 100	< 100	< 100	< 50	< 1000	< 50	< 50	< 50	< 50	29
W	DE	< 10	< 10	< 10	< 10	< 5.0	< 100	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
W	EL	< 110	< 110	< 110	< 110	< 55	< 1100	< 55	< 55	< 55	< 55	< 55
M	LE	< 330	< 330	< 330	< 330	610	< 3300	< 170	< 170	< 170	< 170	< 170
C	RE	< 1000	< 1000	< 1000	< 1000	< 500	< 10000	< 500	< 500	< 500	< 500	< 500

Parameter		1,2-DCA	MEK	1.1.1-TCA	CCl4	v-acetate	CHBrCl2	1.2-DCPA	1.3-DCPE	TCE	CHBr2Cl	1.1.2-TCA
LAB	SITE											
M	CL	< 50	< 1000	48	< 50	< 500	< 50	< 50	< 50	< 50	< 50	< 50
W	DE	< 5.0	< 100	11	< 5.0	< 50	< 5.0	< 5.0	< 5.0	6.4	< 5.0	< 5.0
W	EL	< 55	< 1100	750	< 55	< 550	< 55	< 55	< 55	< 55	< 55	< 55
M	LE	< 170	< 3300	1500	< 170	< 1700	< 170	< 170	< 170	< 170	< 170	< 170
C	RE	< 500	< 10000	2300	< 500	< 2500	< 500	< 500	< 500	< 500	< 500	< 500

Parameter		benzene	2-CVE	1.3-DCPE	CHBr3	Me-2-pen	2-hex'one	PCE	1.1.2.2PCA	toluene	Cl-benz	eth-benz
LAB	SITE											
M	CL	< 50	< 100	< 50	< 50	< 500	< 500	230	< 50	440	< 50	150
W	DE	52	< 10	< 5.0	< 5.0	< 50	< 50	84	< 5.0	550	< 5.0	270
W	EL	< 55	< 110	< 55	< 55	< 550	< 550	740	< 55	500	430	1700
M	LE	< 170	< 330	< 170	< 170	< 1700	< 1700	260	< 170	530	< 170	200
C	RE	< 500	< 1000	< 500	< 500	< 5000	< 5000	1000	< 500	4600	< 500	1800

Parameter		styrene	xylenes	1.2-DClB	1.3-DClB	1.4-DClB
LAB	SITE					
M	CL	< 50	1200	< 100	< 100	< 100
W	DE	< 5.0	13000	< 5.0	47	< 5.0
W	EL	< 55	1200	250	< 55	100
M	LE	< 170	1400	<170	<170	<170
C	RE	< 500	8700	< 500	< 500	< 500

Dumpster Mud Wastes

Volatile Organics (EPA 8240) Analysis, ppm

Parameter		CH3Cl	CH3Br	C2H3Cl	C2H5Cl	CH2Cl2	acetone	CS2	1.1-DCE	1.1-DCA	1.2-DCE	CHCl3
LAB	SITE											
M	CL	< 100	< 100	< 100	< 100	< 50	< 1000	< 50	< 50	< 50	< 50	29
W	DE	< 10	< 10	< 10	< 10	< 5.0	< 100	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
W	EL	< 110	< 110	< 110	< 110	< 55	< 1100	< 55	< 55	< 55	< 55	< 55
M	LE	< 330	< 330	< 330	< 330	610	< 3300	< 170	< 170	< 170	< 170	< 170
C	RE	< 1000	< 1000	< 1000	< 1000	< 500	< 10000	< 500	< 500	< 500	< 500	< 500

Parameter		1,2-DCA	MEK	1.1.1-TCA	CCl4	v-acetate	CHBrCl2	1.2-DCPA	1.3-DCPE	TCE	CHBr2Cl	1.1.2-TCA
LAB	SITE											
M	CL	< 50	< 1000	48	< 50	< 500	< 50	< 50	< 50	< 50	< 50	< 50
W	DE	< 5.0	< 100	11	< 5.0	< 50	< 5.0	< 5.0	< 5.0	6.4	< 5.0	< 5.0
W	EL	< 55	< 1100	750	< 55	< 550	< 55	< 55	< 55	< 55	< 55	< 55
M	LE	< 170	< 3300	1500	< 170	< 1700	< 170	< 170	< 170	< 170	< 170	< 170
C	RE	< 500	< 10000	2300	< 500	< 2500	< 500	< 500	< 500	< 500	< 500	< 500

Parameter		benzene	2-CVE	1.3-DCPE	CHBr3	Me-2-pen	2-hex'one	PCE	1.1.2.2PCA	toluene	Cl-benz	eth-benz
LAB	SITE											
M	CL	< 50	< 100	< 50	< 50	< 500	< 500	230	< 50	440	< 50	150
W	DE	52	< 10	< 5.0	< 5.0	< 50	< 50	84	< 5.0	550	< 5.0	270
W	EL	< 55	< 110	< 55	< 55	< 550	< 550	740	< 55	500	430	1700
M	LE	< 170	< 330	< 170	< 170	< 1700	< 1700	260	< 170	530	< 170	200
C	RE	< 500	< 1000	< 500	< 500	< 5000	< 5000	1000	< 500	4600	< 500	1800

Parameter		styrene	xylenes	1.2-DCIB	1.3-DCIB	1.4-DCIB
LAB	SITE					
M	CL	< 50	1200	< 100	< 100	< 100
W	DE	< 5.0	13000	< 5.0	47	< 5.0
W	EL	< 55	1200	250	< 55	100
M	LE	< 170	1400	<170	<170	<170
C	RE	< 500	8700	< 500	< 500	< 500

Dumpster Mud Wastes

Semivolatile Organics (EPA 8270) Analysis, ppm

Parameter		phenol	b-2Cl-ethr	2Cl-phenol	1.3-DClB	1.4-DClB	benzyl 'ol	1.2-DClB	2Me-pheno	b-2Cl-IPE	4Me-pheno	N-nitroso
LAB	SITE											
M	CL	< 2200	< 2200	< 2200	< 2200	< 2200	< 4400	< 2200	< 2200	< 2200	< 2200	< 2200
W	DE	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	25	< 3.0	< 3.0	< 3.0
W	EL	< 1100	< 1100	< 1100	< 1100	< 1100	< 2100	< 1100	< 1100	< 1100	< 1100	< 1100
M	LE	230	< 63	< 63	< 63	200	< 130	450	420	< 63	350	< 63
C	NE	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100
M	CL	< 2500	< 2500	< 2500	99000	220000	< 5100	610000	< 2500	< 2500	< 2500	< 2500

Parameter		C2Cl6	nitrobenz	Isophorone	2nitroph'ol	2.4Meph'ol	benz acid	b-2Clethox	2.4-dClph	1.2.4-TClB	Naph'ene	4-Clanilline
LAB	SITE											
M	CL	< 2200	< 2200	< 2200	< 2200	< 2200	< 11000	< 2200	< 2200	< 2200	< 2200	< 4400
W	DE	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 15	< 3.0	< 3.0	< 3.0	160	< 3.0
W	EL	< 1100	< 1100	< 1100	< 1100	< 1100	< 5300	< 1100	< 1100	< 1100	1200	< 2100
M	LE	< 63	< 63	< 63	< 63	< 63	< 310	< 63	< 63	< 63	430	< 130
C	NE	< 100	< 100	< 100	< 100	< 100	< 500	< 100	< 100	< 100	1400	< 100
M	CL	< 2500	< 2500	< 2500	< 2500	6800	< 12000	< 2500	< 2500	< 2500	< 2500	< 5100

Parameter		Cl6butadien	4Cl3Mephnl	2-Menaph	Cl6cycpent	2.4.6tClph	2.4.5tClph	2-Clnaph	2-nitroanil	Me2phthal	acenaphthy	2.6-DNT
LAB	SITE											
M	CL	< 2200	< 4400	< 2200	< 2200	< 2200	< 2200	< 2200	< 11000	< 2200	< 2200	< 2200
W	DE	< 3.0	< 3.0	120	< 3.0	< 3.0	< 15	< 3.0	< 15	< 3.0	< 3.0	< 3.0
W	EL	< 1100	< 2100	< 1100	< 1100	< 1100	< 1100	< 1100	< 5300	< 1100	< 1100	< 1100
M	LE	< 63	< 130	140	< 63	< 63	< 63	< 63	< 310	< 63	< 63	< 63
C	NE	< 100	< 100	1900	< 100	< 100	< 500	< 100	< 500	< 100	< 100	< 100
M	CL	< 2500	< 5100	< 2500	< 2500	< 2500	< 2500	< 2500	< 12000	< 2500	< 2500	< 2500

Dumpster Mud Wastes

Semivolatile Organics (EPA 8270) Analysis, ppm

Parameter		3-nitroanil	acenaphthe	2,4dnitrophe	4nitrophenol	dibenfuran	2,4-DNT	'delhphthal	4Clphenphe	fluorene	4-nitroanil	4,6dn2Mep
LAB	SITE											
M	CL	< 11000	< 2200	< 11000	< 11000	< 2200	< 2200	< 2200	< 2200	< 2200	< 11000	< 11000
W	DE	< 15	< 3.0	< 15	< 15	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 15	< 15
W	EL	< 5300	< 1100	< 5300	< 5300	< 1100	< 1100	< 1100	< 1100	< 1100	< 5300	< 5300
M	LE	< 310	< 63	< 310	< 310	< 63	< 63	< 63	< 63	< 63	< 310	< 310
C	RE	< 500	< 100	< 500	< 500	< 100	< 100	< 100	< 100	< 100	< 500	< 500
M	CL	< 12000	< 2500	< 12000	< 12000	< 2500	< 2500	< 2500	< 2500	< 2500	< 12000	< 12000

Parameter		N-nitroso	4Brphenph	Cl6benzene	Cl5phenol	phenanthre	anthracene	d-n-butpht	fluoranthen	pyrene	butbenphth	3,3'Cl2benz
LAB	SITE											
M	CL	< 2200	< 2200	< 2200	< 11000	< 2200	< 2200	< 2200	< 2200	< 2200	< 2200	< 4400
W	DE	< 3.0	< 3.0	< 3.0	< 15	5.2	< 3.0	20	< 3.0	< 3.0	< 3.0	< 6.0
W	EL	< 1100	< 1100	< 1100	< 5300	< 1100	< 1100	< 1100	< 1100	< 1100	< 1100	< 2100
M	LE	< 63	< 63	< 63	< 310	< 63	< 63	< 63	< 63	< 63	< 63	< 130
C	RE	< 100	< 100	< 100	< 500	< 100	< 100	210	< 100	< 100	920	< 200
M	CL	< 2500	< 2500	< 2500	< 12000	< 2500	< 2500	< 2500	< 2500	< 2500	< 2500	< 5100

Parameter		ben[a]anthr	chrysene	b2ethhexph	d-n-octpht	ben[b]fluor	ben[k]fluor	ben[a]pyren	Ind[123-cd]	dben[a,h]an	ben[ghi]per
LAB	SITE										
M	CL	< 2200	< 2200	< 2200	< 2200	< 2200	< 2200	< 2200	< 2200	< 2200	< 2200
W	DE	< 3.0	< 3.0	50	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
W	EL	< 1100	< 1100	< 1100	< 1100	< 1100	< 1100	< 1100	< 1100	< 1100	< 1100
M	LE	< 63	< 63	110	< 63	< 63	< 63	< 63	< 63	< 63	< 63
C	RE	< 100	< 100	1700	100	< 100	< 100	< 100	< 100	< 100	< 100
M	CL	< 2500	< 2500	< 2500	< 2500	< 2500	< 2500	< 2500	< 2500	< 2500	< 2500

Dumpster Mud Wastes

Physical Properties and TCLP Metals Analysis, ppm

	Parameter	pH	SG	FP	As	Ba	Cd	Cr	Pb	Hg	Se	Ag
	Reg. Limit	<2 or >10	na	< 100	5	100	1	5	5	0.2	1	5
LAB	*SITE*											
M	*CL*	10	na	115	< 0.5	0.85	0.8	0.06	2.2	0.002	< 0.2	< 0.01
W	*DE*	7	na	80	< 0.05	1	0.84	< 0.05	570	< 0.01	< 0.05	< 0.05
W	*EL*	8	na	115	< 0.05	0.9	1	< 0.05	1.3	< 0.01	< 0.05	< 0.05
M	*LE*	6.5	na	85	< 0.5	0.47	2	0.01	1.3	< 0.001	< 0.2	< 0.01
C	*NE*	7.9	1.2	85	< 1	0.41	2.8	0.02	4.6	< 0.002	< 1	< 0.5
M	*CL*	7.5	na	> 160	< 0.5	0.28	1.3	0.16	8.8	< 0.001	< 0.2	< 0.01

TCLP Semi Volatiles Analysis, ppm

	Parameter	cresol	2.4-DNT	Cl6-benz	Cl6-13-but	Cl6-eth	nitrobenz	Cl5-phenol	pyridine	2.4.5-TCP	2.4.6-TCP
	Reg. Limit	200	0.13	0.13	0.5	3	2	100	5	400	2
LAB	*SITE*										
M	*CL*	10	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 1.7	< 1.7	< 0.33	< 0.33
W	*DE*	5	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.17	< 0.17	< 0.033	< 0.033
W	*EL*	96	< 0.091	< 0.091	< 0.091	< 0.091	< 0.091	< 0.46	< 0.46	< 0.091	< 0.091
M	*LE*	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.17	< 0.17	< 0.033	< 0.033
C	*NE*	0.88	< 0.066	< 0.066	< 0.066	< 0.066	< 0.066	< 0.34	< 0.34	< 0.066	< 0.066
M	*CL*	22	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 3.3	< 3.3	< 0.67	< 0.67

TCLP Volatiles Analysis, ppm

	Parameter	benzene	CCl4	Clbenz	ClHCl3	1.4-DClB	1.2-DCA	1.1-DCE	MEK	PCE	TCE	VChloride
	Reg. Limit	0.5	0.5	100	6	7.5	0.5	0.7	200	0.7	0.5	0.2
LAB	*SITE*											
M	*CL*	0.11	< 0.10	< 0.10	< 0.10	< 0.20	< 0.10	< 0.10	< 2.0	0.96	< 0.10	< 0.20
W	*DE*	0.52	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 2.0	< 0.10	< 0.10	< 0.20
W	*EL*	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 2.0	0.16	< 0.10	< 0.20
M	*LE*	< 0.10	< 0.10	< 0.10	< 0.10	0.52	< 0.10	< 0.10	< 2.0	0.64	< 0.10	< 0.20
C	*NE*	0.1	< 0.05	< 0.05	< 0.05	< 0.1	< 0.05	< 0.05	15	0.17	0.14	< 0.1
M	*CL*	< 0.10	0.17	4.3	< 0.10	> 4.4	< 0.10	< 0.10	< 2.0	3.6	0.45	< 0.20

Filter Bag Wastes

Physical Properties and TCLP Metals Analysis, ppm

	Parameter	pH	SG	FP	As	Ba	Cd	Cr	Pb	Hg	Se	Ag
	Reg. Limit	<2 or >10	na	< 100	5	100	1	5	5	0.2	1	5
LAB	*SITE*											
M	*CL*	6	na	105	< 0.5	0.96	2.1	0.042	1.1	0.002	< 0.2	< 0.01
W	*DE*	7	na	105	< 0.05	0.7	2.1	< 0.05	6.7	< 0.01	< 0.05	< 0.05
W	*HE*	6	na	105	< 0.05	0.6	0.65	< 0.05	1.5	< 0.01	< 0.05	< 0.05
M	*LE*	6.5	na	105	< 0.5	1.3	1.5	0.042	1.9	< 0.001	< 0.2	< 0.01
C	*RE*	7.3	na	100	< 1	1.4	1.1	0.1	0.8	< 0.002	< 1	< 0.5

TCLP Semi Volatiles Analysis, ppm

	Parameter	cresol	2.4-DNT	Cl6-benz	Cl6-13-but	Cl6-eth	nitrobenz	Cl5-phenol	pyridine	2.4.5-TCP	2.4.6-TCP
	Reg. Limit	200	0.13	0.13	0.5	3	2	100	5	400	2
LAB	*SITE*										
M	*CL*	84	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3	< 17	< 17	< 3.3	< 3.3
W	*DE*	3	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.17	< 0.17	< 0.033	< 0.033
W	*HE*	7.3	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.65	< 0.65	< 0.13	< 0.13
M	*LE*	37	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.17	< 0.17	< 0.033	< 0.033
C	*RE*	3.4	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.17	< 0.17	< 0.033	< 0.033

TCLP Volatiles Analysis, ppm

	Parameter	benzene	CCl4	Clbenz	CHCl3	1.4-DClB	1.2-DCA	1.1-DCE	MEK	PCE	TCE	VChloride
	Reg. Limit	0.5	0.5	100	6	7.5	0.5	0.7	200	0.7	0.5	0.2
LAB	*SITE*											
M	*CL*	< 0.005	< 0.005	< 0.005	< 0.005	0.027	< 0.005	< 0.005	< 0.10	0.058	< 0.005	< 0.010
W	*DE*	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 2.0	< 0.10	< 0.10	< 0.20
W	*HE*	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 2.0	0.32	< 0.10	< 0.20
M	*LE*	< 0.10	< 0.10	< 0.10	< 0.10	0.38	< 0.10	< 0.10	< 2.0	0.4	< 0.10	< 0.20
C	*RE*	< 0.05	< 0.05	< 0.05	< 0.05	< 0.1	< 0.05	< 0.05	< 1	0.08	< 0.05	< 0.1

Blended Fuels

Volatile Organics (EPA 8240) Analysis, ppm

Parameter		CH3Cl	CH3Br	C2H3Cl	C2H5Cl	CH2Cl2	acetone	CS2	1.1-DCE	1.1-DCA	1.2-DCE	CHCl3
LAB	SITE											
W	DO	< 11000	< 11000	< 11000	< 11000	< 5400	< 120000	< 5400	< 5400	18000	< 5400	< 5400
M	LI	< 5000	< 5000	< 5000	< 5000	5500	< 50000	< 2500	< 2500	< 2500	< 2500	< 2500
M	MA	< 5000	< 5000	< 5000	< 5000	1900	< 50000	8600	< 2500	< 2500	< 2500	< 2500
W	NC	< 10000	< 10000	< 10000	< 10000	14000	< 100000	< 5100	< 5100	< 5100	< 5100	< 5100

Parameter		1,2-DCA	MEK	1.1.1-TCA	CCl4	v-acetate	CHBrCl2	1.2-DCPA	1.3-DCPE	TCE	CHBr2Cl	1.1.2-TCA
LAB	SITE											
W	DO	< 5400	< 120000	< 5400	< 5400	< 54000	< 5400	< 5400	< 5400	< 5400	< 5400	< 5400
M	LI	< 2500	< 50000	2800	< 2500	< 25000	< 2500	< 2500	< 2500	2800	< 2500	< 2500
M	MA	< 2500	< 50000	6300	< 2500	< 25000	< 2500	< 2500	< 2500	< 2500	< 2500	< 2500
W	NC	< 5100	< 100000	9900	< 5100	< 51000	< 5100	< 5100	< 5100	< 5100	< 5100	< 5100

Parameter		benzene	2-CVE	1.3-DCPE	CHBr3	Me-2-pen	2-hex'one	PCE	1.1.2.2PCA	toluene	Cl-benz	eth-benz
LAB	SITE											
W	DO	< 5400	< 11000	< 5400	< 5400	< 54000	< 54000	8100	< 5400	130000	< 5400	8700
M	LI	< 2500	< 5000	< 2500	< 2500	< 25000	< 25000	< 2500	< 2500	8400	< 2500	7400
M	MA	< 2500	< 5000	< 2500	< 2500	< 25000	< 25000	< 2500	< 2500	10000	< 2500	18000
W	NC	< 5100	< 10000	< 5100	< 5100	< 51000	< 51000	< 5100	< 5100	37000	< 5100	< 5100

Parameter		styrene	xylenes	1.2-DCIB	1.3-DCIB	1.4-DCIB
LAB	SITE					
W	DO	< 5400	48000	< 5400	< 5400	< 5400
M	LI	< 2500	37000	< 5000	< 5000	< 5000
M	MA	< 2500	91000	< 5000	< 5000	< 5000
W	NC	< 5100	22000	< 5100	< 5100	< 5100

Blended Fuels

Semivolatile Organics (EPA 8270) Analysis, ppm

Parameter		phenol	b-2Cl-ethr	2Cl-phenol	1.3-DClB	1.4-DClB	benzyl 'ol	1.2-DClB	2Me-pheno	b-2Cl-IPE	4Me-pheno	N-nitroso
LAB	SITE											
W	DO	< 1100	< 1100	< 1100	< 1100	< 1100	< 2200	1300	< 1100	< 1100	< 1100	< 1100
M	LI	< 100	< 100	< 100	< 100	< 100	< 200	520	< 100	< 100	< 100	< 100
M	MA	< 100	< 100	< 100	< 100	< 100	< 200	220	< 100	< 100	< 100	< 100
W	NC	< 1000	< 1000	< 1000	< 1000	< 1000	< 2000	< 1000	< 1000	< 1000	< 1000	< 1000

Parameter		C2Cl6	nitrobenz	Isophorone	2nitroph'ol	2,4Meph'ol	benz acid	b-2Clethox	2,4-dClph	1.2.4-TClB	Naph'ene	4-Clanilline
LAB	SITE											
W	DO	< 1100	< 1100	< 1100	< 1100	< 1100	< 5500	< 1100	< 1100	< 1100	< 1100	< 2200
M	LI	< 100	< 100	560	< 100	< 100	< 500	< 100	< 100	< 100	1300	< 200
M	MA	< 100	< 100	< 100	< 100	< 100	< 500	< 100	< 100	< 100	210	< 200
W	NC	< 1000	< 1000	< 1000	< 1000	< 1000	< 5100	< 1000	< 1000	< 1000	< 1000	< 2000

Parameter		Cl6buladien	4Cl3Mephnl	2-Menaph	Cl6cycpent	2,4,6tClph	2,4,5tClph	2-Clnaph	2-ntroanil	Me2phthal	acenaphthy	2,6-DNT
LAB	SITE											
W	DO	< 1100	< 2200	< 1100	< 1100	< 1100	< 1100	< 1100	< 5500	< 1100	< 1100	< 1100
M	LI	< 100	< 200	< 100	< 100	< 100	< 100	< 100	< 500	< 100	< 100	< 100
M	MA	< 100	< 200	740	< 100	< 100	< 100	< 100	< 500	< 100	< 100	< 100
W	NC	< 1000	< 2000	< 1000	< 1000	< 1000	< 1000	< 1000	< 5100	< 1000	< 1000	< 1000

Parameter		3-ntroanil	acenaphthe	2,4dntrophe	4ntrophenol	dibenfuran	2,4-DNT	delhphthal	4Clphenphe	fluorene	4-ntroanil	4,6dn2Mep
LAB	SITE											
W	DO	< 5500	< 1100	< 5500	< 5500	< 1100	< 1100	< 1100	< 1100	< 1100	< 5500	< 5500
M	LI	< 500	< 100	< 500	< 500	< 100	< 100	< 100	< 100	< 100	< 500	< 500
M	MA	< 500	< 100	< 500	< 500	< 100	< 100	< 100	< 100	< 100	< 500	< 500
W	NC	< 5100	< 1000	< 5100	< 5100	< 1000	< 1000	< 1000	< 1000	< 1000	< 5100	< 5100

Blended Fuels

Semivolatile Organics (EPA 8270) Analysis, ppm

Parameter		N-nitroso	4Brphenph	Cl6benzene	Cl5phenol	phenanthre	anthracene	d-n-butpht	fluoranthen	pyrene	butbenphth	3.3'Cl2benz
LAB	SITE											
W	DO	< 1100	< 1100	< 1100	< 5500	< 1100	< 1100	< 1100	< 1100	< 1100	1400	< 2200
M	LI	< 100	< 100	< 100	< 500	< 100	< 100	350	< 100	< 100	< 100	< 200
M	MA	< 100	< 100	< 100	< 500	160	< 100	< 100	< 100	< 100	< 100	< 200
W	NC	< 1000	< 1000	< 1000	< 5100	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	< 2000

Parameter		ben[a]anthr	chrysene	b2ethhexph	d-n-octpht	ben[b]fluor	ben[k]fluor	ben[a]pyren	ind[123-cd]	dben[a.h]an	ben[ghi]per
LAB	SITE										
W	DO	< 1100	< 1100	< 1100	< 1100	< 1100	< 1100	< 1100	< 1100	< 1100	< 1100
M	LI	< 100	< 100	2800	4100	< 100	< 100	< 100	< 100	< 100	< 100
M	MA	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100
W	NC	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000

Blended Fuels

Physical Properties and TCLP Metals Analysis, ppm

	Parameter	pH	SG	FP	As	Ba	Cd	Cr	Pb	Hg	Se	Ag
	Reg. Limit	<2 or >10	na	< 100	5	100	1	5	5	0.2	1	5
LAB	*SITE*											
W	*DO*	6.5	0.912	70	< 0.05	1.9	0.4	0.26	2.5	< 0.01	< 0.05	< 0.05
M	*LI*	6.8	0.87	85	< 0.5	0.51	0.13	0.011	1.2	< 0.001	< 0.2	< 0.02
M	*MA*	7	0.87	85	< 0.5	< 1.0	< 0.01	0.013	0.58	< 0.001	< 0.2	< 0.01
W	*NC*	10	0.932	75	< 0.05	< 0.3	0.11	0.09	1.2	< 0.01	< 0.05	0.08

TCLP Semi Volatiles Analysis, ppm

	Parameter	cresol	2.4-DNT	Cl6-benz	Cl6-13-but	Cl6-eth	nitrobenz	Cl5-phenol	pyridine	2.4.5-TCP	2.4.6-TCP
	Reg. Limit	200	0.13	0.13	0.5	3	2	100	5	400	2
LAB	*SITE*										
W	*DO*	3.4	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 4.4	< 4.4	< 0.88	< 0.88
M	*LI*	1.8	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 1.0	< 1.0	< 0.20	< 0.20
M	*MA*	0.14	< 0.089	< 0.089	< 0.089	< 0.089	< 0.089	< 0.44	< 0.44	< 0.089	< 0.089
W	*NC*	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.75	0.67	< 0.15	< 0.15

TCLP Volatiles Analysis, ppm

	Parameter	benzene	CCl4	Clbenz	CHCl3	1.4-DClB	1.2-DCA	1.1-DCE	MEK	PCE	TCE	VChloride
	Reg. Limit	0.5	0.5	100	6	7.5	0.5	0.7	200	0.7	0.5	0.2
LAB	*SITE*											
W	*DO*	1.7	< 0.10	< 0.10	< 0.10	< 0.10	0.23	< 0.10	> 200	2.4	> 4.4	< 0.20
M	*LI*	> 4.4	> 4.4	< 0.10	> 4.4	0.31	2.8	< 0.10	< 2.0	> 4.4	> 4.4	< 0.20
M	*MA*	0.24	< 0.10	0.14	3.8	< 0.20	< 0.10	< 0.10	< 2.0	< 0.10	< 0.10	< 0.20
W	*NC*	0.56	< 0.10	0.1	0.74	< 0.10	2	< 0.10	790	2.4	1.7	< 0.20

Immersion Cleaner Wastes

Volatile Organics (EPA 8240) Analysis, ppm

Parameter		CH3Cl	CH3Br	C2H3Cl	C2H5Cl	CH2Cl2	acetone	CS2	1.1-DCE	1.1-DCA	1.2-DCE	CHCl3
LAB	SITE											
M	CL	< 5000	< 5000	< 5000	< 5000	350000	< 50000	< 2500	< 2500	< 2500	< 2500	2700
W	DE	< 8400	< 8400	< 8400	< 8400	162000	< 84000	< 4200	< 4200	< 4200	< 4200	< 4200
W	EL	< 1100	< 1100	< 1100	< 1100	< 530	< 11000	< 530	< 530	< 530	< 530	< 530
C	RE	< 120	< 120	< 120	< 120	2200	< 1200	< 60	< 60	< 60	< 60	< 60

Parameter		1,2-DCA	MEK	1.1.1-TCA	CCl4	v-acetate	CHBrCl2	1.2-DCPA	1.3-DCPE	TCE	CHBr2Cl	1.1.2-TCA
LAB	SITE											
M	CL	< 2500	< 50000	< 2500	< 2500	< 25000	< 2500	< 2500	< 2500	< 2500	< 2500	< 2500
W	DE	< 4200	< 84000	< 4200	< 4200	< 42000	< 4200	< 4200	< 4200	< 4200	< 4200	< 4200
W	EL	< 530	< 11000	< 530	< 530	< 5300	< 530	< 530	< 530	< 530	< 530	< 530
C	RE	< 60	< 1200	< 60	< 60	< 600	< 60	< 60	< 60	< 60	< 60	< 60

Parameter		benzene	2-CVE	1.3-DCPE	CHBr3	Me-2-pen	2-hex'one	PCE	1.1.2.2PCA	toluene	Cl-benz	eth-benz
LAB	SITE											
M	CL	< 2500	< 5000	< 2500	< 2500	< 25000	< 25000	3600	< 2500	< 2500	5800	< 2500
W	DE	< 4200	< 8400	< 4200	< 4200	< 42000	< 42000	< 4200	< 4200	< 4200	63000	< 4200
W	EL	< 530	< 1100	< 530	< 530	< 5300	< 5300	< 530	< 530	< 530	< 530	< 530
C	RE	< 60	< 120	< 60	< 60	< 600	< 600	480	< 60	190	< 60	89

Parameter		styrene	xylenes	1.2-DCIB	1.3-DCIB	1.4-DCIB
LAB	SITE					
M	CL	< 2500	< 2500	< 5000	12000	24000
W	DE	< 4200	< 4200	161000	21000	43000
W	EL	< 530	< 530	2000	< 530	600
C	RE	210	590	590	170	270

Immersion Cleaner Wastes

Semivolatile Organics (EPA 8270) Analysis, ppm

Parameter		phenol	b-2Cl-ethr	2Cl-phenol	1.3-DClB	1.4-DClB	benzyl 'ol	1.2-DClB	2Me-pheno	b-2Cl-IPE	4Me-pheno	N-nitroso
LAB	SITE											
M	CL	55	< 10	< 10	26	58	< 20	180	49	< 10	32	< 10
W	DE	3800	< 1000	< 1000	< 1000	< 1000	< 1000	1600	1400	< 1000	1900	< 1000
W	EL	< 1100	< 1100	< 1100	< 1100	< 1100	< 2100	1200	< 1100	< 1100	< 1100	< 1100
C	RE	< 100	< 100	< 100	100	330	180	< 100	< 100	< 100	< 100	< 100

Parameter		C2Cl6	nitrobenz	Isophorone	2ntroph'ol	2.4Meph'ol	benz acid	b-2Clethox	2.4-dClph	1.2.4-TClB	Naph'ene	4-Clanilline
LAB	SITE											
M	CL	< 10	< 10	< 10	< 10	< 10	< 50	< 10	< 10	< 10	< 10	< 20
W	DE	< 1000	< 1000	< 1000	< 1000	< 1000	< 5000	< 1000	< 1000	< 1000	< 1000	< 1000
W	EL	< 1100	< 1100	< 1100	< 1100	< 1100	< 5300	< 1100	< 1100	< 1100	34000	< 2100
C	RE	< 100	< 100	< 100	< 100	< 100	< 500	< 100	< 100	< 100	35000	< 100

Parameter		Cl6butadien	4Cl3Mephnl	2-Menaph	Cl6cycpent	2.4.6tClph	2.4.5tClph	2-Clnaph	2-ntroanil	Me2phthal	acenaphthy	2.6-DNT
LAB	SITE											
M	CL	< 10	< 20	< 10	< 10	< 10	< 10	< 10	< 50	< 10	< 10	< 10
W	DE	< 1000	< 1000	< 1000	< 1000	< 1000	< 5000	< 1000	< 5000	< 1000	< 1000	< 1000
W	EL	< 1100	< 2100	< 1100	< 1100	< 1100	< 1100	< 1100	< 5300	< 1100	< 1100	< 1100
C	RE	< 100	< 100	1300	< 100	< 100	< 500	< 100	< 500	< 100	< 100	< 100

Parameter		3-ntroanil	acenaphthe	2.4dntrophe	4ntrophenol	dibenfuran	2.4-DNT	dothphthal	4Clphenphe	fluorene	4-ntroanil	4.6dn2Mep
LAB	SITE											
M	CL	< 50	< 10	< 50	< 50	< 10	< 10	< 10	< 10	< 10	< 50	< 50
W	DE	< 5000	< 1000	< 5000	< 5000	< 1000	< 1000	< 1000	< 1000	< 1000	< 5000	< 5000
W	EL	< 5300	< 1100	< 5300	< 5300	< 1100	< 1100	< 1100	< 1100	< 1100	< 5300	< 5300
C	RE	< 500	< 100	< 500	< 500	< 100	< 100	< 100	< 100	< 100	< 500	< 500

Immersion Cleaner Wastes

Semivolatile Organics (EPA 8270) Analysis, ppm

Parameter		N-nitroso	4Brphenph	Cl6benzene	Cl5phenol	phenanthre	anthracene	d-n-butpht	fluoranthen	pyrene	butbenphth	3.3'Cl2benz
LAB	SITE											
M	CL	< 10	< 10	< 10	< 50	< 10	< 10	< 10	< 10	< 10	< 10	< 20
W	DE	< 1000	< 1000	< 1000	< 5000	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	< 2000
W	EL	< 1100	< 1100	< 1100	< 5300	< 1100	< 1100	< 1100	< 1100	< 1100	< 1100	< 2100
C	RE	< 100	< 100	< 100	< 500	< 100	< 100	< 100	< 100	< 100	< 100	< 200

Parameter		ben[a]anthr	chrysene	b2ethhexph	d-n-octpht	ben[b]fluor	ben[k]fluor	ben[a]pyren	Ind[123-cd]	dben[a,h]an	ben[ghi]per
LAB	SITE										
M	CL	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
W	DE	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000
W	EL	< 1100	< 1100	< 1100	< 1100	< 1100	< 1100	< 1100	< 1100	< 1100	< 1100
C	RE	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100

Immersion Cleaner Wastes

Physical Properties and TCLP Metals Analysis, ppm

	Parameter	pH	SG	FP	As	Ba	Cd	Cr	Pb	Hg	Se	Ag
	Reg. Limit	<2 or >10	na	< 100	5	100	1	5	5	0.2	1	5
LAB	*SITE*											
M	*CL*	8	1.2	95	< 0.5	0.44	2.3	0.51	11	0.001	< 0.2	< 0.01
W	*DE*	9	1.11	85	< 0.05	0.7	0.4	0.48	2	< 0.01	< 0.05	< 0.05
W	*EL*	10	0.945	185	< 0.05	< 0.3	0.32	0.06	1.2	< 0.01	< 0.05	< 0.05
C	*RE*	10.2	0.93	135	< 1	< 0.02	0.64	0.07	0.2	< 0.002	< 1	< 0.5

TCLP Semi Volatiles Analysis, ppm

	Parameter	cresol	2.4-DNT	Cl6-benz	Cl6-13-but	Cl6-eth	nitrobenz	Cl5-phenol	pyridine	2.4.5-TCP	2.4.6-TCP
	Reg. Limit	200	0.13	0.13	0.5	3	2	100	5	400	2
LAB	*SITE*										
M	*CL*	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 5.0	< 1.0	< 1.0
W	*DE*	1200	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 1.7	< 1.7	< 0.33	< 0.33
W	*EL*	matrix	matrix	matrix	matrix	matrix	matrix	matrix	matrix	matrix	matrix
C	*RE*	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 1.7	< 1.7	< 0.33	< 0.33

TCLP Volatiles Analysis, ppm

	Parameter	benzene	CCl4	Clbenz	CHCl3	1.4-DClB	1.2-DCA	1.1-DCE	MEK	PCE	TCE	VChloride
	Reg. Limit	0.5	0.5	100	6	7.5	0.5	0.7	200	0.7	0.5	0.2
LAB	*SITE*											
M	*CL*	0.16	2.5	> 4.4	0.56	> 4.4	3.6	< 0.10	> 4.4	> 4.4	> 4.4	< 0.20
W	*DE*	< 0.10	< 0.10	13	< 0.10	17	2.1	0.11	15	0.68	1.1	< 0.20
W	*EL*	< 5	< 5	< 5	< 5	32	< 5	< 5	< 100	< 5	< 5	< 10
C	*RE*	< 0.05	< 0.05	0.14	< 0.05	1.6	< 0.05	< 0.05	< 1	2.8	< 0.05	< 0.1

Physical Properties and TCLP Metals Analysis, ppm

	Parameter	pH	SG	FP	As	Ba	Cd	Cr	Pb	Hg	Se	Ag
	Reg. Limit	<2 or >10	na	< 100	5	100	1	5	5	0.2	1	5
LAB	*SITE*											
W	*BU*	6	na	150	< 0.05	0.7	< 0.05	< 0.05	0.2	< 0.01	< 0.05	< 0.05
M	*CH*	6.8	na	90	< 0.5	0.24	0.015	0.056	< 0.1	< 0.001	< 0.2	< 0.01
M	*CL*	10	na	> 160	< 0.5	0.31	1.1	0.49	13	< 0.001	< 0.2	< 0.01
W	*DE*	matrix	na	120	< 0.05	< 0.3	0.05	0.26	1.7	< 0.01	< 0.05	< 0.05
W	*HE*	6.5	na	90	< 0.05	0.7	0.12	0.27	0.7	< 0.01	< 0.05	< 0.05
M	*MA*	5.5	na	85	< 0.5	< 1.0	0.056	0.023	1	< 0.001	< 0.2	< 0.01
M	*PE*	8	na	> 160	< 0.5	0.21	< 0.01	< 0.01	< 0.1	< 0.001	< 0.2	< 0.01

TCLP Semi Volatiles Analysis, ppm

	Parameter	cresol	2.4-DNT	Cl6-benz	Cl6-13-but	Cl6-eth	nitrobenz	Cl5-phenol	pyridine	2.4.5-TCP	2.4.6-TCP
	Reg. Limit	200	0.13	0.13	0.5	3	2	100	5	400	2
LAB	*SITE*										
W	*BU*	0.79	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.50	< 0.50	< 0.10	< 0.10
M	*CH*	< 6.7	< 6.7	< 6.7	< 6.7	< 6.7	< 6.7	< 33	< 33	< 6.7	< 6.7
M	*CL*	18	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 6.6	< 6.6	< 1.3	< 1.3
W	*DE*	1800	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 1.7	< 1.7	< 0.33	< 0.33
W	*HE*	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 6.5	< 6.5	< 1.3	< 1.3
M	*MA*	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.17	< 0.17	< 0.033	< 0.033
M	*PE*	1.7	< 0.044	< 0.044	< 0.044	< 0.044	< 0.044	< 0.22	< 0.22	< 0.044	< 0.044

TCLP Volatiles Analysis, ppm

	Parameter	benzene	CCl4	Clbenz	CHCl3	1.4-DClB	1.2-DCA	1.1-DCE	MEK	PCE	TCE	VChloride
	Reg. Limit	0.5	0.5	100	6	7.5	0.5	0.7	200	0.7	0.5	0.2
LAB	*SITE*											
W	*BU*	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 2.0	< 0.10	< 0.10	< 0.20
M	*CH*	0.47	< 0.10	< 0.10	0.46	> 4.4	< 0.10	< 0.10	< 2.0	0.72	3.3	< 0.20
M	*CL*	< 0.10	< 0.10	> 4.4	< 0.10	> 4.4	< 0.10	< 0.10	< 2.0	> 4.4	< 0.10	< 0.20
W	*DE*	< 0.10	< 0.10	0.32	< 0.10	4.2	< 0.10	< 0.10	2.4	< 0.10	< 0.10	< 0.20
W	*HE*	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.38	< 2.0	> 4.4	> 4.4	< 0.20
M	*MA*	0.12	< 0.10	< 0.10	1.1	0.49	< 0.10	< 0.10	< 2.0	0.82	< 0.10	< 0.20
M	*PE*	0.13	< 0.10	< 0.10	< 0.10	0.28	< 0.10	< 0.10	< 2.0	< 0.10	< 0.10	< 0.20

Nonchlorinated Water Wastes

Physical Properties and TCLP Metals Analysis, ppm

	Parameter	pH	SG	FP	As	Ba	Cd	Cr	Pb	Hg	Se	Ag
	Reg. Limit	<2 or >10	na	< 100	5	100	1	5	5	0.2	1	5
LAB	*SITE*											
W	*BU*	8.5	na	na	< 0.05	1	< 0.05	< 0.05	0.1	< 0.01	< 0.05	< 0.05
M	*CL*	9	na	na	< 0.5	0.83	0.35	0.034	0.84	< 0.001	< 0.2	< 0.01
W	*DE*	6.5	na	na	< 0.05	1.7	0.43	0.19	0.8	< 0.01	< 0.5	0.06
W	*DO*	7.5	na	na	< 0.05	0.9	0.17	0.18	2.6	< 0.01	< 0.05	< 0.05
W	*EL*	7	na	na	< 0.05	3.1	0.82	0.22	1.8	0.011	< 0.05	< 0.05
M	*LE*	6.5	na	na	< 0.5	0.82	0.16	0.038	0.86	0.001	< 0.2	< 0.01
M	*LI*	7	na	na	< 0.5	0.26	< 0.01	0.012	< 0.1	0.031	< 0.2	< 0.02
M	*PE*	6	na	na	0.95	3.5	0.048	0.047	< 0.1	< 0.001	< 0.2	< 0.01
C	*RE*	10	na	na	< 1	0.11	< 0.02	0.02	0.5	< 0.002	< 1	< 0.5

TCLP Semi Volatiles Analysis, ppm

	Parameter	cresol	2.4-DNT	Cl6-benz	Cl6-13-but	Cl6-eth	nitrobenz	Cl5-phenol	pyridine	2.4.5-TCP	2.4.6-TCP
	Reg. Limit	200	0.13	0.13	0.5	3	2	100	5	400	2
LAB	*SITE*										
W	*BU*	< 0.067	< 0.067	< 0.067	< 0.067	< 0.067	< 0.067	< 0.067	< 0.067	< 0.33	< 0.33
M	*CL*	1.5	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.17	< 0.17	< 0.033	< 0.033
W	*DE*	coc	coc	coc	coc	coc	coc	coc	coc	coc	coc
W	*DO*	< 0.78	< 0.78	< 0.78	< 0.78	< 0.78	< 0.78	< 3.9	< 3.9	< 0.78	< 0.78
W	*EL*	97	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 6.5	< 6.5	< 1.3	< 1.3
M	*LE*	4.6	< 0.080	< 0.080	< 0.080	< 0.080	< 0.080	< 4.0	< 4.0	< 0.080	< 0.080
M	*LI*	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.17	< 0.17	< 0.033	< 0.033
M	*PE*	< 10	< 10	< 10	< 10	< 10	< 10	< 50	< 50	< 10	< 10
C	*RE*	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.50	< 0.50	< 0.10	< 0.10

Nonchlorinated Water Wastes

TCLP Volatiles Analysis, ppm

	Parameter	benzene	CCl4	Clbenz	CHCl3	1.4-DClB	1.2-DCA	1.1-DCE	MEK	PCE	TCE	VChloride
	Reg. Limit	0.5	0.5	100	6	7.5	0.5	0.7	200	0.7	0.5	0.2
LAB	*SITE*											
W	*BU*	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 2.0	< 0.10	< 0.10	< 0.20
M	*CL*	< 0.10	< 0.10	< 0.10	< 0.10	< 0.20	< 0.10	< 0.10	< 2.0	1.5	< 0.10	< 0.20
W	*DE*	coc	coc	coc	coc	coc	coc	coc	coc	coc	coc	coc
W	*DO*	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	> 220	220	> 220	< 10
W	*EL*	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 100	< 5	< 5	< 10
M	*LE*	< 0.10	< 0.10	< 0.10	< 0.10	0.21	< 0.10	< 0.10	> 4.4	1.3	< 0.10	< 0.20
M	*LI*	< 0.10	< 0.10	< 0.10	< 0.10	< 0.20	< 0.10	< 0.10	< 2.0	< 0.10	< 0.10	< 0.20
M	*PE*	0.97	< 0.50	< 0.50	< 0.50	< 1.0	< 0.50	< 0.50	28	0.8	< 0.50	< 1.0
C	*RE*	< 0.05	< 0.05	< 0.05	< 0.05	< 0.1	< 0.05	< 0.05	9.7	< 0.05	< 0.05	< 0.1

Paint Gun Cleaner Wastes

Volatile Organics (EPA 8240) Analysis, ppm

Parameter		CH3Cl	CH3Br	C2H3Cl	C2H5Cl	CH2Cl2	acetone	CS2	1.1-DCE	1.1-DCA	1.2-DCE	CHCl3
LAB	SITE											
W	DE	< 11000	< 11000	< 11000	< 11000	< 5600	< 120000	< 5600	< 5600	< 5600	< 5600	< 5600
W	DO	< 11000	< 11000	< 11000	< 11000	270000	< 110000	< 5300	< 5300	< 5300	< 5300	< 5300

Parameter		1,2-DCA	MEK	1.1.1-TCA	CCl4	v-acetate	CHBrCl2	1.2-DCPA	1.3-DCPE	TCE	CHBr2Cl	1.1.2-TCA
LAB	SITE											
W	DE	< 5600	< 120000	< 5600	< 5600	< 56000	< 5600	< 5600	< 5600	< 5600	< 5600	< 5600
W	DO	< 5300	< 110000	< 5300	< 5300	< 53000	< 5300	< 5300	< 5300	< 5300	< 5300	< 5300

Parameter		benzene	2-CVE	1.3-DCPE	CHBr3	Me-2-pen	2-hex'one	PCE	1.1.2.2PCA	toluene	Cl-benz	eth-benz
LAB	SITE											
W	DE	< 5600	< 11000	< 5600	< 5600	< 56000	< 56000	< 5600	< 5600	290000	< 5600	33000
W	DO	< 5300	< 11000	< 5300	< 5300	< 53000	< 53000	< 5300	< 5300	300000	< 5300	13000

Parameter		styrene	xylenes	1.2-DCIB	1.3-DCIB	1.4-DCIB
LAB	SITE					
W	DE	< 5600	54000	< 5600	< 5600	< 5600
W	DO	< 5300	55000	< 5300	< 5300	< 5300

Paint Gun Cleaner Wastes

Semivolatile Organics (EPA 8270) Analysis, ppm

Parameter		phenol	b-2Cl-ethr	2Cl-phenol	1.3-DClB	1.4-DClB	benzyl 'ol	1.2-DClB	2Me-pheno	b-2Cl-IPE	4Me-pheno	N-nitroso
LAB	SITE											
W	DE	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000
W	DO	< 1100	< 1100	< 1100	< 1100	< 1100	< 2100	< 1100	< 1100	< 1100	< 1100	< 1100

Parameter		C2Cl6	nitrobenz	Isophorone	2ntroph'ol	2.4Meph'ol	benz acid	b-2Clethox	2.4-dClph	1.2.4-TClB	Naph'ene	4-Clanilline
LAB	SITE											
W	DE	< 1000	< 1000	< 1000	< 1000	< 1000	< 5000	< 1000	< 1000	< 1000	< 1000	< 1000
W	DO	< 1100	< 1100	< 1100	< 1100	< 1100	< 5300	< 1100	< 1100	< 1100	< 1100	< 2100

Parameter		Cl6butadien	4Cl3Mephnl	2-Menaph	Cl6cycpent	2.4.6tClph	2.4.5tClph	2-Clnaph	2-ntroanil	Me2phthal	acenaphthy	2.6-DNT
LAB	SITE											
W	DE	< 1000	< 1000	< 1000	< 1000	< 1000	< 5000	< 1000	< 5000	< 1000	< 1000	< 1000
W	DO	< 1100	< 2100	< 1100	< 1100	< 1100	< 1100	< 1100	< 5300	< 1100	< 1100	< 1100

Parameter		3-ntroanil	acenaphthe	2.4dntrophe	4ntrophenol	dibenfuran	2.4-DNT	delhphthal	4Clphenphe	fluorene	4-ntroanil	4.6dn2Mep
LAB	SITE											
W	DE	< 5000	< 1000	< 5000	< 5000	< 1000	< 1000	< 1000	< 1000	< 1000	< 5000	< 5000
W	DO	< 5300	< 1100	< 5300	< 5300	< 1100	< 1100	< 1100	< 1100	< 1100	< 5300	< 5300

Parameter		N-nitroso	4Brphenph	Cl6benzene	Cl5phenol	phenanthre	anthracene	d-n-bulpht	fluoranthen	pyrene	bulbenphth	3.3'Cl2benz
LAB	SITE											
W	DE	< 1000	< 1000	< 1000	< 5000	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	< 2000
W	DO	< 1100	< 1100	< 1100	< 5300	< 1100	< 1100	< 1100	< 1100	< 1100	1600	< 2100

Parameter		ben[a]anthr	chrysene	b2elhhexph	d-n-octpht	ben[b]fluor	ben[k]fluor	ben[a]pyren	Ind[123-cd]	dben[a.h]an	ben[ghi]per	
LAB	SITE											
W	DE	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	
W	DO	< 1100	< 1100	< 1100	< 1100	< 1100	< 1100	< 1100	< 1100	< 1100	< 1100	

Paint Gun Cleaner Wastes

Physical Properties and TCLP Metals Analysis, ppm

	Parameter	pH	SG	FP	As	Ba	Cd	Cr	Pb	Hg	Se	Ag
	Reg. Limit	<2 or >10	na	< 100	5	100	1	5	5	0.2	1	5
LAB	*SITE*											
W	*DE*	6	0.851	75	< 0.05	1	< 0.05	0.21	0.3	< 0.01	< 0.05	< 0.05
W	*DO*	6.5	0.937	75	< 0.05	0.6	0.72	0.72	2.4	< 0.01	< 0.05	< 0.05

TCLP Semi Volatiles Analysis, ppm

	Parameter	cresol	2.4-DNT	Cl6-benz	Cl6-13-but	Cl6-eth	nitrobenz	Cl5-phenol	pyridine	2.4.5-TCP	2.4.6-TCP
	Reg. Limit	200	0.13	0.13	0.5	3	2	100	5	400	2
LAB	*SITE*										
W	*DE*	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.17	< 0.17	< 0.033	< 0.033
W	*DO*	9.7	< 2.6	< 2.6	< 2.6	< 2.6	< 2.6	< 13	< 13	< 2.6	< 2.6

TCLP Volatiles Analysis, ppm

	Parameter	benzene	CCl4	Clbenz	ClHCl3	1.4-DClB	1.2-DCA	1.1-DCE	MEK	PCE	TCE	VChloride
	Reg. Limit	0.5	0.5	100	6	7.5	0.5	0.7	200	0.7	0.5	0.2
LAB	*SITE*											
W	*DE*	0.18	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	4000	< 0.10	< 0.10	< 0.20
W	*DO*	0.14	< 0.10	< 0.10	< 0.10	< 0.10	0.12	< 0.10	> 200	0.61	1.6	< 0.20

Parts Washer Cooker Solids Wastes

Volatile Organics (EPA 8240) Analysis, ppm

Parameter		CH3Cl	CH3Br	C2H3Cl	C2H5Cl	CH2Cl2	acetone	CS2	1.1-DCE	1.1-DCA	1.2-DCE	CHCl3
LAB	SITE											
W	DE	< 100	< 100	< 100	< 100	< 50	< 1000	< 50	< 50	< 50	< 50	< 50
W	EL	< 1.0	< 1.0	< 1.0	< 1.0	2.9	< 10	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
W	HE	< 1.0	< 1.0	< 1.0	< 1.0	4.6	< 10	< 0.50	< 0.50	< 0.50	< 0.50	1.9
C	RE	< 0.50	< 0.50	< 0.50	< 0.50	< 0.25	< 5.0	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25

Parameter		1,2-DCA	MEK	1.1.1-TCA	CCl4	v-acetate	CHBrCl2	1.2-DCPA	1.3-DCPE	TCE	CHBr2Cl	1.1.2-TCA
LAB	SITE											
W	DE	< 50	< 1000	< 50	< 50	< 500	< 50	< 50	< 50	< 50	< 50	< 50
W	EL	< 0.50	< 10	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
W	HE	< 0.50	< 10	0.93	< 0.50	< 5.0	< 0.50	< 0.50	< 0.50	0.61	< 0.50	< 0.50
C	RE	< 0.25	< 0.50	< 0.25	< 0.25	< 2.5	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25

Parameter		benzene	2-CVE	1.3-DCPE	CHBr3	Me-2-pen	2-hex'one	PCE	1,1,2,2PCA	toluene	Cl-benz	eth-benz
LAB	SITE											
W	DE	< 50	< 100	< 50	< 50	< 500	< 500	< 50	< 50	< 50	< 50	< 50
W	EL	< 0.50	< 1.0	< 0.50	< 0.50	< 5.0	< 5.0	0.54	< 0.50	0.82	< 0.50	< 0.50
W	HE	< 0.50	< 1.0	< 0.50	< 0.50	< 5.0	< 5.0	60	< 0.50	< 0.50	< 0.50	< 0.50
C	RE	< 0.25	< 0.50	< 0.25	< 0.25	< 2.5	< 2.5	< 0.25	< 0.25	0.24	< 0.25	< 0.25

Parameter		styrene	xylenes	1.2-DCIB	1.3-DCIB	1.4-DCIB
LAB	SITE					
W	DE	< 50	< 100	< 50	< 50	< 50
W	EL	< 0.50	< 1.0	2.2	< 0.50	0.62
W	HE	< 0.50	< 1.0	4.5	< 0.50	0.74
C	RE	< 0.25	0.22	0.98	< 0.25	< 0.25

Parts Washer Cooker Solids Wastes

Semivolatile Organics (EPA 8270) Analysis, ppm

Parameter		phenol	b-2Cl-ethr	2Cl-phenol	1.3-DClB	1.4-DClB	benzyl 'ol	1.2-DClB	2Me-pheno	b-2Cl-IPE	4Me-pheno	N-nitroso
LAB	SITE											
W	DE	26	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	18	8.9	< 3.0	15	< 3.0
W	EL	< 79	< 79	< 79	< 79	< 79	< 160	< 79	< 79	< 79	< 79	< 79
W	HE	< 82	< 82	< 82	< 82	< 82	< 160	< 82	< 82	< 82	< 82	< 82
C	RE	180	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	230	< 100

Parameter		C2Cl6	nitrobenz	Isophorone	2ntroph'ol	2.4Meph'ol	benz acid	b-2Clethox	2.4-dClph	1.2.4-TClB	Naph'ene	4-Clanilline
LAB	SITE											
W	DE	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 15	< 3.0	< 3.0	< 3.0	8.6	< 3.0
W	EL	< 79	< 79	< 79	< 79	< 79	< 400	< 79	< 79	< 79	< 79	< 160
W	HE	< 82	< 82	< 82	< 82	< 82	< 410	< 82	< 82	< 82	< 82	< 160
C	RE	< 100	< 100	< 100	< 100	< 100	< 500	< 100	< 100	< 100	120	< 100

Parameter		Cl6butadien	4Cl3Mephnl	2-Menaph	Cl6cycpent	2.4.6tClph	2.4.5tClph	2-Clnaph	2-ntroanil	Me2phthal	acenaphthy	2.6-DNT
LAB	SITE											
W	DE	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 15	< 3.0	< 15	< 3.0	< 3.0	< 3.0
W	EL	< 79	< 160	< 79	< 79	< 79	< 79	< 79	< 400	< 79	< 79	< 79
W	HE	< 82	< 160	< 82	< 82	< 82	< 82	< 82	< 410	< 82	< 82	< 82
C	RE	< 100	< 100	140	< 100	< 100	< 500	< 100	< 500	< 100	< 100	< 100

Parameter		3-ntroanil	acenaphthe	2.4dntrophe	4ntrophenol	dibenfuran	2.4-DNT	dethphthal	4Clphenphe	fluorene	4-ntroanil	4.6dn2Mep
LAB	SITE											
W	DE	< 15	< 3.0	< 15	< 15	< 3.0	< 3.0	6.4	< 3.0	< 3.0	< 15	< 15
W	EL	< 400	< 79	< 400	< 400	< 79	< 79	< 79	< 79	< 79	< 400	< 400
W	HE	< 410	< 82	< 410	< 410	< 82	< 82	< 82	< 82	< 82	< 410	< 410
C	RE	< 500	< 100	< 500	< 500	< 100	< 100	< 100	< 100	< 100	< 500	< 500

Parts Washer Cooker Solids Wastes

Semivolatile Organics (EPA 8270) Analysis, ppm

Parameter		N-nitroso	4Brphenph	Cl6benzene	Cl5phenol	phenanthre	anthracene	d-n-butpht	fluoranthen	pyrene	butbenphth	3.3'Cl2benz
LAB	*SITE*											
W	*DE*	< 3.0	< 3.0	< 3.0	< 15	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	180	< 6.0
W	*EL*	< 79	< 79	< 79	< 400	< 79	< 79	< 79	< 79	< 79	< 79	< 160
W	*HE*	< 82	< 82	< 82	< 410	< 82	< 82	< 82	< 82	< 82	85	< 160
C	*RE*	< 100	< 100	< 100	< 500	< 100	< 100	< 100	< 100	< 100	130	< 200

Parameter		ben[a]anthr	chrysene	b2ethhexph	d-n-octpht	ben[b]fluor	ben[k]fluor	ben[a]pyren	ind[123-cd]	dben[a.h]an	ben[ghi]per
LAB	*SITE*										
W	*DE*	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
W	*EL*	< 79	< 79	< 79	< 79	< 79	< 79	< 79	< 79	< 79	< 79
W	*HE*	< 82	< 82	350	< 82	< 82	< 82	< 82	< 82	< 82	< 82
C	*RE*	< 100	< 100	380	< 100	< 100	< 100	< 100	< 100	< 100	< 100

Parts Washer Cooker Solids Wastes

Physical Properties and TCLP Metals Analysis, ppm

	Parameter	pH	SG	FP	As	Ba	Cd	Cr	Pb	Hg	Se	Ag
	Reg. Limit	<2 or >10	na	< 100	5	100	1	5	5	0.2	1	5
LAB	*SITE*											
W	*DE*	7	na	130	< 0.05	< 0.3	0.26	0.43	2	< 0.01	< 0.05	< 0.05
W	*EL*	6	na	> 200	< 0.05	1.1	0.61	< 0.05	0.4	< 0.01	< 0.05	< 0.05
W	*HE*	6	na	110	< 0.05	< 0.3	1.9	0.16	2.2	< 0.01	< 0.05	< 0.05
C	*RE*	11.6	na	> 160	< 1	1.4	0.62	0.02	0.5	< 0.002	< 1	< 0.5

TCLP Semi Volatiles Analysis, ppm

	Parameter	cresol	2.4-DNT	Cl6-benz	Cl6-13-but	Cl6-eth	nitrobenz	Cl5-phenol	pyridine	2.4.5-TCP	2.4.6-TCP
	Reg. Limit	200	0.13	0.13	0.5	3	2	100	5	400	2
LAB	*SITE*										
W	*DE*	0.13	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.17	< 0.17	< 0.033	< 0.033
W	*EL*	0.43	< 0.071	< 0.071	< 0.071	< 0.071	< 0.071	< 0.36	< 0.36	< 0.071	< 0.071
W	*HE*	1.3	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.65	< 0.65	< 0.13	< 0.13
C	*RE*	0.92	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.17	< 0.17	< 0.033	< 0.033

TCLP Volatiles Analysis, ppm

	Parameter	benzene	CCl4	Clbenz	CHCl3	1.4-DClB	1.2-DCA	1.1-DCE	MEK	PCE	TCE	VChloride
	Reg. Limit	0.5	0.5	100	6	7.5	0.5	0.7	200	0.7	0.5	0.2
LAB	*SITE*											
W	*DE*	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25
W	*EL*	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 2.0	< 0.10	< 0.10	< 0.20
W	*HE*	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 2.0	0.17	< 0.10	< 0.20
C	*RE*	< 0.05	< 0.05	< 0.05	< 0.05	< 0.1	< 0.05	< 0.05	< 1	< 0.05	< 0.05	< 0.1

Parts Washer Distillation Bottoms Wastes

Physical Properties and TCLP Metals Analysis, ppm

	Parameter	pH	SG	FP	As	Ba	Cd	Cr	Pb	Hg	Se	Ag
	Reg. Limit	<2 or >10	na	< 100	5	100	1	5	5	0.2	1	5
LAB	*SITE*											
M	*CL*	6	na	> 160	< 0.5	0.31	0.49	< 0.01	1.8	< 0.001	< 0.2	< 0.01
W	*DE*	7.5	0.79	80	< 0.05	0.9	0.57	< 0.05	11	< 0.01	< 0.05	< 0.05
W	*EL*	7.5	na	> 200	< 0.05	< 0.3	0.44	< 0.05	0.6	< 0.01	< 0.05	< 0.05
W	*HE*	5.5	na	135	< 0.05	0.7	0.19	< 0.05	1.9	< 0.01	< 0.05	< 0.05
M	*LE*	6	na	> 160	< 0.5	0.8	1.2	0.42	8.3	< 0.001	< 0.2	< 0.01
M	*MA*	6.5	na	125	< 0.5	< 1.0	0.062	0.012	0.84	< 0.001	< 0.2	< 0.01
C	*RE*	7.5	0.86	> 160	< 50	1	< 1	< 1	13	< 0.05	< 50	< 30

TCLP Semi Volatiles Analysis, ppm

	Parameter	cresol	2.4-DNT	Cl6-benz	Cl6-13-but	Cl6-eth	nitrobenz	Cl5-phenol	pyridine	2.4.5-TCP	2.4.6-TCP
	Reg. Limit	200	0.13	0.13	0.5	3	2	100	5	400	2
LAB	*SITE*										
M	*CL*	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.84	< 0.84	< 0.17	< 0.17
W	*DE*	1.1	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 1.7	< 1.7	< 0.33	< 0.33
W	*EL*	0.89	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.50	< 0.50	< 0.10	< 0.10
W	*HE*	0.25	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.17	< 0.17	< 0.033	< 0.033
M	*LE*	69	< 6.7	< 6.7	< 6.7	< 6.7	< 6.7	< 33	< 33	< 6.7	< 6.7
M	*MA*	4	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.17	< 0.17	< 0.033	< 0.033
C	*RE*	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 1.7	< 1.7	< 0.33	< 0.33

Parts Washer Distillation Bottoms Wastes

TCLP Volatiles Analysis, ppm

	Parameter	benzene	CCl4	Clbenz	CHCl3	1.4-DClB	1.2-DCA	1.1-DCE	MEK	PCE	TCE	VChloride
	Reg. Limit	0.5	0.5	100	6	7.5	0.5	0.7	200	0.7	0.5	0.2
LAB	*SITE*											
M	*CL*	< 0.10	< 0.10	< 0.10	< 0.10	< 0.20	< 0.10	< 0.10	< 2.0	< 0.10	< 0.10	< 0.20
W	*DE*	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 2.0	< 0.10	0.17	< 0.20
W	*EL*	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 2.0	< 0.10	< 0.10	< 0.20
W	*HE*	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 2.0	< 0.10	< 0.10	< 0.20
M	*LE*	< 0.10	< 0.10	< 0.10	< 0.10	0.93	< 0.10	< 0.10	< 2.0	0.61	0.12	< 0.20
M	*MA*	< 0.10	< 0.10	< 0.10	0.15	< 0.20	< 0.10	< 0.10	< 2.0	< 0.10	< 0:10	< 0.20
C	*RE*	< 0.05	< 0.05	< 0.05	< 0.05	< 0.1	< 0.05	< 0.05	< 1	< 0.05	< 0.05	< 0.1

Parts Washer Solvent Wastes

Volatile Organics (EPA 8240) Analysis, ppm

Parameter		CH3Cl	CH3Br	C2H3Cl	C2H5Cl	CH2Cl2	acetone	CS2	1.1-DCE	1.1-DCA	1.2-DCE	CHCl3
LAB	SITE											
M	CL	< 100	< 100	< 100	< 100	< 50	< 1000	< 50	< 50	< 50	< 50	< 50
W	DE	< 12000	< 12000	< 12000	< 12000	< 6100	< 120000	< 6100	< 6100	< 6100	< 6100	< 6100
W	EL	< 120	< 120	< 120	< 120	< 62	< 1200	< 62	< 62	< 62	< 62	< 62
W	HE	< 120	< 120	< 120	< 120	69	< 1200	< 62	< 62	< 62	< 62	< 62
M	LE	< 100	< 100	< 100	< 100	< 50	< 1000	< 50	< 50	< 50	< 50	< 50
M	MA	< 250	< 250	< 250	< 250	120	< 2500	< 120	< 120	< 120	< 120	< 120
C	RE	< 600	< 600	< 600	< 600	< 300	< 6000	< 300	< 300	< 300	< 300	< 300

Parameter		1,2-DCA	MEK	1.1.1-TCA	CCl4	v-acetate	CHBrCl2	1.2-DCPA	1.3-DCPE	TCE	CHBr2Cl	1.1.2-TCA
LAB	SITE											
M	CL	< 50	< 1000	< 50	< 50	< 500	< 50	< 50	< 50	410	< 50	< 50
W	DE	< 6100	< 120000	38000	< 6100	< 61000	< 6100	< 6100	< 6100	< 6100	< 6100	< 6100
W	EL	< 62	< 1200	750	< 62	< 620	< 62	< 62	< 62	< 62	< 62	< 62
W	HE	< 62	< 1200	480	< 62	< 620	< 62	< 62	< 62	< 62	< 62	< 62
M	LE	< 50	< 1000	300	< 50	< 500	< 50	< 50	< 50	61	< 50	< 50
M	MA	< 120	< 2500	< 120	< 120	< 1200	< 120	< 120	< 120	< 120	< 120	< 120
C	RE	< 300	< 6000	2300	< 300	< 3000	< 300	< 300	< 300	< 300	< 300	< 300

Parameter		benzene	2-CVE	1.3-DCPE	CHBr3	Me-2-pen	2-hex'one	PCE	1.1.2.2PCA	toluene	Cl-benz	eth-benz
LAB	SITE											
M	CL	< 50	< 100	< 50	< 50	< 500	< 500	96	< 50	180	< 50	67
W	DE	< 6100	< 12000	< 6100	< 6100	< 61000	< 61000	72000	< 6100	48000	< 6100	32000
W	EL	< 62	< 120	< 62	< 62	< 620	< 620	930	< 62	540	< 62	310
W	HE	< 62	< 120	< 62	< 62	< 620	< 620	1900	< 62	340	< 62	390
M	LE	< 50	< 100	< 50	< 50	< 500	< 500	140	< 50	290	< 50	150
M	MA	< 120	< 250	< 120	< 120	< 1200	< 1200	< 120	< 120	420	< 120	140
C	RE	< 300	< 600	< 300	< 300	< 3000	< 3000	1500	< 300	1500	< 300	580

Parts Washer Solvent Wastes

Volatile Organics (EPA 8240) Analysis, ppm

Parameter		styrene	xylenes	1.2-DCIB	1.3-DCIB	1.4-DCIB
LAB	SITE					
M	CL	< 50	660	< 100	< 100	< 100
W	DE	< 6100	410000	79000	29000	< 6100
W	EL	< 62	2500	< 62	< 62	< 62
W	HE	90	3400	340	< 62	90
M	LE	< 50	1300	140	< 100	< 100
M	MA	< 120	920	< 250	< 250	< 250
C	RE	17000	3900	1900	380	1500

Parts Washer Solvent Wastes

Semivolatile Organics (EPA 8270) Analysis, ppm

Parameter		phenol	b-2Cl-ethr	2Cl-phenol	1,3-DClB	1,4-DClB	benzyl 'ol	1,2-DClB	2Me-pheno	b-2Cl-IPE	4Me-pheno	N-nitroso
LAB	SITE											
M	CL	< 1	< 1	< 1	< 1	< 1	< 2	< 1	< 1	< 1	< 1	< 1
W	DE	< 100	< 100	< 100	< 100	< 100	< 100	< 100	280	< 100	< 100	< 100
W	EL	< 1200	< 1200	< 1200	< 1200	< 1200	< 2500	< 1200	< 1200	< 1200	< 1200	< 1200
W	HE	< 1200	< 1200	< 1200	< 1200	< 1200	< 2500	< 1200	< 1200	< 1200	< 1200	< 1200
M	LE	< 50	< 50	< 50	< 50	< 50	< 100	< 50	< 50	< 50	< 50	< 50
M	MA	< 100	< 100	< 100	< 100	< 100	< 200	< 100	< 100	< 100	< 100	< 100
C	RE	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100

Parameter		C2Cl6	nitrobenz	Isophorone	2ntroph'ol	2,4Meph'ol	benz acid	b-2Clethox	2,4-dClph	1,2,4-TClB	Naph'ene	4-Clanilline
LAB	SITE											
M	CL	< 1	< 1	< 1	< 1	< 1	< 5	< 1	< 1	< 1	< 1	< 2
W	DE	< 100	< 100	< 100	< 100	< 100	< 500	< 100	< 100	< 100	1100	< 100
W	EL	< 1200	< 1200	< 1200	< 1200	< 1200	< 6200	< 1200	< 1200	< 1200	< 1200	< 2500
W	HE	< 1200	< 1200	< 1200	< 1200	< 1200	< 6200	< 1200	< 1200	< 1200	< 1200	< 2500
M	LE	< 50	< 50	< 50	< 50	< 50	< 250	< 50	< 50	< 50	1300	< 100
M	MA	< 100	< 100	< 100	< 100	< 100	< 500	< 100	< 100	< 100	920	< 200
C	RE	< 100	< 100	< 100	< 100	< 100	< 500	< 100	< 100	< 100	1900	< 100

Parameter		Cl6buladien	4Cl3Mephnl	2-Menaph	Cl6cycpent	2,4,6tClph	2,4,5tClph	2-Clnaph	2-ntroanil	Me2phthal	acenaphthy	2,6-DNT
LAB	SITE											
M	CL	< 1	< 2	< 1	< 1	< 1	< 1	< 1	< 5	< 1	< 1	< 1
W	DE	< 100	< 100	330	< 100	< 100	< 500	< 100	< 500	< 100	< 100	< 100
W	EL	< 1200	< 1200	< 1200	< 1200	< 1200	< 1200	< 1200	< 6200	< 1200	< 1200	< 1200
W	HE	< 1200	< 1200	< 1200	< 1200	< 1200	< 1200	< 1200	< 6200	< 1200	< 1200	< 1200
M	LE	< 50	< 100	420	< 50	< 50	< 50	< 50	< 250	< 50	< 50	< 50
M	MA	< 100	< 200	570	< 100	< 100	< 100	< 100	< 500	< 100	< 100	< 100
C	RE	< 100	< 100	1900	< 100	< 100	< 500	< 100	< 500	< 100	< 100	< 100

Parts Washer Solvent Wastes

Semivolatile Organics (EPA 8270) Analysis, ppm

Parameter		3-ntroanil	acenaphthe	2,4dntrophe	4ntrophenol	dibenfuran	2,4-DNT	dethphthal	4Clphenphe	fluorene	4-ntroanil	4,6dn2Mep
LAB	SITE											
M	CL	< 5	< 1	< 5	< 5	< 1	< 1	< 1	< 1	< 1	< 5	< 5
W	DE	< 500	< 100	< 500	< 500	< 100	< 100	< 100	< 100	< 100	< 500	< 500
W	EL	< 6200	< 1200	< 6200	< 6200	< 1200	< 1200	< 1200	< 1200	< 1200	< 6200	< 6200
W	HE	< 6200	< 1200	< 6200	< 6200	< 1200	< 1200	< 1200	< 1200	< 1200	< 6200	< 6200
M	LE	< 250	< 50	< 250	< 250	< 50	< 50	< 50	< 50	< 50	< 250	< 250
M	MA	< 500	< 100	< 500	< 500	< 100	< 100	< 100	< 100	< 100	< 500	< 500
C	RE	< 500	< 100	< 500	< 500	< 100	< 100	< 100	< 100	< 100	< 500	< 500

Parameter		N-nitroso	4Brphenph	Cl6benzene	Cl5phenol	phenanthre	anthracene	d-n-bulpht	fluoranthen	pyrene	butbenphth	3,3'Cl2benz
LAB	SITE											
M	CL	< 1	< 1	< 1	< 5	< 1	< 1	< 1	< 1	< 1	< 1	< 2
W	DE	< 100	< 100	< 100	< 500	< 100	< 100	< 100	< 100	< 100	< 100	< 200
W	EL	< 1200	< 1200	< 1200	< 6200	< 1200	< 1200	< 1200	< 1200	< 1200	< 1200	< 2500
W	HE	< 1200	< 1200	< 1200	< 6200	< 1200	< 1200	< 1200	< 1200	< 1200	< 1200	< 2500
M	LE	< 50	< 50	< 50	< 250	< 50	< 50	< 50	< 50	< 50	< 50	< 100
M	MA	< 100	< 100	< 100	< 500	< 100	< 100	< 100	< 100	< 100	< 100	< 200
C	RE	< 100	< 100	< 100	< 500	< 100	< 100	< 100	< 100	< 100	490	< 200

Parameter		ben[a]anthr	chrysene	b2ethhexph	d-n-octpht	ben[b]fluor	ben[k]fluor	ben[a]pyren	ind[123-cd]	dben[a,h]an	ben[ghi]per
LAB	SITE										
M	CL	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
W	DE	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100
W	EL	< 1200	< 1200	< 1200	< 1200	< 1200	< 1200	< 1200	< 1200	< 1200	< 1200
W	HE	< 1200	< 1200	< 1200	< 1200	< 1200	< 1200	< 1200	< 1200	< 1200	< 1200
M	LE	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
M	MA	< 100	< 100	160	< 100	< 100	< 100	< 100	< 100	< 100	< 100
C	RE	< 100	< 100	1400	< 100	< 100	< 100	< 100	< 100	< 100	< 100

Parts Washer Solvent Wastes

	Parameter	pH	SG	FP	As	Ba	Cd	Cr	Pb	Hg	Se	Ag
	Reg. Limit	<2 or >10	na	< 100	5	100	1	5	5	0.2	1	5
LAB	*SITE*											
M	*CL*	5.5	0.79	125	< 0.5	0.51	0.041	< 0.01	0.47	< 0.001	< 0.2	< 0.01
W	*DE*	6.5	0.799	110	< 0.05	0.6	< 0.05	< 0.05	1.3	< 0.01	< 0.05	< 0.05
W	*EL*	7	0.777	151	< 0.05	0.6	0.06	< 0.05	0.5	< 0.01	< 0.05	< 0.05
W	*HE*	6.5	0.775	95	< 0.05	1.2	0.07	< 0.05	1.2	< 0.01	< 0.05	< 0.05
M	*LE*	6	0.78	115	< 0.5	0.27	0.055	< 0.01	0.74	0.002	< 0.2	< 0.01
M	*MA*	6.5	0.8	110	< 0.5	< 1.0	0.059	0.017	1.6	0.0018	< 0.2	< 0.01
C	*RE*	8	0.79	78	< 1	0.09	0.05	< 0.02	0.5	< 0.002	< 1	< 0.05

TCLP Semi Volatiles Analysis, ppm

	Parameter	cresol	2.4-DNT	Cl6-benz	Cl6-13-but	Cl6-eth	nitrobenz	Cl5-phenol	pyridine	2.4.5-TCP	2.4.6-TCP
	Reg. Limit	200	0.13	0.13	0.5	3	2	100	5	400	2
LAB	*SITE*										
M	*CL*	9	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.17	< 0.17	< 0.033	< 0.033
W	*DE*	3	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.17	< 0.17	< 0.033	< 0.033
W	*EL*	6.7	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 5.0	< 1.0	< 1.0
W	*HE*	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 1.6	< 1.6	< 0.33	< 0.33
M	*LE*	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.17	< 0.17	< 0.033	< 0.033
M	*MA*	< 0.67	4.4	< 0.67	< 0.67	< 0.67	< 0.67	< 3.3	< 3.3	< 0.67	< 0.67
C	*RE*	0.21	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.17	< 0.17	< 0.033	< 0.033

TCLP Volatiles Analysis, ppm

	Parameter	benzene	CCl4	Clbenz	CHCl3	1.4-DClB	1.2-DCA	1.1-DCE	MEK	PCE	TCE	VChloride
	Reg. Limit	0.5	0.5	100	6	7.5	0.5	0.7	200	0.7	0.5	0.2
LAB	*SITE*											
M	*CL*	< 0.10	< 0.10	< 0.10	< 0.10	< 0.20	< 0.10	< 0.10	< 2.0	0.61	< 0.10	< 0.20
W	*DE*	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 2.0	0.16	< 0.10	< 0.20
W	*EL*	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	3.9	2.8	< 0.10	< 0.20
W	*HE*	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 2.0	< 0.10	0.49	< 0.20
M	*LE*	< 0.10	< 0.10	< 0.10	< 0.10	< 0.20	< 0.10	< 0.10	< 2.0	0.58	< 0.10	< 0.20
M	*MA*	0.15	< 0.10	< 0.10	0.41	< 0.20	< 0.10	< 0.10	< 2.0	0.15	< 0.10	< 0.20
C	*RE*	0.12	< 0.05	< 0.05	< 0.05	0.38	< 0.05	< 0.05	1.3	0.27	< 0.05	< 0.1

ATTACHMENT II.A.6

WASTE ANALYSIS PLAN

ATTACHMENT II.A.6
WASTE ANALYSIS PLAN

GENERAL

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

Spent solvents are the primary feedstocks for the generation of Safety-Kleen solvent products. As a result, quality control of the spent solvents is necessary to ensure that reclamation occurs in the safest and most efficient manner possible.

Furthermore, as discussed earlier in the Facility Description (Attachment I.D.2), the materials collected at the Service Center are usually collected from a company with a single process. The composition and quality of these materials are known and Safety-Kleen's operating experiences have shown that the collected materials rarely deviate from company specifications. As an additional safeguard, Safety-Kleen personnel are instructed to inspect all materials before returning them to the service centers. This mode of operation has been proven to safeguard the recycling process and maintain a quality product.

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

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

1. Limiting the solvents stored to those compatible with one another and their containers;

2. Determining the customer's type of business (i.e., his SIC code is recorded) and the purpose for which he will use the machine;

3. Training customers to use the machines properly;

4. Training employees to inspect spent solvent and determine whether it is acceptable;

5. Indicating on the service document, every time waste is collected, whether the spent solvent meets Safety-Kleen's acceptance criteria;

6. Marking each container with the customer's name, address, and EPA I.D. number (if required). This information remains on containerized waste until it is accepted at the reclamation facility;

7. Keeping a record of each incoming and outgoing shipment in the operating log at each facility;

8. Demonstrating the chemical and physical homogeneity of the wastes by sampling and analyzing a representative portion of individual generator waste streams on an ongoing annual basis; and

9. Routine analysis of the wastes received at the Recycle Centers.

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

1. The name, address, and EPA I.D. number of the facility to which the waste is being shipped;

2. The customer's name, address, and EPA I.D. number (if required); and

3. The description and amount of Safety-Kleen solvent waste generated.

Each incoming and outgoing shipment is recorded in the facility's operating log. In addition, each sales representative must complete an acceptance criteria checklist each time a waste is picked up. Finally, environmental activity reviews may be utilized to guard against the addition of other wastes into the generator's waste.

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

QUALITATIVE WASTE ANALYSES

General Inspection Procedures

Safety-Kleen visually inspects each container of waste when it is collected at the customer's location. This inspection includes an evaluation of the waste volume, appearance, and consistency. Safety-Kleen's personnel are familiar with the characteristics of all wastes at the Florida facilities as described in Attachment II.A.5. Safety-Kleen has established specific criteria for wastes managed at their facilities based on known characteristics. These criteria, described below, are used by Safety-Kleen personnel to aid in their visual inspections. These acceptance criteria enable Safety-Kleen to help ensure that the wastes being picked-up is an acceptable waste and does not contain unacceptable contaminates.

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

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

If the laboratory analysis reveals that the sampled waste is not contaminated, Safety-Kleen will accept the waste from the customer.

If the laboratory confirms that the waste is contaminated, the generator will be responsible for securing an alternate means of disposal and Safety-Kleen will attempt to reconcile the discrepancy with the generator (e.g., telephone conversations). If the discrepancy is not resolved within 15 days after receiving the waste, Safety-Kleen will immediately submit to the department a letter describing the discrepancy and attempts to reconcile it, and it will submit a copy of the manifest or shipping paper at issue, in accordance with 40 CFR 264.72.

Waste Specific Criteria

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

Spent Parts Washer Solvent

The acceptance criteria for determining by visual inspection whether spent parts washer solvent has been contaminated are volume and color, the most significant of which is volume. Safety-Kleen places clean parts washer solvent in 5-, 16-, and 30-gallon containers with the customer which, if no additional material has been added to the container, should not hold more than the 5, 10, and 19 gallons of waste, respectively, at the time of waste pick-up since those volumes are equal to the respective product amounts in the containers. If the volume of waste in a given container exceeds the specified level, the Safety-Kleen service representative will sample the waste for laboratory testing as described above, or will reject the waste.

The spent parts washer solvent is also visually inspected for its color. Unused parts washer solvent has a greenish tint. As the solvent is used, it turns brown in color. The more it is used, the darker brown it becomes, until it is almost black. Therefore, if the spent solvent does not appear to be green, brown, or black, the service representative will sample the waste for possible contamination as described above, or will reject the waste.

Immersion Cleaner

The criteria for the inspection of spent immersion cleaner are volume, color, and physical state. Clean immersion cleaner is delivered to the customer in containers. These containers each contain six gallons of immersion cleaner. Spent immersion cleaner is picked up from the customer in the same containers. If no additional material has been added to the spent immersion cleaner, the containers should contain no more than six gallons. If a container contains more than six gallons of waste, a sample will be collected and analyzed for contamination following the procedures described above or the waste will be rejected.

Unused immersion cleaner is amber in color. As the solvent is used, it turns brown in color. The more it is used, the darker brown it becomes, until it is almost black. Therefore, it the spent immersion cleaner does not appear to be amber, brown, or black, the service representative will either sample the waste for possible contamination as described above, or reject the container of waste.

Dry Cleaner Wastes

Dry cleaner wastes consist of spent filter cartridges, powder residue, and still bottoms:

Spent Filter Cartridges

Spent filter cartridges are placed in either a 15-gallon ("split 30") container which holds three cartridges or a 16-gallon container which holds either one jumbo filter cartridge or two smaller filter cartridges. It is obvious to the service representative whether the items in the containers are filter cartridges. The containers may also contain approximately one inch of liquid which should be either clear or have a light brownish tint. If the amount of the liquid is greater than approximately one inch or if the liquid is a color other than light brown, the service representative will sample the waste for contamination in accordance with the procedures described above, or will reject the waste.

Powder Residue

The criteria for the acceptance of powder residue are consistency and color, the former being the more significant criterion of the two. A container of powder residue should not contain more than one inch of liquid. The waste should be slightly wet, with the consistency of a paste. If there is too much liquid in the container, the waste will be sampled for contamination in accordance with the procedures described above, or the waste will be rejected.

The powder residue is also inspected for color and should appear to be greyish-black. IF the residue is not greyish-black in color, the service representative will sample the waste for contamination in accordance with the procedures described above, or will reject the waste.

Still Bottoms

The criteria for the acceptance of dry cleaning still bottoms are consistency and color. The waste should have a highly viscous, tar-like consistency. If the consistency of the waste is too thin, the waste will be sampled for contamination in accordance with the procedures described above, or will be rejected.

In addition to the consistency, the still bottom waste is inspected for color. The waste should appear dark brown or black in color. If the waste is a different color, a service representative will sample the waste for contamination in accordance with the procedures described above, or will reject the waste.

Paint Wastes

Safety-Kleen handles both lacquer thinner waste generated from the paint gun cleaning process and paint waste:

Lacquer Thinner Waste

The significant criterion for determining whether lacquer thinner waste will be accepted is volume. The solvent is provided to customers in five-gallon pails. The paint gun cleaning machine operates as a closed system whereby there should never be a combined volume of more than 7.5 gallons of solvent in the two collection pails. The solvent is pumped from a tube in a left hand pail (facing the machine) through the machine into a right hand pail. The tube in the left hand pail extends exactly half way into the pail (i.e., to the 2.5 gallon mark). The left hand pail starts with five gallons of clean solvent which will be pumped out as the machine is used to clean the spray guns. This process will continue until the left hand pail contains 7.5 gallons of solvent. Any solvent above 7.5 gallons remaining in the left hand pail at the time of servicing will be pumped through the machine into the right hand pail by the Safety-Kleen service representative. Therefore, when the machine is serviced, the right hand pail will always contain five gallons of solvent. If a service representative discovers more than a total of 7.5 gallons of solvent in the two pails or there is an overfill from the right hand pail, the waste will be sampled for contamination in accordance with the procedures described above, or the waste will be rejected.

Paint Waste

The significant criterion for the inspection of paint waste is consistency. The waste should contain no more than 30 percent solids. The service representative will insert a three-foot-long glass tube into the container. The tube should glide easily down to the bottom of the container. If there is resistance to the insertion of the glass tube, it is assumed that the level of solids is in excess of 30 percent and the service representative will reject the waste.

The contents of the glass tube are also visually examined for consistency and water content. The material should be a "free flowing" liquid, but should not contain a significant amount of water. If there is more than approximately 10 inches of water in

the three-foot tube (the water and paint will separate in the tube and thus can be measured), the waste will be rejected.

Antifreeze Waste

Spent antifreeze is collected in carboys or containers at a customer's place of business until it is picked up by Safety-Kleen and pumped into a tanker truck. Prior to transferring the spent antifreeze into the tanker truck, the Safety-Kleen service representative is responsible for visually inspecting the waste. Spent antifreeze is typically yellowish green to blue in color with traces of orange, red, or black discoloration due to ferric oxide (i.e., rust). A slight sheen may be present on the surface of the spent antifreeze due to the presence of oils or other petroleum products. Sediment (brownish or black) may collect in the carboy due to particulate matter from vehicle engines, rust, dirt, or other matter.

If the spent antifreeze does not meet the criteria described above, the Safety-Kleen service representative may collect a sample of the waste for analysis or request that the customer analyze the waste.

ONSITE ENVIRONMENTAL ACTIVITY REVIEW PROGRAM

Based on historical operating and analytical records, Safety-Kleen has determined that the characteristics of its customer's wastes (particularly the last 10 years) reflect that there has, in fact, been a continuing reduction in the trace levels of characteristically toxic constituents in these wastes. Therefore, in concert with the sampling described in this waste analysis plan, Safety-Kleen may conduct reviews of customer's waste streams. This review, in addition to the analytical baseline of information, will confirm that the hazardous waste streams managed at the Service Centers under conditions of the Part B Permit do not change from year to year. Annual process descriptions may be performed for Large Quantity Generators (LQGs) and Small Quantity Generators (SQGs) that generate these wastes.

If a review occurs, it will be performed at the customer's site by the Safety-Kleen sales representative during their regular service calls. The Safety-Kleen representative will meet with a customer representative who is knowledgeable of the Safety-Kleen services used at the facility. The Safety-Kleen representative will conduct an inspection of the facility and interview the customer. The inspection and interview will be used to generate: a description of the customer's processes, an inventory of waste streams, the principal product(s) or service(s), and the purpose for which Safety-Kleen solvents are used. This information will be used to complete a review document which will be certified and signed by the customer's representative and the Safety-Kleen representative. A copy of the completed review document will be kept on file at the Service Center and copy will be provided to the customer.

WASTE ANALYSES AT THE RECYCLE FACILITY

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

Table II.A.6-1	Parameters and Rationale for Hazardous Waste Identification
Table II.A.6-2	Parameters and Test Methods
Table II.A.6-3	Methods Used to Sample Hazardous Wastes
Table II.A.6-4	Frequency of Analysis

In addition to the aforementioned analyses, TCLP analyses for all compounds, except pesticides, will be conducted every five years on all characteristic hazardous waste

TABLE II.A.6-1
PARAMETERS AND RATIONALE
FOR HAZARDOUS WASTE IDENTIFICATION

Hazardous Waste	Parameter[a]	Rationale
1. Used Immersion Cleaner (609IC)	Methylene Chloride Orthodichlorobenzene Cresylic Acid	Formula contains these ingredients: F002 & Cresylic Acid F004
2. Used Immersion Cleaner (699IC)	TCLP	May contain these compounds
3. Used Mineral Spirits	Flash Point TCLP	Ignitable characteristics D001; may contain these compounds
4. Mineral Spirits Tank Bottom Sludge and Free Water	TCLP Flash Point	The sludge and free water may contain these compounds and the sludge has a flash point of 105° F (D001)
5. Mineral Spirits Dumpster Mud	TCLP Flash Point	The sludge and free water may contain these compounds and the sludge has a flash point of 105° F (D001)
6. Dry Cleaning Wastes	Perchloroethylene Trichlorotrifluoroethane Mineral Spirits	Contain ingredient of F002 or contains a hazardous constituent. Ignitable characteristics D001
7. Paint Wastes	Toluene, Xylene, Methyl ethyl ketone, Methyl isobutyl ketone, Acetone, Isopropanol, Methanol, Ethanol, Normal butyl acetate, Isobutyl acetate, Cadmium, Chromium, Lead	Contains these components: F003, F005, D001, D006, D007, and D008
8. Spent Antifreeze	TCLP	May contain these compounds

FOOTNOTE:

[a] TCLP Waste Codes: D004-D011, D018, D019, D021-D030, D032-D043.

TABLE II.A.6-2

PARAMETERS AND TEST METHODS

Parameter	Test Method	Reference
pH	pH Meter	EPA 9045/SK9906
Flash Point	Tag closed cup tester	EPA 1030/SK9401
TCLP	Toxicity Characteristic Leaching Procedure	40 CFR 261, Appendix II
Hydrocarbons and Volatile Organics	Gas Chromatography (GC)	Modified Methods Based on "Test Methods for Evaluation of Solid Waste, Physical/Chemical Methods," SW-846, USEPA and ASTM Standards
Specific Gravity	Meter	ASTM D 891/SK9903

TABLE II.A.6-3

METHODS USED TO SAMPLE HAZARDOUS WASTES

Hazardous Waste	Reference for Sampling	Sampler	Description of Sampling Method
1. Used Immersion Cleaner (609IC)	Sampling a drum "Samplers and Sampling Procedures for Hazardous Waste Streams," EPA/600/2-80/018	Test Methods for the Evaluation of Solid Waste Physical/ Chemical Methods, SW-846, USEPA	Representative composite sample using drum sampler
2. Used Immersion Cleaner (699IC)	Same as 1	Same as 1	Same as 1
3. Used Mineral Spirits	Sampling a tank "Samplers and Sampling Procedures for Hazardous Waste Streams," EPA/600/2-80/018	Same as 1	For tanks--Bomb sampler (similar to weighted bottle sampler)
4. Mineral Spirits, Tank Bottom Sludge, and Free Water	Same as 3	Same as 3	Same as 3
5. Mineral Spirits Dumpster Mud	Same as 1	Same as 1	Same as 1
6. Dry Cleaning Wastes	Same as 1	Same as 1	Same as 1
7. Paint Wastes	Same as 1	Same as 1	Same as 1
8. Spent Antifreeze	Same as 1 or 3	Same as 1 or 3	Same as 1 or 3

TABLE II.A.6-4

FREQUENCY OF ANALYSIS

Hazardous Waste	Frequency[a]
1. Used Immersion Cleaner 609	Gas chromatograph annually TCLP annually
2. Used Immersion Cleaner 699	Gas chromatograph annually TCLP annually
3. Used Mineral Spirits	Gas chromatograph annually Flash point annually TCLP annually
4. Mineral Spirits, Tank Bottom Sludge, and Free Water	Gas chromatograph annually TCLP annually
5. Mineral Spirits Dumpster Mud	Gas chromatograph annually TCLP annually
6. Dry Cleaning Wastes	Gas chromatograph annually TCLP annually
7. Paint Wastes	Gas chromatograph annually TCLP annually
8. Spent Antifreeze	Gas chromatograph annually TCLP annually

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

streams (example; used mineral spirits and 699 IC). Any compounds which are positively detected in the waste stream will be added to the parameter list for that waste stream on Table II.A.6-1.

ATTACHMENT II.A.7

MANIFEST SYSTEM, RECORDKEEPING, AND REPORTING

ATTACHMENT II.A.7
MANIFEST SYSTEM, RECORDKEEPING, AND REPORTING

PROCEDURE FOR RECORDKEEPING

Inasmuch as the mineral spirits and immersion cleaner solvents are commercial products leased to the customer, shipments of the clean and used solvents and equipment are handled by invoices.

Quantities of clean solvents received from and used solvents shipped to the recycle center are always manifested as required. Shipments of mineral spirits dumpster mud will also be manifested accordingly. FRS wastes are handled as transfer wastes and will be manifested accordingly (i.e., manifests are not terminated at the service center). The handling of FRS wastes as transfer wastes includes the provision to conduct truck-to-truck transfer of wastes. Required records will be kept at the service center and the recycle center until closure of the facility.

REQUIRED NOTICES

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

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

MANIFEST SYSTEM

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

1. Obtain manifests from customers who are required to provide a manifest.

2. Sign and date each copy of the manifest to certify that the hazardous wastes covered by the manifest are received.

3. Note any significant discrepancies in the manifest (as defined in 40 CFR 264.72(a)) on each copy of the manifest.

4. Immediately give the transporter at least one copy of the manifest.

5. Within 30 days after the delivery, send a copy of the manifest to the generator.

6. Retain at the facility a copy of the manifest for at least three years from the date of delivery.

Manifest Discrepancies

In addition, discrepancies must be remediated in accordance with 40 CFR 264.72 which states that upon discovering a significant discrepancy, the owner or operator must attempt to reconcile the discrepancy with the waste generator or transporter (e.g., with telephone conversations). If the discrepancy is not resolved within 15 days after receiving the waste, the owner or operator must immediately submit to the Regional Administrator a letter describing the discrepancy and attempts to reconcile it, and a copy of the manifest or shipping paper at issue.

Unmanifested Wastes

Unmanifested wastes will be reported as described under 40 CFR 264.76. Specifically Safety-Kleen will complete EPA Form 8700-13B and submit it to the Regional Administrator within 15 days after receiving the waste. The "Unmanifested Waste Report" will include the following information:

- The EPA identification number, name, and address of the facility.
- The date the facility received the waste.
- The EPA identification number, name, and address of the generator and the transporter, if available.
- A description and the quantity of each unmanifested hazardous waste and facility received.
- The method of treatment, storage, or disposal for each hazardous waste.
- The certification signed by the owner or operator of the facility or his authorized representative.
- A brief explanation of why the waste was unmanifested, if known.

Operating Record

An operating log which contains the information required under 40 CFR 264.73 will be maintained and all records and logs will be available at the facility, in accordance with 40 CFR 264.74.

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

- A description and quantity of each hazardous waste received;
- The date and storage method for such hazardous waste;
- The location and quantity of each hazardous waste stored within the facility;
- Records and results of waste analyses performed;
- Summary reports and details of all incidents that require implementation of the Contingency Plan;
- Records and results of inspections as required by 265.15(d) (except these data need be kept only three years);
- Monitoring, testing, or analytical data, and corrective action where required by Subpart F and other applicable sections of 264;
- All closure cost estimates under 264.142 and all contingent post-closure cost estimates under 264.144;
- A certification by the permittee no less often than annually, that the permittee has a program in place to reduce the volume and toxicity of hazardous waste that he generates to the degree determined by the permittee to be economically practicable; and the proposed method of treatment, storage, or disposal is that practicable method currently available to the permittee which minimizes the present and future threat to human health and the environment.

- Records of quantities and date of placement for each shipment of hazardous waste placed in land disposal units under an extension to the effective date of any land disposal restriction granted; and

- For any restricted waste generated that can be land disposed without further treatment, and is sent to a land disposal facility, a notice and certification will be set to the treatment, storage, or land disposal facility with the waste. The notice will state that the waste meets the applicable treatment standards set forth in Subpart D of 268 and applicable prohibitions set forth in 268.32 or RCRA Section 3004(d). The notice will include the following information:

  - EPA Hazardous Waste Number; and

  - The corresponding treatment standards and all applicable prohibitions set forth in 268.32 or RCRA Section 3004(d).

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

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

Section 264.74 requires that all records, including plans, must be furnished upon request to duly designed representative of the Regional Administrator, and this requirement will

be honored. A copy of all records of waste disposal locations and quantities will be submitted to the Regional Administrator and/or FDER upon closure of the facility, if applicable.

Annual reports will be prepared and submitted by Safety-Kleen, and these records will also be available at the facility for review.

Biennial Report

A biennial report will be submitted to the Regional Administrator and/or FDER by March 1 during each even numbered year (1990 being the first year) on EPA form 8700-13B. The report will cover facility activities during the previous calendar years and will include:

- The EPA identification number, and address of the facility;
- The calendar year covered by the report;
- The EPA identification number of each hazardous waste generator from which the facility received a hazardous waste during the year; for imported shipments, the report must give the name and address of the foreign generator;
- A description and the quantity of each hazardous waste the facility received during the year. For offsite facilities, this information must be listed by EPA identification number of each generator.
- The method of treatment, storage, or disposal for each hazardous waste;

- The most recent closure cost estimate under 264.142 and the most recent contingent post-closure cost estimate under 264.144;

- For generators who treat, store, or dispose of hazardous waste onsite, a description of the efforts undertaken during the year to reduce the volume and toxicity of waste generated.

- For generators who treat, store, or dispose of hazardous waste onsite, a description of the changes in volume and toxicity of waste actually achieved during the year in comparison to previous years to the extent such information is available for the years prior to 1984; and

- A certification signed by the owner or operator of the facility or the authorized representative.

LAND BAN NOTIFICATION/CERTIFICATION FORMS

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

1. Printing the Notice language on the manifest such as for core-business customers to branch shipments; or

2. Special forms for each regularly handled waste types (e.g., Mineral spirits, immersion cleaner, and perchloroethylene); or

3. A general form that must be completed for unique or non-standard waste streams.

The Notice is required paperwork for the streams handled by Safety-Kleen. Shipments lacking the proper Notice will not be accepted by any Safety-Kleen facility. When a

shipment with the proper Notice is received, the Notice is kept in the files of the receiving facility with the manifest or with the pre-print if a manifest is not used.

PART II B

CONTAINERS

ATTACHMENT II.B.1

CONTAINMENT SYSTEM

ATTACHMENT II.B.1
CONTAINMENT SYSTEM

CONTAINMENT

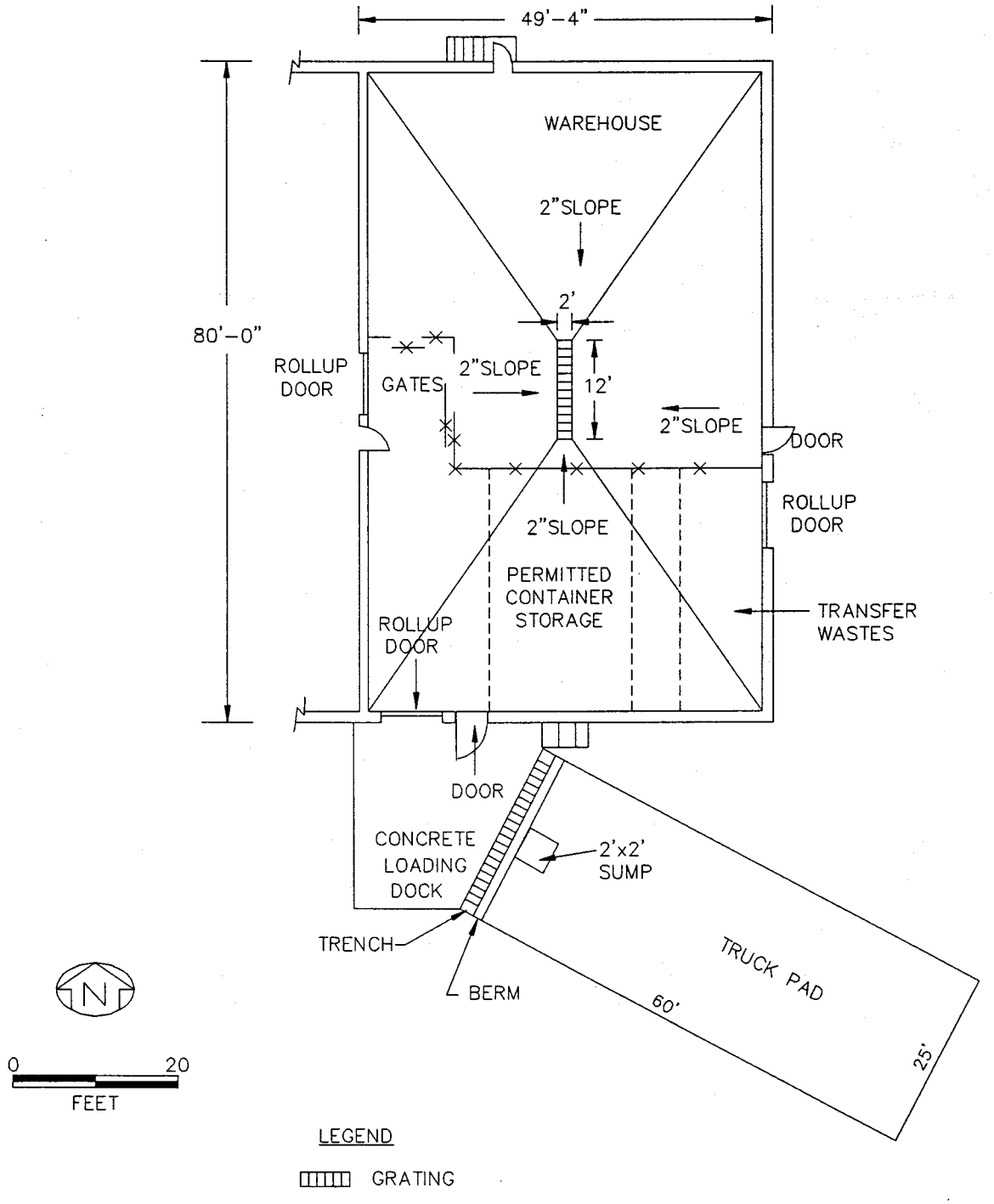
The indoor drum storage area shown in Figure II.B.1-1, occupies a portion of the building area which has a sloped concrete floor and a collection trench to form a spill containment system. The capacity of the containment system is designed to be greater than ten percent of the total liquid storage capacity.

The containment area is free of cracks and coated with a concrete sealant (Semstone 245), which is resistant to the materials handled in the container storage area. Semstone 245 or equivalent will be used for all future repairs or recoating of this area.

The containment volume is composed of the sloped concrete floor and the collection trench. As illustrated in Figure II.B.1-2, the total containment volume is 2,996 gallons. The maximum storage design capacity is 29,400 gallons. The types and number of each container may vary; however, the total volume of product and waste stored never exceeds the maximum volume of 29,400 gallons. The amount of waste that is permitted to be in the container storage area at any time is 6,912 gallons. This amount is comprised of both permitted and transfer wastes.

Spills are removed by a hand-held, portable electric pump (the COMS pump), wet/dry vacuum cleaner, or sorbent material. Product collected in the collection trench is pumped into a safe drum for transport to the recycle facility for reclamation. Only in the event that the spill exceeds the containment capacity are spilled wastes able to extend beyond the containment area. Only six openings (doorways) exist in the drum containment area. Four of these lead to other containment areas; the drum fill/return and the enclosed concrete dock (Figure II.B.1-1). The other two doorways are located on the west side of the drum containment area behind a locked chain link fence. Due to the

Figure II.B.1-1
Container Storage Area
Safety-Kleen Corp. Facility
Medley, Florida



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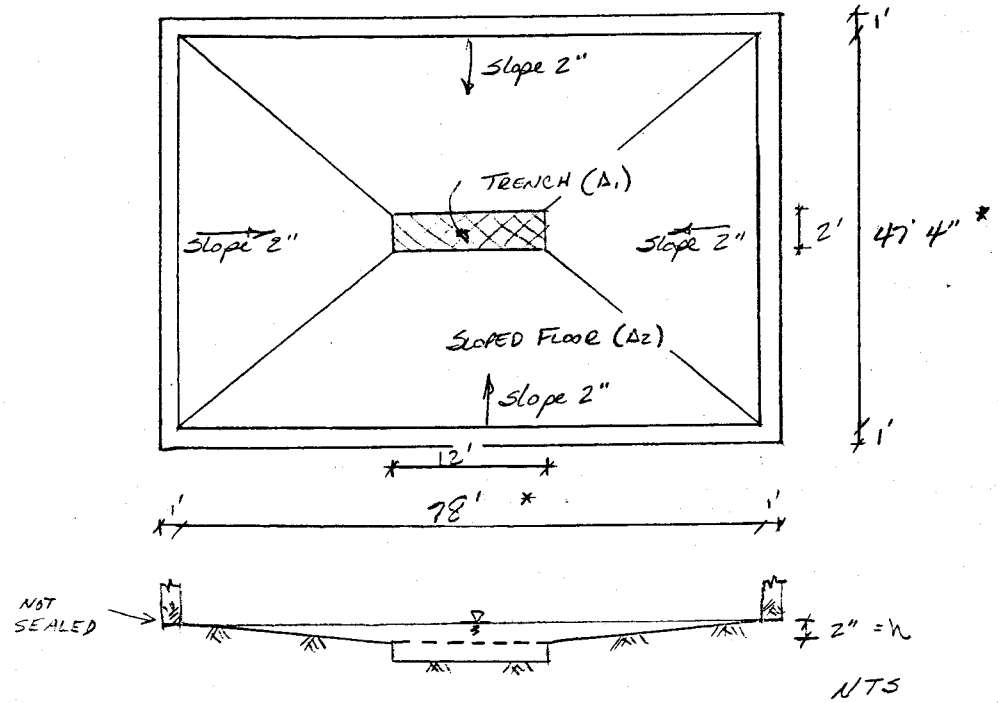
Environmental Resources Management

Project S-K - MEDLEY W.O. No. 13112.21 Sheet 1 of 3
Subject Available Storage Capacity By DS Date 7-16-92
Chkd by VH Date 7/16/92

CONTAINER STORAGE AREA (Figure II.B.1-1):

Total Storage Volume = Sloped Floor + Trench
$Vol = V_S + V_T$

1. Sloped Floor:



NTS

* Dimension in Figure II.B.1-1 less outside walls (1.0')

$$V_S = h\left(A_1 + A_2 + (A_1 A_2)^{1/2}\right)/3$$

$A_1 = (12')(2') = 24\ ft^2$ Surface Area of Trench

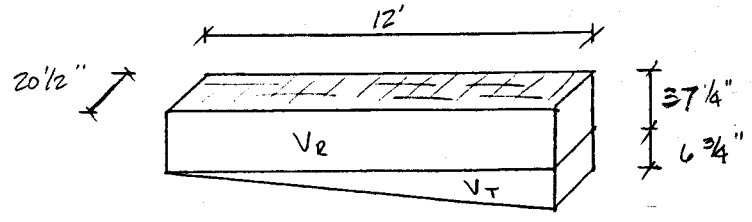
$A_2 = (78.1)(48.33) = 3692\ ft^2$ Surface Area of 2" Pool

$$\therefore V_S = \tfrac{2}{12}\left(24 + 3692 + [(24)(3692)]^{1/2}\right)/3$$

$V_S = 222.98\ ft^3\ (7.48\ gal/ft^3) = 1667.9\ gal.$

2. Trench :

$Vol_{Trench} = Vol_{Rectangular\ Section} + Vol_{Triangular\ section}$



(a) $V_R = (20\frac{1}{2}")(12')(37\frac{1}{4}")$

$= (1.71')(12')(3.10')$

$= 63.70\ ft^3\ (7.48\ gal/ft^3) = 476.46\ gal$

(b) $V_T = \frac{1}{2}(6\frac{3}{4}")(12')(20\frac{1}{2}")$

$= \frac{1}{2}(0.56')(12')(1.71')$

$= 5.77\ ft^3\ (7.48\ gal/ft^3) = 43.13\ gal$

$Vol_{Trench} = (476.46 + 43.13)\ gal$

$= 519.59\ gal$

ERM-South, Inc.
Environmental Resources Management

Project S-K Medley W.O. No. 13112.21 Sheet 3 of 3
Subject Available Storage Capacity By DS Date
Chkd by VH Date 7/16/92

CONTAINER STORAGE AREA (con't):

Total Available Storage = V_{bl} $_{\text{Sloped Floor}}$ + V_{bl} $_{\text{TRENCH}}$

V_{bl} = (1667.9 + 519.6) gal

= 2187.5 gal

∴ Allowable Storage Capacity = 21,875 gal
w/ Maximum Single Container ≤ 2188 gal

Note: Container storage area is covered therefore the total volume need not include rainfall volume.

volume of containment available and the configuration of the containment area, it is highly unlikely that any spill will extend beyond this area.

Since the characteristics of the stored wastes are known, analyses are not performed on the materials collected from the containment area. All collected materials are sent to a recycle facility for recycling/reclamation. Recovered materials that cannot be effectively reclaimed at the recycle facility are, in turn, sent to a permitted facility for disposal.

CONTAINER MOVEMENT

In the container storage area, containers are handled with a hand-truck or forklift that is free of sharp points and stacked by hand. Every time a container is moved, a chance exists that it will be tipped over, dropped, or punctured. To minimize the possibility of spillage, containers are tightly covered and kept in an upright position. A small portable electric pump is available to quickly transfer the liquid from any leaking container into another safe container. Some route trucks are equipped with an electric hoist. This hoist is used in the loading/unloading operation to minimize chances for spillage and/or employee injury. Trucks used for shipping containers between the recycle center and service center have lift gates for container loading/unloading. With the exception of mineral spirits, all containerized wastes are loaded/unloaded from local area vans/trucks in the vicinity of the garage door on the east side of the building. Containers going to/from the recycle center are loaded/unloaded at the dock area on the south side of the building. The mineral spirits are loaded/unloaded at the fill/return shelter, which is described in the Tank Section, Part II.C.

In the warehouse area, the immersion cleaner, mineral spirits dumpster mud drums, dry cleaning waste, paint waste, and FRS (transfer wastes) containers are moved with two-wheel hand trucks and stacked by hand. All containers are elevated on pallets whenever possible to eliminate the possibility of them standing in spilled solvent.

Containers may be double-stacked. The containers are arranged so that a two-foot aisle space exists between all rows of pallets such that all containers can be readily visible for inspection and handling. The FRS wastes (transfer wastes) are placed in a separate and distinct area as shown on Figure II.B.1-1. No other wastes are stored in this area. Since all materials handled by Safety-Kleen are compatible with one another, no specific areas are designated for specific wastes. Wastes are grouped by type; however, since the actual volume present of any product at a given time varies greatly, it is not practical to assign specific locations to given wastes.

ATTACHMENT II.B.2

WASTE COMPATIBILITY

ATTACHMENT II.B.2
WASTE COMPATIBILITY

The solvents stored at this facility are compatible with each other and with other materials handled at this facility with respect to reactivity and therefore do not require special segregation procedures. However, the wastes are the primary source of feed stock for regenerating the clean solvents. For ease of inventory control and product integrity, separation and grouping of both used and unused solvents is a standard practice at the Service Center.

All material at the facility is managed in accordance with local fire protection code and fire department requirements.

ATTACHMENT II.B.3

WASTE SEGREGATION

ATTACHMENT II.B.3
WASTE SEGREGATION

PROCEDURE FOR SEGREGATING WASTE TYPES

The used solvents are compatible with each other and with other materials to be handled at this facility, with respect to reactivity, and therefore do not require special segregation procedures. However, they are the primary source of feed stock for regenerating the clean solvents. For ease of inventory control and product integrity, separation and grouping of both used and fresh solvents is a standard practice at the facility.

All materials are managed in accordance with the local fire protection code and fire department requirements. Safety-Kleen uses a container color scheme as part of its waste management system. Eighty five-gallon overpack containers are used for the management of containers whose integrity has been compromised.

The immersion cleaner is always contained in partially filled, covered containers before, during, and after its use. Until received at the recycle facility, the immersion cleaner is never transferred to another container. The containers containing the used immersion cleaner are returned to the facility and stored in the designated container storage areas before shipment to the recycle center.

The dry cleaning wastes are contained in containers. All containers are DOT-approved. These containers are managed similarly to the used immersion cleaner containers and contents within the containers are not removed or processed at the facility.

The mineral spirits are collected in containers. These containers are then emptied into the dumpsters in the return/fill shelter. Spent antifreeze is packaged in containers, and the containers are not opened at the facility.

Paint wastes consist of various lacquer thinners and paints. The waste is collected in containers at the customer's place of business and the containers are 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 will be some combination of specific components, and be categorized as a D- or F- waste. Table II.A.5-1 provides a list of the EPA waste codes managed at the facility as transfer wastes under the FRS program. The FRS wastes are clearly delineated from the permitted wastes. An area for the temporary storage of FRS wastes is marked off using a chain and/or stantions. No other wastes are placed in the designated transfer areas. See Figure II.B.1-1.

The containers are designed and constructed to be compatible with the stored material and to minimize the possibility of breakage and leaking, in accordance with DOT shipping container specifications. Tables II.B.3-1 through II.B.3-7 provide typical construction specifications of the containers.

Wastes are stored in polyethylene and steel containers. Since none of the waste handled by Safety-Kleen reacts with metal or polyethylene, compatibility is assured. Immersion cleaner and dry cleaning waste containers are never opened at the branch, and none of the wastes are incompatible.

TABLE II.B.3-1

SAFETY-KLEEN CORP.
SPECIFICATIONS FOR STORAGE CONTAINERS

MINERAL SPIRITS AND DUMPSTER MUD

1. 30 gallons, 18-1/4" diameter x 28-1/4" outside height x 20/18 gauge steel, tapered, 2 rolling hoops, painted outside.

   Cover for 30-gallon drums:

   18-1/4" diameter x 20 gauge steel cover and exterior painted.

   18-1/4" diameter x 20 gauge steel cover, exterior painted, 2" Tri-Sure ring near edge.

   Lock ring for 30-gallon drums:

   18-1/4" x 16 gauge galvanized lock ring.

2. 16 gallons, 14" diameter x 26-9/16" outside height x 20/19 gauge steel, tapered, 2 rolling hoops, painted outside.

   Cover for 16-gallon steel drum:

   14" diameter x 22 gauge steel cover painted and fitted with a tubular gasket.

   Lock ring for 16-gallon steel drum:

   14" diameter x 18 gauge galvanized steel lock ring.

3. 5-gallon polyethylene.

TABLE II.B.3-2

SAFETY-KLEEN CORP.
SPECIFICATIONS FOR STORAGE CONTAINERS

DRY CLEANER WASTE

1. 15 gallons ("split 30"), 18-1/4" diameter x 16-5/8" outside height x 20/18 gauge steel, tapered, 1 rolling hoop, painted outside and epoxy phenolic lined.

   Cover for 30-gallon drums:

   18-1/4" diameter x 20 gauge steel cover, exterior painted and epoxy phenolic lined inside.

   Lock ring for 30-gallon drums:

   18-1/4" x 16 gauge galvanized lock ring.

2. 30 gallons, 18-1/4" diameter x 30-1/2" outside height x 20/18 gauge steel, tapered, 2 rolling hoops, painted outside and epoxy phenolic lined inside.

   Cover for 30-gallon drums:

   18-1/4" diameter x 20 gauge steel cover, exterior painted and epoxy phenolic lined inside.

   Lock ring for 30-gallon drums:

   18-1/4" x 16 gauge galvanized lock ring.

TABLE II.B.3-2 (Continued)

3. 16 gallons, 14.8" diameter x 26.8" outside height x 1/4" high density polyethylene.

   Cover for polyethylene drum:

   14" diameter x 1/4" high density polyethylene.

   Lock ring for polyethylene drum:

   15/62" diameter x 2.62" x 16 gauge steel closing ring with drawlatch, coated with epoxy paint.

4. 16 gallons, 14" diameter x 26-9/16" outside height x 20/19 gauge steel, tapered, 2 rolling hoops, painted outside and epoxy phenolic lined.

   Cover for 16-gallon steel drum:

   14" diameter x 20 gauge steel cover painted and fitted with a tubular gasket.

   Lock ring for 16-gallon steel drum:

   14" diameter x 18 gauge galvanized steel lock ring.

5. 5-gallon 11" diameter x 13-19/32" high x 24 gauge steel tighthead pail, with handle and 2" flange and plug, built to DOT Specification 17E, painted exterior and rust inhibited interior.

TABLE II.B.3-3

SAFETY-KLEEN CORP.
SPECIFICATIONS FOR STORAGE CONTAINERS

IMMERSION CLEANER WASTE

1. 16 gallons, 14" diameter x 26-9/16" outside height x 18 gauge steel, 2 rolling hoops, exterior painted, fitted with 4 brackets, built to DOT Specification 5B.

   Cover for 16-gallon steel drum:
   14" diameter x 18 gauge steel cover, painted and fitted with a tubular gasket.

   Lock ring for 16-gallon steel drum:
   14" diameter x 18 gauge galvanized steel lock ring or 14" diameter x 12 gauge steel DOT 5B closing ring with nut and bolt installed.

TABLE II.B.3-4

SAFETY-KLEEN CORP.
SPECIFICATIONS FOR STORAGE CONTAINERS

PAINT WASTE STORAGE CONTAINERS

1. 5-gallon 11" diameter x 13-19/32" high x 24 gauge steel tighthead pail, with handle and 2" flange and plug, built to DOT Specification 17E, painted exterior and rust inhibited interior.

2. 16 gallons, 14-7/8" diameter x 26-7/8" high x 19 gauge steel closed head drum with 2" bung and 3/4" bung built to DOT Specification 17E, painted exterior.

TABLE II.B.3-5

SAFETY-KLEEN CORP.
SPECIFICATIONS FOR STORAGE CONTAINERS

ETHYLENE GLYCOL

1. 30 gallons, 18-1/4" diameter x 28-1/4" outside height x 20/18 gauge steel, tapered, 2 rolling hoops, painted outside.

   Cover for 30-gallon drums:

   18-1/4" diameter x 20 gauge steel cover, exterior painted and epoxy phenolic lined inside.

   Lock ring for 30-gallon drums:

   18-1/4" x 16 gauge galvanized lock ring.

2. 55 gallon, 22-1/2" x 32-7/8" outside height x 18/18/16 gauge steel, 3/4" and 2" Tri-Sure rings in cover, painted outside, built to DOT-17H specifications.

   Lock ring for 55 gallon drums:

   22-1/2" x 12 gauge steel, DOT-17H lock ring.

TABLE II.B.3-6

SAFETY-KLEEN CORP.
SPECIFICATIONS FOR STORAGE CONTAINERS

FLUID RECOVERY SERVICE WASTES

1. 30 gallons, 18-1/4" diameter x 30-1/2" outside height x 20/18 gauge steel, tapered, 2 rolling hoops, painted outside and epoxy phenolic lined inside.

   Cover for 30-gallon drums:

   18-1/4" diameter x 20 gauge steel cover, exterior painted and epoxy phenolic lined inside.

   Lock ring for 30-gallon drums:

   18-1/4" x 16 gauge galvanized lock ring.

2. 55 gallons, 22-1/2" x 32-7/8" outside height x 18/18/16 gauge steel, 3/4" and 2" Tri-Sure rings in cover, painted outside, built to DOT-17H specifications.

   Lock ring for 55-gallon drums:

   22-1/2" x 12 gauge steel lock ring, built to DOT-17H specifications.

3. 55-gallon polyethylene, built to DOT specifications.

TABLE II.B.3-7

SAFETY-KLEEN CORP.
SPECIFICATIONS FOR STORAGE CONTAINERS

OVERPACK DRUM

1. 85 gallons, 25-7/8" diameter x 38" height (interior dimensions) x 16 gauge steel, 2 rolling hoops, painted exterior and epoxy phenolic coated interior, built to DOT Salvage Drum specifications.

   Cover for 85-gallon drum:
   27-7/8" diameter x 16 gauge steel cover, painted and fitted with a gasket and a 3/4" fitting with a nylon plug.

   Lock ring for 85-gallon drum:
   27-7/8" x 16 gauge/12 gauge closing ring with nut and bolt installed.

POTENTIAL FIRE SOURCES

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

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

2. Ignitable wastes are handled so that they do not:
   a. Become subject to extreme heat or pressure, fire or explosion, or a violent reaction--The mineral spirits waste are stored in a tank or in containers, none of which are near sources of extreme heat, fire, potential explosion sources, or subject to violent reactions. The tanks are vented and the containers kept at room temperature to minimize the potential for pressure build-up.

   b. 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, dusts, or gases 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.

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

   d. Damage the structural integrity of the Safety-Kleen facility--The solvents stored at this facility do not cause deterioration of the tank, containers, or other structural components of the facility.

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

4. "NO SMOKING" signs are posted in areas where solvents are handled or stored.

5. Fire extinguishers must be checked once per week and tested by the fire extinguisher company once per year.

EXTERNAL FACTORS

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

1. Vandalism--Only extreme vandalism would result in a solvent spill or fire. Responses to spills and fires are described in the contingency plan.

2. Strikes--A strike would not result in a solvent spill or fire.

3. Power failure--A power failure would not result in a spill or fire. Should a power failure occur, all activities requiring electricity will cease.

4. Flooding--The site elevation is above the projected 100-year floodplain.

5. Storms or Cold Weather--The solvent return and fill station is roofed to eliminate the possibility of rain or snow entering the dumpsters. No opportunity is foreseen to affect the facility with snow, cold weather, or stormwater.

ATTACHMENT II.B.4

CONTAINER MANAGEMENT

ATTACHMENT II.B.4
CONTAINER MANAGEMENT

The immersion cleaner is always contained in partially filled, covered containers before, during, and after its use. Until received at the recycle facility, the immersion cleaner is never transferred to another container. The containers containing the used immersion cleaner are returned to the facility and stored in the designated container storage areas before shipment to the recycle facility.

The dry cleaning wastes are contained in containers. These containers are managed similarly to the used immersion cleaner containers, and contents within the containers are not removed or processed at the facility.

The mineral spirits are collected in containers. The containers are designed and constructed to be compatible with the stored material and to minimize the possibility of breakage and leaking, in accordance with DOT shipping container specifications. Tables II.B.3-1 through II.B.3-7 describe typical construction specifications of the containers.

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 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 will be some combination of specific components, and be categorized as a D- or F- waste. Table II.A.5-1 provides a list of the EPA waste codes managed at the facility under the FRS program. The FRS wastes are managed as transfer waste. The manifest is not

terminated at the service center. The management of FRS wastes as transfer wastes includes the provision to conduct truck-to-truck transfer of the FRS wastes. Truck-to-truck transfers are accomplished within two hours. An area for the temporary storage of the FRS wastes is delineated by a chain and/or stantions. The FRS wastes are clearly indicated as being transfer wastes.

Wastes are stored in polyethylene and steel containers. Since none of the wastes handled by Safety-Kleen react with metal or polyethylene, compatibility is assured. Immersion cleaner and dry cleaning waste containers are never opened at the branch, and none of the wastes are incompatible. Table II.B.4-1 provides a listing of waste streams and container sizes.

TABLE II.B.4-1

SAFETY-KLEEN CORP.
WASTE STREAMS AND CONTAINER SIZES

Waste Stream	Container Sizes (gallons)	Construction Material of Container
Mineral Spirits	5	Polyethylene
	16	Steel
	30	Steel
Dry Cleaner	5	Steel
	16	Steel or Polyethylene
	30	Steel or Polyethylene
	Split 30 (also known as 15- or 20-gallon)	Steel
Immersion Cleaner	16	Steel
Paint Waste	5	Steel
	16	Steel
Ethylene Glycol	30	Steel
	55	Steel
Dumpster Mud/Tank Bottoms	16	Steel
	30	Steel
Fluid Recovery Service Wastes	30	Steel or Polyethylene
	55	Steel or Polyethylene

An 85-gallon overpack drum may be used with any of the waste streams.

ATTACHMENT II.B.5

CONTAINER INSPECTION

ATTACHMENT II.B.5
CONTAINER INSPECTION

The purpose of the inspection plan is to establish a procedure and schedule for the systematic monitoring and inspection of hazardous waste management and other material management facilities to ensure proper operation and maintain compliance.

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

The Branch Manager or his designee, using the inspection log (Figure II.B.5-1 or similar form), inspects the facility weekly for security (gates and locks) and any evidence of sticking, corrosion, or uncommon activity. The facility fence is checked weekly for deterioration, gaps under the fence, and broken wire ties. The Weekly Inspection log is shown in Figure II.B.5-2.

Figure II.B.5-3 presents the Daily Inspection log for the Container Storage Area. Each area will be inspected separately. Daily inspections of containers consist of the following:

- Physically examine the container (drum) storage area to verify that no leaks have occurred since the last inspection.

- Verify that no drums have been damaged or rusted to the point of near leakage.

- Replace or adjust damaged, missing, or loose fasteners.

FIGURE II.B.5-1

INSPECTION LOG SHEET FOR WEEKLY INSPECTION OF GATES AND LOCKS

Check all gates and locks for security, sticking, corrosion, lack of warning signs, or uncommon activity.

Name	Date	Time	Status

FIGURE II.B.5-2

INSPECTION LOG SHEET FOR: Weekly Inspection of SAFETY AND EMERGENCY EQUIPMENT SECURITY DEVICES AND MISCELLANEOUS EQUIPMENT

INSPECTOR'S NAME/TITLE: _____

INSPECTOR'S SIGNATURE: _____

DATE OF INSPECTION (Month/Day/Year): _____

TIME OF INSPECTION: _____

SAFETY AND EMERGENCY EQUIPMENT

Fire Extinguishers: A* N

If "N" circle appropriate problem: overdue inspection, inadequately charged, inaccessible, other: _____

Eyewash and Shower: A N

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

First-Aid Kit: A N

If "N" circle appropriate problem: inadequate inventory, other: _____

Spill Cleanup Equipment: A N

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

Personal Protection Equipment: A N

If "N" circle appropriate problem: inadequate supply of aprons, gloves, glasses, respirator, other: _____

SECURITY DEVICES:

Gates and Locks: A N

If "N" circle appropriate problem: sticking, corrosion, lack of warning signs, fit, other: _____

Fence: A N

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

MISCELLANEOUS EQUIPMENT:

Dry Dumpster: A N

If "N" circle appropriate problem: rust, corrosion, split seams, distortion, deterioration, excess debris, liquids in unit, other: _____

OBSERVATIONS, COMMENTS, DATE, AND NATURE OF ANY REPAIRS: _____

*A = Acceptable
N = Nonacceptable

Figure II.B.5-3

INSPECTION LOG SHEET FOR: Daily Inspection of DRUM STORAGE AREA - A log must be completed for each storage area.

DESCRIPTION OF AREA (e.g., metal shelter, northeast corner of warehouse, etc.): _____

_____

PERMITTED STORAGE VOLUME: _____

INSPECTOR'S NAME/TITLE: _____

INSPECTOR'S SIGNATURE: _____

	MON	TUES	WED	THURS	FRI
DATE: (M/D/Y)	____	____	____	____	____
TIME:	____	____	____	____	____
CONTAINERS:					
Number/Volume* of M.S. Waste Drums:					
Number/Volume of Dumpster/Tank Bottom Drums					
Number/Volume of I.C. Waste Drums:					
Number/Volume of Dry Cleaning Waste Drums:					
Number/Volume of Paint Waste Drums:					
Number/Volume of Paint Waste Pails:					
Number/Volume of Spent Antifreeze:					
Number/Volume of Transfer Wastes:					
TOTAL VOLUME (IN GALLONS):					
	A**N	A N	A N	A N	A N

If 'N', circle appropriate problem: Total volume exceeds the amount for which the facility is permitted, other: _____

Condition of Drums	A N	A N	A N	A N	A N

If 'N', circle appropriate problem: missing or loose lids, missing, incorrect or incomplete labels, rust, leaks, distortion, other:

_____

Stacking/Placement/Aisle Space	A N	A N	A N	A N	A N

If 'N', circle appropriate problem: different from Part B Floor Plan, containers not on pallets, unstable stacks, other: _____

_____

CONTAINMENT:

Curbing, Floor and Sump(s)	A N	A N	A N	A N	A N

If 'N', circle appropriate problem: ponding/wet spots, deterioration (cracks, gaps, etc.), displacement, leaks, other: _____

Loading/Unloading Area	A N	A N	A N	A N	A N

If 'N', circle appropriate problem: cracks, deterioration, ponding/wet spots, other: _____

_____

OBSERVATIONS, COMMENTS, DATE AND NATURE OF ANY REPAIRS: _____

_____

_____

* To calculate total volumes, use the following: M.S., I.C., D.C. and paint waste drums hold 15 gallons.

** A = ACCEPTABLE
N = NOT ACCEPTABLE

- Examine and verify that all container identification, dates, loading data, and hazardous waste labels are attached and current.

Daily inspection of containment consists of the following:

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

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

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

ATTACHMENT II.B.6

CONTAINER CLOSURE PLAN

ATTACHMENT II.B.6
CONTAINER CLOSURE PLAN

The Closure Plan for the container storage area is incorporated into the Closure Plan for the entire facility presented in Attachment II.K.1.

ATTACHMENT II.B.7

FINANCIAL ASSURANCE FOR CLOSURE

ATTACHMENT II.B.7
FINANCIAL ASSURANCE FOR CLOSURE

Safety-Kleen Corp. is the operator of the Medley, Florida Service Center. The cost for closure of the facility as estimated is assured through the use of the financial test specified in Subpart B of 40 CFR Part 270 (see Attachment II.A.2). Attachment II.A.2 shows the letter from the Chief Financial Officer of Safety-Kleen Corp. to demonstrate the financial responsibility for closure through the financial test. The cost estimate for closure is provided in the Closure Plan, Attachment II.K.1.

ATTACHMENT II.C.1
ENGINEERING ASSESSMENT OF TANK SYSTEM

An engineering assessment of the tank system has been prepared and is included herein. This assessment includes an evaluation of the structural integrity and suitability of the tank system for handling hazardous waste as required under 40 CFR 264.191 and 264.192.

W. O. HEYN
256 Woodbine Place
Barrington, IL 60010
Phone 708-381-6743

July 7, 1992

Safety Kleen Corp.
129 S. Kentucky Avenue
Suite 701
Lakeland, FL 33801

Attention: Victor San Agustin

Subject: Safety-Kleen Corp.
Medley Branch Construction Certification
Part B Permit HC-13-175466

Dear Mr. San Agustin:

The attached certification report is an update of the report submitted by the writer on June 8, 1992. Also included are updated as-built prints which were prepared after the earlier submittal.

Only minor changes were made in the report such as changing some statements from *will be* to *are* and a paragraph was added to page 5 describing the outside dock pad rainwater control. No other changes were made in the report.

Sincerely,

W. O. Heyn, P.E.
Florida Cert. N. 45516

WOH: rlh

Enclosure: One set of full-size as built prints

cc: Jack Krivec - SK Atlanta Regional Office
Cindy Norton - ERM South

Professional Engineers Certification Report

of

Construction of the Safety-Kleen Medley, Florida

Branch Service Center

By W. O. Heyn P.E.
Florida Certificate
No. 45516

CERTIFICATION

Florida Dept. of Environmental Regulation

Facility Name SAFETY-KLEEN CORP., MEDLEY, FLORIDA
FDER Site Code FLD984167791
Construction Permit Requiring Certification HC-13-175466
Permit Issuance Date March 1, 1991

The Hazardous Waste Facilities have been constructed and tested in accordance with the specifications in the Part B construction permit with the exceptions noted in the attached report. Documentation that the construction was in accordance with the permit is contained in the enclosed report.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system of those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of imprisonment for knowing violations.

Glenn Casbourne
Signature of Owner/Operator

Glenn R. Casbourne, Vice-President, Engineering
Name and Title

William O. Heyn
Signature of Registered P.E.

William O. Heyn, 45516
Name of Registered P.E. and Florida P.E. No.

7-7-92
Date

(P.E. Seal)

Construction Documentation Report for Construction of Hazardous Waste Facilities at the Safety-Kleen Corp. Branch Service Center Located at 8755 N.W. 95th Street, Medley, Florida

Introduction

Safety-Kleen Corp. constructed an office, warehouse building and tank farm with ancillary equipment in Medley, Florida in accordance with the requirements of the Part B construction permit that was issued by the Florida DER on March 1, 1991 and amended on December 9, 1991 and May 15, 1992 with deviations from the permit indicated in this report. Figure 11A.4(b)-3 indicates Sanford whereas it should be Medley. Also the tank farm as-built is in the "Future" location which is consistent with the rest of the permit.

Regulatory Requirements:

40CFR264.192(a)

The tanks for storage of hazardous waste were constructed in accordance with Underwriters Laboratories Inc., "Standard for Steel Aboveground Tanks for Flammable and Combustible Liquids." The tank shell thickness is 1/4" from 0 to 18 feet, and 3/16" from 18 to 24 feet. The tank bottom is 1/4" thick and the tank top is 3/16" thick steel. The waste ethylene glycol and waste mineral spirits tanks are identical.

All tanks are coated with white acrylic base paint. All pipes and threads are painted to protect them from corrosion. Each tank is protected by a high level alarm which will sound and activate an alarm and a strobe light when the tank level reaches 95% of capacity. The alarm on the waste solvent tank will also deactivate the waste solvent pump at the return and fill. The high level alarm system was changed from a float activated switch to a sonar based tank gauge and high level alarm system called "Level Devil" provided by Electronic Sensors, Inc. of Wichita, Kansas.

All connections to the tanks are equipped with a spring loaded safety valve held in the open position by a fusible link that will melt and allow the valve to close in the event of a fire.

40CFR 264.192(b)

Each tank was inspected after installation for weld breaks, punctures, scrapes of protective coatings, cracks, corrosion and other structural damage or inadequate construction/installation.

All discrepancies found were corrected and the tanks are suitable for use.

40CFR264.192(c) Not applicable

40CFR264.192(d)

The tanks, after installation, were filled over 95% of full with water and observed for 5 hours for leaks. No leaks were observed and the tanks are certified tight. All ancillary equipment was tested in conjunction with the tank tests and certified tight.

40CFR264.192(e)

All ancillary equipment has been properly mounted and installed. All lengths of piping are supported no less than every eight running feet.

40CFR264.192(f) Not applicable

40CFR264.192(g) See Certification Statement

40CFR264.193(a-e)

Tank secondary containment in the form of an open concrete dike vault has been constructed in accordance with prints No. 316301-5002-00 Sheet No. 8 and 316301-5015-00 Sheet No. 9. The floor and dike walls of the tank containment system contain no cracks. The slab has been sloped to drain all liquids that accumulate inside the containment system to a

stainless steel sump which can be readily pumped out to a holding tank to remove the accumulated liquids. The sump is located adjacent to the south wall of the vault per Figure II C2-1.

The interior of the dike walls and slab are coated with an epoxy material (Semstone 140) to prevent permeation through the concrete.

40CFR264.193(f)

Some piping inside the dike vault is threaded. Secondary containment for this piping is provided by the vault. All piping outside the concrete dike vault has fully welded connections. The clean solvent pump has been installed inside the concrete dike vault as is the spill container for hookup to tank trucks. Note: Although the permit specified that six tanks would be installed in the tank farm, only 3 tanks have been installed: one dirty mineral spirits tank, one clean mineral spirits tank and one waste glycol tank. The two waste oil tanks and the perchloroethylene tank were not installed but may be at a later date. Also the permit showed the tank truck connections outside the diked area and a change was made to move them inside the diked area. Refer to print No. 316301-2000-00 sheet No. 45.

With reference to Fig. II C.2-1 Tank Farm; The location of the tanks was changed to accommodate the use of one truck connection container. As-built, the used mineral spirits tank is located in the southwest corner of the vault whereas the permit shows it in the southeast corner of the vault. The fresh mineral spirits tank as-built is located in the northwest corner of the vault vs. the northeast location per the permit. The used ethylene glycol tank as-built is located in the south central position of the tank farm vs. the permit location in the northwest position. The tanks were mounted on stainless steel sheets, 13 ft. 8 in. by 13 ft. 8 in. which were bolted to the concrete housekeeping pads.

The dimensions of the vault, as-built, varies from the permit dimensions as follows; length 58 ft. 0 in. vs. 56 ft. 0 in. in the permit, width 40 ft. 0 in. vs. 40 ft. 0 in. in the permit. The height of the dike wall varies from 36-1/4 in. to 38 in. due to the sloped floor of the vault

vs. 36 in. in the permit. Three monitoring wells have been installed about 10 ft. from the north, east and west sides of the vault.

Tank Truck Loading Area

The permit application shows an 80 ft. by 25 ft. tank truck loading area constructed of 6 in. thick reinforced concrete sloping 2 inches to a 2 ft. diameter by 2 ft. deep stainless steel sump with no outlet. A change was made to increase the slope to 9 inches to increase the containment capacity of the pad to 2917 gallons. Refer to print No. 316301-5003-00 sheet No. 10. The containment volume of the truck loading area was measured by filling with water. The actual volume measured was 2432 gallons which is significantly less than the design volume.

Tank Farm Shelter

Provisions were made during construction to provide foundations for a proposed tank farm shelter which will be installed at a later date. This proposed shelter will cover the entire tank farm and tank truck loading pad with an overhang of 10 ft. at each end of the tank farm (east and west) and a 2 ft. overhang on the front and rear (south and north) of the tank farm and tank truck loading slab. This shelter will prevent a major portion of rainfall from entering the containment areas. No side walls will be installed so that access for fire fighting is not impaired. Refer to print Sheet No. ST-1 Tank Farm Canopy.

Warehouse Containment Area

The Warehouse containment area was constructed in accordance with print 316301-7005-00 Sheet No. 26. The sloped floor containment area is free of cracks and has been sealed with an epoxy sealant (Semstone 245) that is chemically resistant to the products to be stored in the warehouse. The sloped floors of the warehouse drain into a 12 ft. x 2 ft. stainless steel sump that has no outlet. Any spills collected in the sump will be pumped out and properly disposed. The containment volume of the warehouse was measured by filling with water. The actual

volumetric measure was 2996 gallons which is equal to or greater than the design volume of 2940 gallons.

With reference to Fig. II B.1-1 Container Storage Location; The rollup door and personnel door in the northeast location in the east wall of the warehouse were moved to a southeast location in the east wall. A personnel door was added to the north wall. The security fence in the warehouse was relocated and two 6 ft. wide by 8 ft. high sliding gates were added to the fence.

The truck loading dock will contain one dock leveler and provisions for a second leveler and is covered by a metal roof. Any spills that occur on the loading dock will be collected in a 24 ft. x 2 ft. stainless steel trench located at the foot of the dock. This trench, covered by a steel grating, has no outlet and any spills must be pumped out by use of a portable pump.

Rainwater which falls on the outside truck loading pad is collected in a sump which drains into the stormwater system. A small ~~brem~~ CURB separates this sump from the stainless steel spill collecting sump at the foot of the dock to prevent rainwater from entering the stainless steel sump.

Return and Fill

The return and fill containment is made up of concrete floors sloped to two 2 ft. diameter by 2 ft. deep stainless steel sumps that have no outlets. The concrete containment areas are sealed by an epoxy sealant (Semstone 140) that is compatible with and resistant to the solvents that will be handled in the facility. The steel loading dock, sized to handle 8 trucks, is covered by heavy duty grating that can support all anticipated loads including forklifts. Openings in the gratings contain two drum washers for dumping and washing solvent drums. The dock is equipped with dock plates to provide safe access to the trucks. Hose trees are located at the edge of the dock to provide valves and hose mountings for filling drums.

Two as-built, wet dumpster/barrel washers were installed adjacent to each other near the positions indicated in Fig. II C.7-3 Return and Fill Shelter.

The containment volume of the return and fill area was measured by filling with water that was used in the hydrostatic test of the tanks. The actual volume measured was 3693 gallons which compares favorably with the design volume of 3680 gallons. After the test the

water was pumped into the storm sewer.

The permit application showed a single 20 ft. by 2 ft. rectangular stainless steel sump in the return and fill. A change was made to two round sumps with changes in the floor slopes to accommodate them and to achieve the same overall containment volume. Refer to print no. 316301-7004-00 sheet No. 24.

Fire Suppression System

The fire sprinkler system for the warehouse, Return and Fill area and the office area has been designed and installed by Kannapolis Fire Sprinklers. The piping system with sprinkler heads for the warehouse and Return and Fill areas have been completed and are operational. The available water flow has been tested by the City of Medley. The available flow has been found to be inadequate as required by NFPA for a water system. Flow *is* adequate for a foam system which has been installed. The foam bladder tank has been installed in the southeast corner of the warehouse with the required controls. The foam sprinkler system has been tested by the installer and approved by the Medley Fire Department prior to issuance of the Certificate of Occupancy.

Other Emergency Equipment

Fire Extinguishers - The warehouse and Return and Fill are equipped with eight 20 lb. ABC fire extinguishers wall bracket mounted and labeled in accordance with the approved design.

Eye Washer/Showers - one eyewash/shower is located on the west wall of the warehouse adjacent to the doorway to the Return and Fill. A second eyewash/shower is located on the west side of the steel loading dock in the Return and Fill area. A third eyewash/shower is located adjacent to the tank farm.

Exit Signs - All doorways opening to the outside are identified by a lighted "Exit" sign.

Personal Protective Equipment - All employees working in the Warehouse and the Return and Fill will be required to wear safety glasses with side shields, hard hats and safety shoes.

Branch Security

The working areas of the Medley facility are enclosed by a 6 foot high chain link fence with a one foot extension containing 3 strands of barbed wire. Access and exit is through two 30 ft. sliding gates which are motor operated. Entrance is achieved by a keypunch pad located adjacent to the entrance drive. The gate opening can also be achieved by a push button located in the office. Gate closing is controlled by a timer and an electric eye. All gates are required to be kept closed at all times except for passage of vehicles.

Access into the office is controlled by a door equipped with an electrically operated lock activated from inside the office. Two doors exiting from the office area will be equipped with an emergency bar on the inside. These doors can only be opened from inside the building.

Signs designating "no smoking", "fire extinguisher", etc. have been mounted in locations shown on drawing No. 316301-9000-00 Sheet No. 28.

Site Storm Water Control

The City of Medley has no stormwater drainage system available for this site. In order to provide for stormwater control and disposal, the areas to be paved have been equipped with 6 catch basins each of which are connected to an underground collection system. The collection system consists of 15 in. diameter perforated corrugated metal pipes laid horizontally 3 ft. underground in 15 ft. deep by 36 in. wide trenches filled with pervious material. The capacity of these structures is adequate to store a rainfall of 6.7 inches over a 1 hour period. The water collected in the structure will drain by seepage into the surrounding soil.

Electrical

All electrically operated equipment was tested with a temporary electrical supply. Florida Power and Light will hook up permanent power after the Certificate of Occupancy is issued by the City of Medley.

Strategy for measuring volume of Containment Areas and Testing Tanks and Piping Systems

Since the tanks are to be tested by filling with water and observing for leaks, 20,000 gallons of water will be available for filling the various containment systems, i.e: Return and Fill (3680 gal. reqd.) and the warehouse (2940 gal. reqd.) and the tank truck loading/unloading pad (2917 gal. reqd.)

One option to determine volumes is to measure the physical dimensions of each containment area and calculate the actual volume each would contain.

A second option would be to fill each containment volume with water from the tank test and measure the amount of water used by means of the tank gauge after the tanks are tested.

The high level alarms for the tanks should be operational when the tanks are filled to provide a test of the high level alarm system for each tank.

At the completion of the tests the water will be drained into the stormwater drainage system onsite.

Procedure

1. Fill used Mineral Spirits tank with water from the domestic supply until the high level alarm sounds. Record the number of gallons indicated by the tank gauge. Continue to fill an additional 500 gal. taking care *not* to overfill the tank. Observe the tank system for 5 hours for leaks. Note any leakage that must be repaired before placing tank in service.

2. Hook up an auxiliary pump to the drain line of the used Mineral Spirits tank and connect the discharge to the fill line of the Used Glycol Tank. Transfer the water to the Used Glycol tank. Note: The residual water in the bottom of the used Mineral Spirits tank is not available for this part of the test. Add additional water to the Used Ethylene Glycol of 500 gallons over the point at which the high level alarm sounds. Record the tank gauge reading when the high level alarm sounds. After the tank is filled observe the tank system for 5 hours and note any points of leakage. Repair all leaks before terminating the tests on both tanks.

3. Fill out certification forms indicating tanks and ancillary piping are tight.

4. Drain water from the filled tank into the truck loading area. Note gauge readings on the tank gauge before filling and at the point that the loading area is completely filled. Record gallons. Pump the water from the truck loading area into the storm drain.

5. Drain water from the filled tank into the warehouse containment area. Note tank gauge readings before and at the point the containment area is completely filled. Record gallons. Pump the water from the containment area into the storm drain.

6. Repeat the above procedure for the return and fill containment area.

7. Fill out certification forms for all 3 areas.

8. Drain remaining water from the filled tank into the storm drain. Note: each tank tested will contain several hundred gallons of water in the bottom of the dish that cannot be pumped out through the discharge ports. To remove this residual water, remove one 4" plug at the bottom of the tank and siphon or pump the residual water from the bottom of the dish. After draining replace plug using approved thread sealer.

W. O. Heyn
2010 Imperial G.C. Boulevard
Naples, FL 33942
813-566-2326

TEST CERTIFICATION FORM

Date 6-6-92

Project SAFETY-KLEEN CORP

Location MEDLEY, FLORIDA

System TANK #1 WASTE MINERAL SPIRITS

Type of Test _____ (Hydrostatic)

_____ Air

_____ Other _____

Test Pressure ATMOSPHERIC

Duration of Test 5 HOURS

Test Witnessed By [signature]

Test Supervised By W.O. HEYN

RESULTS - TANK AND ANCILLARY EQUIPMENT TIGHT

By: [signature]

Title: PE FLORIDA CERT. 45516

Date: 6-6-92

W. O. Heyn
2010 Imperial G.C. Boulevard
Naples, FL 33942
813-566-2326

TEST CERTIFICATION FORM

Date 6-6-92

Project SAFETY-KLEEN CORP.

Location MEDLEY, FLORIDA

System TANK #3 WASTE ETHYLENE GLYCOL

Type of Test _____ (Hydrostatic)

_____ Air

_____ Other _____

Test Pressure ATMOSPHERIC

Duration of Test 5 HOURS

Test Witnessed By Jackie Joyce

Test Supervised By W.O. HEYN

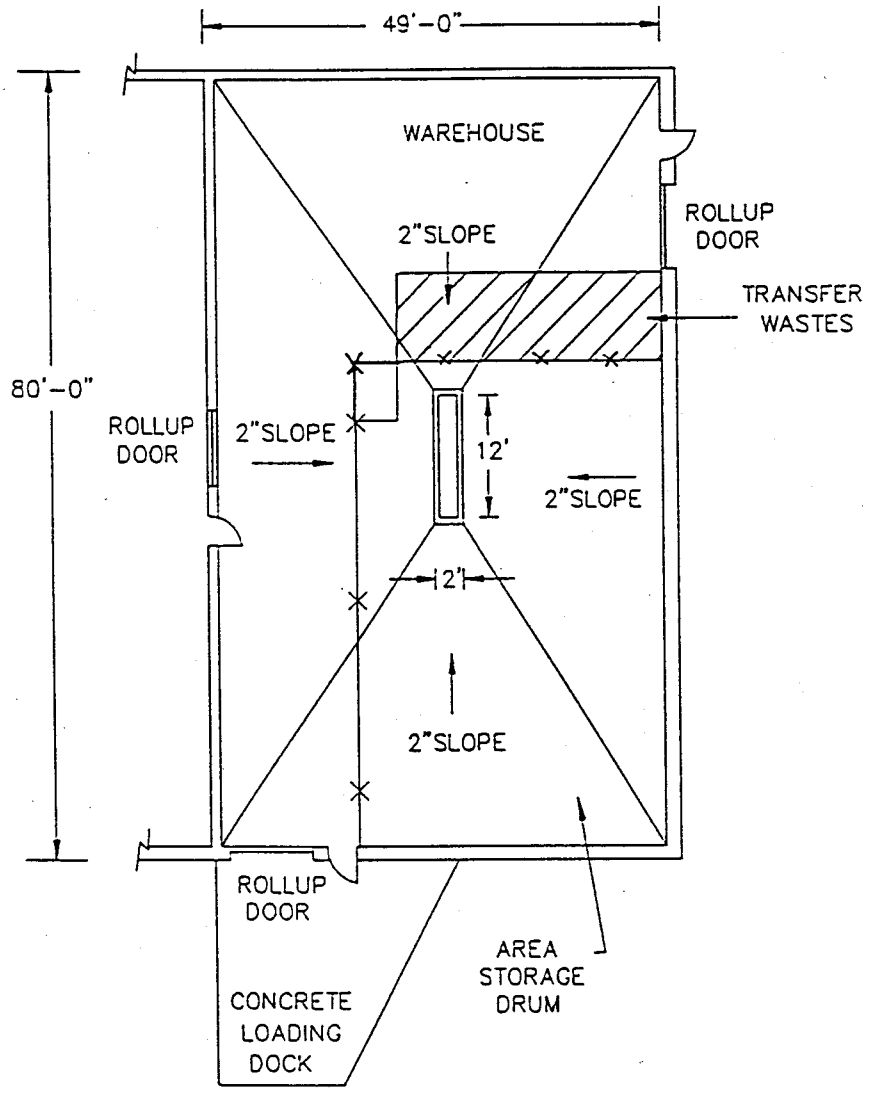
RESULTS - TANK AND ANCILLARY EQUIPMENT TIGHT

By: W O Heyn

Title: PE FLORIDA CERT 45516

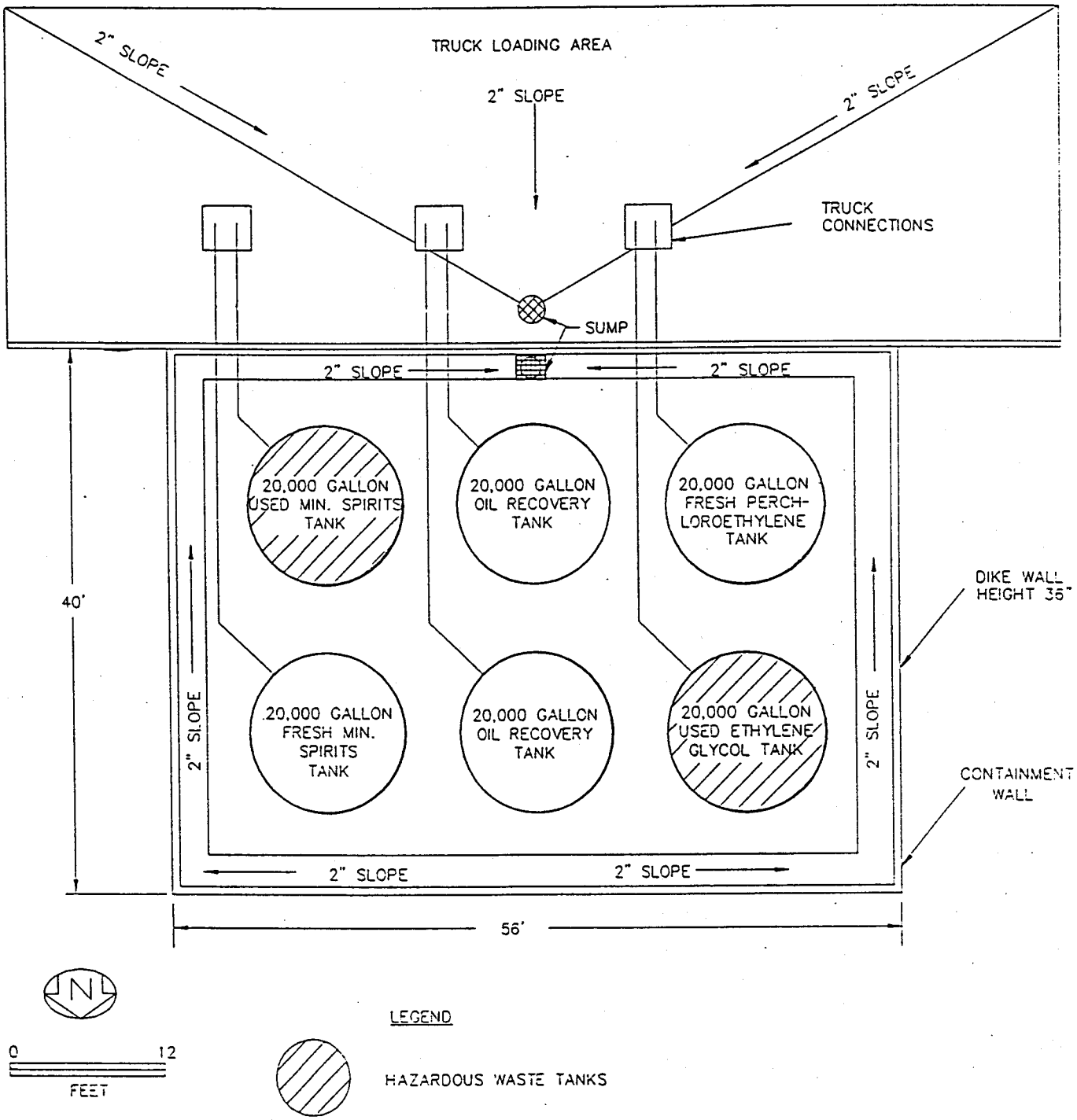
Date: 6-6-92

II.B.1-1
Container Storage Location
Safety-Kleen Corp. Facility
Medley, Florida



The ERM Group

Figure II.C.2-1
Tank Farm
Safety-Kleen Corp. Facility
Medley, Florida



NOTE: ENTIRE AREA IS CONCRETE

The ERM Group

13112.22/31122LEE/061491

II.A.4(b)-11A

Figure II.A.4(b)-3
Location of Emergency Equipment
Safety-Kleen Corp. Facility
Sanford, Florida

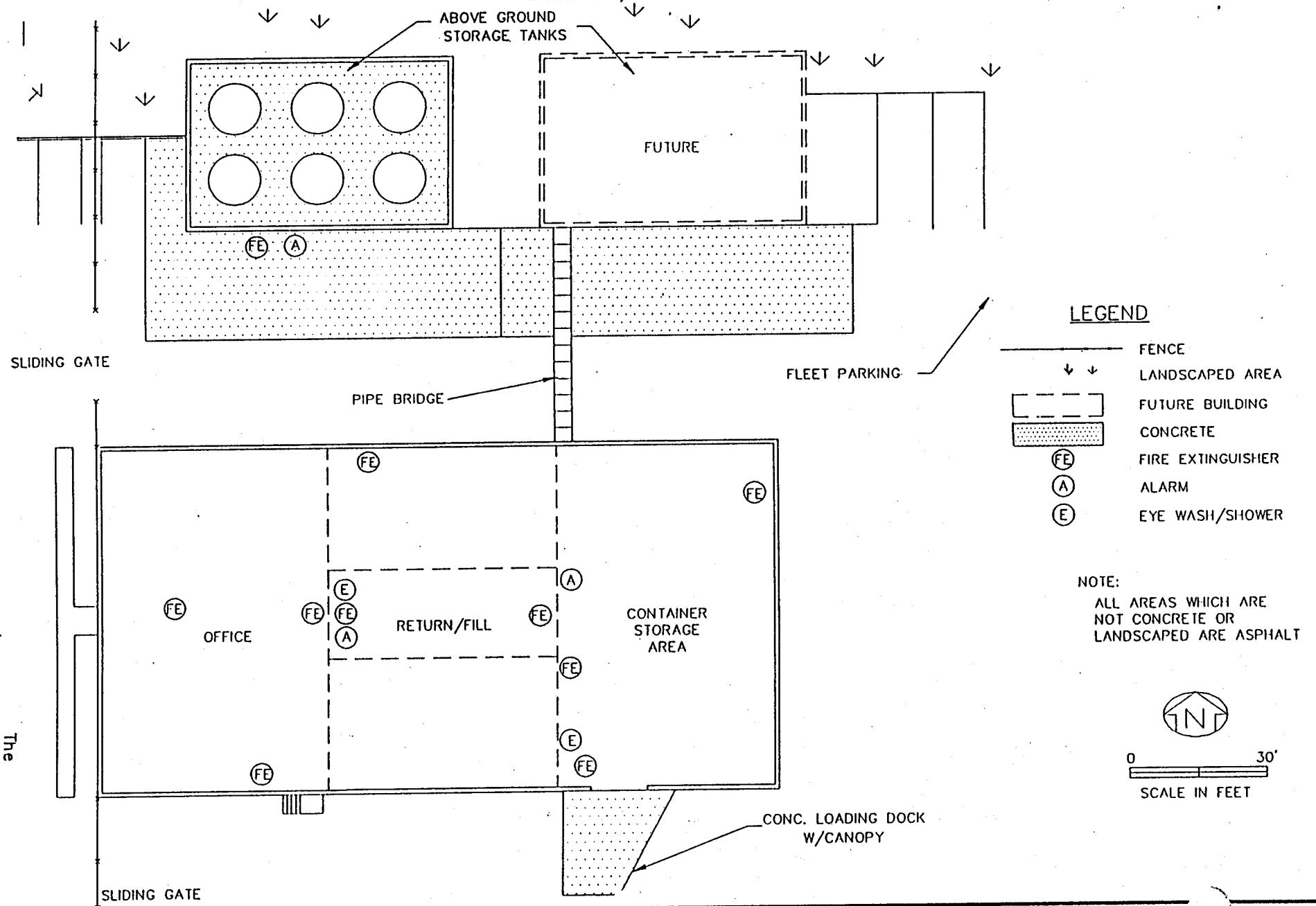


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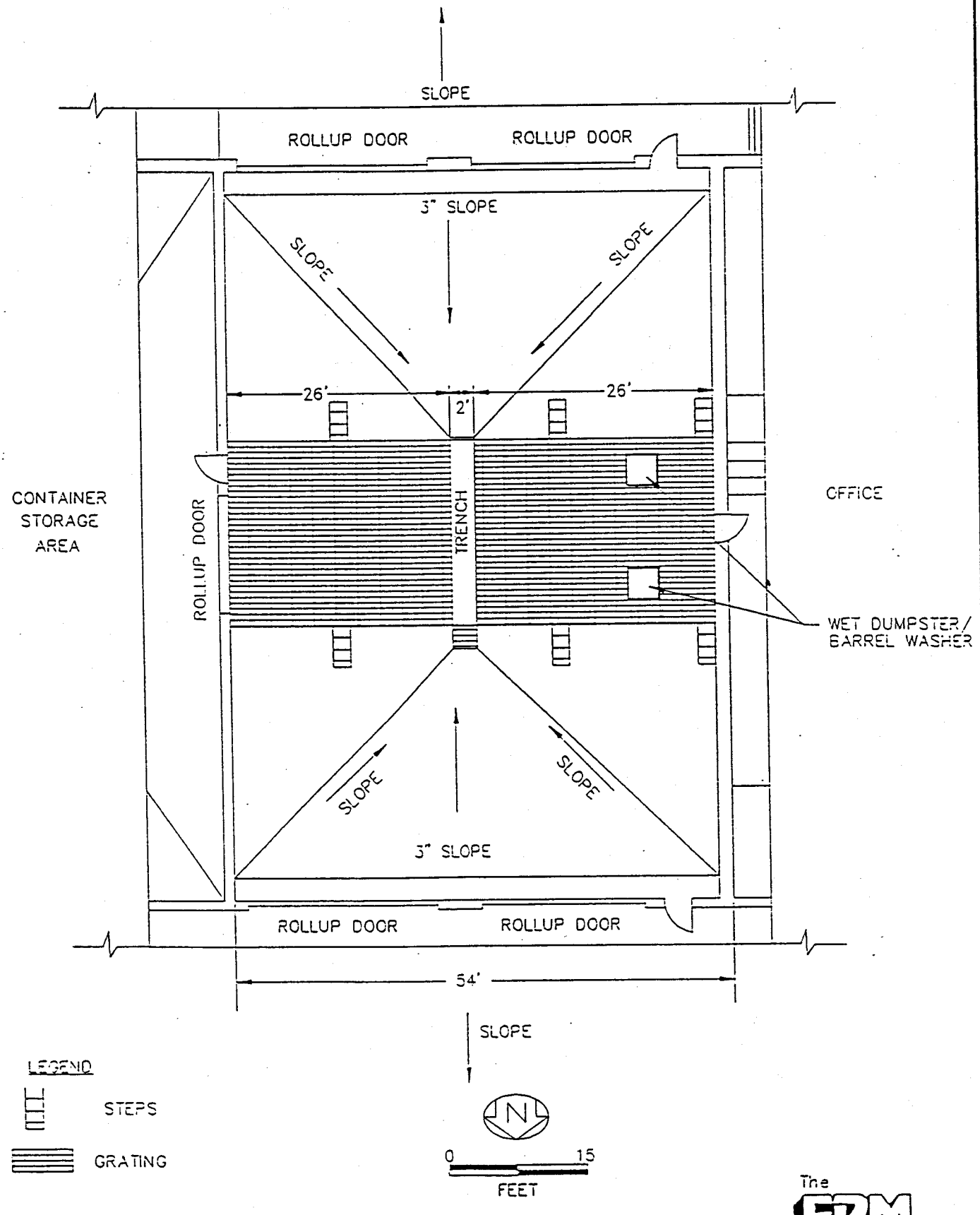
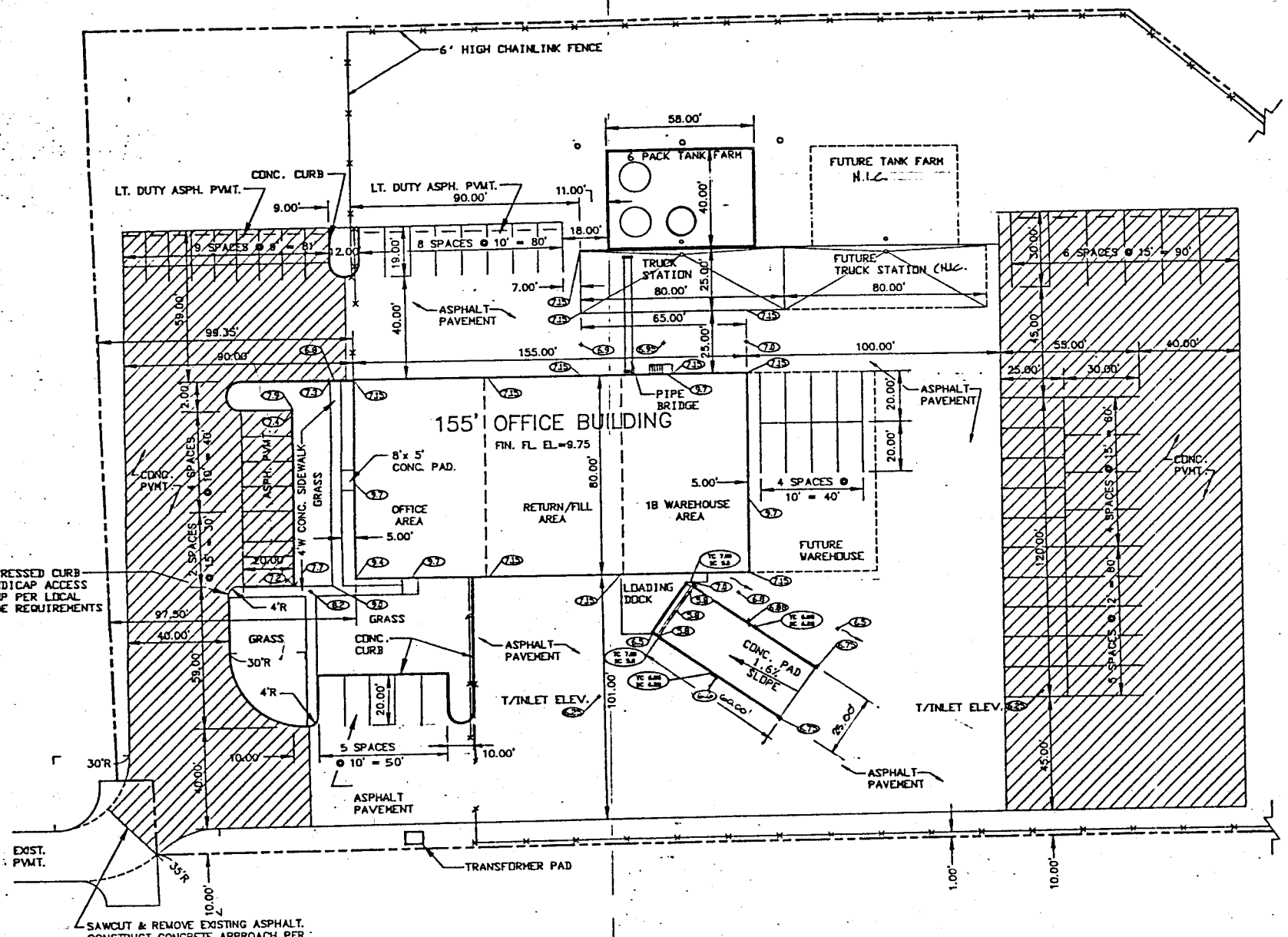
Figure II. C.7-3
Return/Fill Shelter
Safety-Kleen Corp. Facility
Medley, Florida

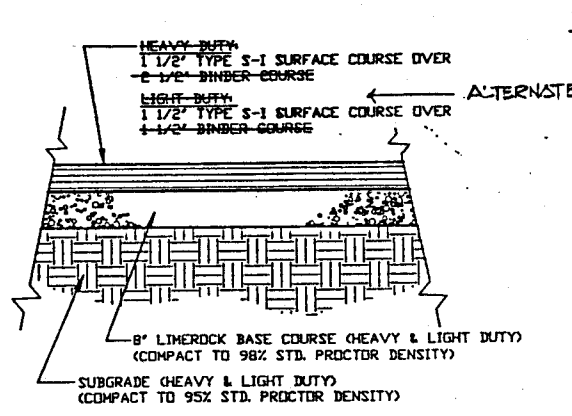




NORTH

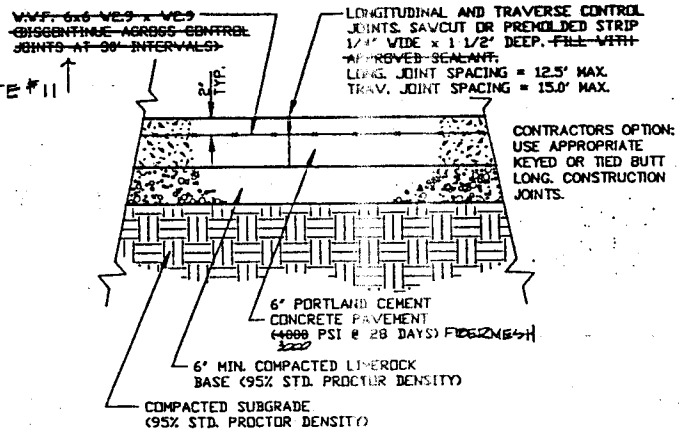
SITE PAVING PLAN

SCALE: 1" = 30'-0"



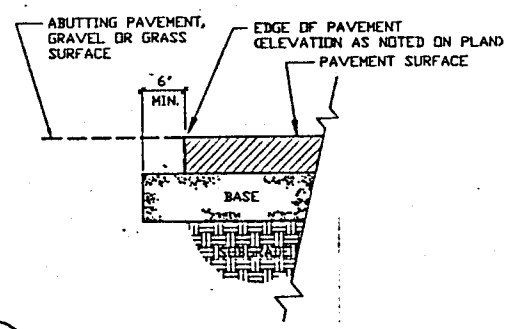
1 0020 — ASPHALT PAVEMENT DETAIL

NO SCALE



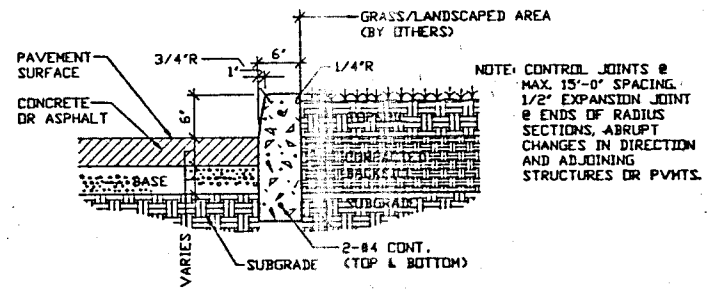
2 0020 — CONCRETE PAVEMENT DETAIL

NO SCALE



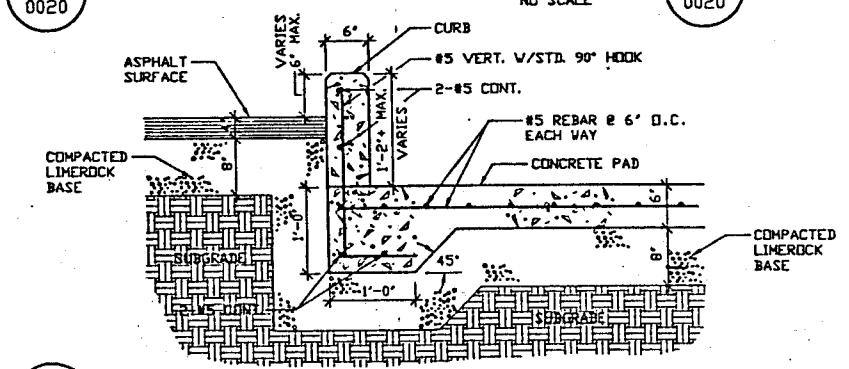
3 0020 — ASPHALT/CONCRETE EDGE DETAIL

NO SCALE



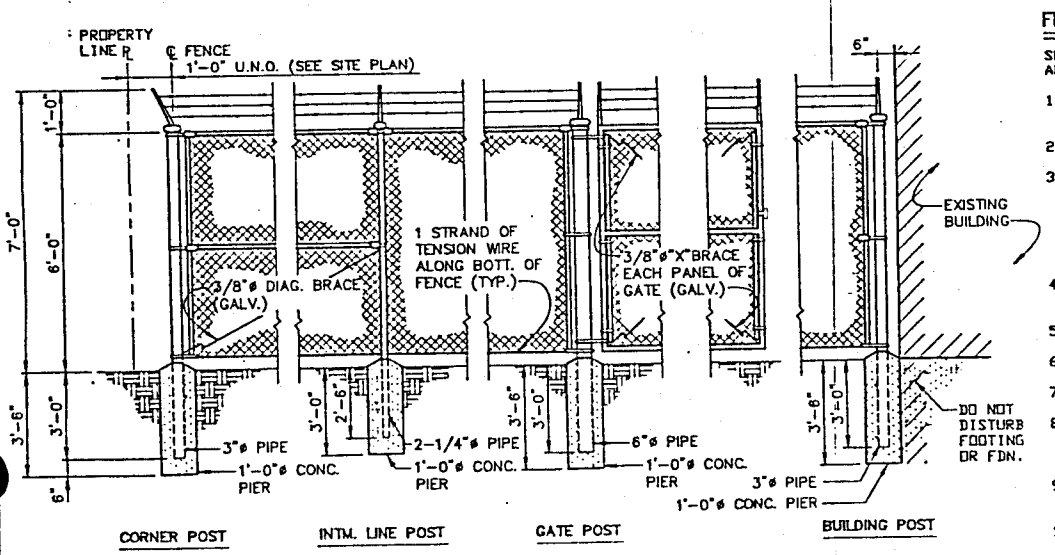
4 0020 — CONCRETE BARRIER CURB DETAIL

NO SCALE



5 0020 — CONCRETE PAD DETAIL (@ EXT. LOADING DOCK)

NO SCALE



8 0020 — FENCE DETAILS

NO SCALE

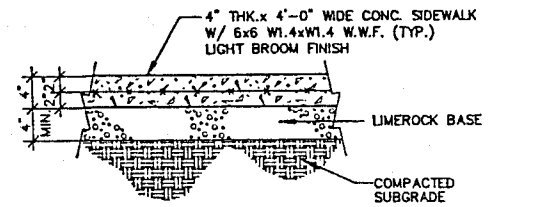
FENCING NOTES:

SPECIFICATIONS FOR SUPPORTING MEMBERS ARE AS FOLLOWS:

1. ALL MEMBERS SHALL BE FABRICATED FROM HOT DIPPED GALV.SCH. 40 PIPE, NEW MATERIAL ONLY.
2. POST SPACING SHALL NOT EXCEED 10'-0" O.C.
3. MEMBERS SHALL BE SIZED AS FOLLOWS:

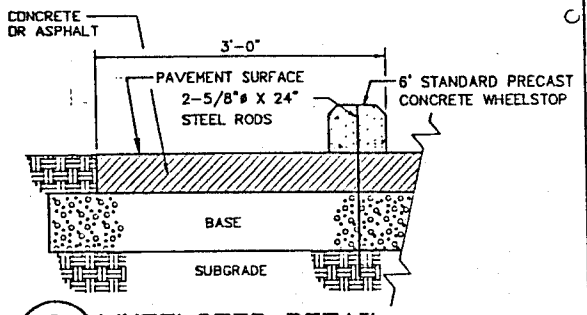
CORNER POSTS	3"ø O.D.
INTM. POSTS	2 1/4"ø O.D.
GATE POSTS	6"ø O.D.
BUILDING POSTS	3"ø O.D.
TOP RAIL	1 5/8"ø O.D.
GATE FRAMES	2 1/4"ø O.D.

4. WOVEN WIRE FABRIC SHALL BE 9 GA. STEEL 2" MESH AND HOT DIPPED GALV. AFTER WEAVING.
5. BARBED WIRE SHALL BE 9 GA. 3-STRAND GALV. STEEL.
6. TENSION WIRE SHALL BE 7 GA. GALV. STEEL.
7. CONCRETE SHALL BE 3000 PSI AND CURED 5 DAYS BEFORE FENCING IS ERECTED.
8. INSTALLATION SHALL BE IN ACCORDANCE WITH LOCAL CODES AND THE STATE HIGHWAY DEPARTMENT STANDARD SPECIFICATIONS.
9. GATES SHALL BE LOCKED BY CHAIN AND LOCK PROVIDE 5/16" HARDENED STEEL CHAIN. LOCK BY S-K.
10. SEE SITE PLAN BY E.R. BROWNELL & ASSOCIATES, INC. FOR LOCATION OF FENCING.



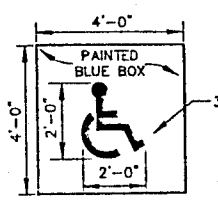
6 0020 — CONCRETE SIDEWALK DETAIL

NO SCALE



7 0020 — WHEELSTOP DETAIL

NO SCALE



NOTE: LOCAL REQUIREMENTS FOR HANDICAPPED SIGN SHALL GOVERN.

9 0020 — HANDICAPPED PARKING SIGN DETAIL

NO SCALE

GENERAL NOTES

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1. REFER TO SITE DRAWINGS BY E.R. BROWNELL AND ASSOCIATES, INC. FOR ADDITIONAL INFORMATION.
2. REFER TO SOILS REPORT BY SCHWEBKE-SHISKIN AND ASSOCIATES, INC. DATED 9/10/91 FOR RECOMMENDATIONS AND SPECIFICATIONS REGARDING LIMEROCK BASE AND ASPHALTIC CONCRETE PAVEMENT.
3. ALL ASPHALT AND CONCRETE PAVEMENT WORK SHALL BE IN CONFORMANCE WITH FLORIDA D.O.T. AND DADE CO. PUBLIC WORKS STANDARDS AND SPECIFICATIONS.
4. PROVIDE PRECAST CONCRETE WHEEL STOPS, 3500 PSI CONCRETE STRENGTH, FULLY REINFORCED, AS MANUFACTURED BY SAF-T-PARK COMPANY, COMPLETE WITH ANCHOR PINS, AS INDICATED ON THE DRAWINGS.
5. ALL FINISHED GRADE ELEVATIONS AT THE BUILDING AND SURROUNDING PAVEMENTS NOTED ON THIS DRAWING SHALL SUPERCEDE ELEVATIONS SHOWN ON THE PAVING AND DRAINAGE PLAN BY E.R. BROWNELL AND ASSOCIATES, INC.

QUESTEC CONSULTING ENGINEERS
4812 Santora Circle • Columbia • MD 65203 • (314) 875-0280

C-1

NO.	DESCRIPTION	BY	CHK	APPR	DATE
1	ADD 1 PKG SPACE, MOVE SIDEWALK TO OFFICE AREA.	LS			4/92

REVISIONS

TITLE

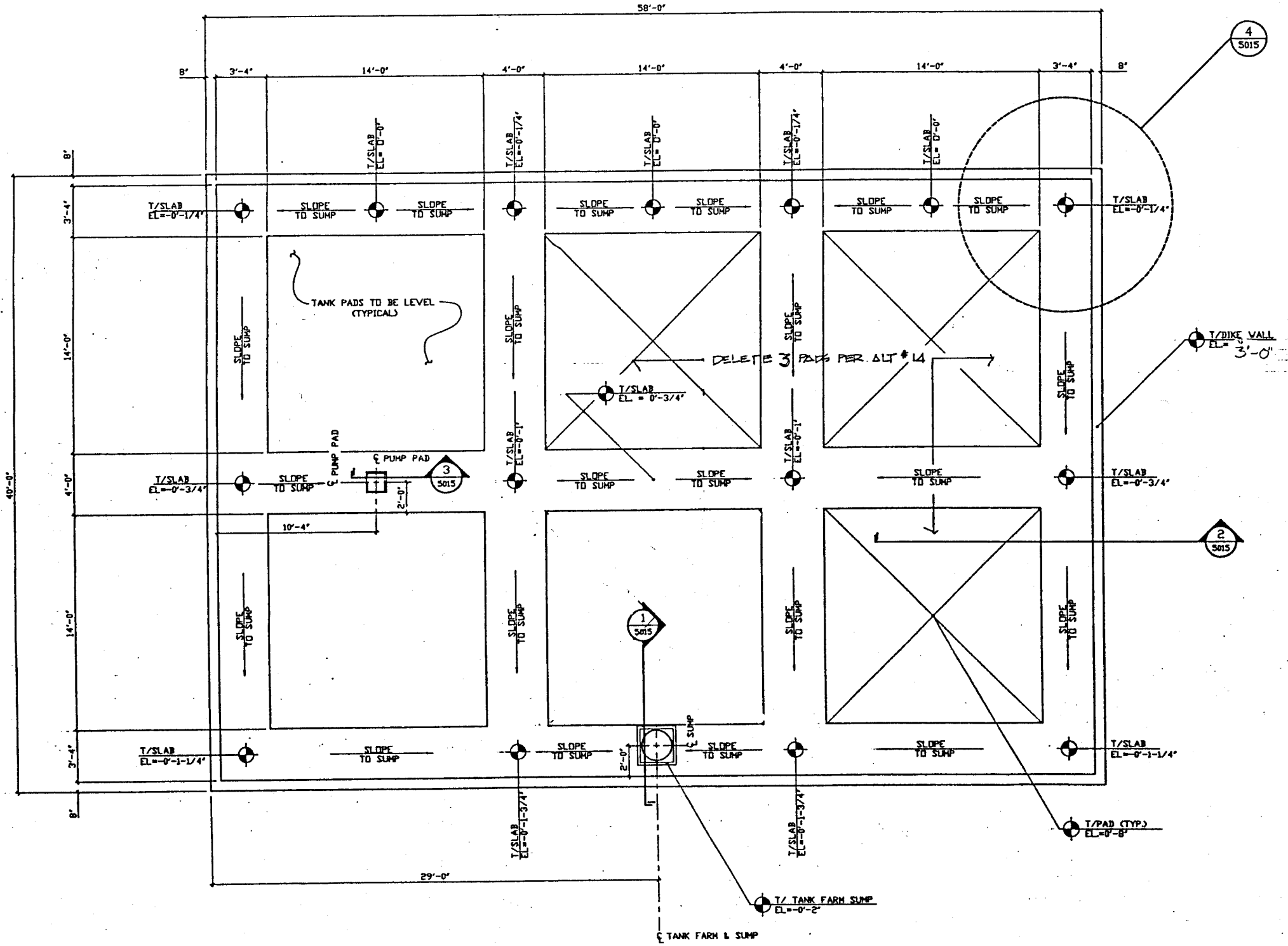
SITE PAVING PLAN AND DETAILS

SAFETY-KLEEN CORP.
777 BIG TIMBER ROAD ELGIN, ILLINOIS 60123 PHONE 708-697-8460

SCALE	BY	CHKD	P.E. APPR	OP. APPR	DATE
AS SHOWN	Questec				9-27-91

SERVICE CENTER LOCATION	SC-DWG-REV NO.	SHEET NO.
MEDLEY, FL	316301-0020-00	2a

10-18-91 3:30pm .DWG

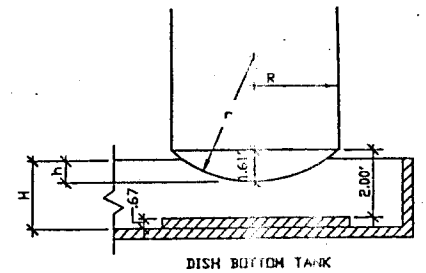


NORTH

TANK FARM PLAN

SCALE: 1/4" = 1'-0"

CONTAINMENT CALCULATIONS



DISH BOTTOM TANK

TANK FARM (20,000 GAL DISH BOTTOM VERTICAL STORAGE TANK) -

NOTE: SUMP AND SLOPED CONCRETE SLAB CONTAINMENT NEGLIGIBLE

FORMULAS USED:

[(1/3)(P)(h²)(3—h)](7.48 GAL/CF)(# OF UNITS) = TANK DISPLACEMENT VOLUME (GAL)
(L)(W)(H)(7.48 GAL/CF)(# OF UNITS) = OTHER DISPLACEMENT VOLUMES (GAL)
(L)(W)(H)(7.48 GAL/CF) = DIKE CONTAINMENT VOLUME (GAL)

R (TANK RADIUS) = 6.00 FT
L (DIKE LENGTH) = 56.67 FT
W (DIKE WIDTH) = 38.67 FT
H (DIKE HEIGHT) = 2.75 FT
r (DISH RADIUS) = 12.00 FT
h (DISH HEIGHT) = 1.69 FT
P = 3.141

DIKE CONTAINMENT VOLUME:
(56.67)(38.67)(2.75)(7.48 GAL/CF) = 45,078 GAL (+)

VOLUME OF LARGEST TANK WITHIN DIKED AREA: = 20,000 GAL (-)

TANK PAD DISPLACEMENT VOLUME:
(14.00²)(0.67)(7.48 GAL/CF)(6 PADS) = 5,894 GAL (-)

TANK DISPLACEMENT VOLUME:
[(1/3)(P)(1.69²)((3)(12.00)-1.69)](7.48 GAL/CF)(5 TANKS) = 3,838 GAL (-)

LOCAL RAINFALL ALLOWANCE:
25 YEAR FREQUENCY/24 HOUR DURATION
RAINFALL = 11 INCHES
(56.67)(38.67)(11/12)(7.48 GAL/CF) = 15,026 GAL (-)

TOTAL DISPLACEMENT VOLUME:
(20,000 + 5,894 + 3,838 + 15,026) = 44,758 GAL (-)

NET CONTAINMENT (EXCESS CAPACITY):
(45,078 - 44,758) = 320 GAL

GENERAL NOTES

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1. REFER TO APPLICABLE GENERAL NOTES ON DRAWING 5011.
2. CONTRACTOR SHALL INSTALL OWNER FURNISHED S.S. FRAME AND LINER DESIGNATED FOR THE SUMP.
3. SLOPE CONCRETE SLAB TO SUMP AS SHOWN ON PLAN. TANK PADS MUST BE PERFECTLY LEVEL.
4. ALL REBAR SHALL BE GRADE 60 BILLET STEEL CONFORMING TO ASTM A-615. ALL REBAR SHALL BE EPOXY COATED.
5. MINIMUM CONCRETE COVER FOR REINFORCEMENT SHALL BE 3" FOR CONCRETE CAST AGAINST SOIL, AND 2" FOR CONCRETE EXPOSED TO WEATHER.
6. TOP OF ALL EXPOSED CONCRETE WALLS SHALL BE SCREEDED AND FINISHED PERFECTLY LEVEL FOR PROPER ARCHITECTURAL APPEARANCE.
7. TANK FARM ELEVATIONS ARE RELATIVE. FINAL NGVD ELEVATIONS TO BE COORDINATED WITH SITE DRAWINGS BY E.H. BROWNELL AND ASSOCIATES, INC.

NO.	DESCRIPTION	BY	CHK	APPR	DATE
	REVISIONS				

QUESTEC CONSULTING ENGINEERS
4812 Santana Drive • Columbia • MO 65203 • (314) 875-0200

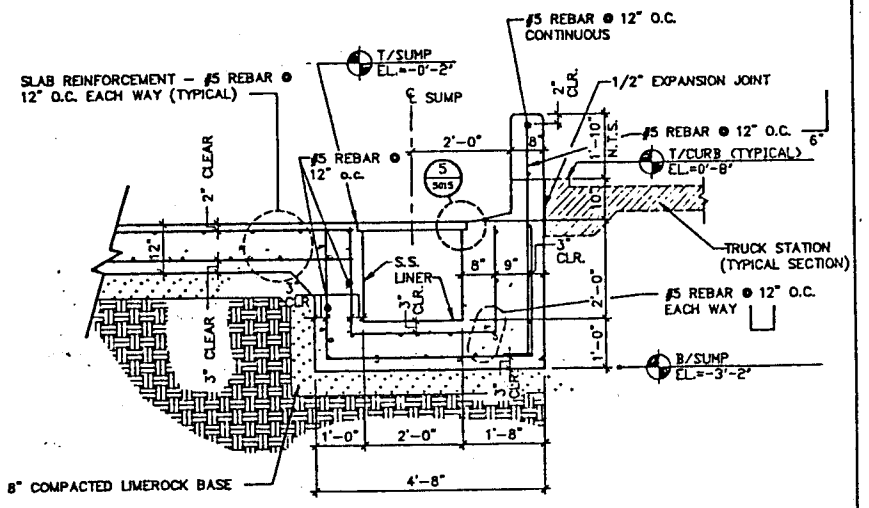
MP-1

TITLE
TANK FARM FOUNDATION PLAN

SAFETY-KLEEN CORP.
777 BIG TIMBER ROAD ELGIN, ILLINOIS 60123 PHONE 708-697-8460

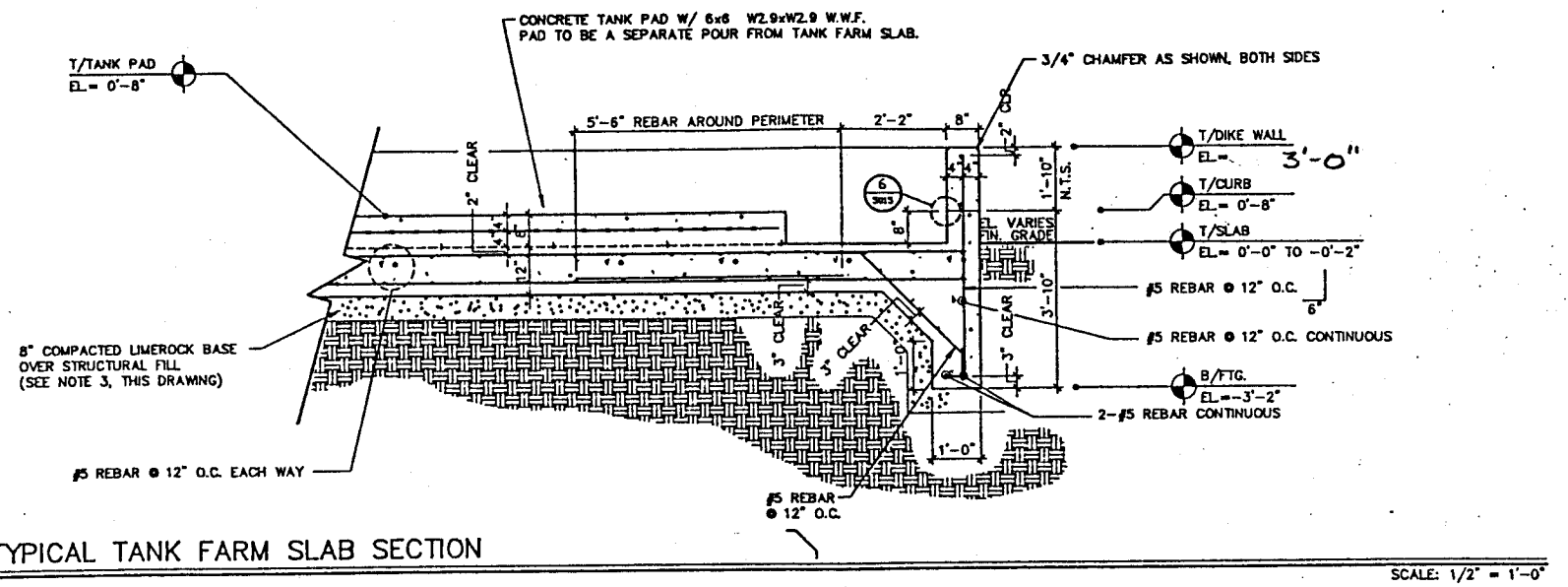
SCALE	BY	CHKD	P.E. APPR	OP. APPR	DATE
1/4" = 1'-0"	QuesTec				9-27-91
SERVICE CENTER LOCATION			SC-DWG-REV NO.		SHEET NO.
MEDLEY, FL			316301-5002-00		8

10-8-91 11:00am Q:\DWG



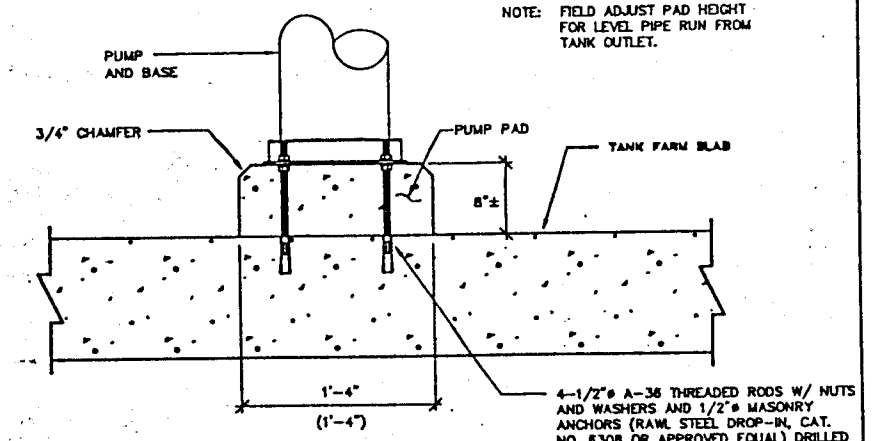
1 / 5015 TANK FARM SUMP SECTION

SCALE: 1/2" = 1'-0"



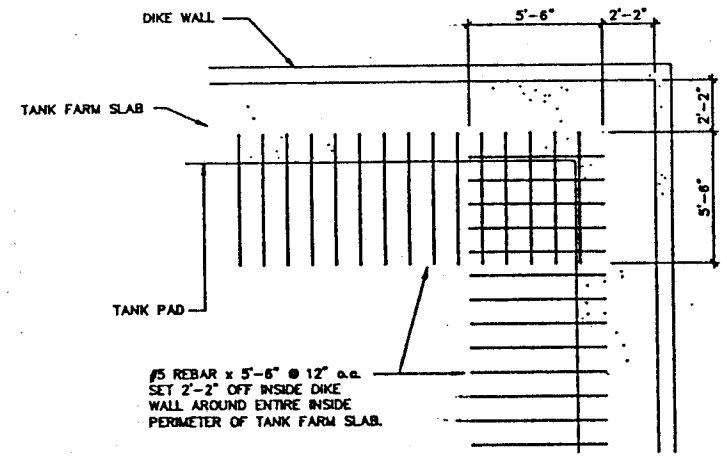
2 / 5015 TYPICAL TANK FARM SLAB SECTION

SCALE: 1/2" = 1'-0"



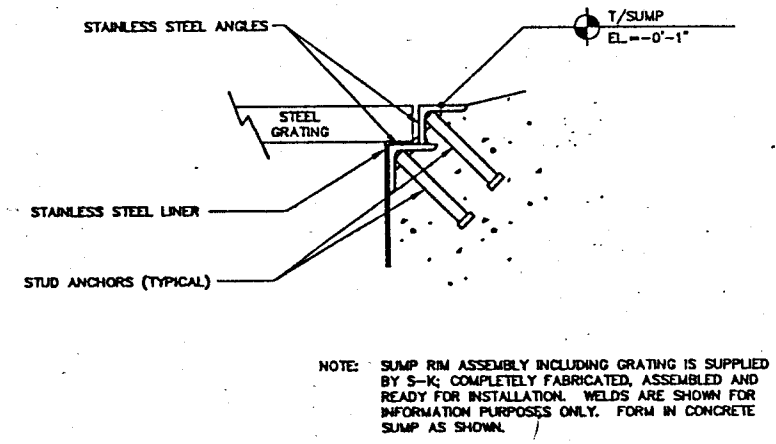
3 / 5015 TANK FARM PUMP PAD DETAIL

SCALE: NONE



4 / 5015 TANK FARM REINFORCEMENT DETAIL

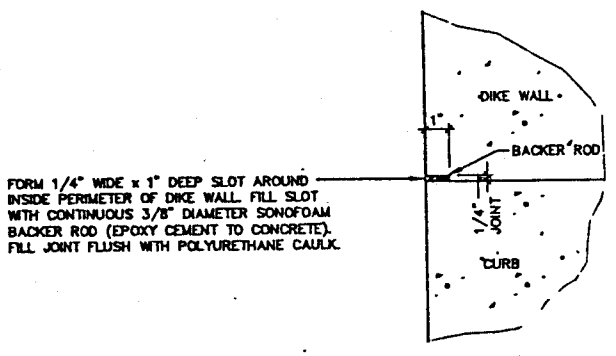
SCALE: 1/4" = 1'-0"



NOTE: SUMP RIM ASSEMBLY INCLUDING GRATING IS SUPPLIED BY S-K; COMPLETELY FABRICATED, ASSEMBLED AND READY FOR INSTALLATION. WELDS ARE SHOWN FOR INFORMATION PURPOSES ONLY. FORM IN CONCRETE SUMP AS SHOWN.

5 / 5015 TANK FARM SUMP RIM DETAIL

SCALE: 3" = 1'-0"



6 / 5015 DIKE WALL HORIZONTAL JOINT DETAIL

SCALE: 3" = 1'-0"

GENERAL NOTES

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1. REFER TO APPLICABLE GENERAL NOTES ON DRAWINGS 5011 AND 5002.
2. TANK FARM ELEVATIONS ARE RELATIVE. FINAL GRADE ELEVATIONS TO BE COORDINATED WITH SITE DRAWINGS BY E.R. BROWNELL AND ASSOCIATES, INC.
3. REFER TO SOILS REPORT BY SCHWEBKE-SHISKIN AND ASSOCIATES, INC. DATED 9/10/91 FOR RECOMMENDATIONS AND SPECIFICATIONS REGARDING STRUCTURAL FILL AND LIMEROCK BASE.

WESTEC CONSULTING ENGINEERS

MP-2

NO.	DESCRIPTION	BY	CHK	APPR	DATE
	REVISIONS				

TITLE

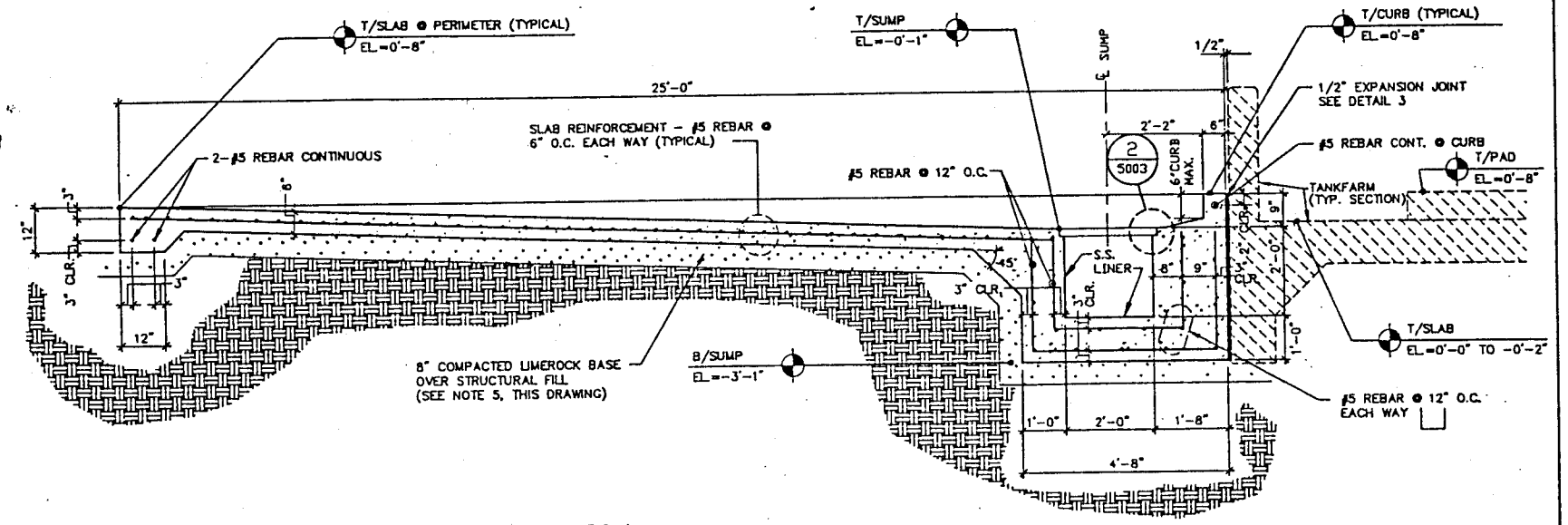
TANK FARM FOUNDATION SECTIONS & DETAILS

SAFETY-KLEEN CORP.

SCALE	BY	CHKD	P.E. APPR	OP. APPR	DATE
AS SHOWN	QuarkTec				9-27-91

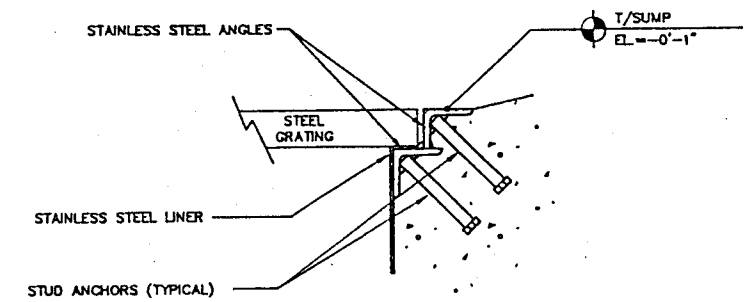
SERVICE CENTER LOCATION	SC-DWG-REV NO.	SHEET NO.
MEDLEY, FL	316301-5015-00	9

10-8-91 11:45am Q.DWG



1 5003 TRUCK STATION SLAB AND SUMP SECTION

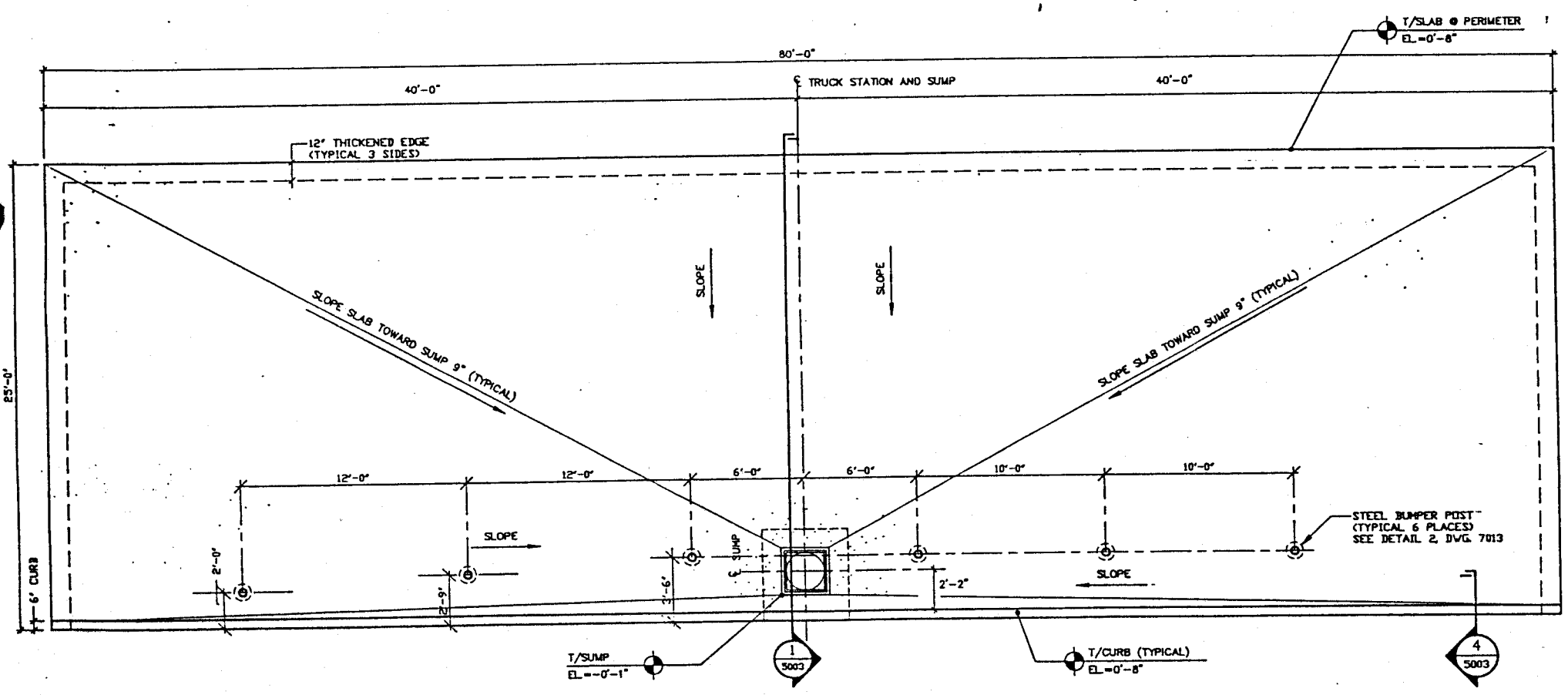
SCALE: 1/2" = 1'-0"



NOTE: SUMP RIM ASSEMBLY INCLUDING GRATING IS SUPPLIED BY S-K; COMPLETELY FABRICATED, ASSEMBLED AND READY FOR INSTALLATION. WELDS ARE SHOWN FOR INFORMATION PURPOSES ONLY. FORM IN CONCRETE SUMP AS SHOWN.

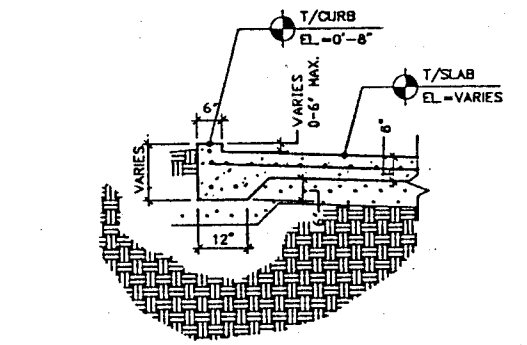
2 5003 TRUCK STATION SUMP RIM DETAIL

SCALE: 3" = 1'-0"



NORTH TRUCK STATION PLAN

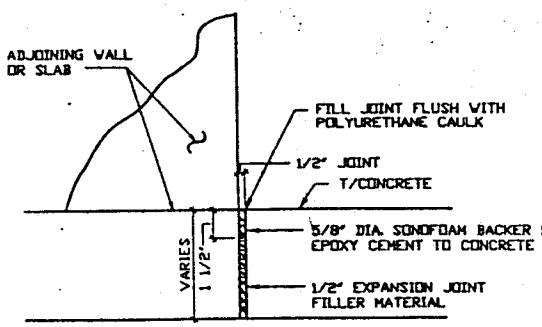
SCALE: 1/4" = 1'-0"



NOTE: FOR STEEL REINFORCEMENT SEE SECTION 1, THIS DWG.

4 5003 TRUCK STATION CURB DETAIL

1/2" = 1'-0"



3 5003 EXPANSION JOINT DETAIL

NO SCALE

GENERAL NOTES

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1. REFER TO APPLICABLE GENERAL NOTES ON DRAWINGS 5011 AND 5002.
2. CONTRACTOR SHALL INSTALL OWNER FURNISHED S.S. FRAME AND LINER DESIGNATED FOR THE SUMP.
3. SLOPE CONCRETE SLAB TO SUMP AS SHOWN ON PLAN.
4. TRUCK STATION ELEVATIONS ARE RELATIVE. FINAL NGVD ELEVATIONS TO BE COORDINATED WITH SITE DRAWINGS BY E.R. BROWNELL AND ASSOCIATES, INC.
5. REFER TO SOILS REPORT BY SCHWEBKE-SHISKIN AND ASSOCIATES, INC. DATED 9/10/91 FOR RECOMMENDATIONS AND SPECIFICATIONS REGARDING STRUCTURAL FILL AND LIMEROCK BASE.

CONTAINMENT CALCULATIONS

TRUCK STATION (SLOPED CONCRETE SLAB)-

NOTE: SUMP CONTAINMENT NEGLIGIBLE . .

FORMULA USED:
(1/3)(L)(W)(H)(7.48 GALLONS/CUBIC FOOT)

L = 80'-0"
W = 19'-6"
H = 0'-9"

TOTAL CONTAINMENT:
(1/3)(80.0)(19.5)(.75)(7.48 GAL/CF) = 2917 GAL

QUESTEC CONSULTING ENGINEERS
4812 Sawbury Circle • Columbia • MD 65203 • (314) 875-0288

MP-3

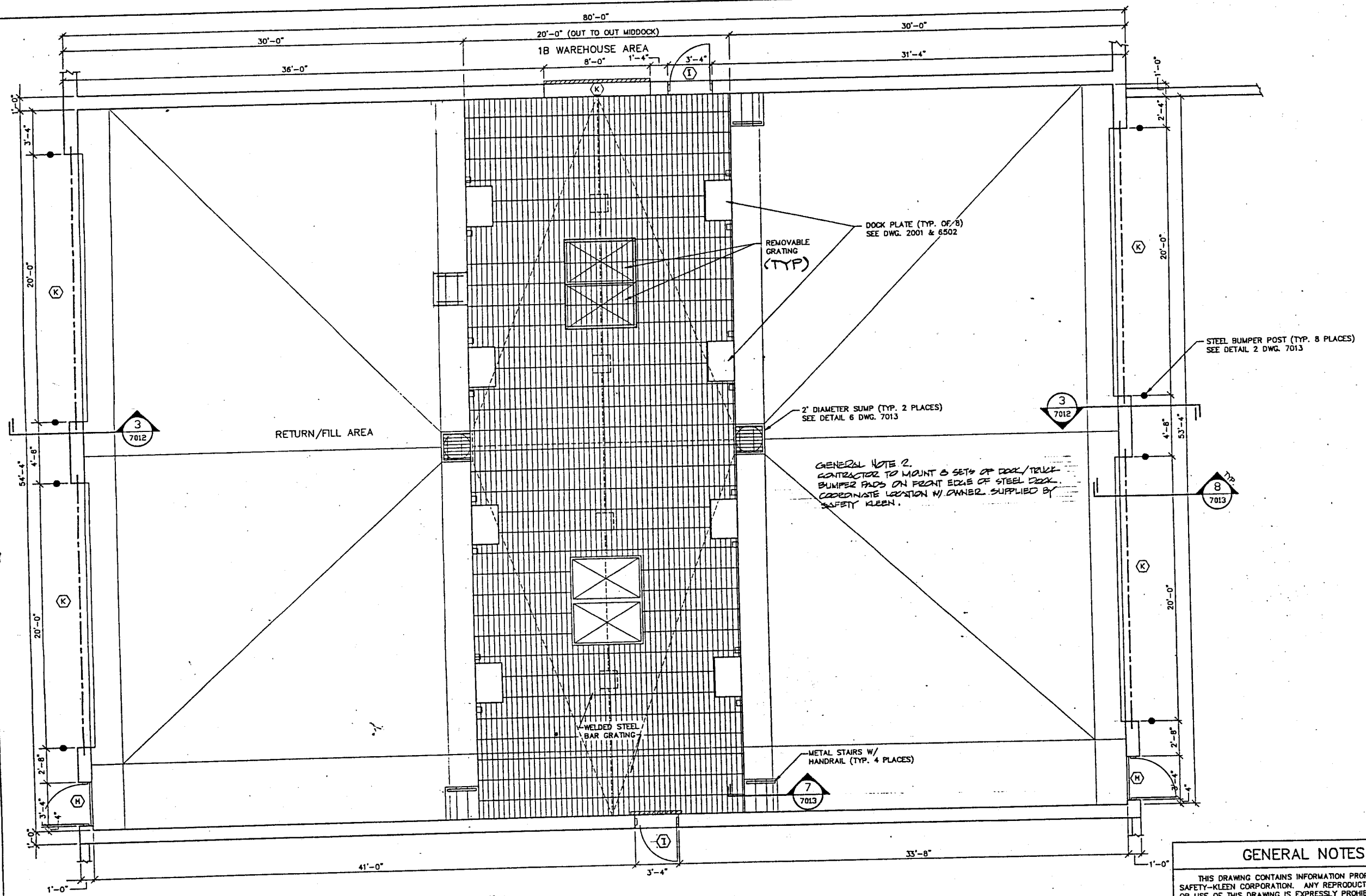
NO.	DESCRIPTION	BY	CHK	APPR	DATE
	REVISIONS				

TITLE
TRUCK STATION / FOUNDATION PLAN, SECTIONS AND DETAILS

SAFETY-KLEEN CORP.
777 BIG TIMBER ROAD ELGIN, ILLINOIS 60123 PHONE 708-697-8460

SCALE	BY	CHKD	P.E. APPR	OP. APPR	DATE
AS SHOWN	QuesTec				9-27-91
SERVICE CENTER LOCATION			SC-DWG-REV NO.		SHEET NO.
MEDLEY, FL			316301-5003-00		10

10-8-91 11:30am BG WG



RETURN/FILL AREA/FLOOR PLAN

SCALE: 1/4" = 1'-0"

GENERAL NOTES

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1. DIMENSIONING ON ALL PLANS IS TO FACE OF STUD, ACTUAL WIDTH, FACE OF MASONRY, NOMINAL WIDTH, OR FACE OF ROUGH OPENING.

WESTEC
CONSULTING ENGINEERS
4812 Santana Circle • Columbia • MO 65203 • (314) 875-0280

A-7

NO.	DESCRIPTION	BY	CHK	APPR	DATE
	REVISIONS				

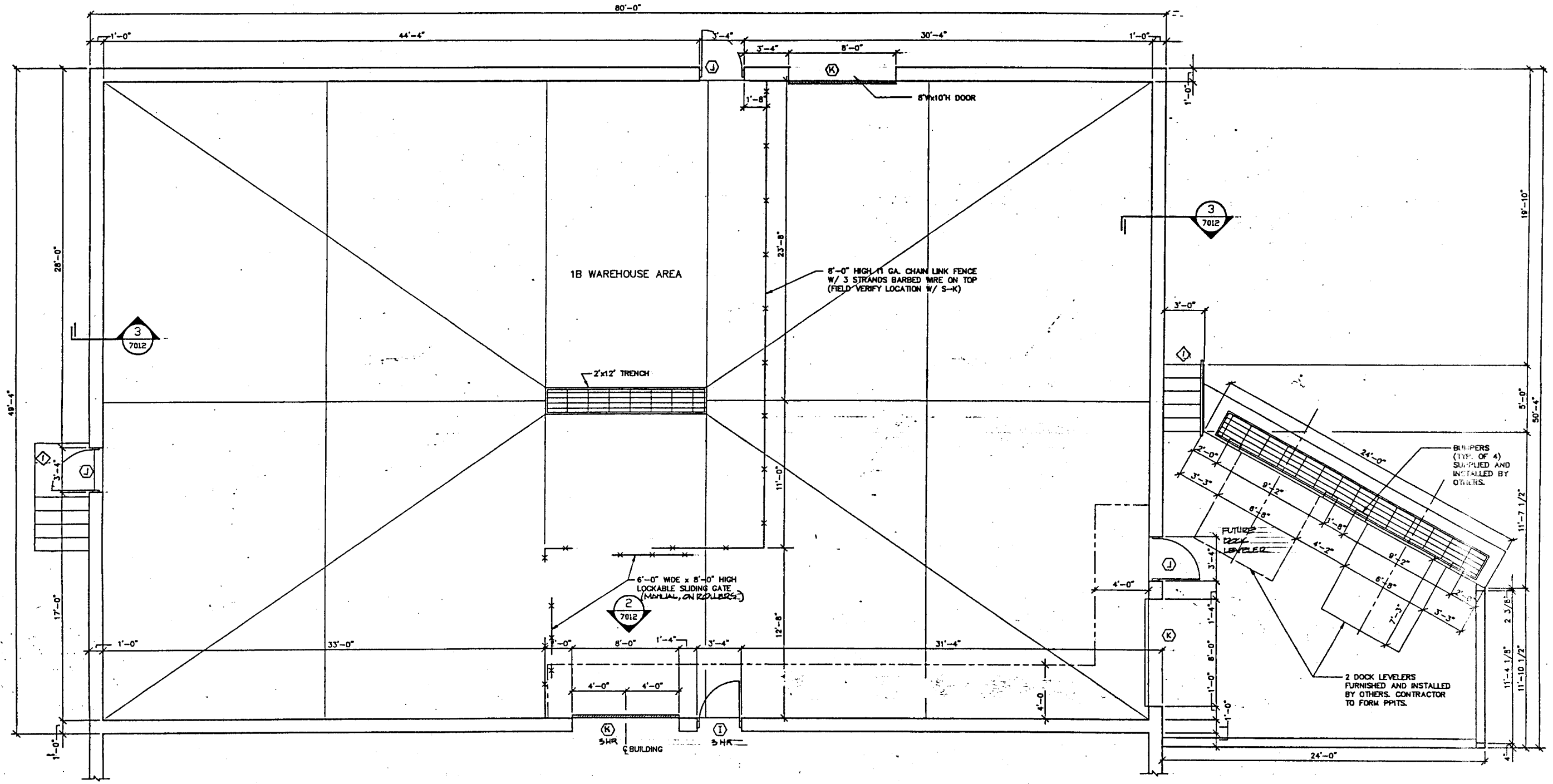
TITLE
RETURN/FILL AREA
FLOOR PLAN

SAFETY-KLEEN CORP.
777 BIG TIMBER ROAD ELGIN, ILLINOIS 60123 PHONE 708-697-8460

SCALE	BY	CHKD	P.E. APPR	OP. APPR	DATE
1/4" = 1'-0"	QuesTec				9-27-91

SERVICE CENTER LOCATION	SC-DWG-REV NO.	SHEET NO.
MEDLEY, FL	316301-7004-00	24

9-27-91 8:00pm 7004



RETURN/FILL AREA

GENERAL NOTES

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1. DIMENSIONING ON ALL PLANS IS TO FACE OF STUD, ACTUAL WIDTH, FACE OF MASONRY, NOMINAL WIDTH, OR FACE OF ROUGH OPENING.

QUESTEC CONSULTING ENGINEERS
4812 Spring Circle • Orlando • (407) 875-0880

A-8

1B WAREHOUSE AREA FLOOR PLAN

SCALE: 1/4" = 1'-0"

NO.	DESCRIPTION	BY	CHK	APPR	DATE
1	ADDED STOOP & REVISED STAIRS	CF	SD		102191

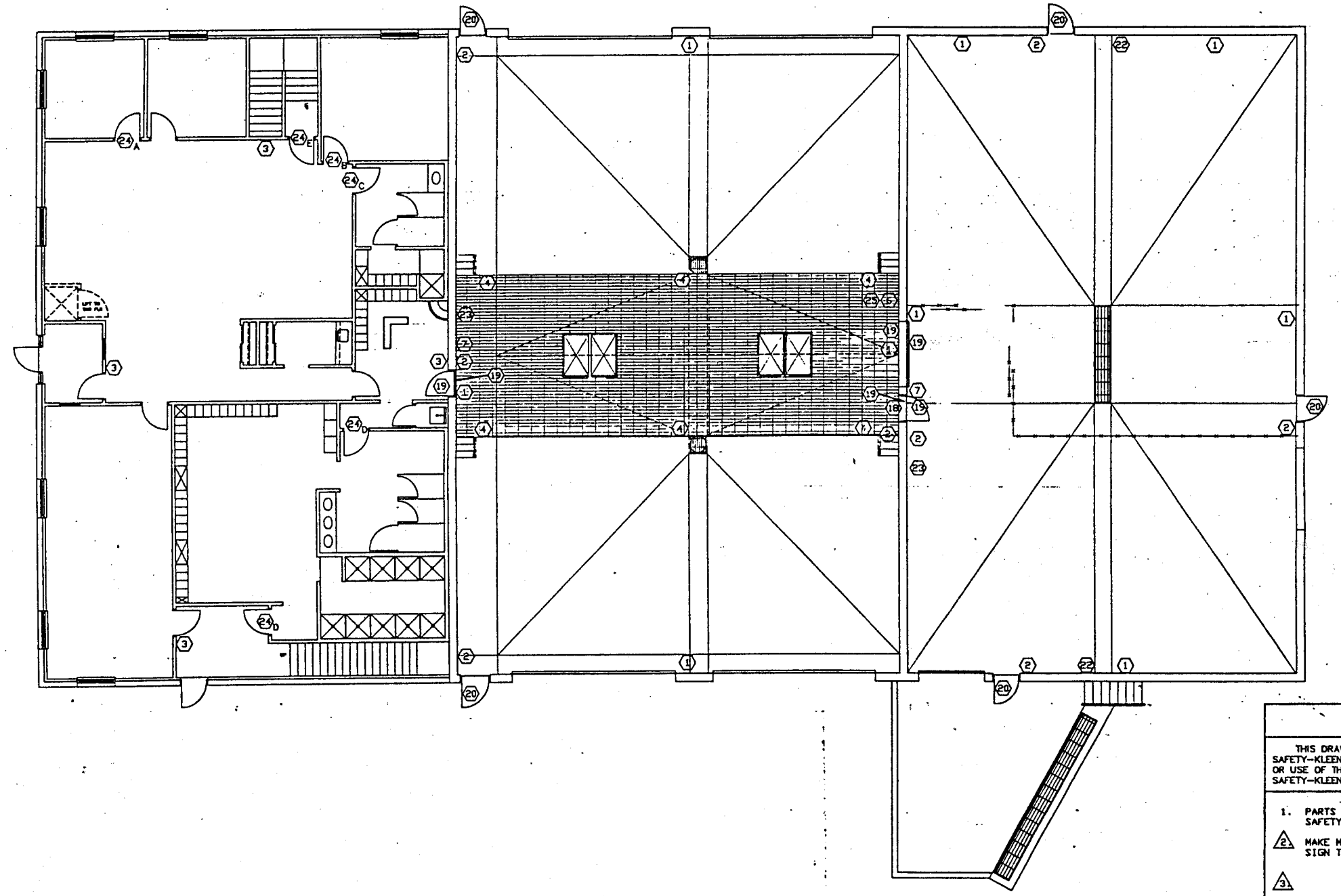
REVISIONS

TITLE: 1B WAREHOUSE AREA FLOOR PLAN

SAFETY-KLEEN CORP.
777 W. BIESTER ROAD ELGIN, ILLINOIS 60123 PHONE 708-697-8460

SCALE	BY	CHKD	P.E. APPR	OP. APPR	DATE
1/4" = 1'-0"	QuesTec				9-30-91
SERVICE CENTER LOCATION			SC-DWG-REV NO.		SHEET NO.
MEDLEY, FL			316301-7005-00		26

10-21-91 8:00am ...DWG



155' BUILDING SIGN LOCATION PLAN

SCALE: 1/8" = 1'-0"

SIGN SCHEDULE

MARK NO.	DESCRIPTION	DETAIL	NUMBER REQUIRED ⚠4	LOCATION	REMARKS
1	NO SMOKING	A	8	10' A.F.F.	■ DENOTES 10' ABOVE T/DOCK
2	"FIRE EXTINGUISHER"	B	7	6' ABOVE EXTINGUISHER	COORDINATE LOCATIONS W/ FIRE PROTECTION CONTR.
3	"FIRE EXTINGUISHER"	C	2	6' ABOVE EXTINGUISHER	COORDINATE LOCATIONS W/ FIRE PROTECTION CONTR.
4	"105° SOLVENT"	D	3		MOUNT TO SOLVENT TREE ANGLE UPRIGHT ⚠2
6	"USED SOLVENT PUMP JOG SWITCH	D	1	3' ABOVE JOG SWITCH	
7	"LIGHT & VENTILATION FAN"	D	4	3' ABOVE SWITCH	
9	NFPA DESCRIPTION		2/ TANK	11' A.F.F.	S.K.# 2452 ⚠3
10	~~"WASTE OIL"~~ GLYCOL	U	2/ WASTE OIL TANK	13' A.F.F.	
12	"105 SOLVENT"	W	2/ 105° SOLVENT TANK	13' A.F.F.	
13	"WASTE SOLVENT"	X	2/ WASTE SOLVENT TANK	13' A.F.F.	
14	"COMBUSTIBLE LIQUID"	Y	2/ TANK	15' A.F.F.	
15	"HAZARDOUS WASTE"	Z	2/ WASTE SOLVENT TANK	13' A.F.F.	S.K.# 1257
16	~~"TANK CAPACITY"~~ (19,000 GAL)	K	1/ TANK	17' A.F.F.	
17	PIPELINE IDENTIFICATION	L	VARIES SEE DWG. 9005	6' ABOVE CONTAINER PENETRATION	SEE TANK ACCESS CONTAINER
18	OPEN DOOR SLOWLY	M	2	5 1/2' A.F.F.	
19	FIRE DOOR	N	4	6 1/2' A.F.F.	
20	NO ADMITTANCE	P	6	5 1/2' A.F.F.	
22	FLAMMABLE	R	2	6' A.F.F.	
23	EYE WASH	S		6' A.F.F.	
24	DOOR	T	SEE DWG. 9002	5 1/2' A.F.F.	A - BRANCH MANAGER B - CONFERENCE C - WOMEN D - MEN E - STAIRWAY
25	EMERGENCY SHUT-OFF WASTE SOLVENT	D	1	3' ABOVE DISCONNECT	
26	EMERGENCY SHUT-OFF 105° SOLVENT PUMP	D	1	3' ABOVE DISCONNECT	LOCATED AT TANKFARM

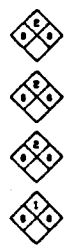
GENERAL NOTES

THIS DRAWING CONTAINS INFORMATION PROPRIETARY TO SAFETY-KLEEN CORPORATION. ANY REPRODUCTION, DISCLOSURE OR USE OF THIS DRAWING IS EXPRESSLY PROHIBITED EXCEPT BY SAFETY-KLEEN OR AS SAFETY-KLEEN MAY AGREE IN WRITING.

1. PARTS W/ S-K PART #'S ARE SUPPLIED BY SAFETY KLEEN AND INSTALLED BY CONTRACTOR.

⚠2 MAKE MOUNTING BRACKET AS REQUIRED. MOUNT SIGN TO BE VISABLE FROM DOCK.

⚠3



- WASTE SOLVENT
- WASTE OIL
- 105° SOLVENT
- WASTE ETHYLENE GLYCOL

⚠4 CONTRACTOR TO VERIFY ALL QUANTITIES REQUIRED.

QUESTEC CONSULTING ENGINEERS
4612 Trueman Blvd. • Columbia • MO 65203 • (314) 875-8280

A-11

TITLE

155' BUILDING
SIGN LOCATION PLAN

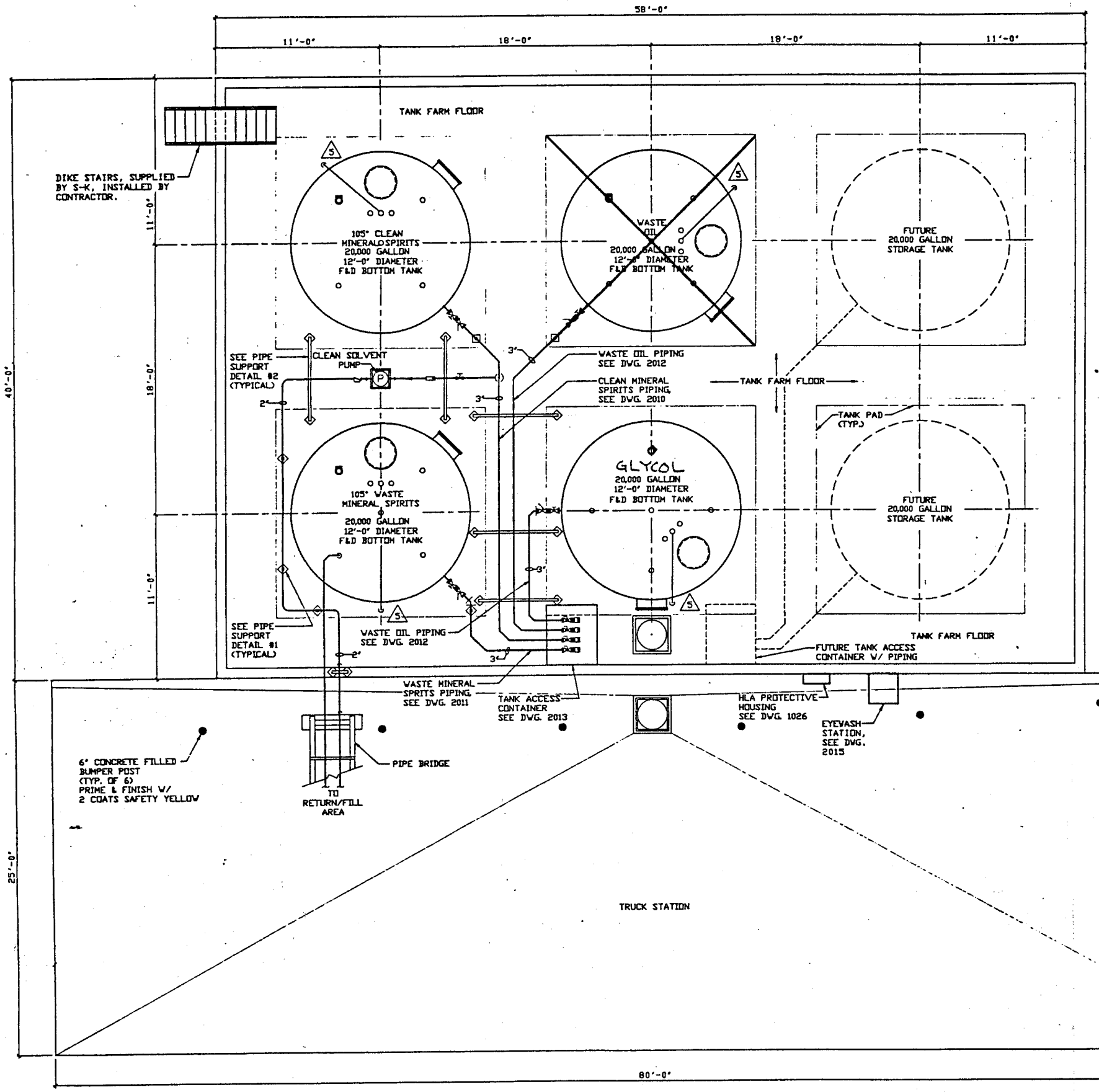
SAFETY-KLEEN CORP.
777 BIG TIMBER ROAD ELGIN, ILLINOIS 60123 PHONE 708-697-8460

NO.	DESCRIPTION	BY	CHK	APPR	DATE
	REVISIONS				

SCALE	BY	CHKD	P.E. APPR	OP. APPR	DATE
1/8" = 1'-0"	QuesTec				9-27-91

SERVICE CENTER LOCATION	SC-DWG-REV NO.	SHEET NO.
MEDLEY, FL	316301-9000-00	28

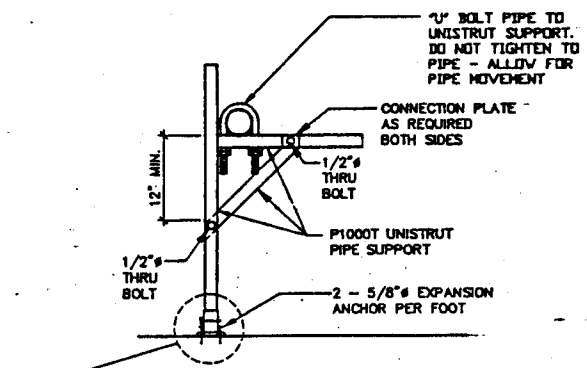
10-7-91 12:00pm 900



NORTH

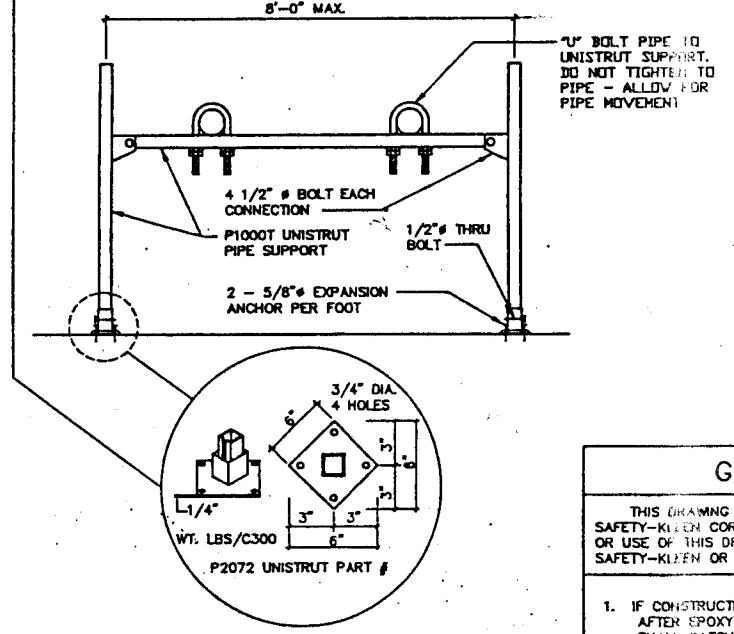
TANK FARM PIPING PLAN

SCALE: 1/4" = 1'-0"



PIPE SUPPORT DETAIL #1

SCALE: 3/4" = 1'-0"



PIPE SUPPORT DETAIL #2

SCALE: 3/4" = 1'-0"

GENERAL NOTES

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1. IF CONSTRUCTION REQUIRES CONC. PENETRATIONS AFTER EPOXY COATING IS APPLIED - CONTRACTOR SHALL PATCH & REPAIR EPOXY COATING AS PER MANUFACTURER'S RECOMMENDATIONS & REQUIREMENTS.
2. SHIM ACCESS CONTAINER & EYEWASH STAND AS REQUIRED, WITH STEEL OR LEAD PLATES, TO LEVEL.
3. CONC. PENETRATIONS WILL NOT BE ALLOWED ON TANK FARM FLOOR.
4. ALL CHANGES IN DIRECTION OF WASTE PIPING SHALL BE MADE USING 2-45° ELBOWS OR LONG RADIUS 90'S.

(5) "VERIFY" TANK GAUGE, SEE DRAWING 2025.

6. RUN PROCESS PIPE LEVEL FROM TANK. CHANGE ELEVATION, ONLY AS REQUIRED, FOR ENTRANCE INTO TANK ACCESS CONTAINER.

(7) WELD PIPE SUPPORT TO TOP OF TANK. FIELD FABRICATE PIPE SADDLE AS REQUIRED.

8. SUPPORT PIPE APPROXIMATELY AS SHOWN, BUT NOT MORE THAN 8'-0" O.C. UNLESS OTHERWISE NOTED.
9. ALL PROCESS PIPE FITTINGS TO BE WELDED.

QUESTEC CONSULTING ENGINEERS
4812 Bantam Drive - Columbia - MO 65203 - (314) 875-4888

MP5

NO.	DESCRIPTION	BY	CHK	APPR	DATE
	REVISIONS				

TITLE

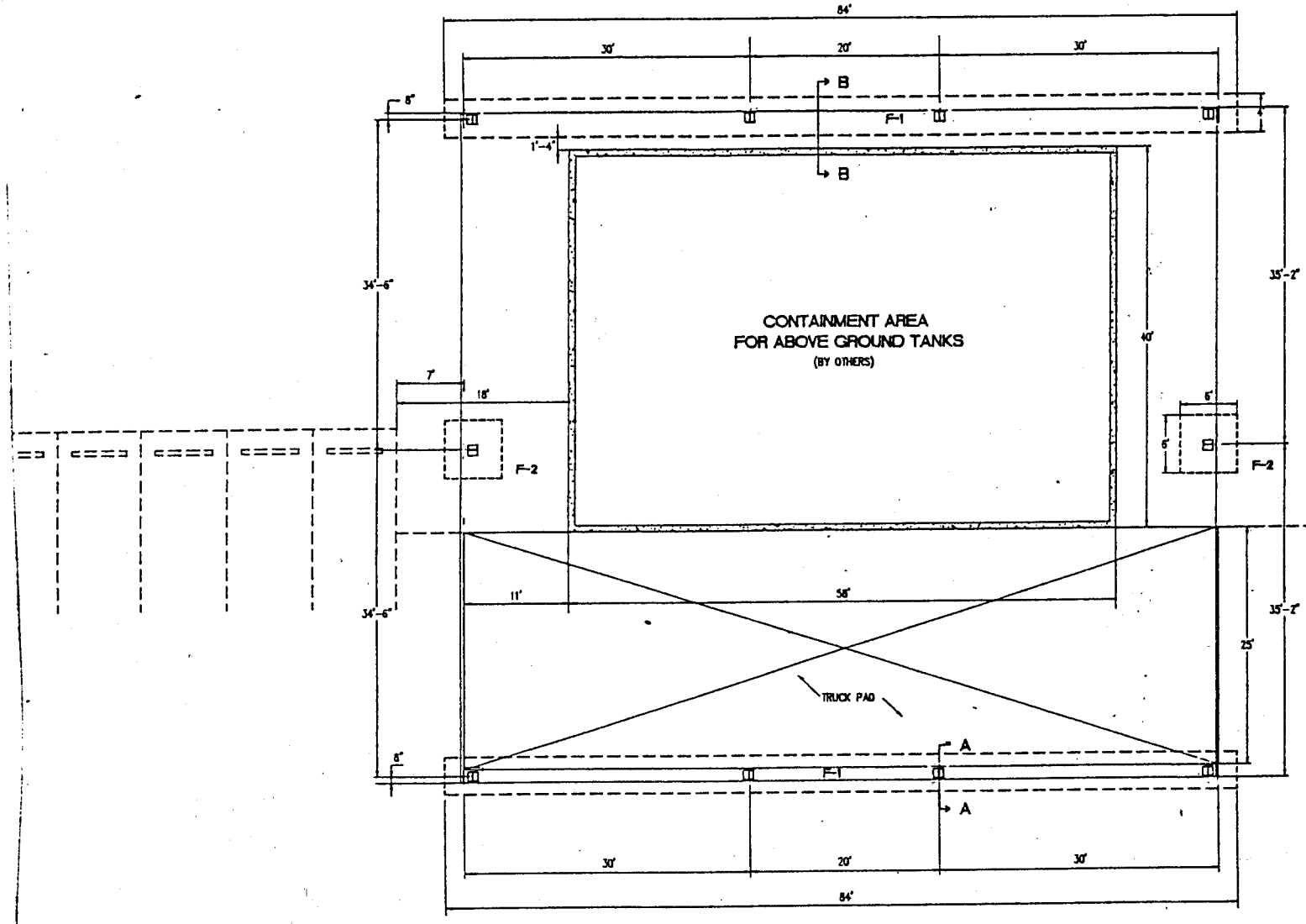
TANK FARM PIPING PLAN

SAFETY-KLEEN CORP.
777 BIG TIMBER ROAD ELGIN, ILLINOIS 60123 PHONE 708-697-8460

SCALE	BY	CHKD	P.E. APPR	OP. APPR	DATE
1/4" = 1'-0"	QuesTec				9-27-91

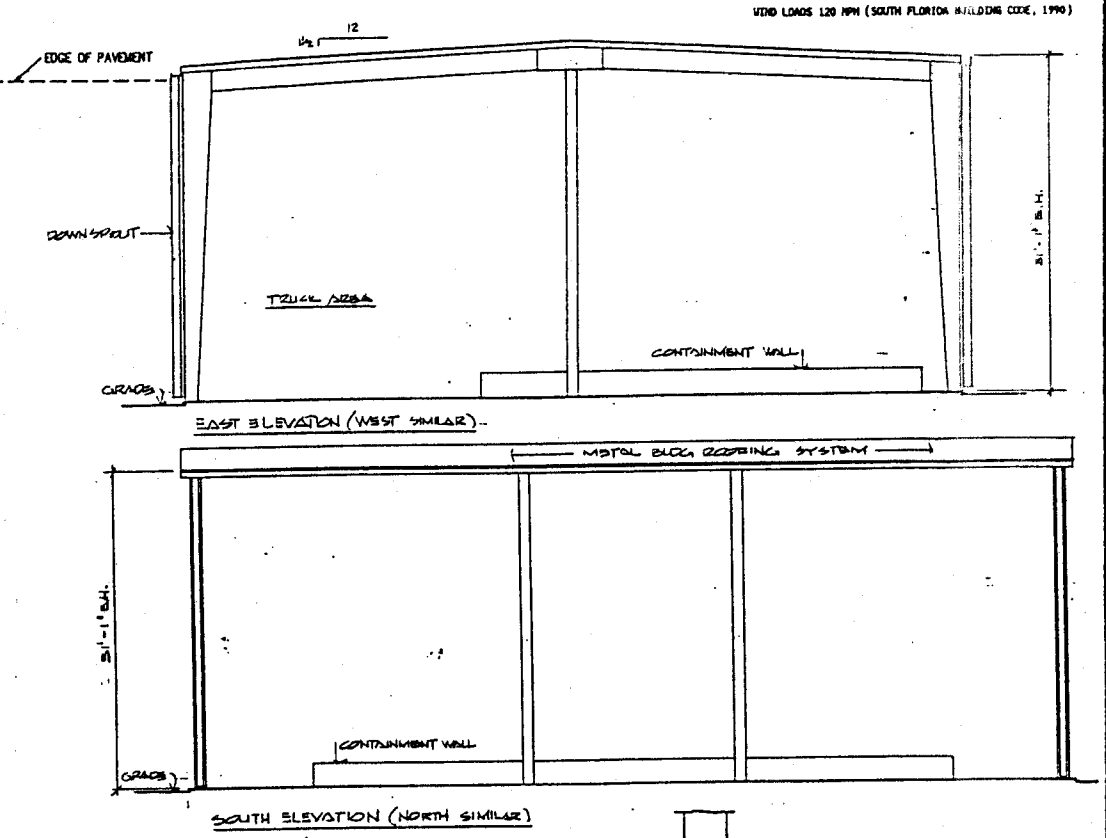
SERVICE CENTER LOCATION	SC-DWG-REV NO.	SHEET NO.
MEDLEY, FL	316301-2000-00	45

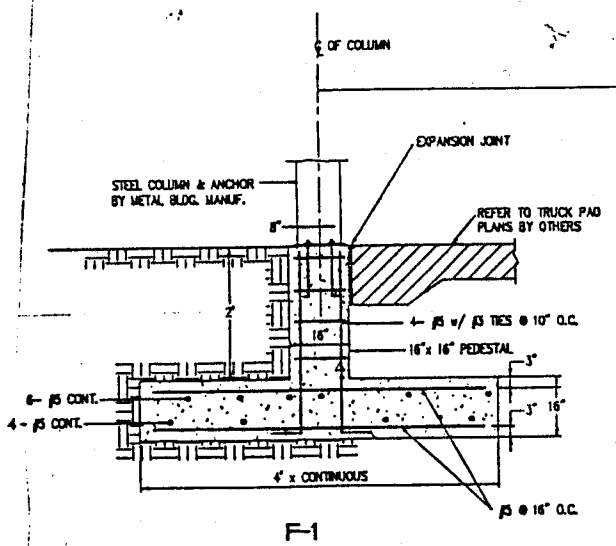
10-8-91 8:15pm



FOUNDATION PLAN

SCALE: 1/8" = 1'-0"

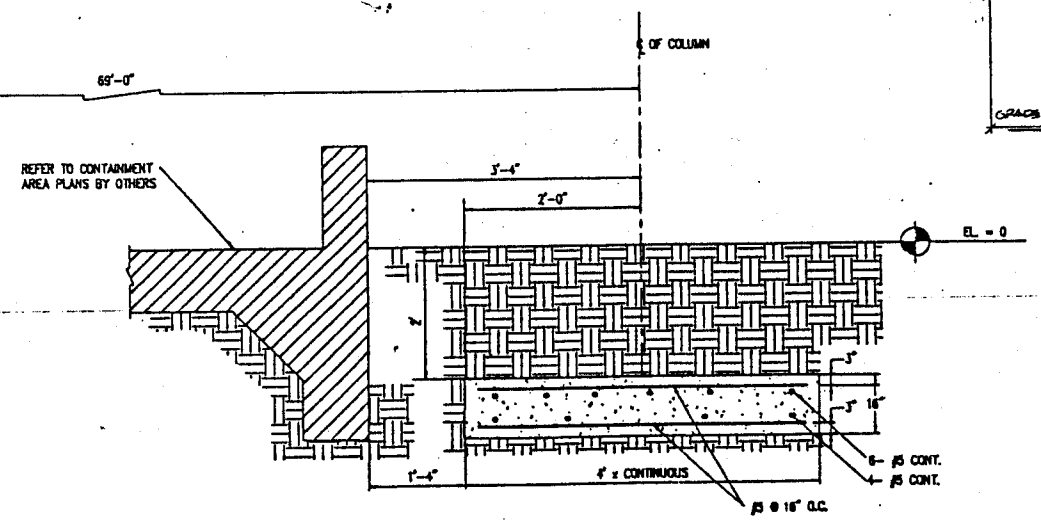




F-1

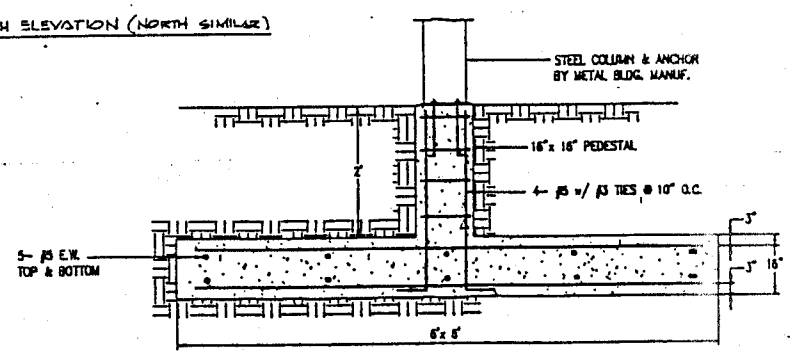
SECTION "A-A"

N.T.S.



SECTION "B-B"

N.T.S.



F-2

N.T.S.

FOUNDATIONS

1. THE SUBSURFACE INFORMATION AND FOUNDATION DESIGN ARE BASED ON A REPORT PREPARED BY [illegible] SOIL TO HAVE A 3,000 PSF BEARING CAPACITY. THE CONTRACTOR SHALL PERFORM EXCAVATIONS, FOOTING CONSTRUCTION, AND PREPARATION OF THE SUBGRADE IN ACCORDANCE WITH THE RECOMMENDATIONS CONTAINED IN THE GEOTECHNICAL REPORT.
2. FOUNDATION CONDITIONS NOTED DURING CONSTRUCTION, WHICH DIFFER FROM THOSE DESCRIBED IN THE GEOTECHNICAL REPORT, SHALL BE REPORTED TO THE STRUCTURAL ENGINEER AND THE GEOTECHNICAL ENGINEER BEFORE PROCEEDING.

GENERAL

1. PRE-ENGINEERED METAL BUILDING COMPONENTS SHALL BE DESIGNED FOR ALL LOADS PRESCRIBED BY THE SOUTH FLORIDA BUILDING CODE, LATEST EFFECTIVE EDITION. SHOP DRAWINGS SIGNED AND SEALED BY A FLORIDA REGISTERED ENGINEER SHALL BE SUBMITTED TO ENGINEER OF RECORD FOR APPROVAL PRIOR TO FABRICATION OR ERECTION.
2. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL ANCHOR BOLT AND FOOTING LOCATIONS WITH METAL BUILDING MANUFACTURER'S SHOP DRAWINGS PRIOR TO BEGINNING CONSTRUCTION.
3. DESIGN LOADS:

   ROOF LIVE LOAD = 30 PSF

   ROOF DEAD LOAD = STEEL LOAD + 3 PSF ADDITIONAL

   WIND LOADS 120 MPH (SOUTH FLORIDA BUILDING CODE, 1990)

Revisions	Date	By
Issue		

Developers Choice, Inc.

Commercial • Industrial • Architecture • Civil Engineering • Land Planning • Design Feasibility

SAFETY KLEEN
MEDLEY FLORIDA.

TANK FARM CANOPY

Drawn	GS
Check	
Date	4-18-91
Scale	AS NOTED
Job No.	5291

Sheet

ST- 1

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ATTACHMENT II.C.2

TANK SYSTEM SPECIFICATIONS

ATTACHMENT II.C.2
TANK SYSTEM SPECIFICATIONS

The facility includes the capacity for six aboveground steel tanks (Figure II.C.2-1). Used mineral spirits contained in containers returned from the customers are transferred via the wet dumpster into a 20,000-gallon tank, awaiting bulk shipment to the recycle center. The other two installed tanks consist of one 20,000-gallon mineral spirits product tank and one 20,000-gallon spent ethylene glycol tank. The remaining three tanks are intended for future installation. The mineral spirits product tank is not considered a RCRA tank.

MATERIAL COMPATIBILITY

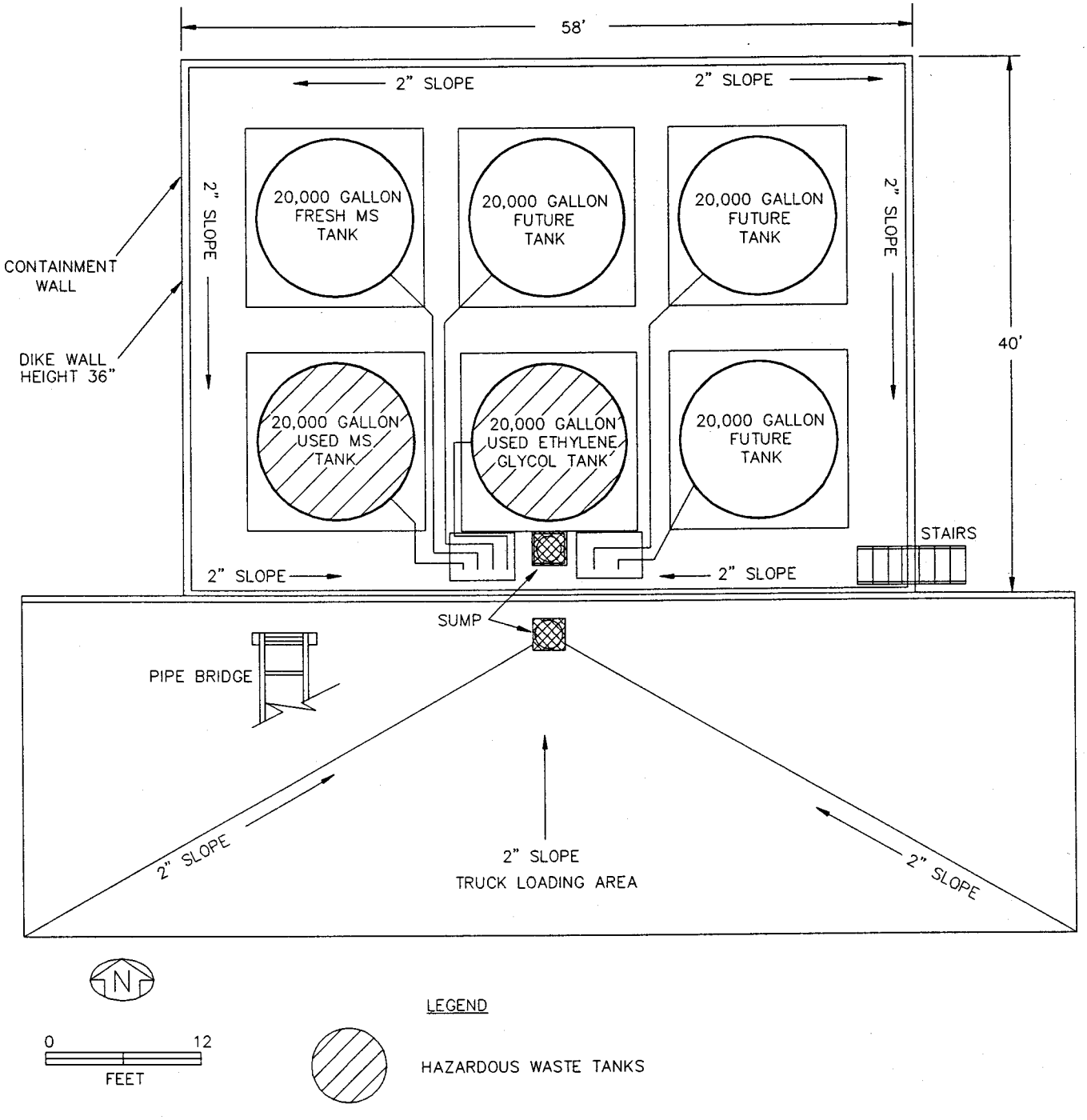
Mineral spirits (petroleum naphtha) and ethylene glycol are compatible with the mild steel tank structure; in fact, mineral spirits are often used as a light hydrocarbon coating to prevent rusting of metal parts. As with all petroleum storage vessels, water will accumulate over time due to condensation. The mineral spirits have a specific gravity less than water and the water will accumulate in the bottom of the tank. Ethylene glycol and water are soluble in all proportions and no separate water plume will form in this tank. There is the potential for corrosion of the tank at the product/water interface.

OPERATION PROCEDURES

Mineral Spirits

Spent mineral spirits from parts washers is accumulated in the 20,000-gallon aboveground storage tank by transfer through the return and fill shelter. Containers of spent solvent are poured into the dumpsters (barrel washers) in the return and fill shelter, and material in the dumpster are pumped into the storage tank for spent solvent. The return and fill shelter has secondary containment.

Figure II.C.2-1
Tank Farm
Safety-Kleen Corp. Facility
Medley, Florida



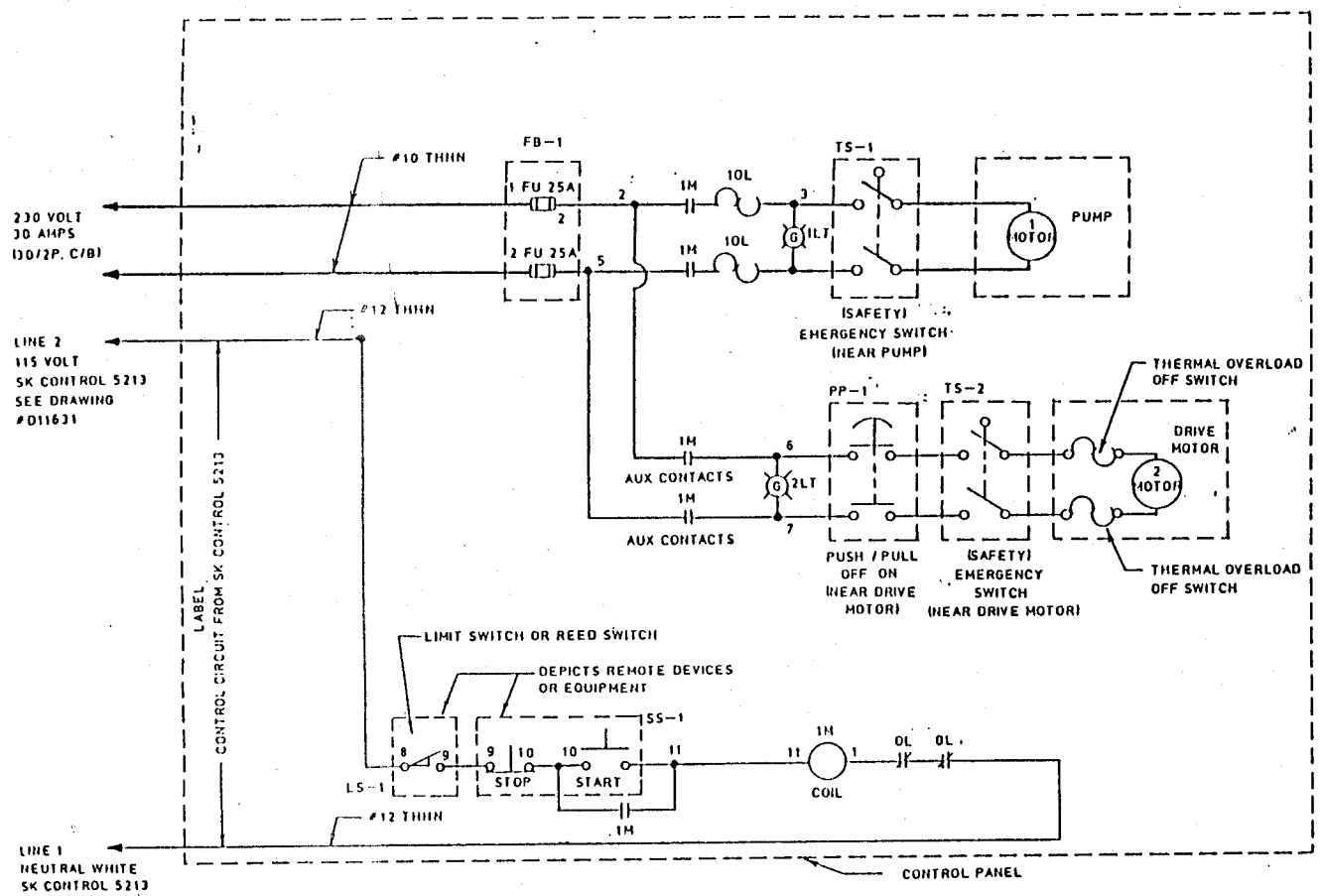
NOTE: ENTIRE AREA IS CONCRETE

The ERM Group ®

The barrel washers are located within the mineral spirits return and fill shelters. The drawings (Figures II.C.2-2(a) through II.C.2-2(j)) provide detailed information on the barrel washers.

Used solvent is returned from customers via containers and poured into the barrel washers. The container is then placed on roller brushes contained within the barrel washer. As the machine is turned on, the container rotates on the brush and the outside of the container is cleaned. There is also a nozzle that sprays a stream of solvent into the bottom of the container to clean the inside of the barrel. The machine is turned off and the container removed. The procedure takes approximately five seconds per container. The container is then refilled using a pump and nozzle (Figure II.C.2-3(a)) similar to a gasoline pump. The waste is transferred to the tanks via piping and a pump (Figure II.C.2-3(b)).

The used solvent goes to a sump in the bottom of the barrel washer and is automatically pumped to the used mineral spirits storage tank. There is a basket in the sump that collects sludge. At least once each working day, this basket is removed and sludge removed and placed into a sludge container. Each dumpster has four satellite accumulation containers. These containers are labeled as "Waste Sludge," "Glass\Metal," and "Rags/Absorbents." They remain covered except when wastes are being added. Once full the containers are moved into the container storage area for later shipment to a Safety-Kleen recycle center for disposal or recycling. In addition to the sludge containers there is also one satellite accumulation container (approximately five gallons) connected to the drain pan which is in front of each barrel washer. These containers collect any spillage which fall into the drain pans. These containers are periodically emptied into the barrel washers in order to add the waste mineral spirits to the bulk waste mineral spirits tank.

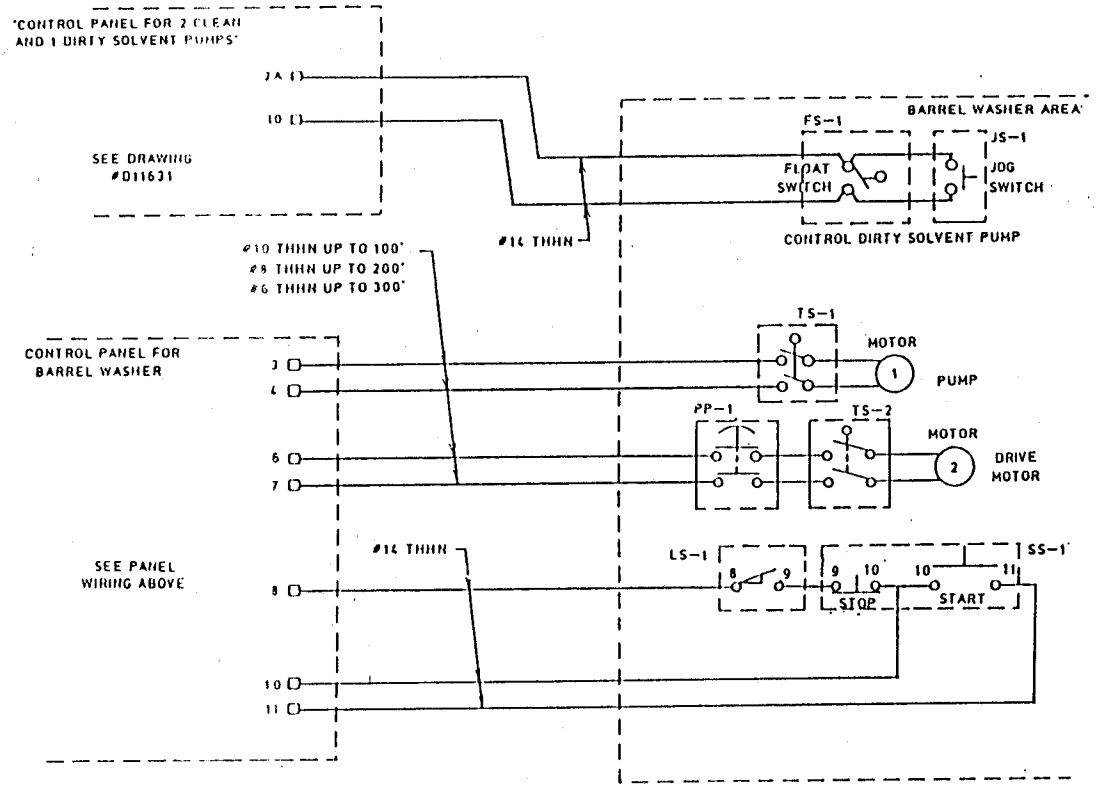


"PANEL WIRING" & ELEMENTARY DIAGRAM

N.T.S. (ONE BARREL WASHER)

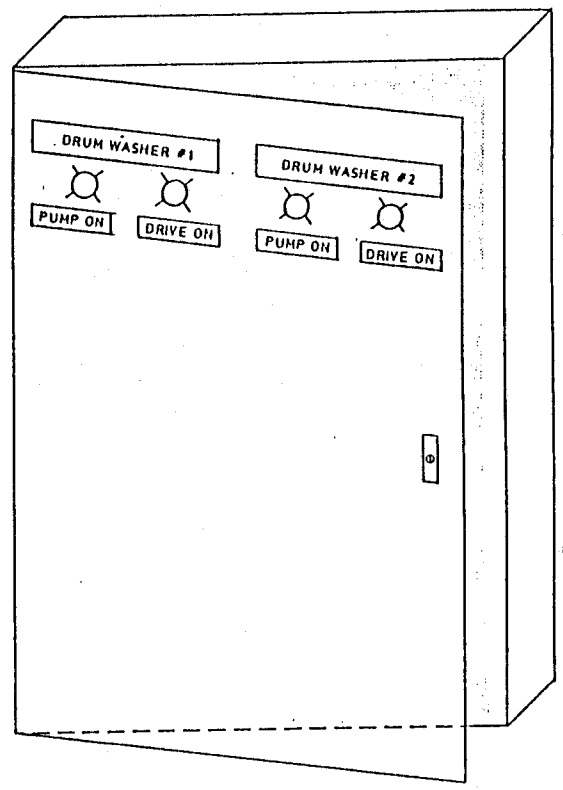
POWER WIRING

CONTROL WIRING

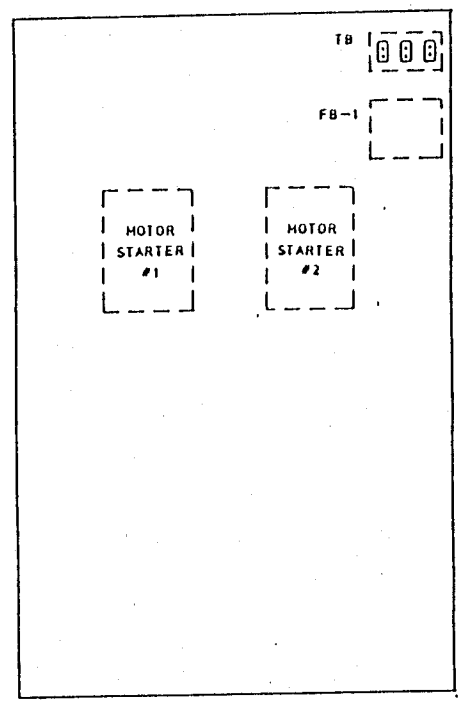


WIRING DIAGRAM

N.T.S.



PANEL FRONT



PANEL INTERIOR

CONTROL PANEL MAKE-UP

N.T.S.

BILL OF MATERIAL

TAG	QUANTITY	DESCRIPTION
FB-1	1	FUSE BLOCK WITH FRN FUSES LITTLE FUSE LH 250 30 2P EUSES FLNR.25
STARTER	2	NEMA SIZE #1 MAGNETIC STARTER SQ D 8536-SBO 1S
1LT	2	PUMP PILOT LIGHT - GREEN - 240 VOLT SQ D 9001 KP7R9 W/TRANSFORMER
2LT	2	DRIVE MOTOR PILOT LIGHT-GREEN - 240 VOLT SQ D 9001 KP7R9 WITH TRANSFORMER
PANEL	1	UNIVERSAL BOX WITH PIANO HINGE, SINGLE POINT L HANDLE LOCK, 8" DEEP, 36" HIGH, 24" WIDE
		REMOTE ITEMS
SS-1	1	START-STOP STATION 9001 BR205
TS-1,2	2	2-POLE TOGGLE SWITCH, 20A RATED SQ D 2510 KR1
JS-1	1	JOG SWITCH, 1-POLE, 20A RATED
FS-1	1	FLOAT SWITCH, 1-POLE, 10A RATED
LS-1	1	LIMIT SWITCH OR REED SWITCH MAKES WHEN BARREL IS IN PLACE 9007 CL61J
PP-1	1	2 POLE TOGGLE SWITCH, START STOP STATION 2HP CONTACT RATING

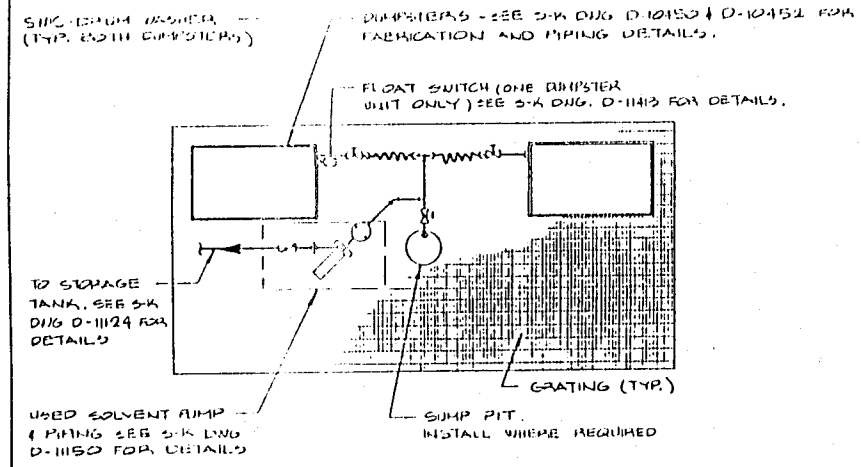
Figure II.C.2-2(a)

NO.	DESCRIPTION	BY	CHKD	APPR	DATE
	REVISIONS				

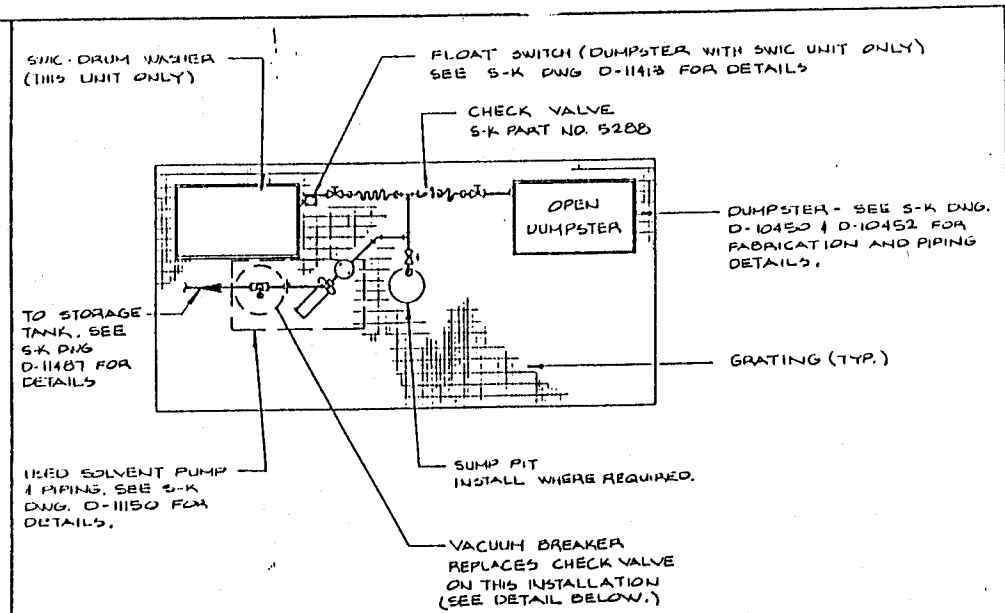
TITLE: ELECTRICAL CONTROL PANEL FOR DRUM WASHER '90'

SAFETY-KLEEN CORP.
777 BIG TIMBER ROAD, ELGIN, ILLINOIS 60120 PHONE 312/697-8460

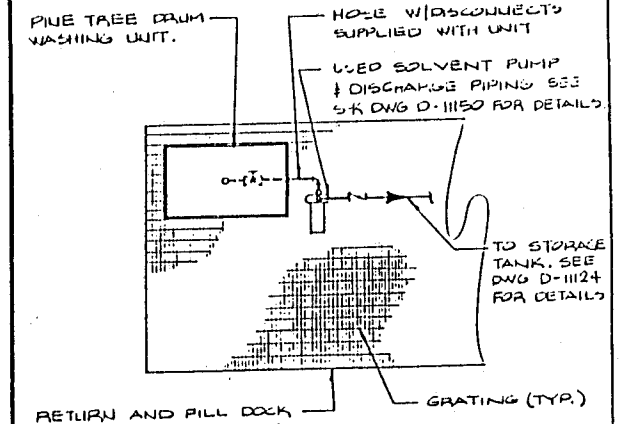
PROJ. ENG. APPR.	OPERATIONS APPR.	SCALE: NONE	DRAWN: DK	DATE
BRANCH:		DRAWING NO. D-14289		REV.



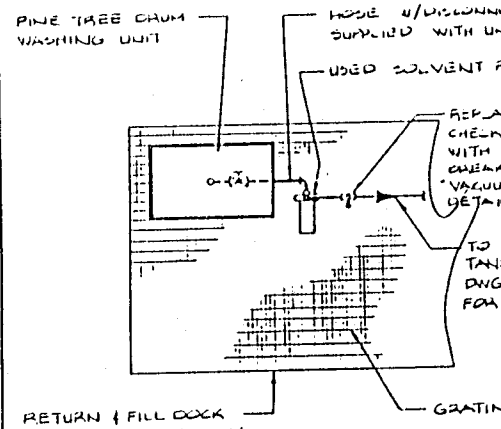
DOUBLE SWIC INSTALLATION W/ ABOVE GROUND STORAGE



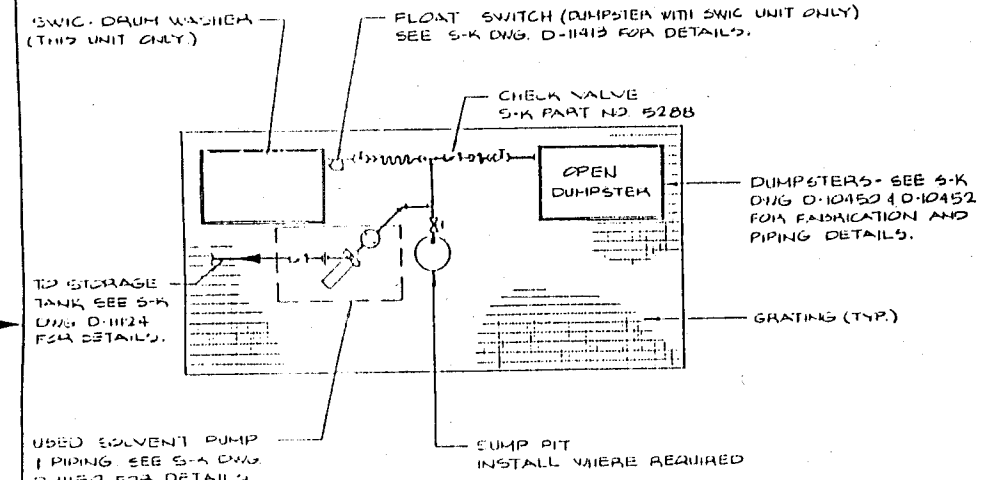
SINGLE SWIC INSTALLATION W/UNDERGROUND STORAGE



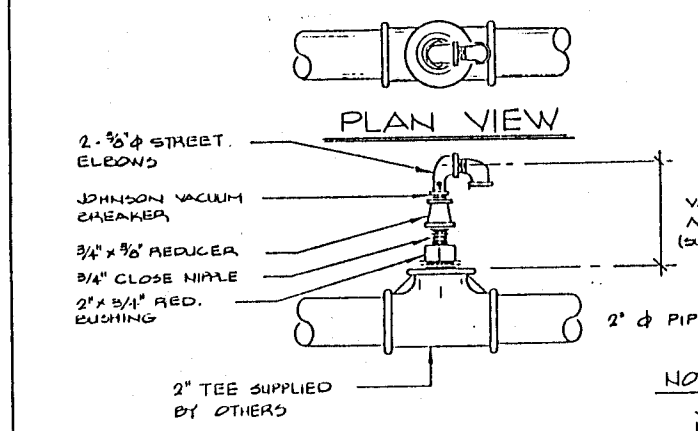
PINE TREE INSTALLATION W/ ABOVE GROUND STORAGE



PINE TREE INSTALLATI W/ UNDERGROUND STORA

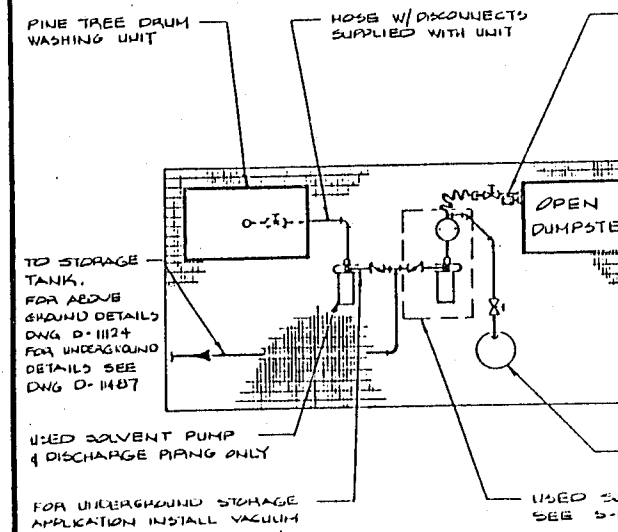


SINGLE SWIC INSTALLATION W/ ABOVE GROUND STORAGE

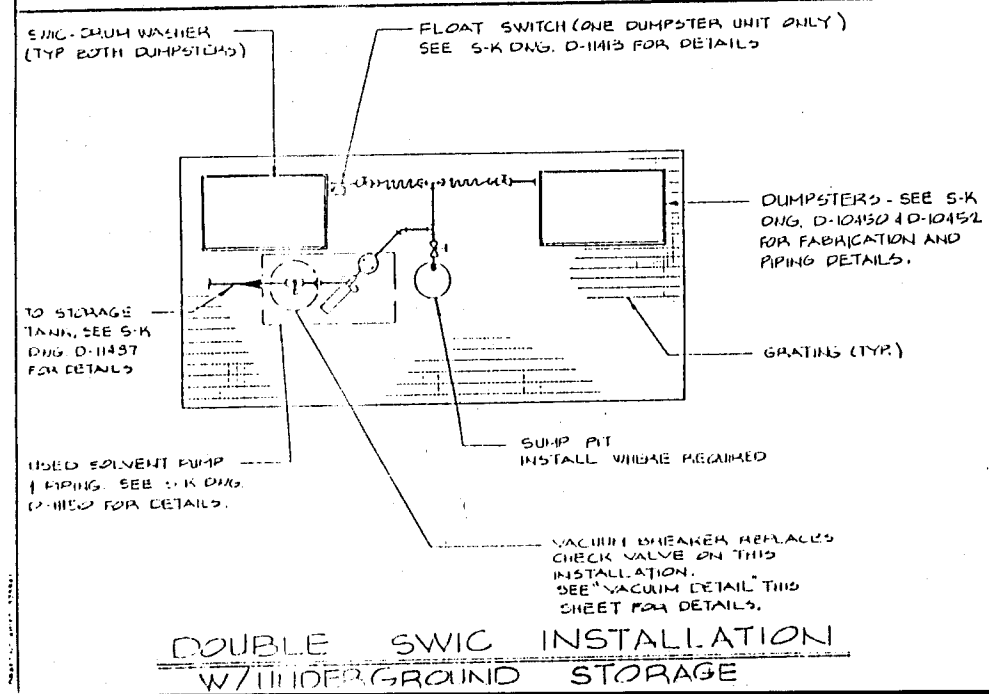


NOTE:
JOHNSON VACUUM BREAKER MUST BE INSTALLED 2" ABOVE ℄ OF FLOAT SWITCH

VACUUM BREAKER DETAIL



PINE TREE AND OPEN DUMPSTER INSTALLATION FOR ABOVE GROUND & UNDERGROUND STORAGE



DOUBLE SWIC INSTALLATION W/UNDERGROUND STORAGE

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NO	DESCRIPTION	BY	CHK	APPR	DATE

REVISIONS

TITLE: TYPICAL DRUM WASHER SCHEMATI

SAFETY-KLEEN CO
111 BIG TIMBER ROAD · ELGIN, ILLINOIS 60123 PHONE 708-

SCALE	DRAWN	CHECKED	ENGINEERING APPR	OPERATION A
NONE	DJ			

FOR SERVICE CENTER BRANCH: II.C.2-2B

DRAWING NO D-14288

Figure II.C.2-2(b)

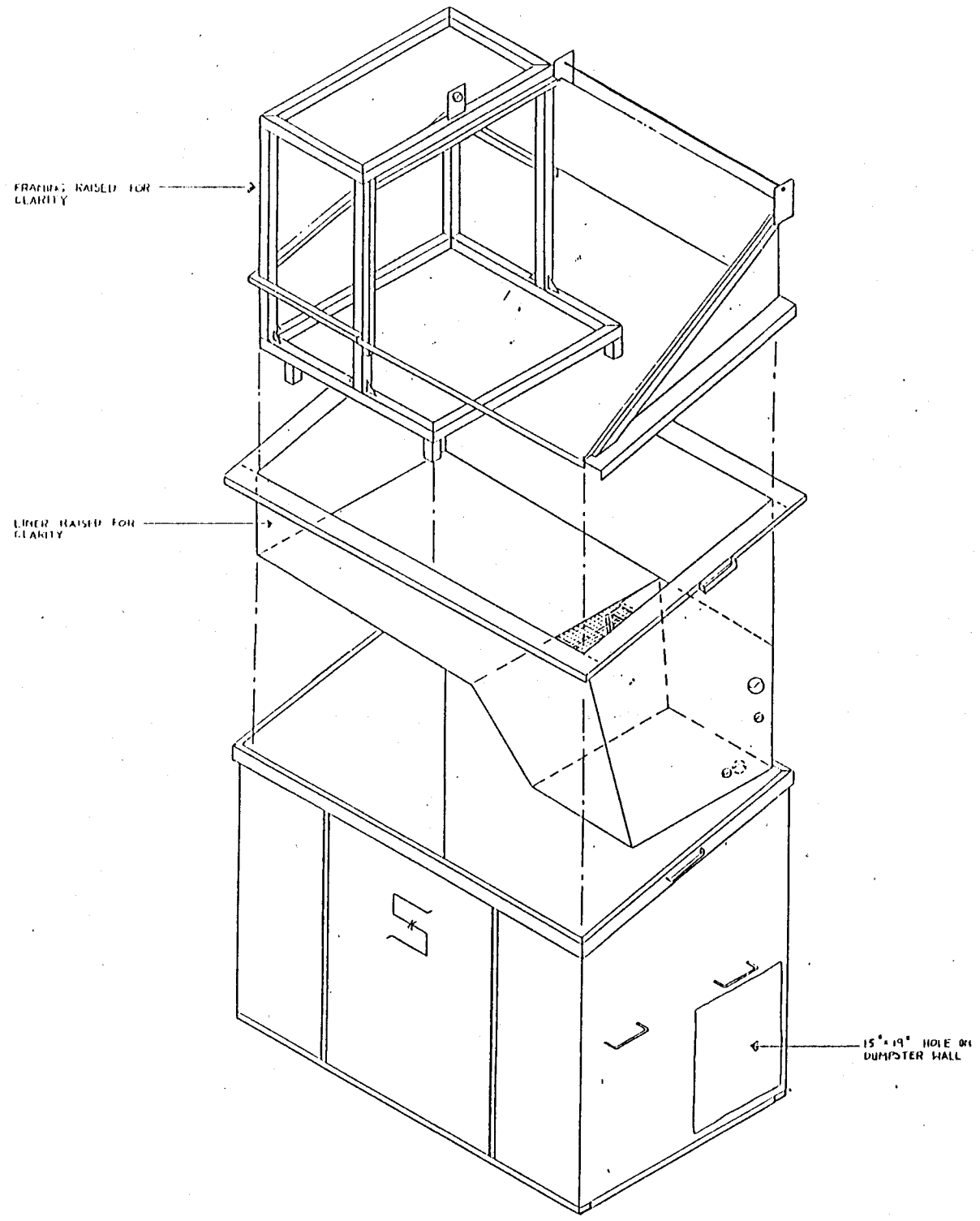

Figure II.C.2-2(c)

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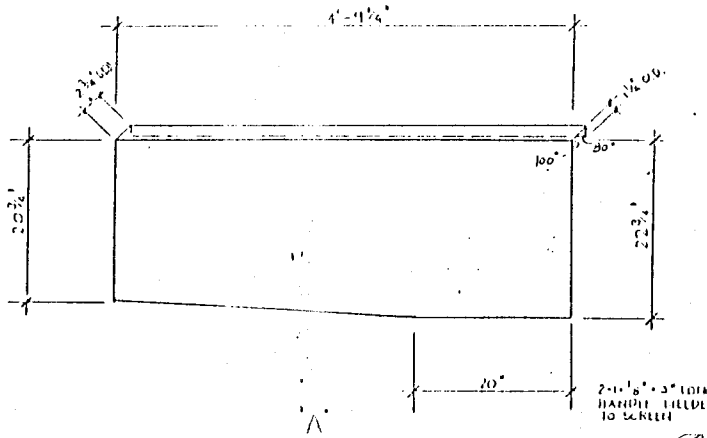
SOUTHWEST INDUSTRIAL CONSTRUCTORS INC.

SAFETY - KLEEN DRUM WASHER



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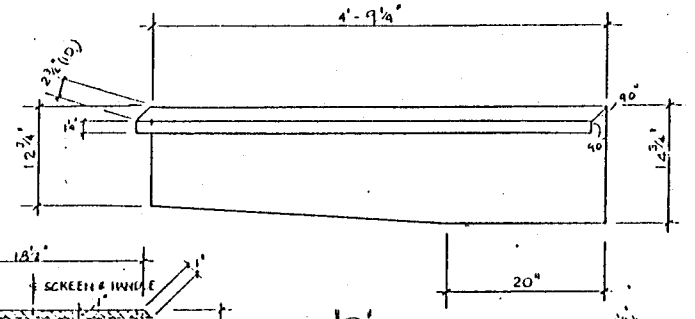

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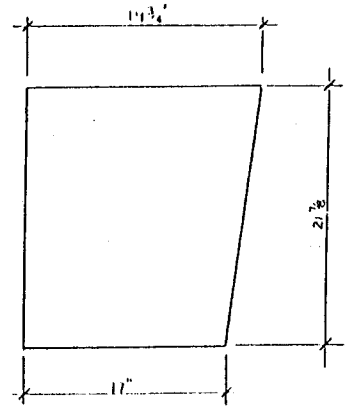

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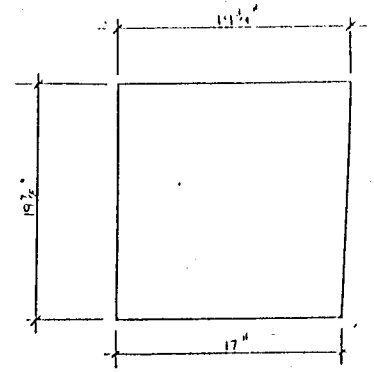
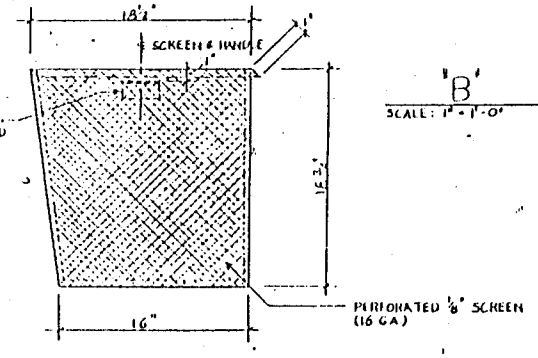
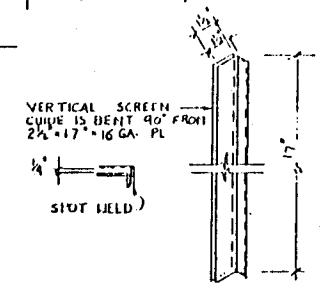


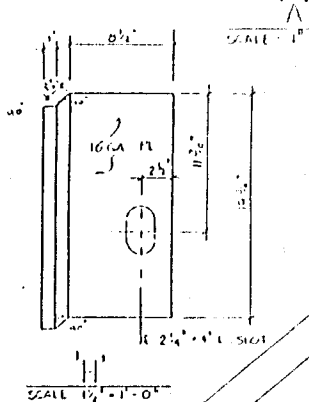
"D"
SCALE: 1 1/2" = 1'-0"



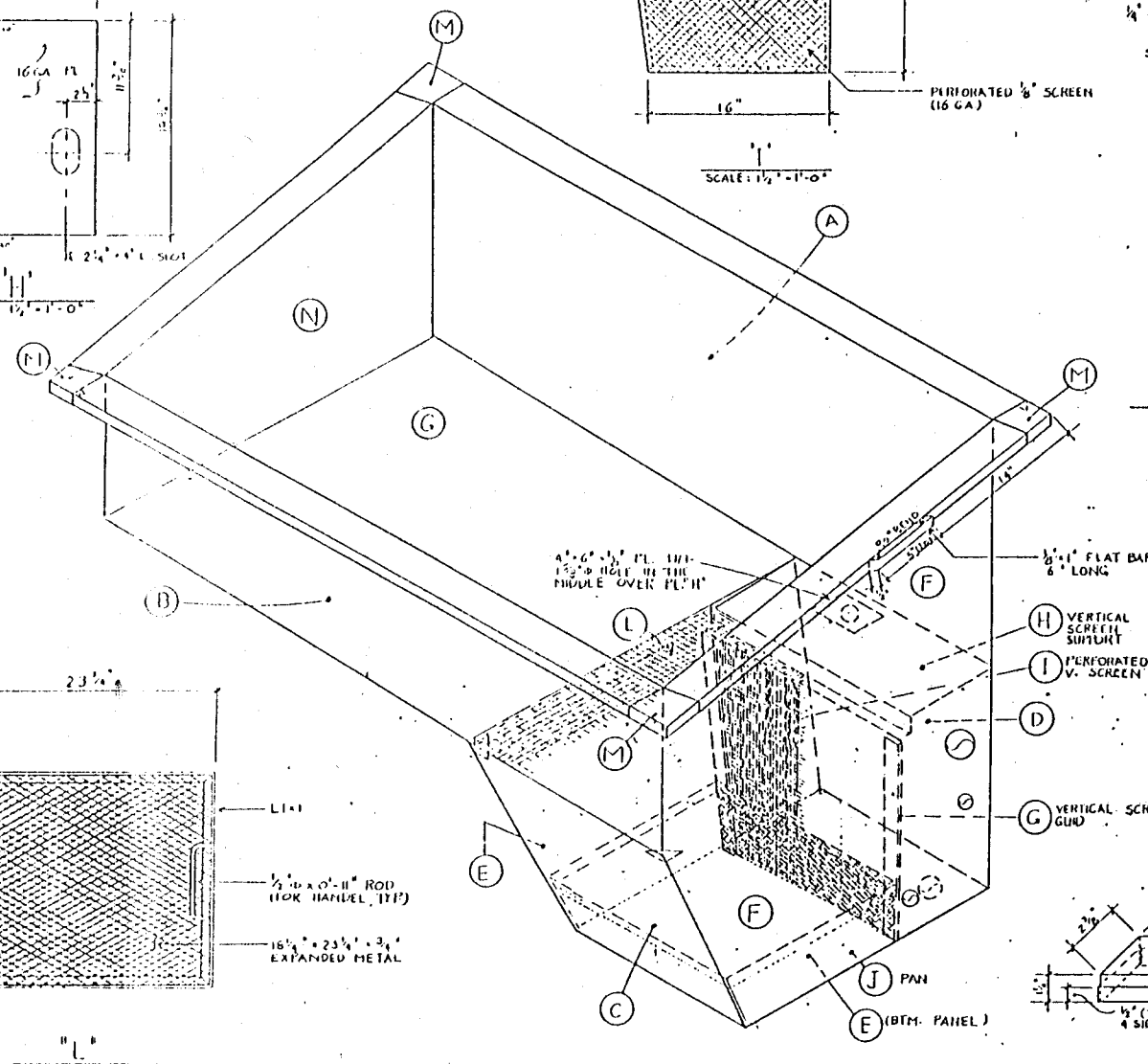
"I"
SCALE: 1 1/2" = 1'-0"



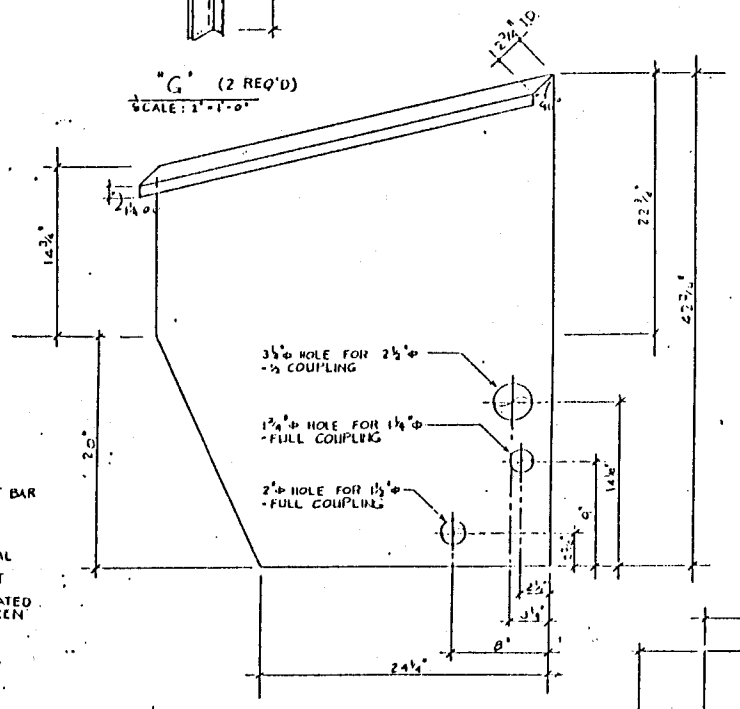
"G" (2 REQ'D)
SCALE: 3" = 1'-0"



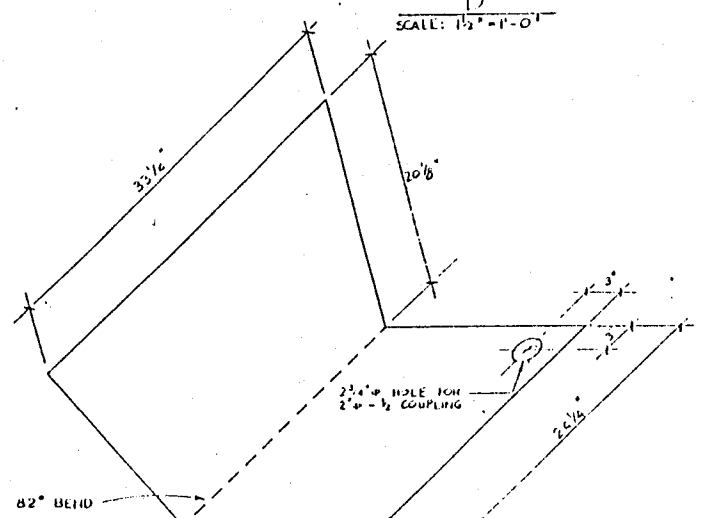
"H"
SCALE: 1 1/2" = 1'-0"



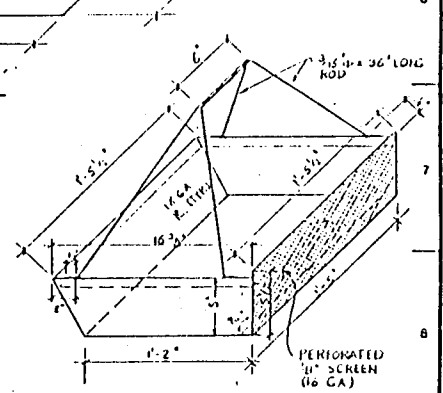
PICTORIAL - DUMPSTER LINER
SCALE: 1 1/2" = 1'-0"



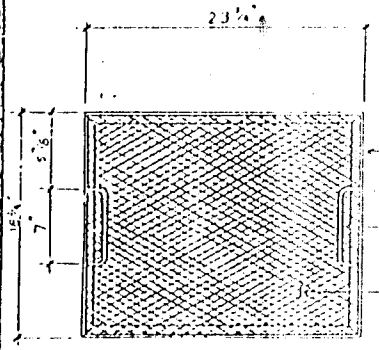
"F"
SCALE: 1 1/2" = 1'-0"



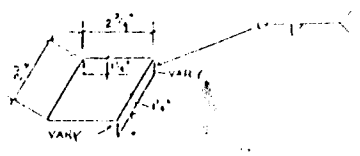
"E"
SCALE: 1 1/2" = 1'-0"



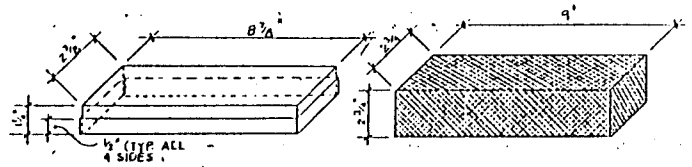
"J"
SCALE: 1 1/2" = 1'-0"

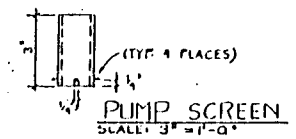


"L"
SCALE: 1 1/2" = 1'-0"

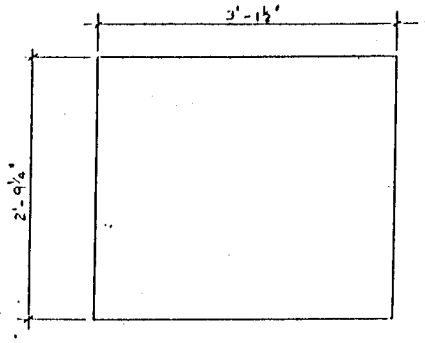


"M"
SCALE: 3" = 1'-0"

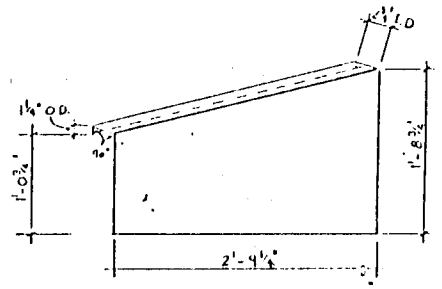




PUMP SCREEN
SCALE: 3" = 1'-0"



"G"
SCALE: 1" = 1'-0"



"N"
SCALE: 1" = 1'-0"

NOTE: ALL MATERIALS ARE 1/8" THK. H/R STEEL PL.

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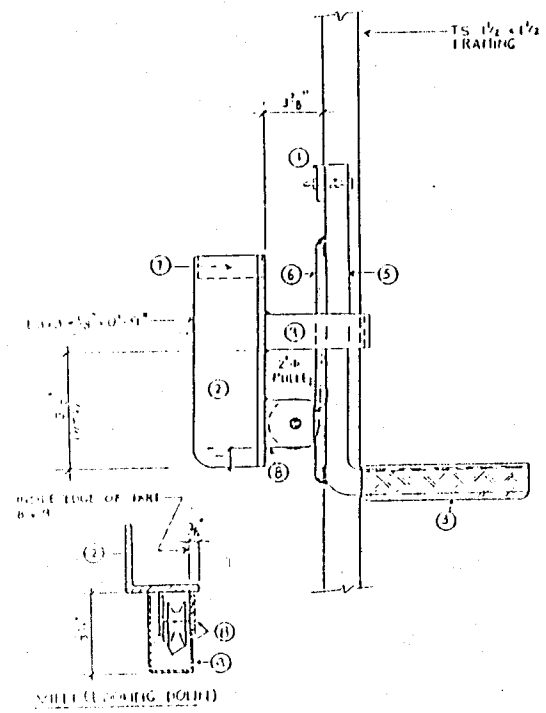
SOUTHWEST INDUSTRIAL CONSTRUCTORS, INC.

DATE: 1/19/90
JOB NO.
DWN: ALI
CHK:

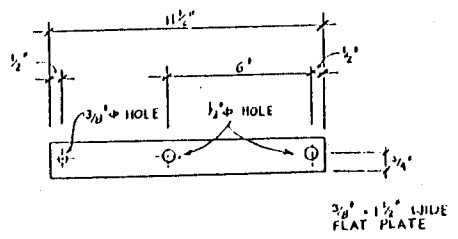
SAFETY - KLEEN DRUM WASHER

SHEET NO. 2

Figure II.C.2-2(d)

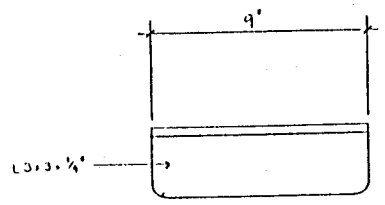


FRONT VIEW
SCALE: 3" = 1'-0"

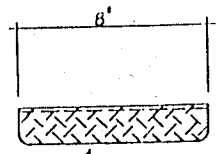


3/8" x 1½" WIDE FLAT PLATE

"1"
SCALE: 3" = 1'-0"

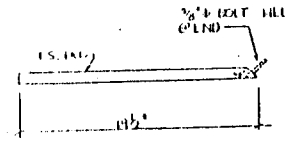


"2"
SCALE: 3" = 1'-0"

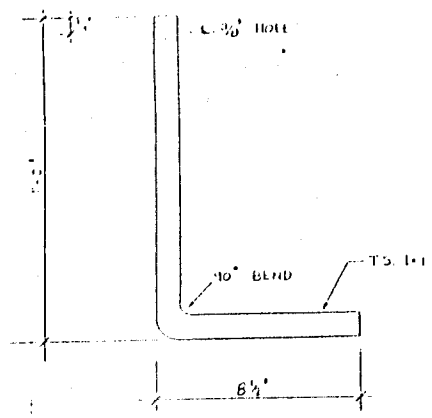


L 1½"x1½" MADE FROM 3"x8" TOE PLATE

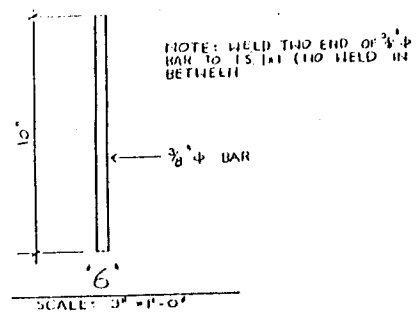
"3"
SCALE: 3" = 1'-0"



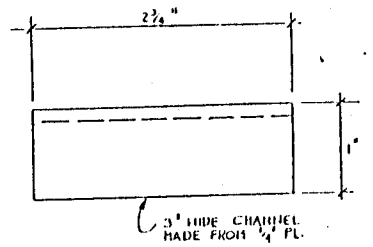
"4"
SCALE: 1½" = 1'-0"



"5"
SCALE: 3" = 1'-0"

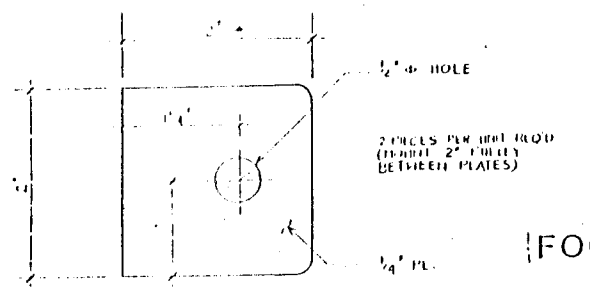


"6"
SCALE: 3" = 1'-0"

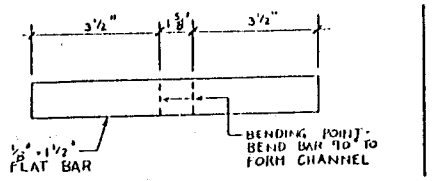


3" WIDE CHANNEL MADE FROM ¼" PL.

"7"
SCALE: 12" = 1'-0"



"8"
SCALE: 12" = 1'-0"

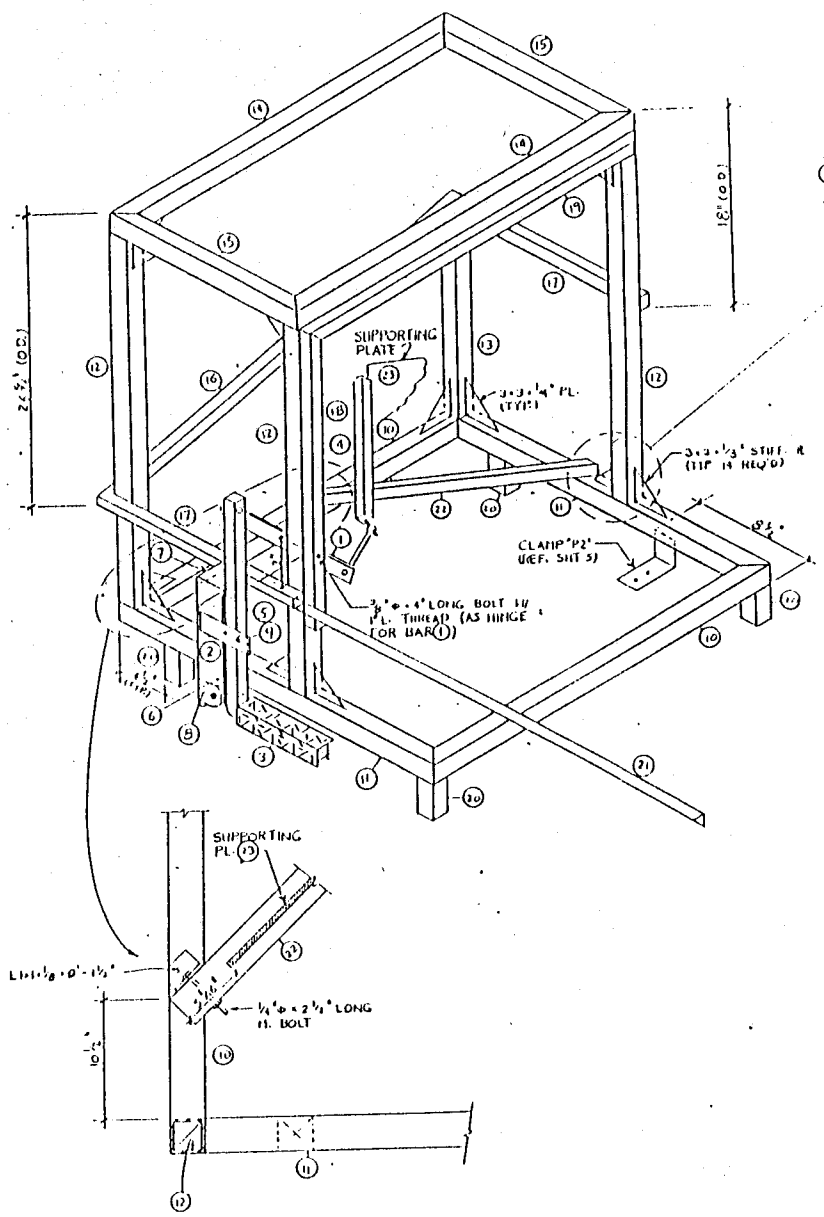


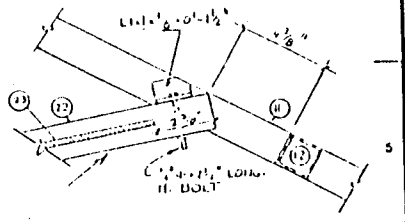
NOTE: TO FABRICATE THIS PART FIRST BEND ½" x 1½" x 12" LONG FLAT BAR. THEN THEN TRIM LEGS TO 3¼"

"9"
SCALE: 3" = 1'-0"

FOOT PEDAL ASSEMBLY & DETAILS

MEMBER	NO. REQ'D	TYPE	LENGTH	CUT 1	CUT 2
⑩	2	TS 1½ x 1½	32⅛"	45°	45°
⑪	2		29⅜"	45°	45°
⑦	3		32½"	90°	90°
①	1		16¾"	90°	90°
②	2		33"	45°	45°
⑤	2		18"	45°	45°
⑥	1	TS 1x1	35⅝"	45°	45°
⑫	2		19"	45°	90°
⑮	1		26¼"	45°	90°
⑭	1		31¼"	45°	90°
㉓	4	TS 1½x1½	3"	90°	90°
㉑	1	L 1x1	39½"	90°	90°
㉒	1	TS 1x1	24"	90°	90°





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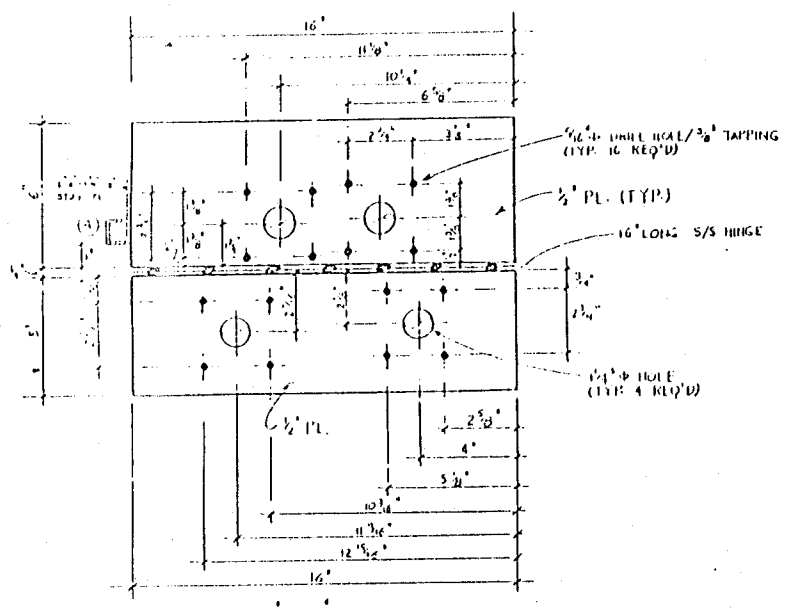
DATE: 1/19/90
JOB NO.
DWN. ALI
CHK.

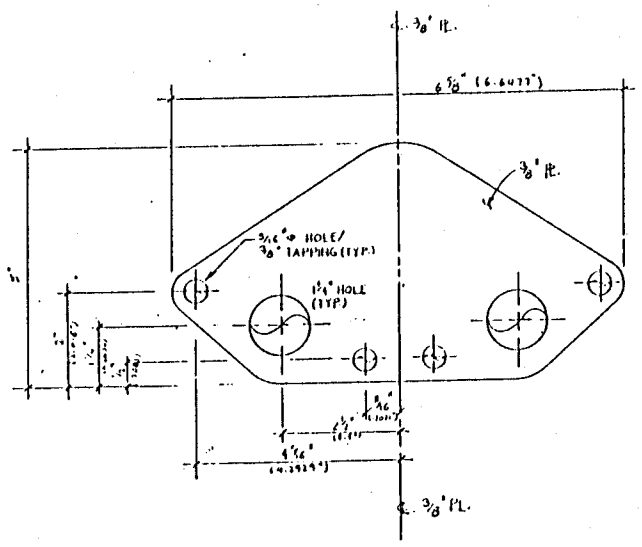
SAFETY - KLEEN DRUM WASHER

SHEET NO. 3

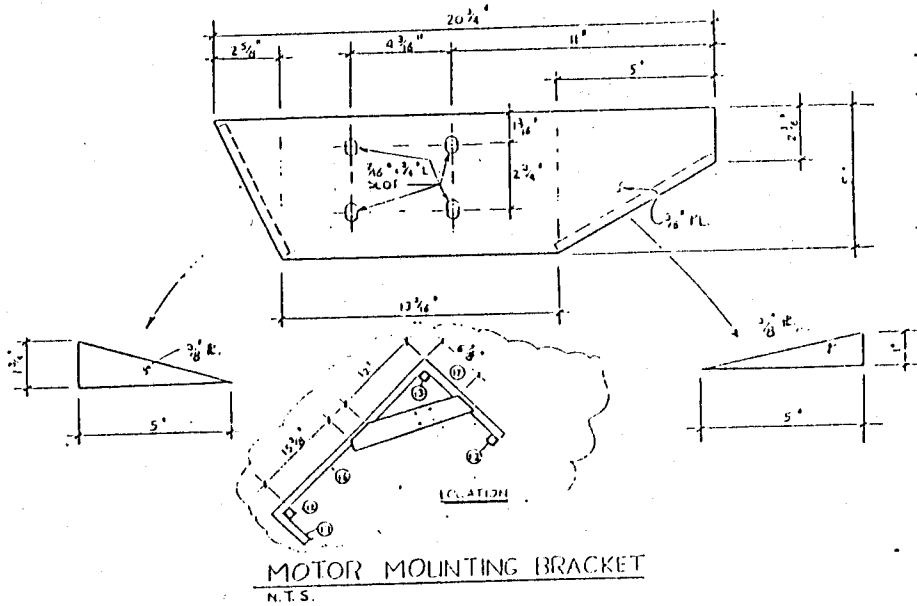
Figure II.C.2-2(e)



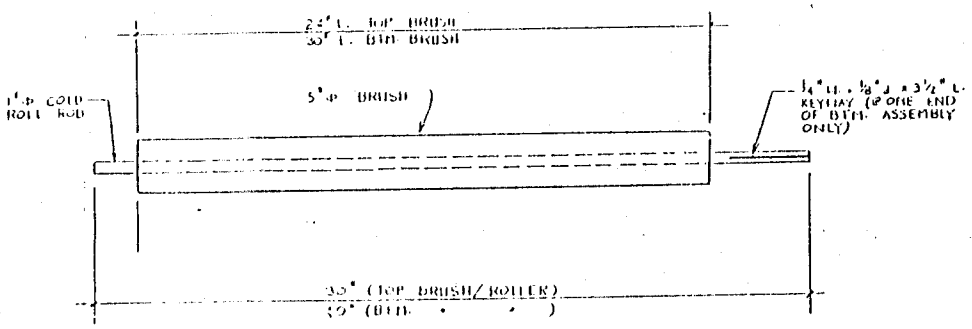
"23"
SCALE: 3" = 1'-0"



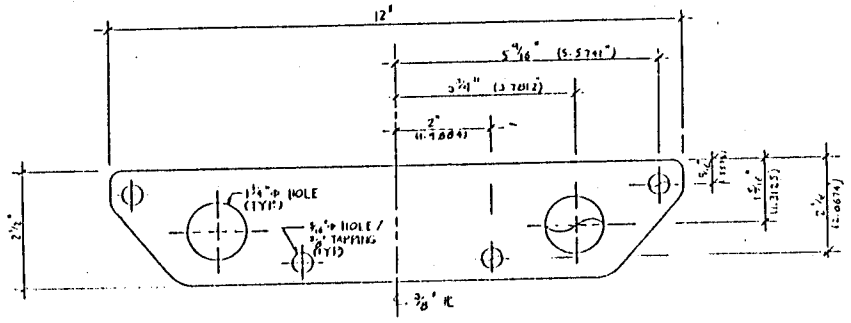
"26"
SCALE: 6" = 1'-0"



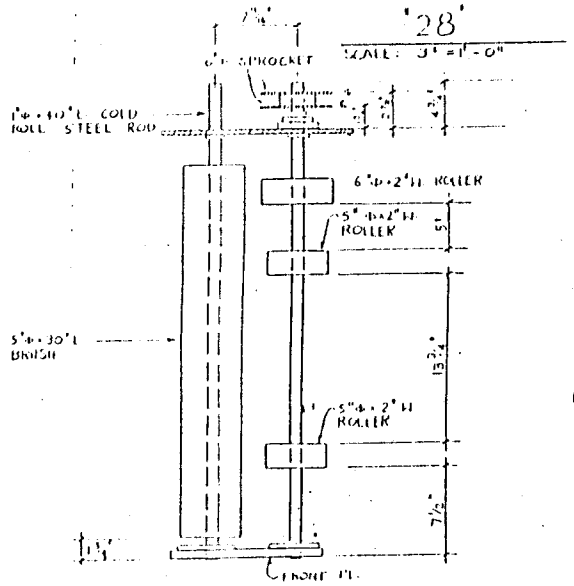
MOTOR MOUNTING BRACKET
N.T.S.



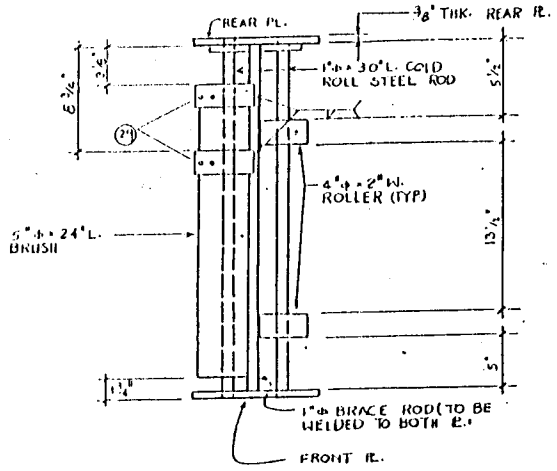
"28"
SCALE: 3" = 1'-0"



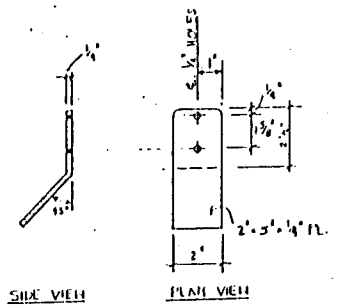
"27"
SCALE: 6" = 1'-0"



BTM ASSEMBLY

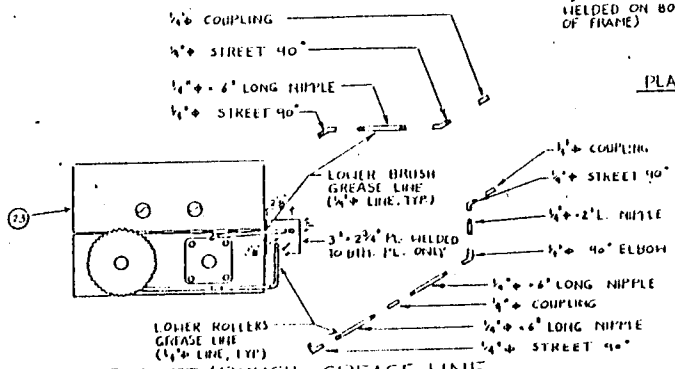


TOP ASSEMBLY

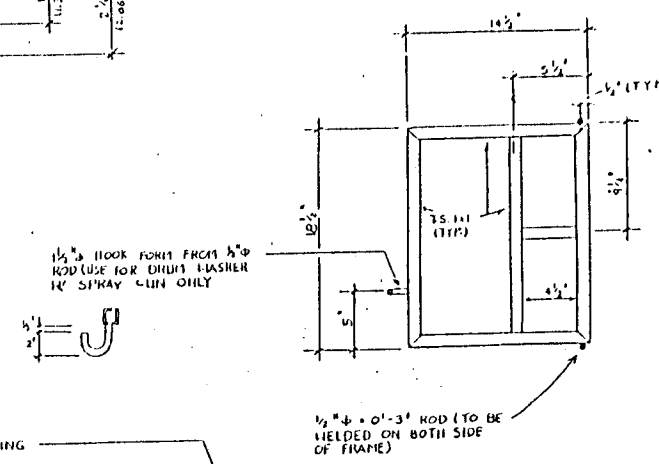


"29" BRACKET
SCALE: 3" = 1'-0"

ROLLER/BRUSH ASSEMBLY
SCALE: 1 1/2" = 1'-0"



ROLLER/BRUSH GREASE LINE



BARREL WASHER RACK
SCALE: 1 1/2" = 1'-0"

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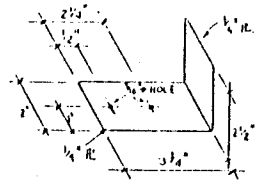
SOUTHWEST INDUSTRIAL CONSTRUCTORS, INC.

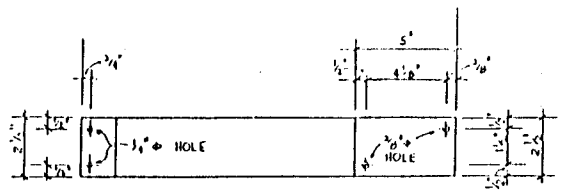
DATE: 1/19/90
JOB NO:
DWN: ALI
CHK:

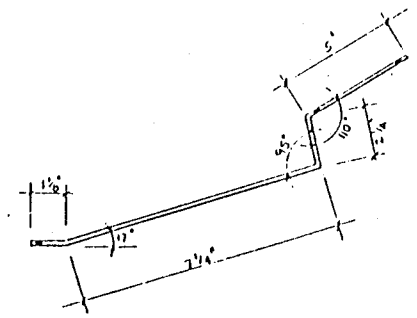
SAFETY KLEEN
DRUM WASHER

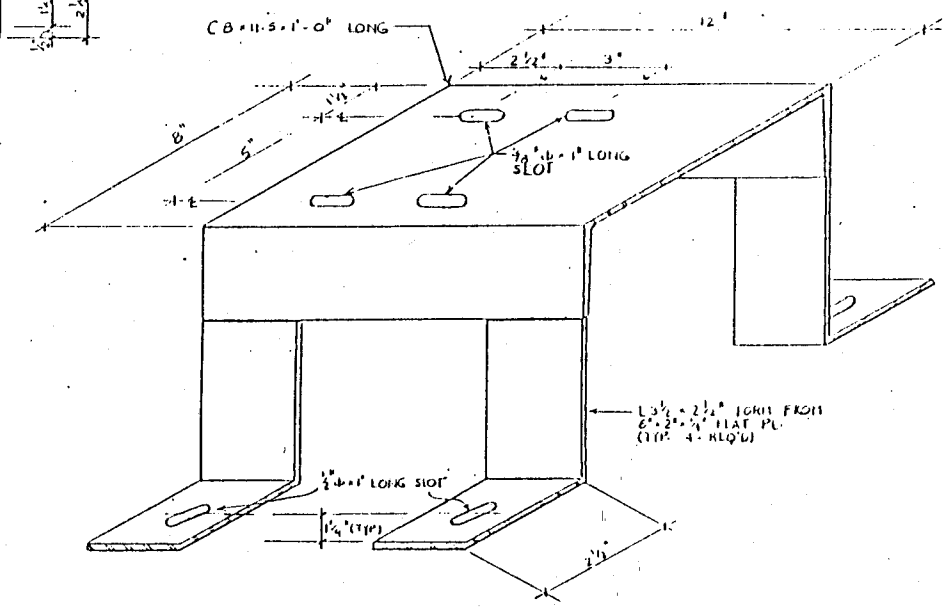
DRAWING NO. 4

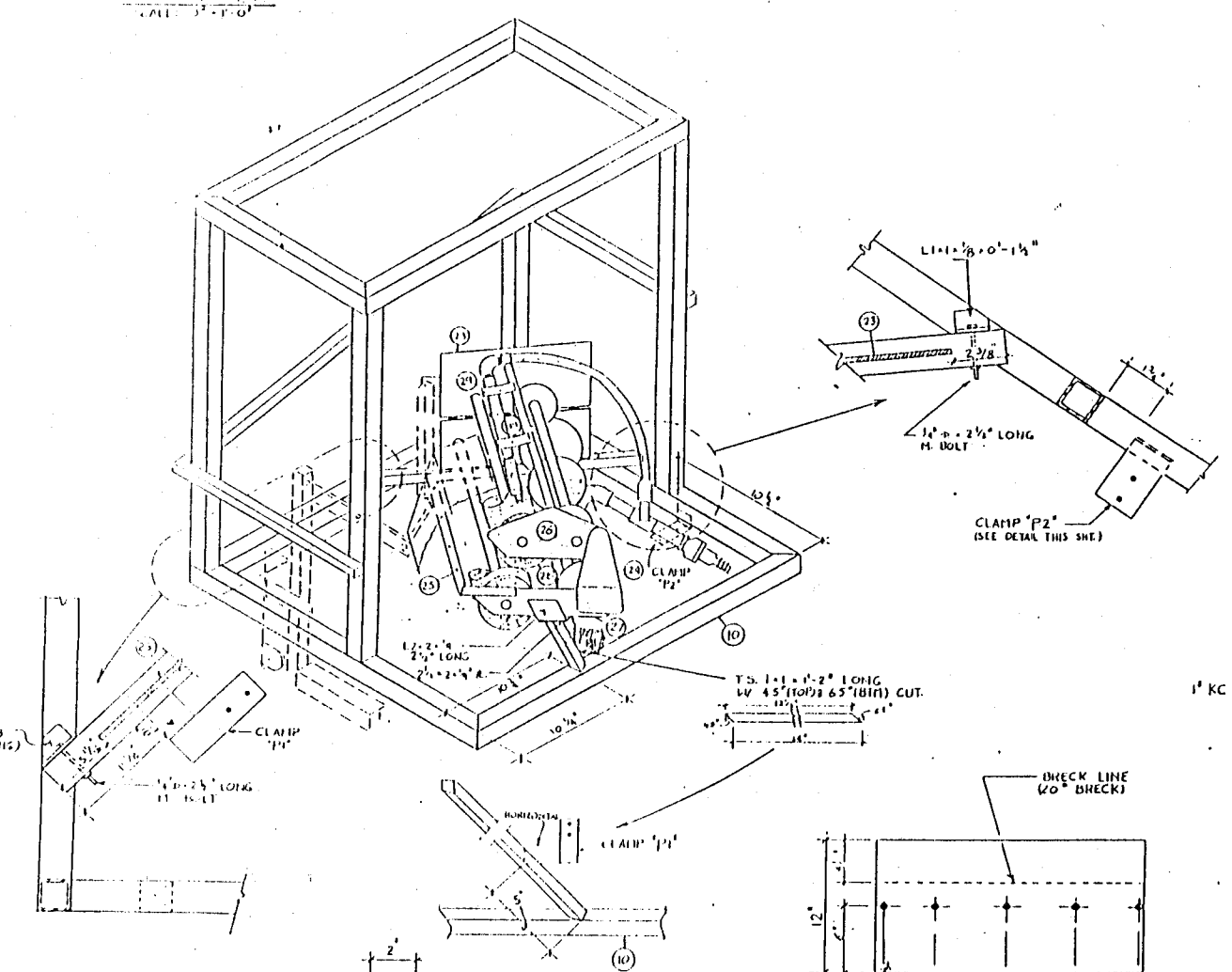
Figure II.C.2-2(f)

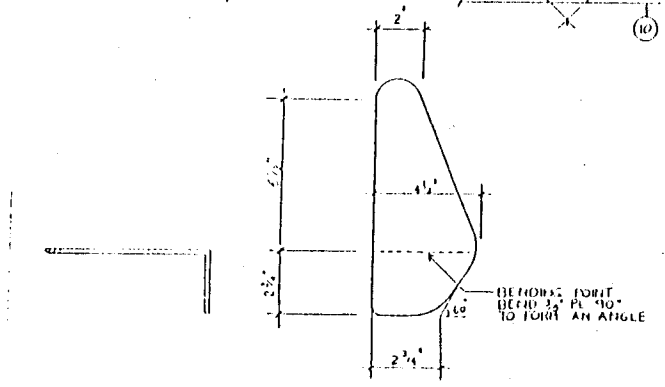




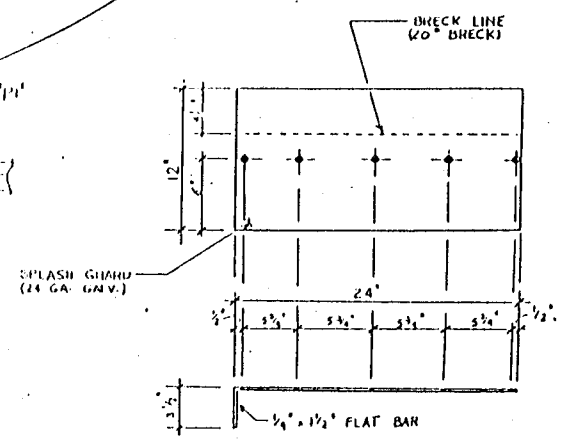




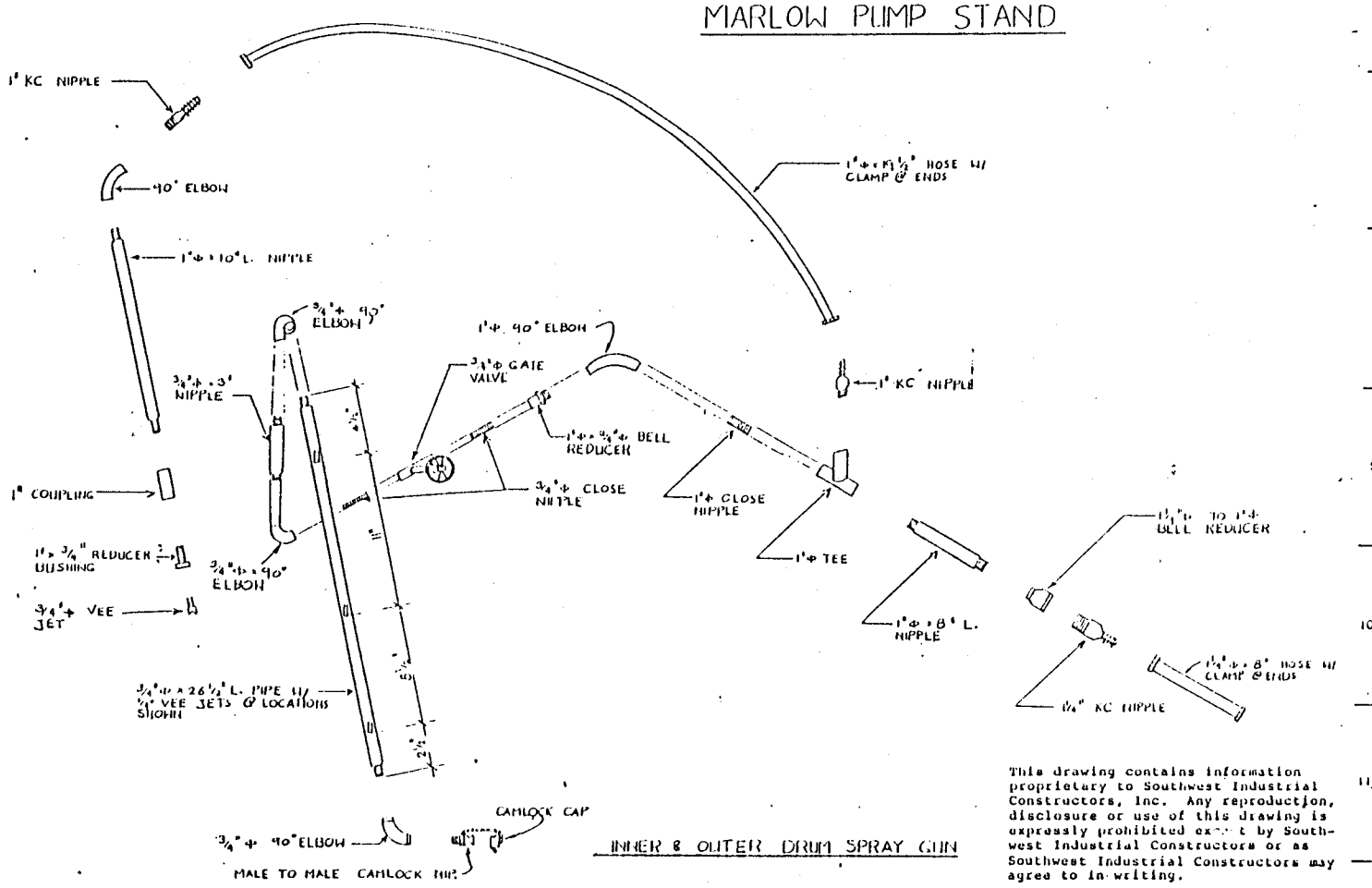




"24"
SCALE: 3" = 1'-0"



"25"
SCALE: 1 1/2" = 1'-0"



INNER & OUTER DRUM SPRAY GUN

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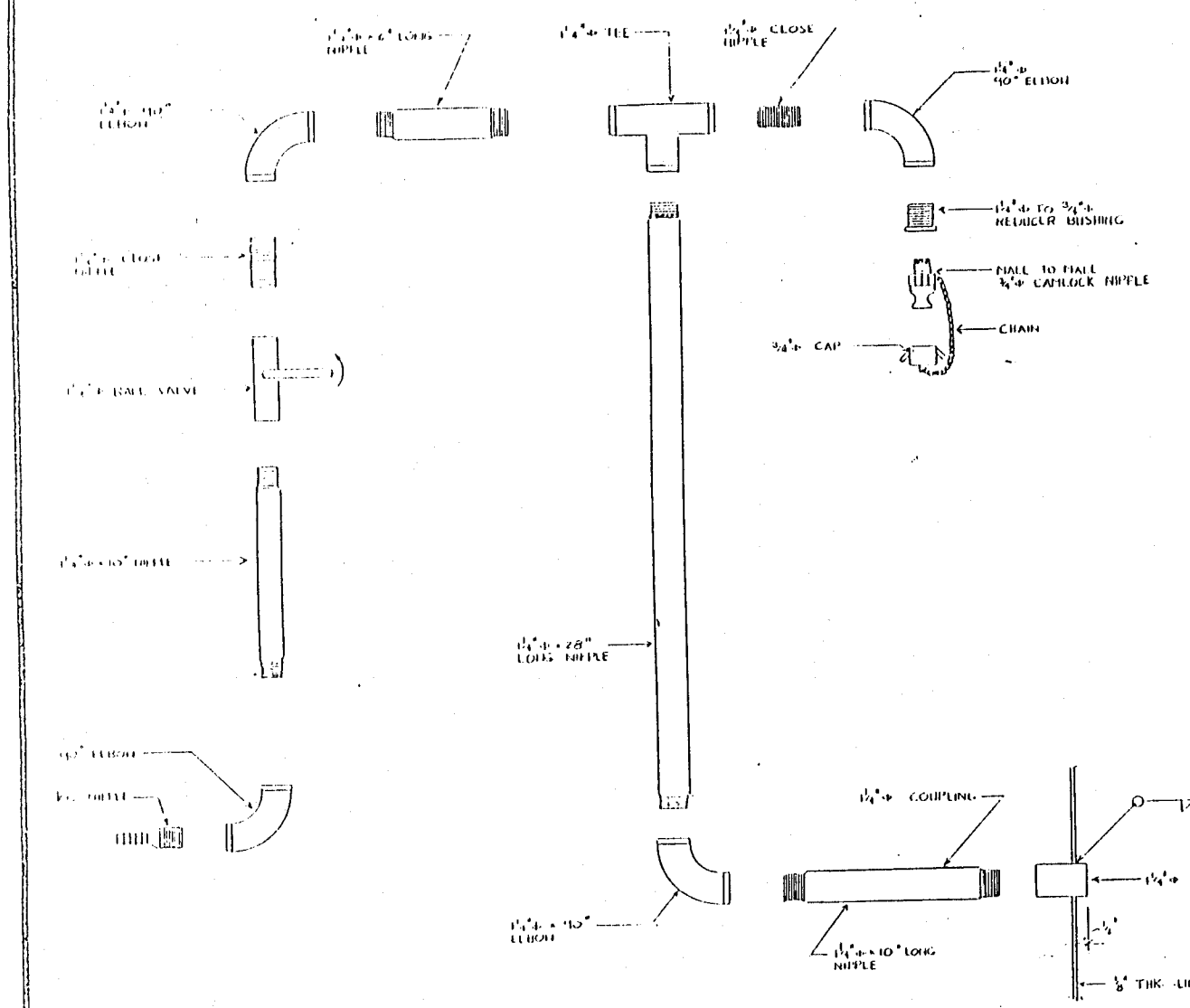
SOUTHWEST INDUSTRIAL CONSTRUCTORS, INC.

DATE: 1/19/90
JOB NO:
DWN: ALI
CHK:

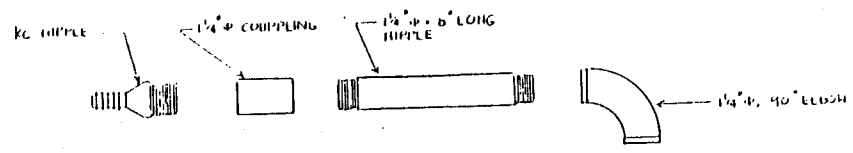
SAFETY KLEEN
DRUM WASHER

SHEET NO. 5

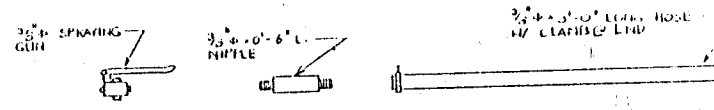
Figure II.C.2-2(g)



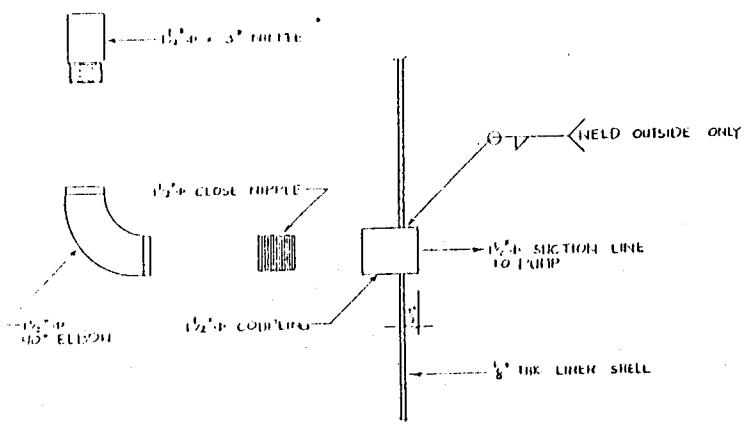
PIPING DIAGRAM FOR:
DRUM WASHER WITH
SELF SERVICE PART WASHER



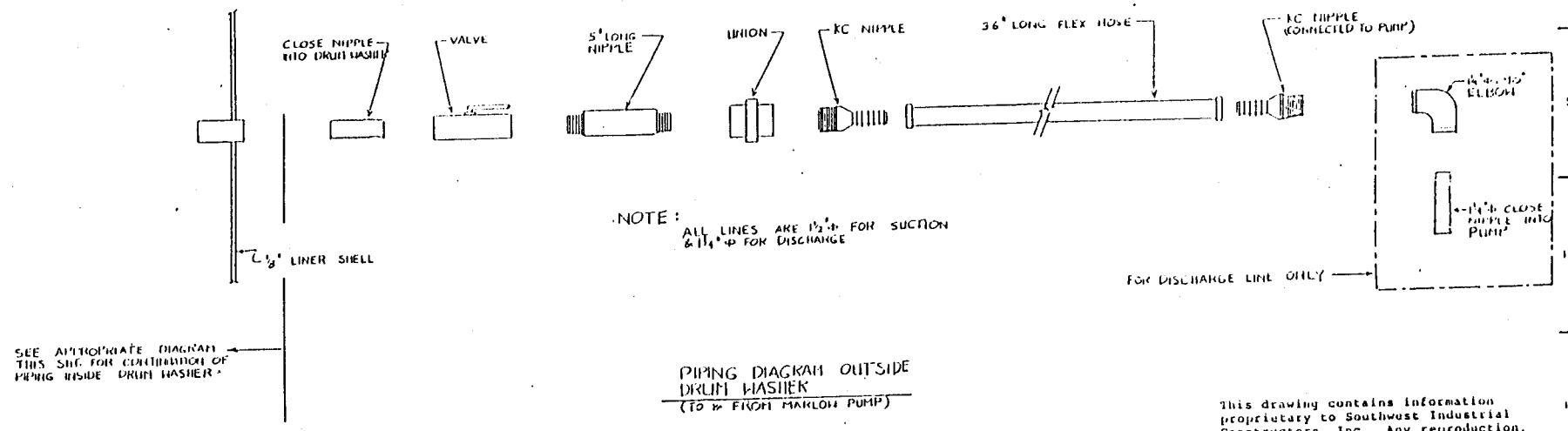
PIPING DIAGRAM FOR:
DRUM WASHER WITHOUT
SELF SERVICE PART WASHER



SPRY GUN FOR:
DRUM WASHER W/ SSPH



1½"ϕ SUCTION LINE



NOTE:
ALL LINES ARE 1½"ϕ FOR SUCTION
& 1¼"ϕ FOR DISCHARGE

PIPING DIAGRAM OUTSIDE
DRUM WASHER
(TO & FROM MARLOW PUMP)

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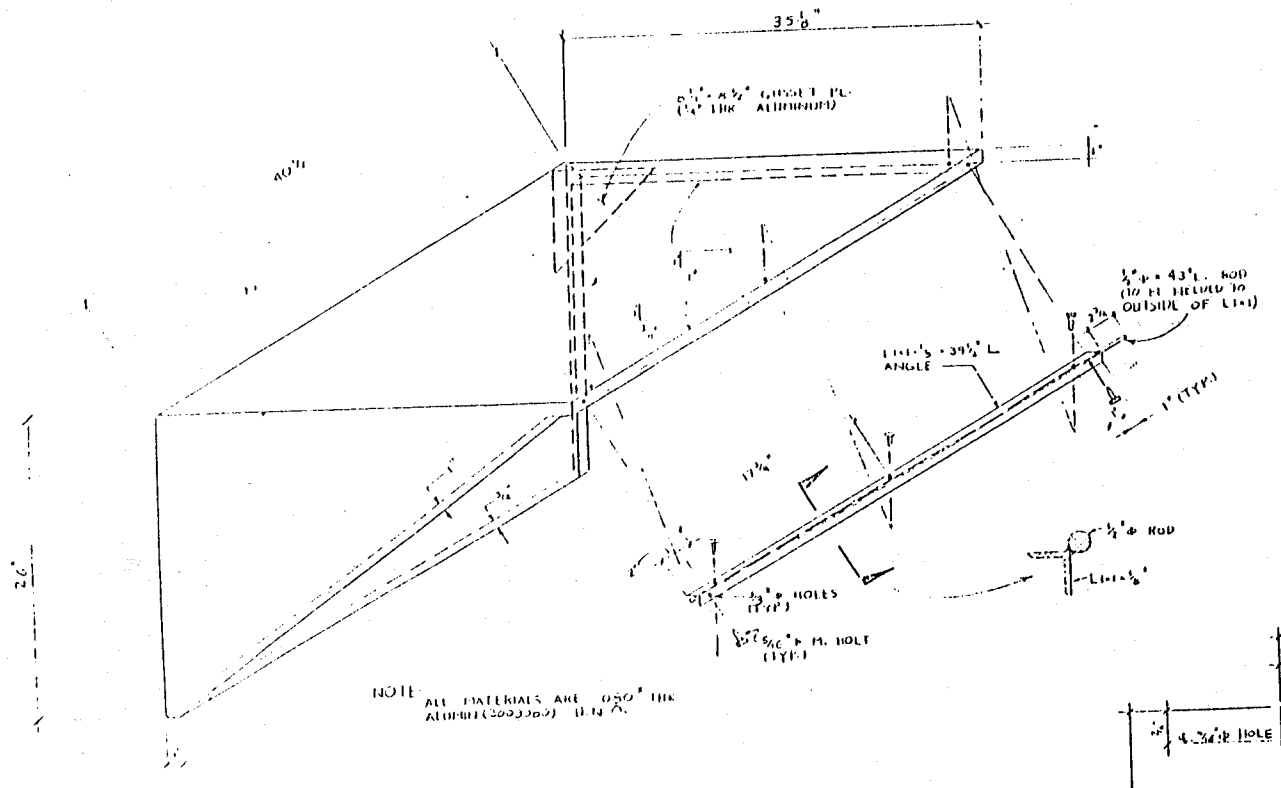
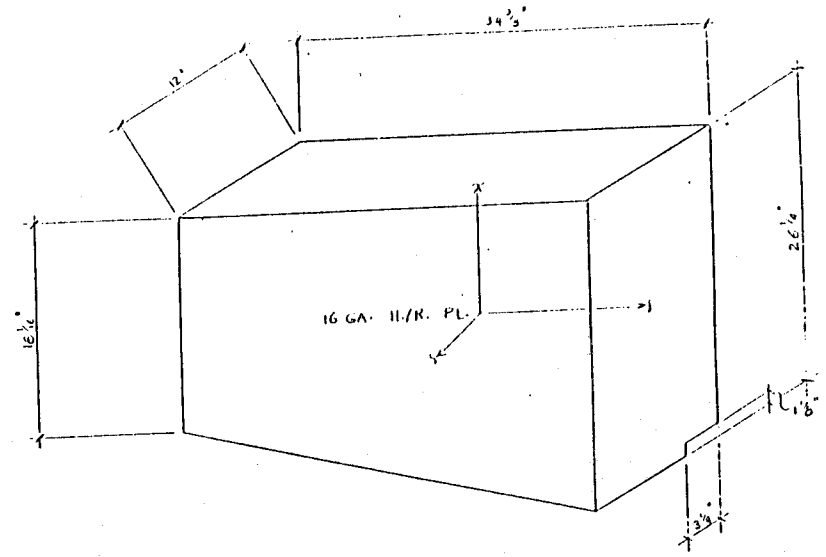
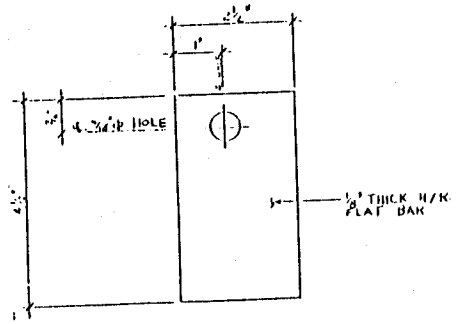


NOTE: ALL MATERIALS ARE .050" THK ALCLAD (2003-H32) U.N.O.

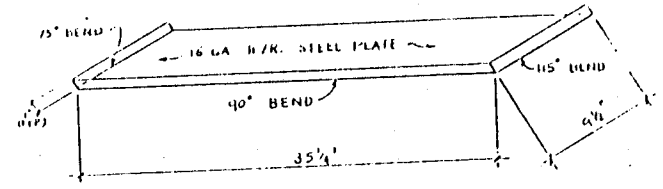
DRUM WASHER LID
SCALE: 1½" = 1'-0"



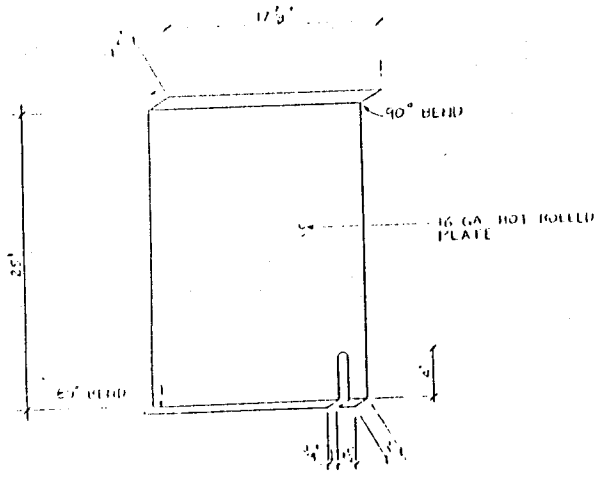
MOTOR COVER
SCALE: 1½" = 1'-0"



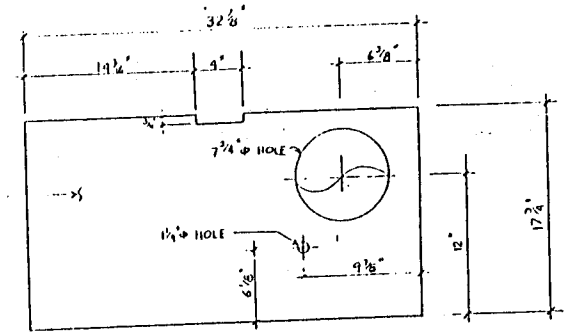
HINGE BRACKET
SCALE: 6" = 1'-0"



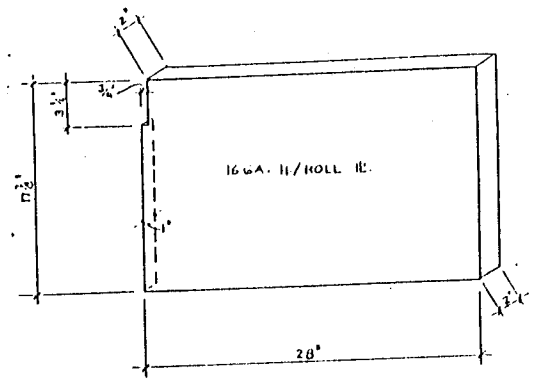
BOTTOM PAN FOR MOTOR COVER
SCALE: 1½" = 1'-0"



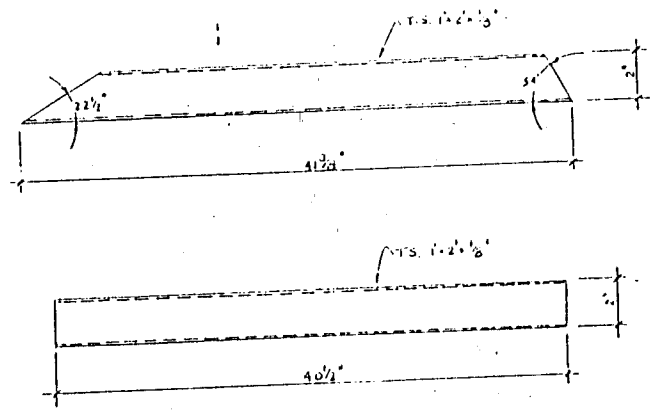
CABINET FRONT
SCALE: 1½" = 1'-0"



CABINET TOP
SCALE: 1½" = 1'-0"



CABINET BACK
SCALE: 1½" = 1'-0"



HOOD STIFFENER
N.T.S.

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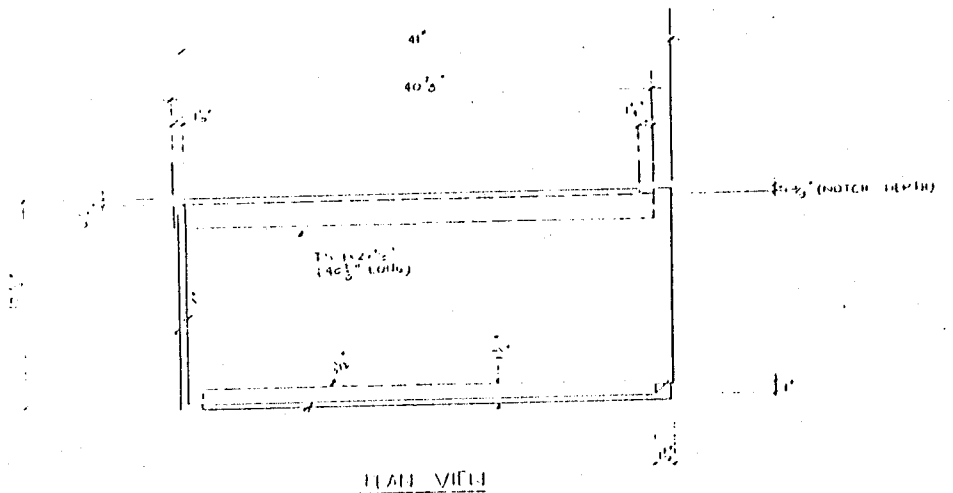
SOUTHWEST INDUSTRIAL CONSTRUCTORS, INC.

DATE: 1/ /90
JOB NO.
DRN. A.L.I
CHK.

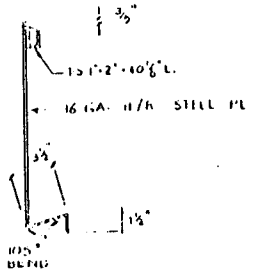
SAFETY-KLEEN DRUM WASHER

SHEET NO. 7

Figure II.C.2-2(i)

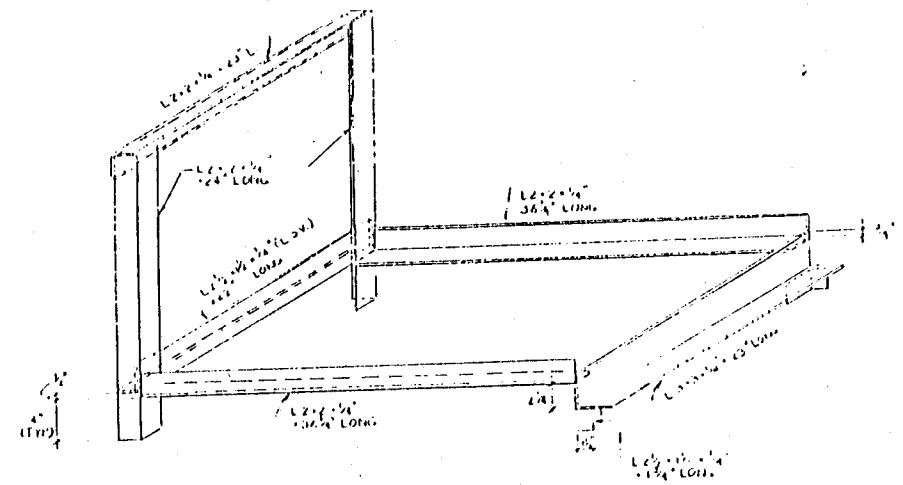


PLAN VIEW

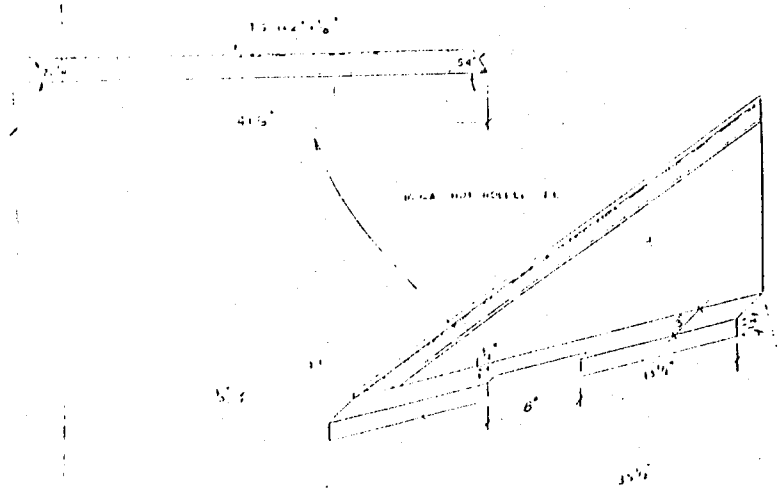


SIDE VIEW

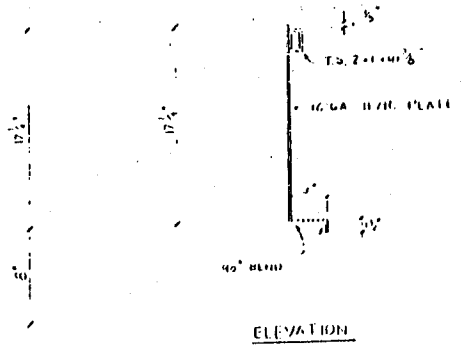
FRONT HOOD SUPPORT
SCALE: 1½" = 1'-0"



TEMP. SUPPORTING FRAME FOR LINER
SCALE: 1½" = 1'-0"

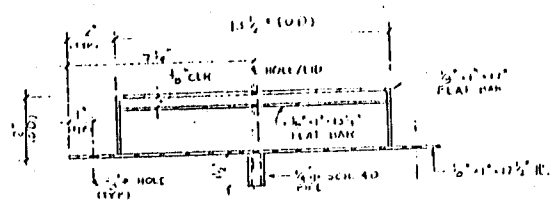


PLAN VIEW

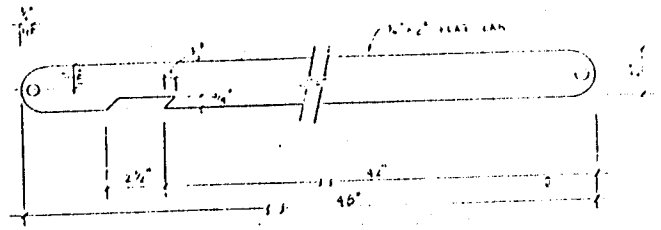


ELEVATION

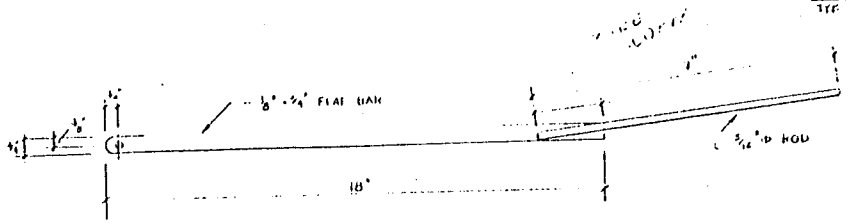
SIDE HOOD SUPPORT
SCALE: 1½" = 1'-0"



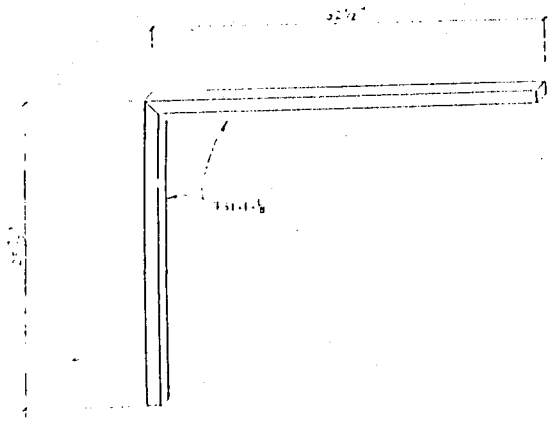
SAFETY LATCH
SCALE: 3" = 1'-0"



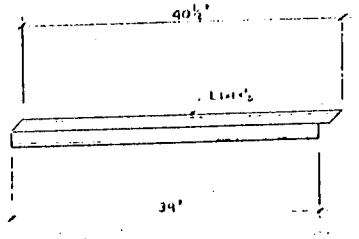
COVER BRACE STEEL
TYP 2-REQ'D PER DRUM WASHER



SCALE: 3" = 1'-0"



SIDE HOOD SUPPORT
SCALE: 1" = 1'-0"



FRONT HOOD BRACE
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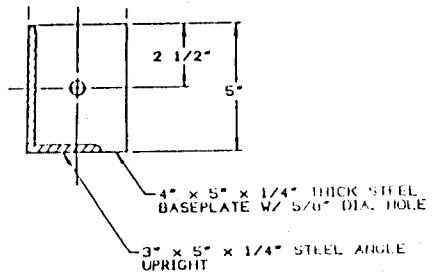
SOUTHWEST INDUSTRIAL CONSTRUCTORS, INC.

DATE: 1/31/90
APP'D
CHK'D ALT
CHK

SAFETY - KLEEN
DRUM WASHER

SHEET NO. 8

Figure II.C.2-2(j)

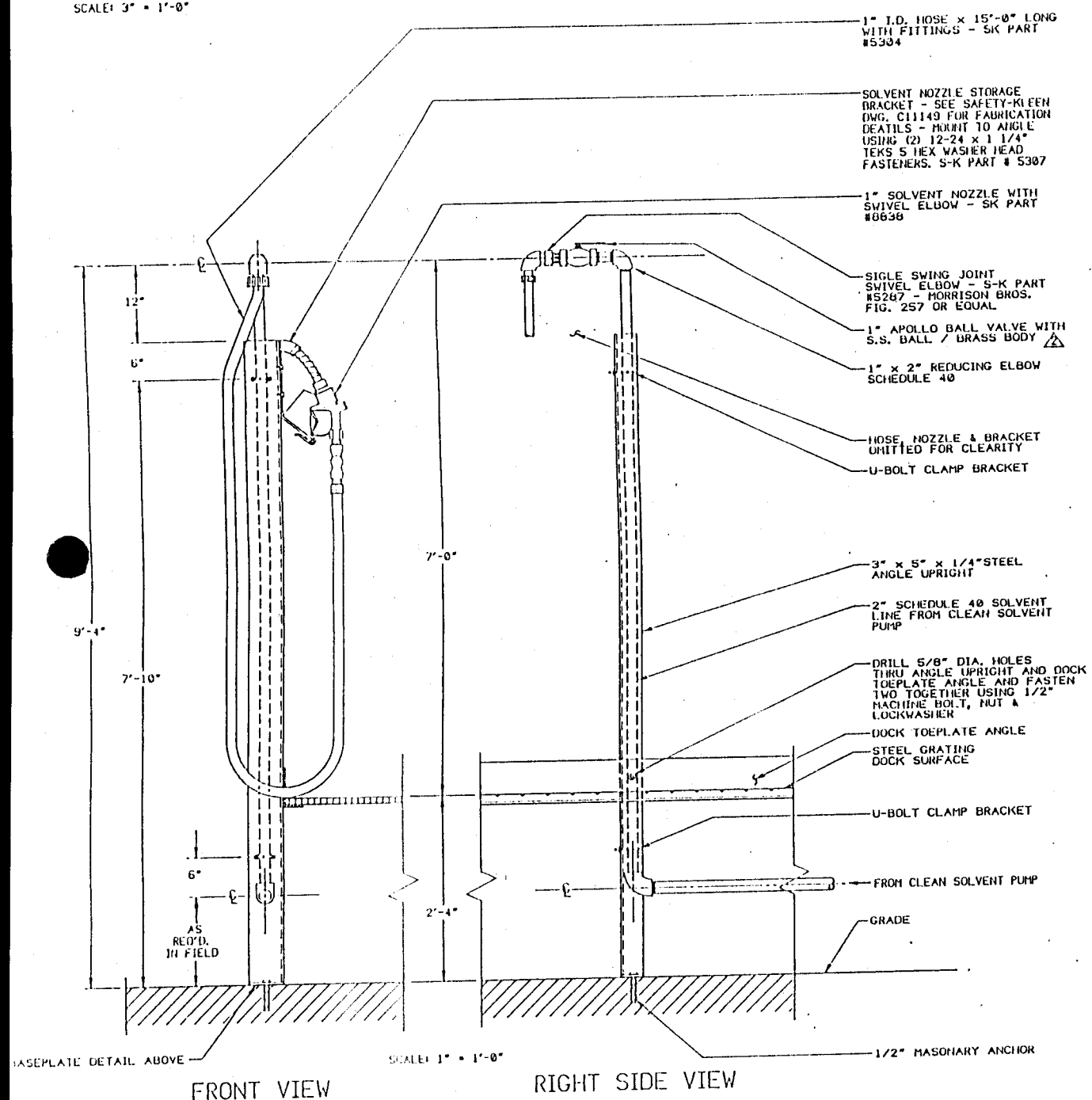


BASEPLATE DETAIL

SCALE: 3" = 1'-0"

NOTE:

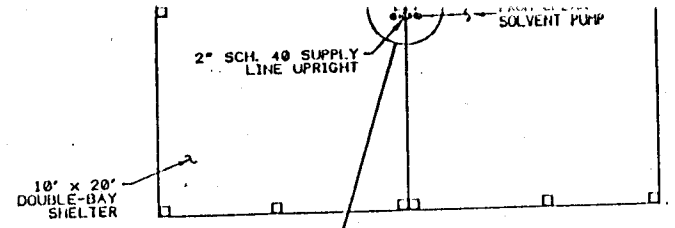
SURPLUS HOSE LENGTH CAN BE COILED & STORED ON ARM PROVIDED AT SIDE OF NOZZLE STORAGE BRACKET.

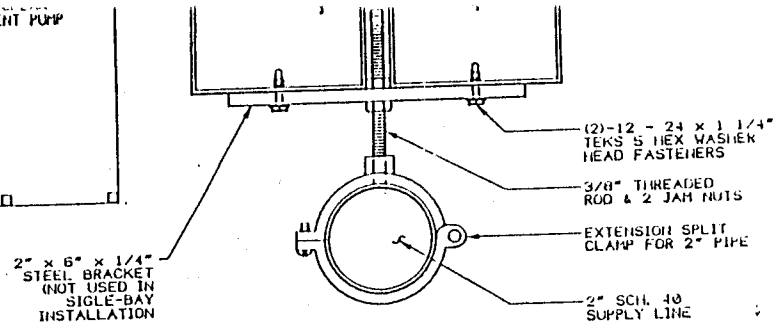


FRONT VIEW

RIGHT SIDE VIEW

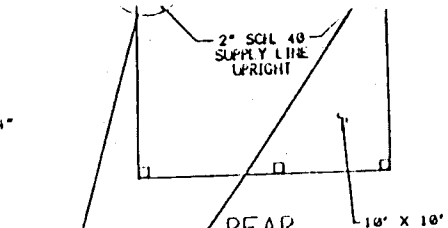
INSTALLATION FOR STANDARD BUILDING PLAN

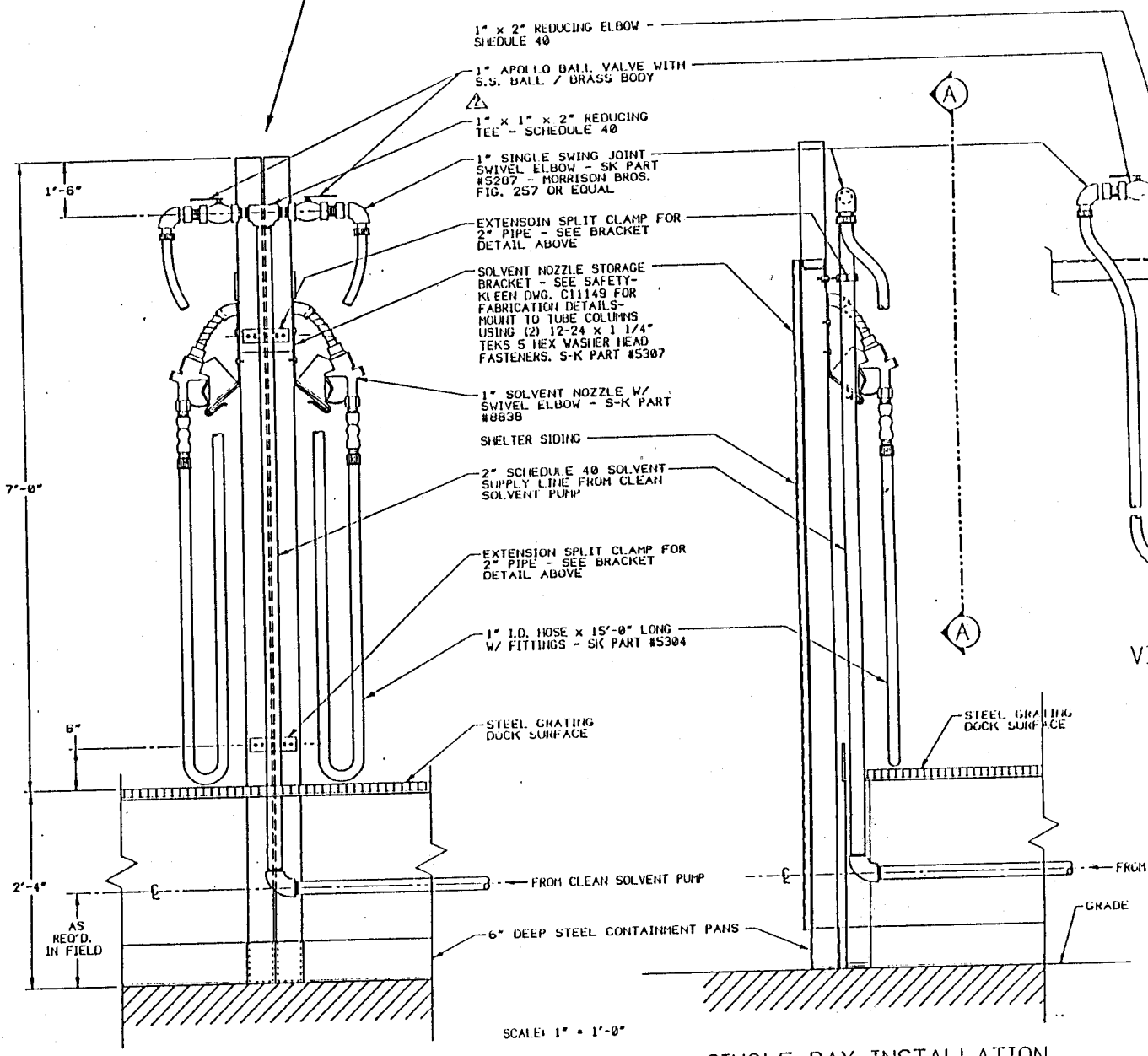




BRACKET DETAIL

HALF SCALE





DOUBLE OR MULTIPLE BAY INSTALLATION

VIEW A-A

SINGLE BAY INSTALLATION

NOTES:

⚠ (1) ALL ITEMS WITH SAFETY-KLEEN PART NO.,REFERENCES WILL BE SUPPLIED TO CONTRACTOR.

(2) THIS DRAWING CONTAINS INFORMATION PROPRIETARY TO SAFETY-KLEEN CORP. ANY REPRODUCTION, DISCLOSURE OR USE OF THIS DRAWING IS EXPRESSLY PROHIBITED EXCEPT BY SAFETY-KLEEN OR AS SAFETY-KLEEN MAY AGREE IN WRITING.

(3) THIS DRAWING SUPERCEDES SAFETY-KLEEN DRAWINGS C10219 & C10961.

(4) SEE INDIVIDUAL SERVICE CENTER PLANS FOR LOCATION OF THESE DETAILS.

BJJ 2/20/09 GD

FIGURE II.C.2-3(a)

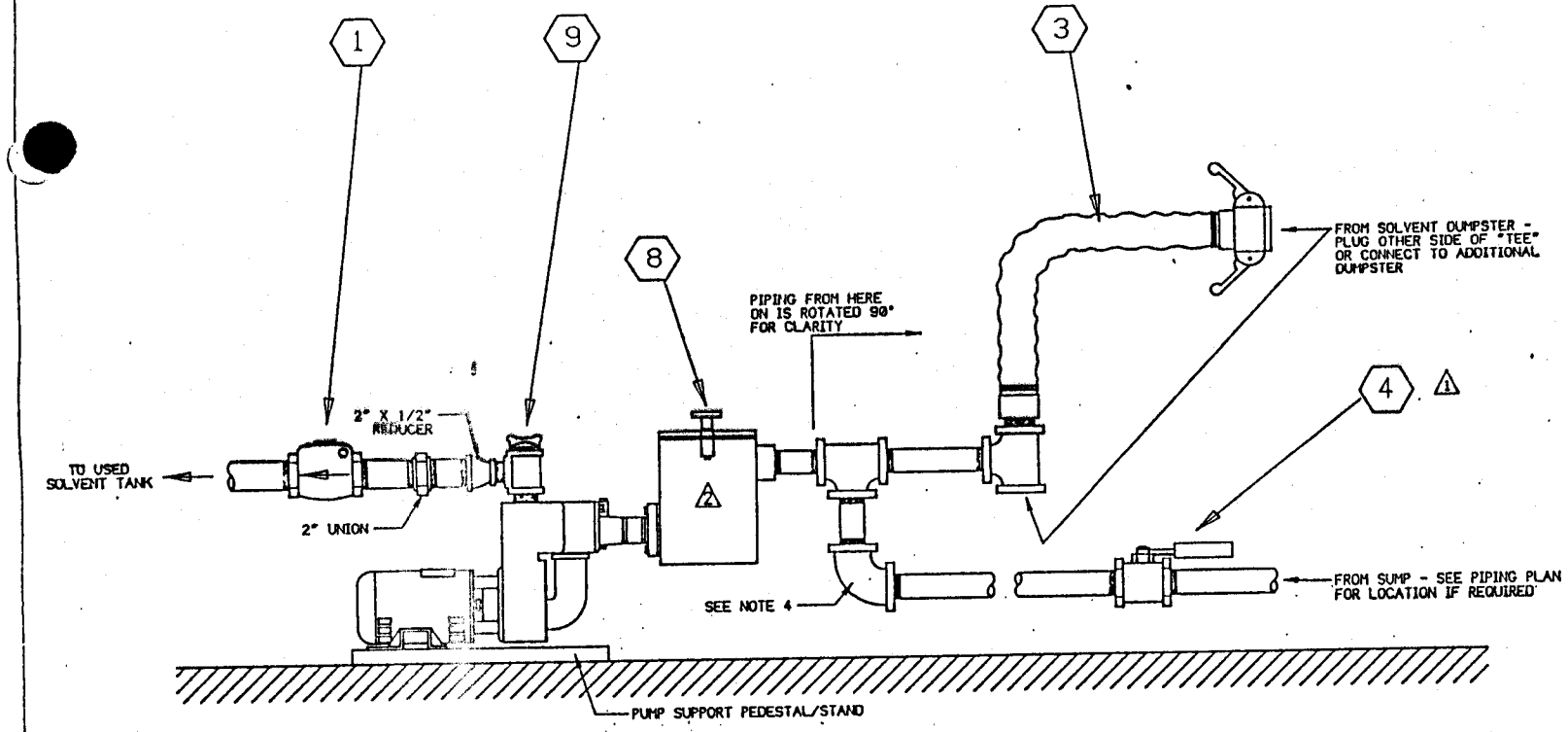
NO.	DESCRIPTION	BY	CHKD	APPR
2	ADDED BALL VALVE	RD		
1	ADDED NOTE 1 & RENUMBERED NOTES	VLJ		

REVISIONS

TITLE: SOLVENT DISPENSER TREE INSTALLATION DETAILS

SAFETY-KLEEN CORP.

PROJ. ENG. APPR.	OPERATIONS APPR.	SCALE: AS SHOWN	DRAWN: NVD-GD	DATE: 2
BRANCH: FOR SERVICE CENTER BRANCH		DRAWING NO.: D11223		

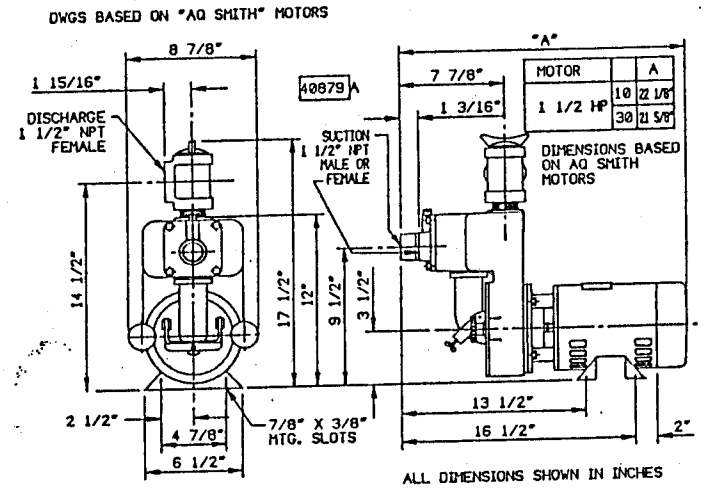


USED SOLVENT PUMP INSTALLATION

EQUIPMENT / FIXTURE SCHEDULE				
MARK	SIZE	DESCRIPTION	SK PART NO.	REMARKS
1	2"	2" BRONZE CHECK VALVE - MORRISON BROS. FIG. 248-A	5288	
2	2"	2" MARLOW PUMP - 20 EVP 10A 1 HP EXPLOSION PROOF MOTOR W/JUNCTION BOX - VITON FITTED	5240	SEE SPECIFICATION DETAILS ON SAFETY-KLEEN DWG. A11118 BELOW
3	2"	2" DUMPSTER HOSE ASSEMBLY	5234	SEE SAFETY-KLEEN DWG. D10452 FOR DETAILED INFORMATION
1 4	2"	2" APOLLO BALL VALVE, BRONZE BODY W/STAINLESS STEEL BALL & TRIM. TEFLON SEALS & CONBRACO SPRING LOADED SELF CLOSING DEADMAN HANDLE	5272	
5	2"	2" BACK PRESSURE VALVE VERTICAL TYPE WITH 6 PSI SPRING SETTING - MORRISON BROS. FIG. 158-B/PR (15 P.S.I. OPEN)	5268	FOR ABOVEGROUND TANK INSTALLATION ONLY
6	2"	2" LINE STRAINER W/TOP CLEAN-OUT W/#20 MESH MORRISON BROS. FIG. 286	5269	
7	2"	2" BRONZE GATE VALVE MORRISON BROS. FIG. 235	5236	
2 8	2"	2" MARLOW SUCTION STRAINER ASSEMBLY MODEL 2010X W/STAINLESS STEEL BASKET W/#10 PERFORATIONS	5313	FLANGED DISCHARGE PORT OF STRAINER SERVES AS UNION ON SUCTION SIDE OF PUMP
9	1 1/2"	1 1/2" MARLOW PUMP - 1 1/2HR49EC, SINGLE PHASE, EXPLOSION PROOF, BUNA FITTED, SELF PRIMING CENTRIFUGAL	5330	SEE DETAIL BELOW LEFT

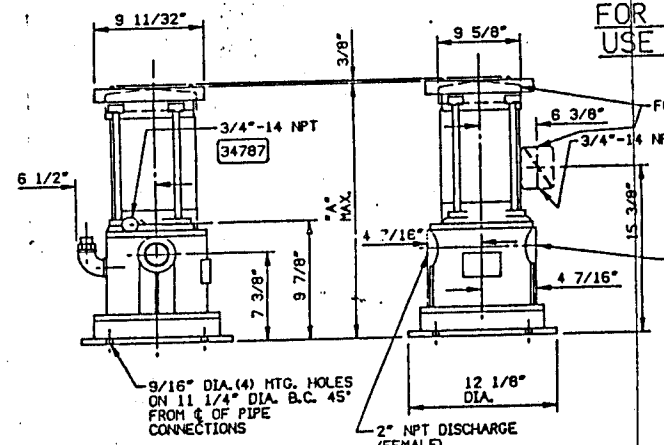
PUMP UNITS WITH OPEN MOTORS
1 1/2HR49EC

DWGS BASED ON "AQ SMITH" MOTORS



ALL DIMENSIONS SHOWN IN INCHES

THESE DIMENSIONS NOT TO BE USED FOR CONSTRUCTION PURPOSES WITHOUT FORMAL FACTORY APPROVAL.

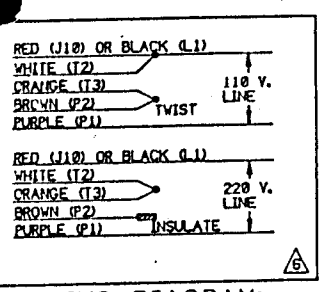


GENERAL NOTES

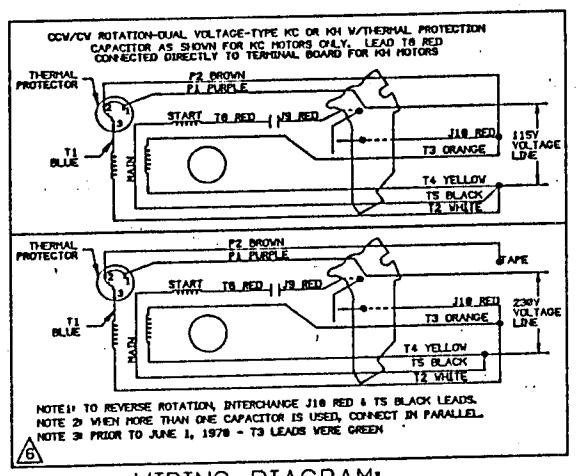
1 MODEL TO BE USED BY SAFETY-KLEEN CORP. - MODEL 20 EVP-10A, 1 HP - 2" WITH EXPLOSION PROOF MOTOR W/JUNCTION BOX & VITON FITTED, SINGLE PHASE 60 CYCLE 115/230V.

2 SEE INDIVIDUAL SERVICE CENTER SITE PLANS FOR LOCATION OF THE INSTALLATION.

S-K PART NO.	G.E. EXPL. PROOF MOTORS				
	HP	PHASE	CYCLE	A	
5240		1	60	20 13/32"	115/230



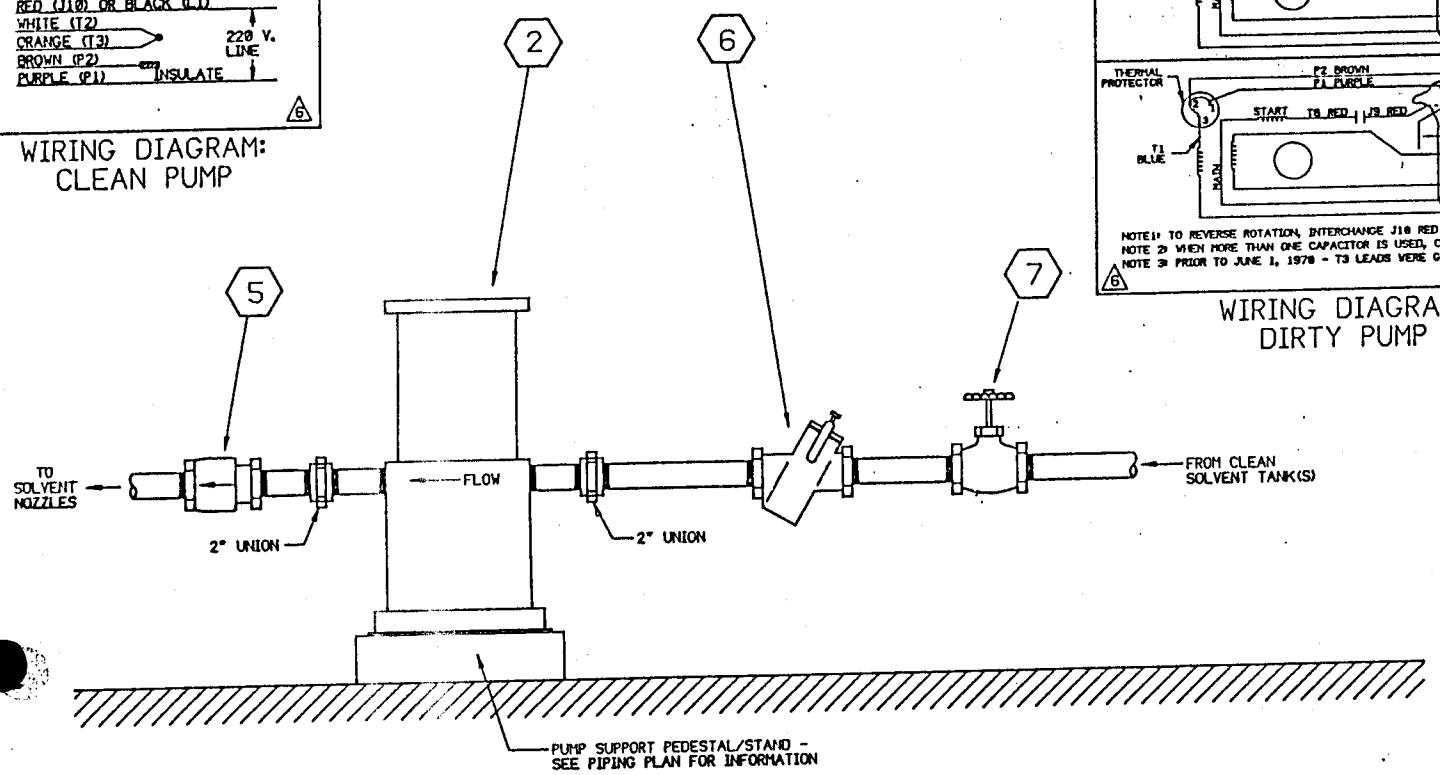
WIRING DIAGRAM: CLEAN PUMP



WIRING DIAGRAM: DIRTY PUMP

GENERAL NOTES

1. THIS DRAWING SUPERCEDES SAFTY-KLEEN CORP. DRAWING A1118
2. SEE INDIVIDUAL SERVICE CENTER SITE & PIPING PLANS FOR LOCATIONS & ARRANGEMENT OF THESE DETAILS.
3. FOR UNDERGROUND TANK INSTALLATIONS, A 90° CHECK VALVE MORRISON BROS. FIG. 137 OR APPROVED EQUAL SHOULD BE INSTALLED AT TOP OF TANK ON CLEAN PUMP SUCTION LINE (CLEAN TANKS ONLY).
4. ALL PIPING TO BE 2" SCHEDULE 40 GALVANIZED UNLESS OTHERWISE SPECIFIED. ALL CHANGES OF DIRECTION IN DIRTY SOLVENT PIPING TO BE ACCOMPLISHED USING EITHER (2)-45° ELBOWS OR (1)-LONG RADIUS 90° ELBOW.
5. THIS DRAWING CONTAINS INFORMATION PROPRIETARY TO SAFETY-KLEEN CORP. ANY REPRODUCTION, DISCLOSURE OR USE OF THIS DRAWING IS EXPRESSLY PROHIBITED EXCEPT BY SAFETY-KLEEN OR AS SAFETY-KLEEN MAY AGREE IN WRITING.
6. ALL ITEMS WITH SAFETY-KLEEN PART NO. REFERENCES WILL BE SUPPLIED TO CONTRACTOR.



CLEAN SOLVENT PUMP INSTALLATION

FOR FIEL
USE ONL

FIGURE II.C.2-3

6	ADDED V.O.'S FOR CLEAN & USED PUMPS	RD
5	ADDED NEW PUMP FOR DIRTY SOLVENT TO VIEW & TABLE; ADDED PUMP SPEC'S	RD
4	ADDED NOTE 6	WLJ
3	ADDED PUMP SPECS - DWG A11118	WLJ
2	ADDED ITEM (8) & ADDED TO NOTE (1)	WLJ
1	CHANGED ITEM (4) TO NEW TYPE VALVE	WLJ
NO.	DESCRIPTION	BY
	REVISIONS	

TITLE: SOLVENT PUMP PIP INSTALLATION DET

SAFETY-KLEEN CO
777 E. 22D TIMBER ROAD, ELGIN, ILLINOIS 60120 PHO

PROJ. ENG. APPR.	OPERATIONS APPR.	SCALE: NTS
BRANCH: FOR SERVICE CENTER BRANCH		DRAWING NO.: D111

II.C.2-2L

BJS 2/24/89 PBG

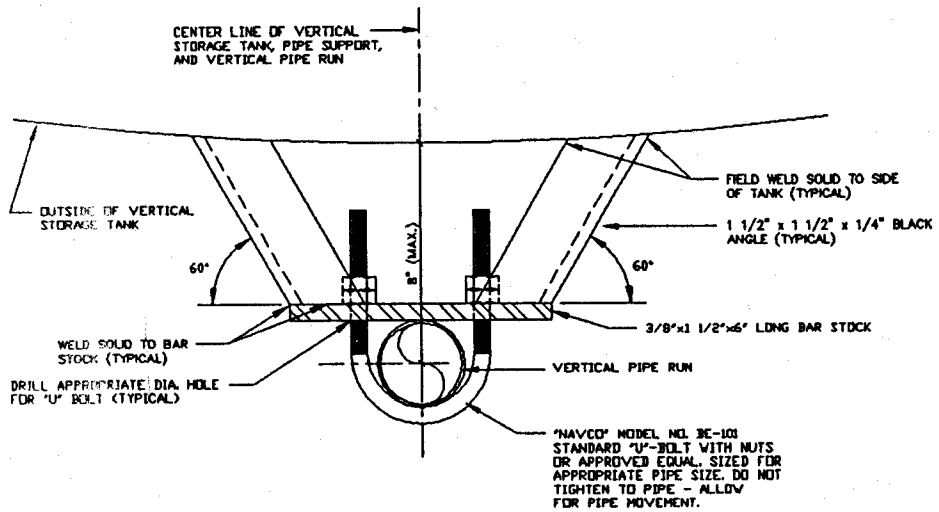
Ethylene Glycol

Spent ethylene glycol is collected from customers in either containers or in tanker trucks. If the spent ethylene glycol arrives at the service center in containers, then it is placed into the container storage area. If the spent ethylene glycol arrives at the service center via tanker truck, then it is pumped directly into the spent ethylene glycol tank. The tanker truck containing the spent ethylene glycol connects to the fill ports located on the south side of the tank farm.

TANK DESIGN

The tanks are designed and constructed to be compatible with the materials stored in them. Typical construction and installation standards for the aboveground tanks are shown in Figures II.C.2-4(a) and II.C.2-4(c). While this figure shows a mineral spirits tank, the same design and installation specifications apply to the spent ethylene glycol tank. All tanks are vented in accordance with National Fire Protection Association (NFPA) standards, and the tanks are equipped with high-level alarms. A sample design and installation of the tank alarm system is shown in Figures II.C.2-5(a) through II.C.2-5(f). The exact brand of tank alarm equipment used is equivalent to those shown in Figures II.C.2-5(a) through II.C.2-5(f). The tank seams are lapped with full fillet welds. The weld is done with an E70 electrode and can withstand a 4-psi air pressure test (which is performed by the manufacturer) in accordance with Underwriters Laboratories standards. All tanks are new and unused.

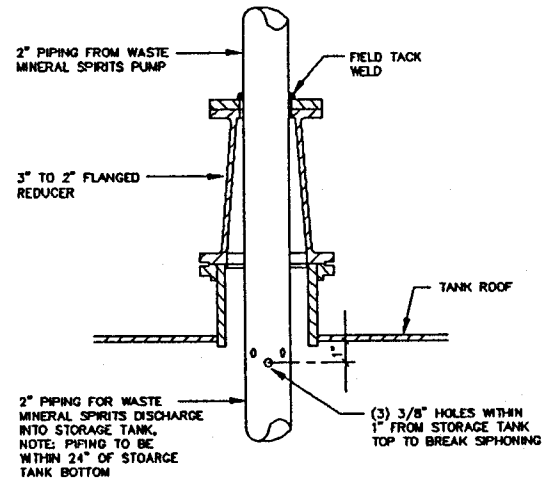
All tanks are aboveground, underlain by a 58' 0" x 40' 0" concrete slab, surrounded by a 36-inch to 38-inch high concrete dike and will be covered by a roof by the end of July 1992. The roof will extend over the tanker loading area. Therefore, no surface run-on is in contact with the wastes stored in the tank farm and no run-off collection and management system is deemed necessary. If rainwater does accumulate in the containment area and it has been verified that no spill has occurred, then rainwater will be discharged to the ground surface. Only the branch manager or someone operating



1 VERTICAL PIPE SUPPORT DETAIL

SCALE: NONE

*NOTE: SIMILAR DETAIL TO BE USED FOR SUPPORTING PIPE RUNS ACROSS TANK TOPS.
*NOTE: PAINT "U"-BOLT & NUTS, BARSTOCK, & ANGLES PER TANK PAINTING SPECS.

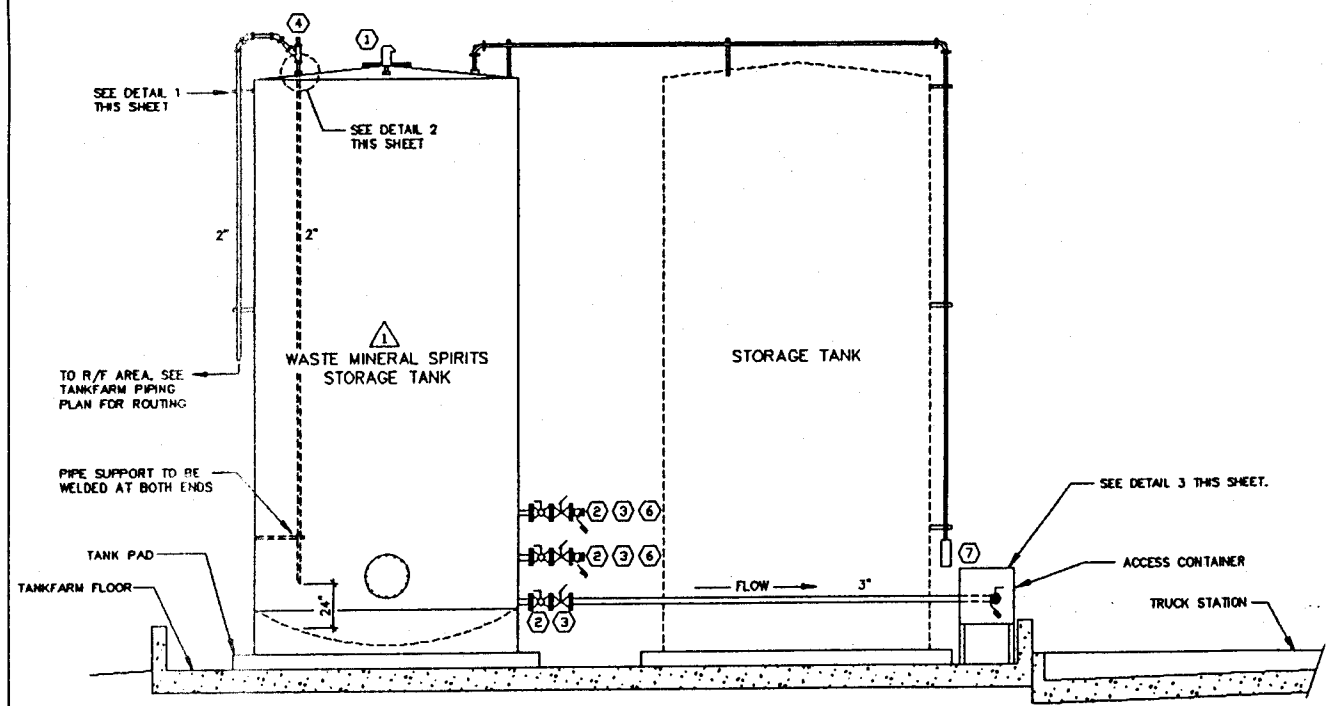


2 TANK DOME PIPING PENETRATION DETAIL

SCALE: NONE

EQUIPMENT SCHEDULE

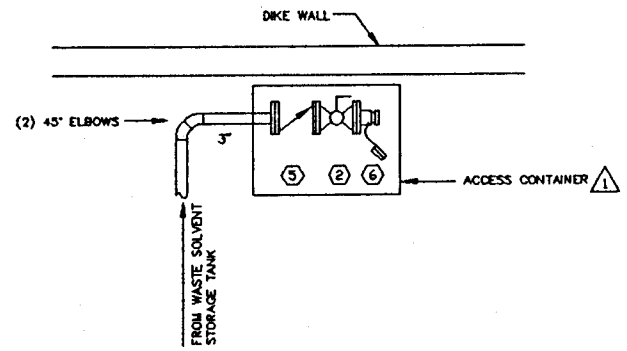
MARK	PART DESCRIPTION	SK PART	REMARKS
①	3" THREADED BRASS PRESSURE/VACUUM VENT, (2oz. pressure/1oz. vacuum)	5339	△1
②	3" FLANGED DUCTILE IRON BALL VALVE	-	LOCKING TYPE △1
③	3" FLANGED DUCTILE IRON EXTERNAL EMERGENCY VALVE WITH FUSIBLE LINK (160° F)	-	△1
④	3/8" THREADED BRASS AUTOMATIC VACUUM BREAKER	5236	△1
⑤	3" FLANGED DUCTILE IRON SWING CHECK VALVE	-	△1
⑥	3" FLANGED ALUMINUM CAMLOC QUICK COUPLING WITH CAP AND CHAIN	-	△1
⑦	TANK GAUGE	-	SEE INSTALLATION DETAILS ON DRAWING #2025 △1



PARTIAL TANK FARM PIPING ELEVATION, TYPICAL

(SEE TANK FARM PIPING PLAN FOR ACTUAL PIPING ROUTINGS.)

SCALE: NONE



3 ACCESS CONTAINER PIPING DETAIL

SCALE: NONE

FIGURE II.C.2-4(a)

GENERAL NOTES

THIS DRAWING CONTAINS INFORMATION PROPRIETARY TO SAFETY-KLEEN CORPORATION. ANY REPRODUCTION, DISCLOSURE OR USE OF THIS DRAWING IS EXPRESSLY PROHIBITED EXCEPT BY SAFETY-KLEEN OR AS SAFETY-KLEEN MAY AGREE IN WRITING.

△1. SUPPLIED BY SAFETY-KLEEN.

2. ALL DIRECTION CHANGES IN WASTE SOLVENT PIPING LINES TO BE MADE USING A COMBINATION OF 45° ELBOWS OR LONG SWEEP 90° ELBOWS.

QUESTEC CONSULTING ENGINEERS
4911 Broken Oaks • Columbia • MO 65202 • (314) 875-0300

NO.	DESCRIPTION	BY	CHK	APPR	DATE
	REVISIONS				

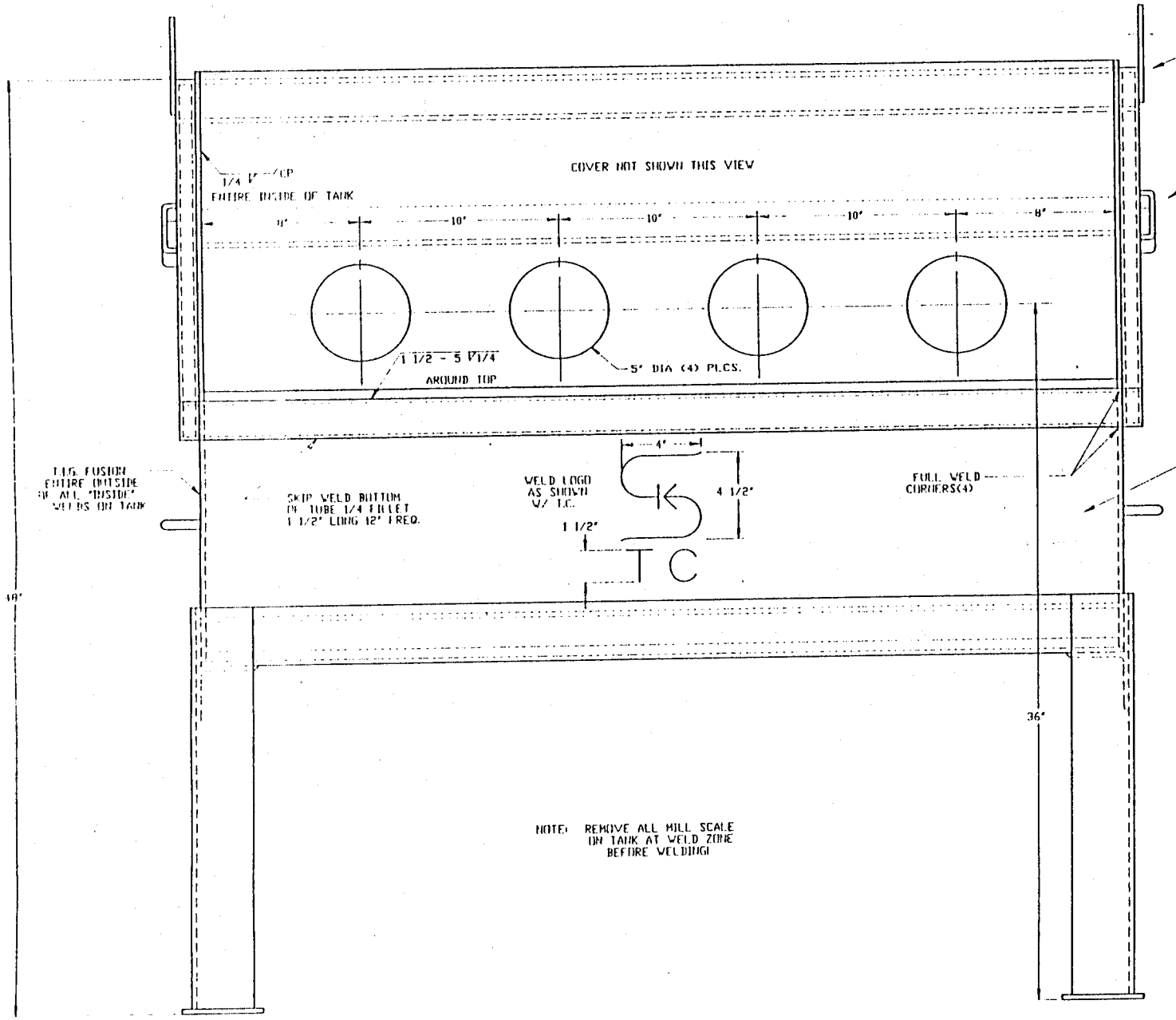
TITLE: TANK FARM / WASTE MINERAL SPIRITS PIPING PLAN

SAFETY-KLEEN CORP.
777 BIG TIMBER ROAD ELGIN, ILLINOIS 60123 PHONE 708-697-8460

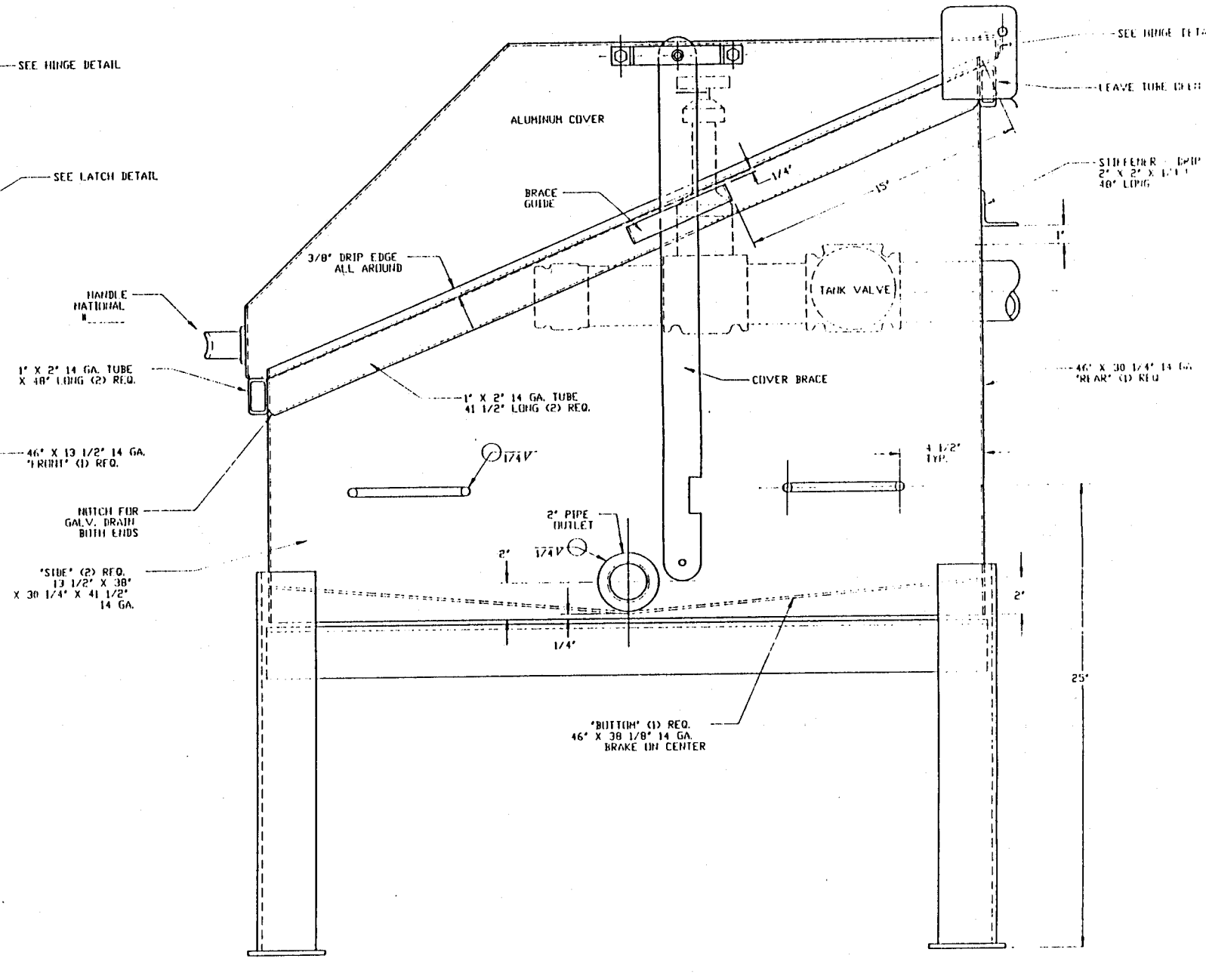
SCALE	BY	CHKD	P.E. APPR	OP. APPR	DATE
NONE	QuesTec				9-27-91

SERVICE CENTER LOCATION	SC-DWG-REV NO.	SHEET NO.
MEDLEY, FL	316301-2011-00	49

10-7-91 9:30am 2011-Q.DWG



NOTE: REMOVE ALL MILL SCALE ON TANK AT WELD ZONE BEFORE WELDING!



NOTE: TANK MUST BE DESLAGGED AND MECHANICALLY DEBURRED. DEGREASE TANK BEFORE PICKELING AND HOT DIP GALVANIZING A 123 A.S.T.M.

FIGURE II.C.2-4(b)

GENERAL NOTES

THIS DRAWING CONTAINS INFORMATION PROPRIETARY TO SAFETY-KLEEN CORPORATION. ANY REPRODUCTION, DISCLOSURE OR USE OF THIS DRAWING IS EXPRESSLY PROHIBITED EXCEPT BY SAFETY-KLEEN OR AS SAFETY-KLEEN MAY AGREE IN WRITING.

NO.	DESCRIPTION	BY	CHK	APPR	DATE

REVISIONS

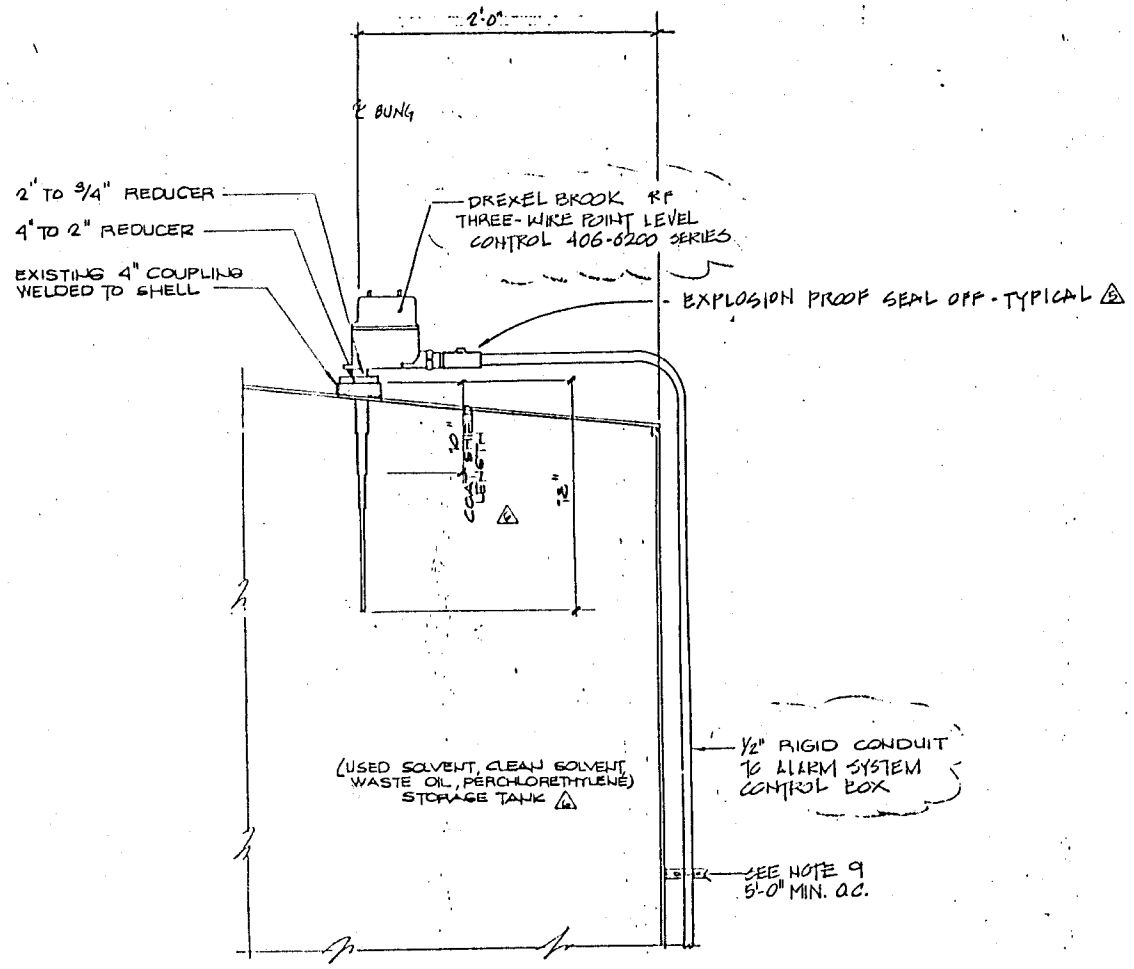
TITLE: TANK ACCESS CONTAINER (GALV.)

SAFETY-KLEEN CORP.
777 BIG TIMBER ROAD ELGIN, ILLINOIS 60123 PHONE 708 [illegible]

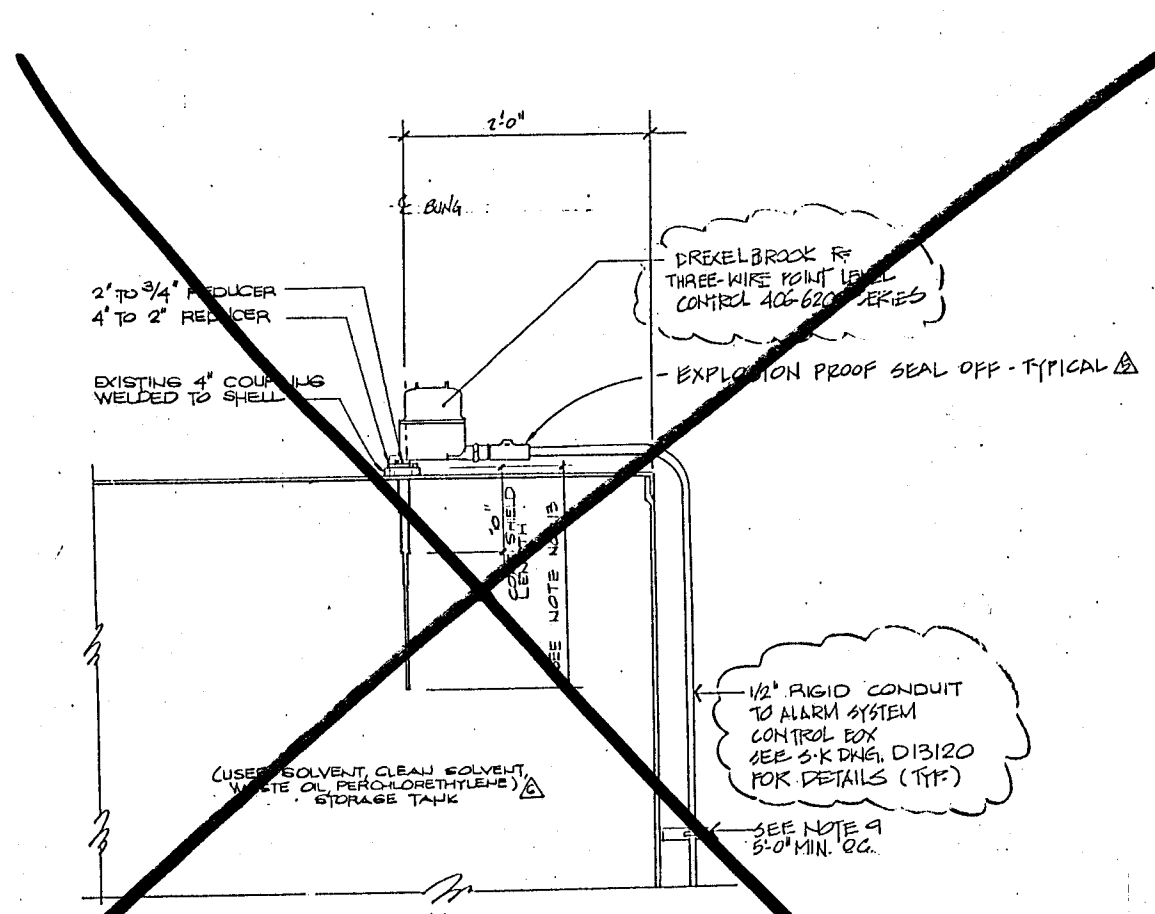
SCALE	BY	CHKD	P.E. APPR	V.P. APPR
1/4"=1'-0"	R.D.			

SERVICE CENTER STANDARDS: FABRICATION

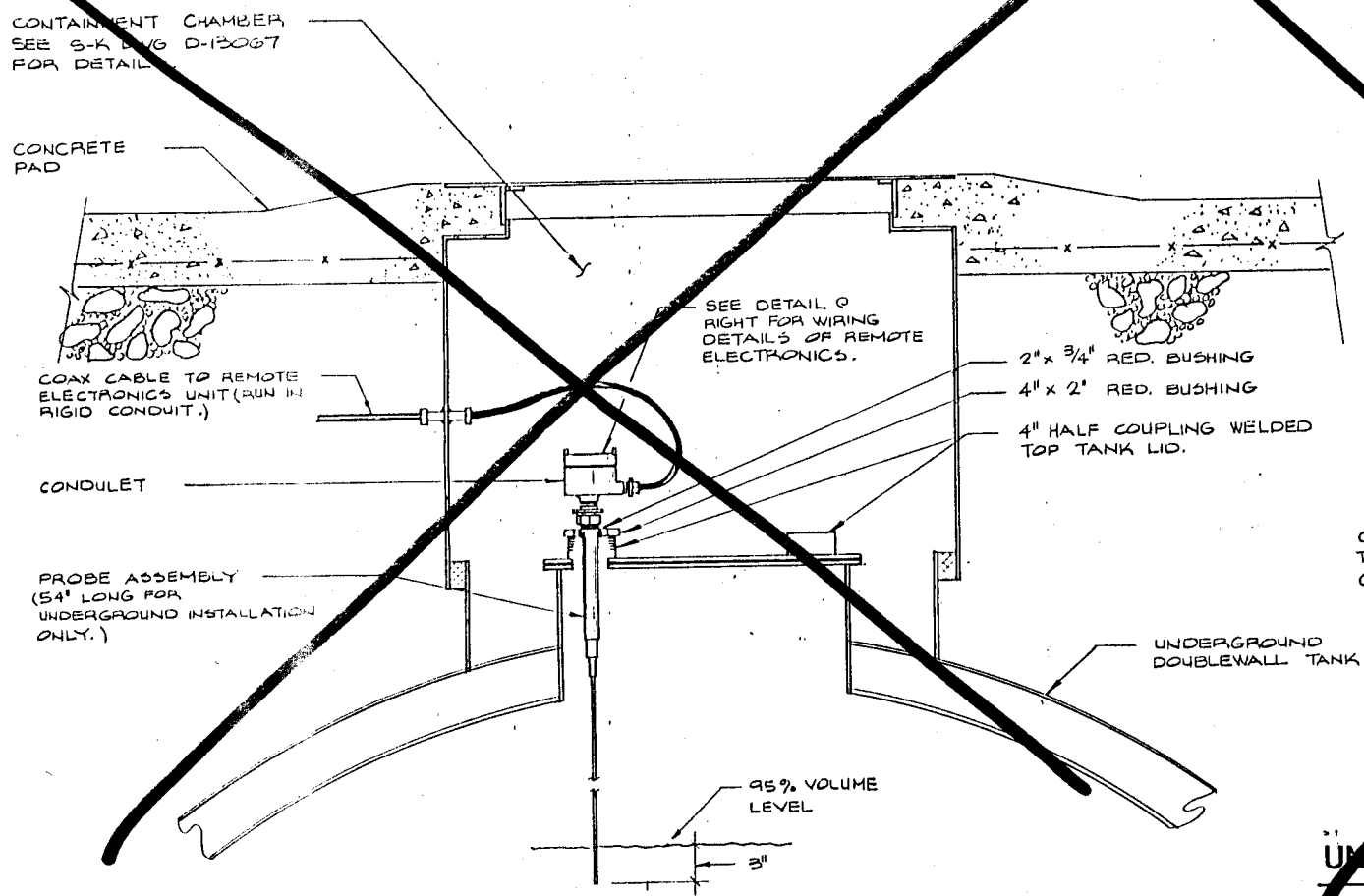
STD. DWG NUMBER: DI3479

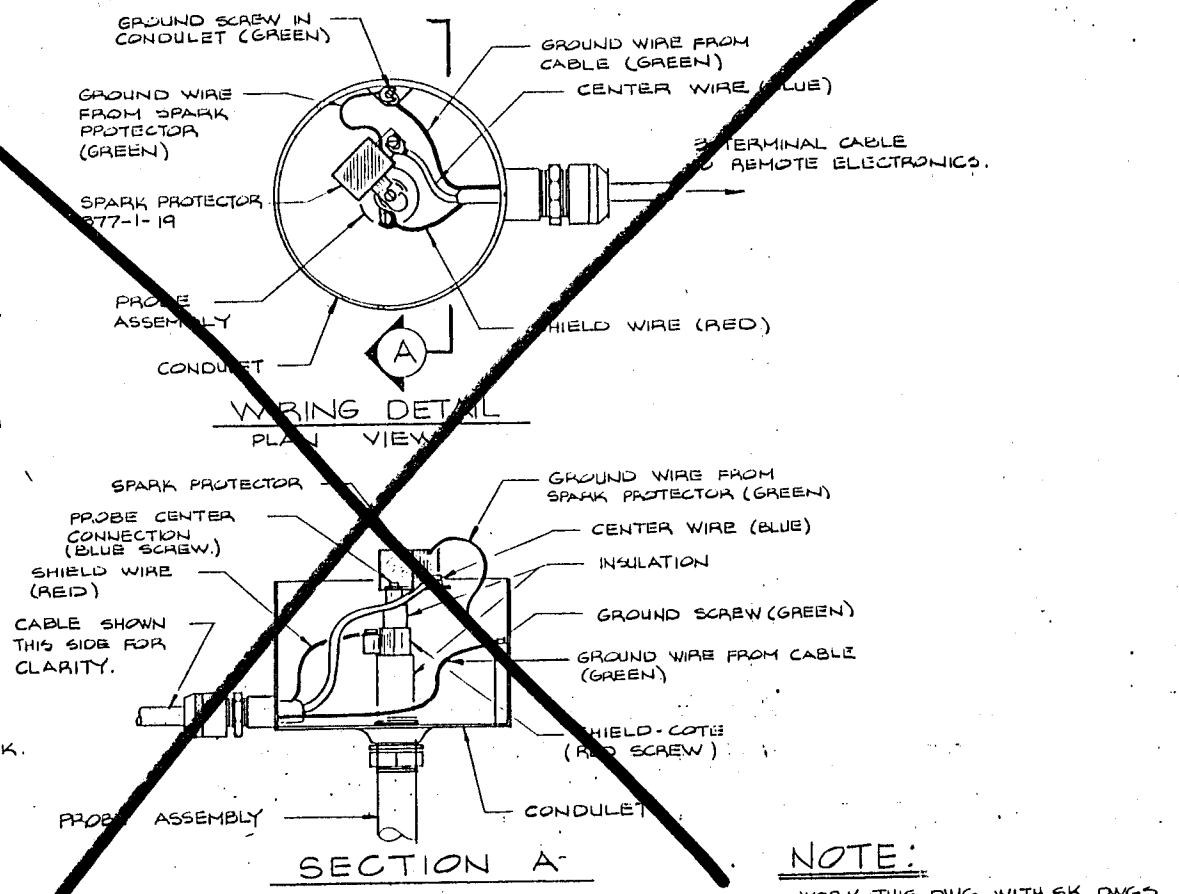


ABOVEGROUND VERTICAL TANK INSTALLATION



ABOVEGROUND HORIZONTAL TANK INSTALLATION





NOTE:
WORK THIS DWG. WITH SK. DWG'S D-13929 AND D-14218.

UNDERGROUND TANK INSTALLATION

GENERAL NOTES

1. POWER REQUIREMENT 13 TO 28 VDC
2. OUTPUT 4 - 10 m (ALARM STATE)
   13 - 25 m (NORMAL STATE)
3. OPERATING TEMP. -40°F TO +140°F
4. SHIELD-TO-GROUND LOADING: 25 ohm MIN. RESISTANCE
5. RFI EFFECT: LESS THAN 2 pF SHIFT IN OPERATING POINT FOR UNIT IN EXPLOSION-PROOF HOUSING FROM 5 W FIELD @ 27, 130, OR 450 mH, AT A DISTANCE OF 5 FT. FROM EXPOSED CABLE OR SIGNAL WIRE.
6. FAIL-SAFE: SWITCHABLE OR EITHER LOW-LEVEL FAIL-SAFE (LLFS) OR HIGH-LEVEL FAIL SAFE (HLFS).
7. HOUSING: NEMA 12-WATERPROOF EXPLOSION PROOF FOR CLASS I GROUPS A, B, C, D, AND CLASS II GROUPS E, F, G DW, 1 OR 2.
8. SEE INDIVIDUAL SERVICE CENTER SITE PLANS FOR RELATIVE LOCATIONS OF THESE DETAILS.
9. CONTRACTOR TO SUPPLY & INSTALL CONDUIT SUPPORTS & BRACKETS AS REQUIRED.
10. THIS DRAWING CONTAINS INFORMATION PROPRIETARY TO SAFETY-KLEEN CORP. ANY REPRODUCTION, DISCLOSURE OR USE OF THIS DRAWING IS EXPRESSLY PROHIBITED BY SAFETY-KLEEN
11. ALL ITEMS SHOWN WITH A SAFETY-KLEEN PART NUMBER WILL BE SUPPLIED BY SAFETY-KLEEN CORP. (e.g. SK-----)
12. IF INDIVIDUAL SERVICE CENTER CONDITIONS ARE NOT COVERED BY DETAILS SHOWN HERE, PLEASE CONTACT TECHNICAL SERVICES AT THE CORPORATE OFFICE FOR ASSISTANCE.
13. CALCULATIONS FOR LENGTH OF PROBE INSIDE OF TANK ARE SET TO ACTIVATE THE ALARM AT THE 95% VOLUME LEVEL. (4)
14. ALL CALIBRATION OF UNIT SHALL BE DONE IN ACCORDANCE WITH DREXELBROOK'S RECOMMENDATIONS. CALIBRATION SHALL BE DONE AFTER ALL COMPONENTS OF SYSTEM ARE IN PLACE. (2)
15. ALL TANKS SHALL BE GROUNDED PRIOR TO INSTALLATION OF ALARM SYSTEM.

FIGURE II.C.2-5(a)

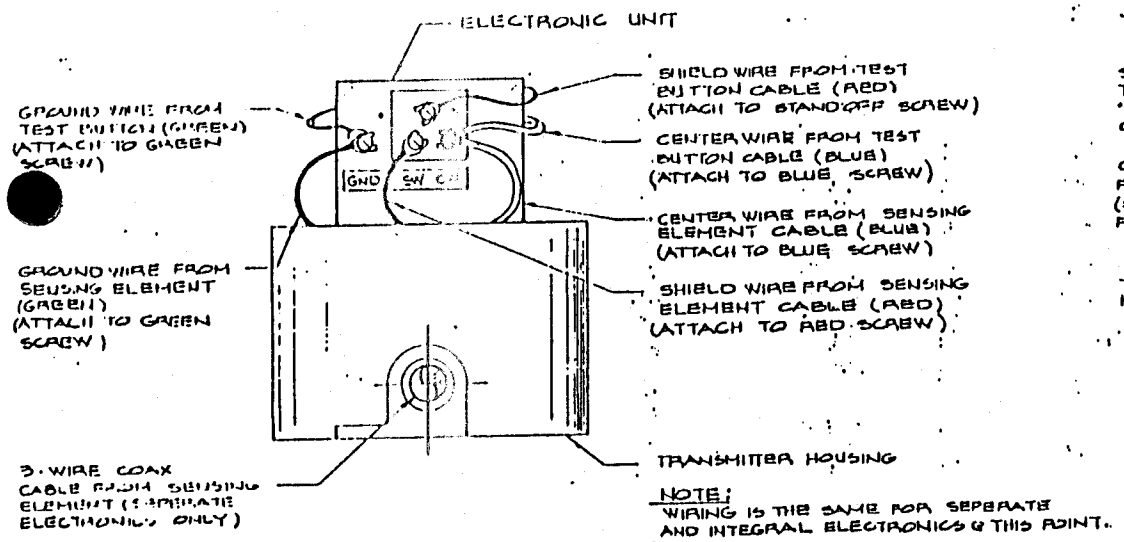
1	REDRAW UNDERGROUND INSTALLATION ADDED DETAILS & CHANGED CONDUIT TO RWD	RD	1-6
6	ADD NOTES AND MODIFY THE DWG. ON VERT. & HOR. TANK INSTALLATION.	MA	7-7
2	ADD "EXPLOSION PROOF SEAL OFF" NOTE	ELB	11-1
4	CHANGED PROBE DEPTH, NOTE 13	ELB	11-1

safety-kleen corp.
777 BIG TIMBER ROAD • ELGIN, ILLINOIS 60123 PHONE 312/697-84

HIGH LEVEL ALARM SYSTEM TRANSMITTE
TO TANK INSTALLATION DETAILS

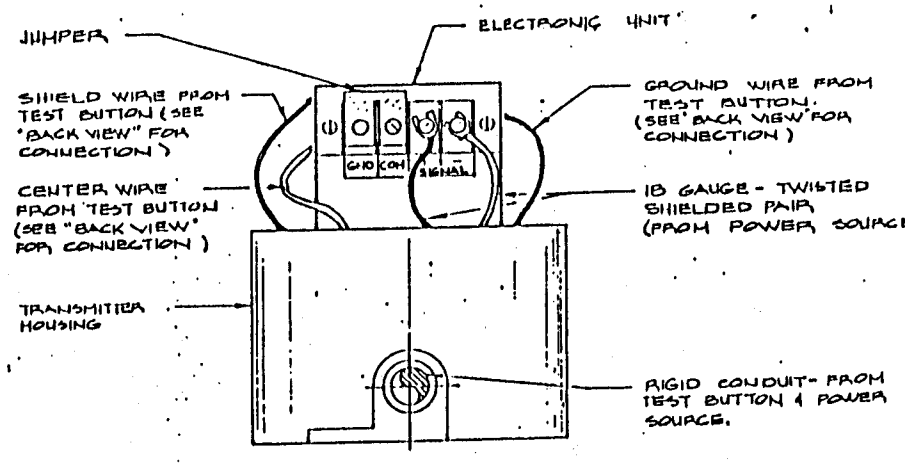
SCALE	NONE		
DATE	6-22-88	1 ADDED CHART & MISC. INFO.	RD 7
DR'N.	RD CHK.	2 H"B WAS 18", 24" WAS 18"	ED 7
APP'D.		3 ADDED SEAL OFF	RD 7

TITLE for: SERVICE CENTER BRANCH
II.C.2-3D
NO. D1310



NOTE:
WIRING IS THE SAME FOR SEPERATE AND INTEGRAL ELECTRONICS @ THIS POINT.

ELECTRONIC UNIT
BACK VIEW
(SENSING ELEMENT CONNECTIONS)



ELECTRONIC UNIT
FRONT VIEW
(SIGNAL WIRING)

TERMINATIONS OF COAXIAL CABLE

1. Cut cable to required length plus 3". Slide the ground tracer wire away from the coax to a length of about 1". Strip about 3/16" of insulation from the end of the wire. Crimp on 18-22 ga. spade terminal lug onto the ground wire. If possible, this wire should be color-coded green to match the color scheme for the ground connections.

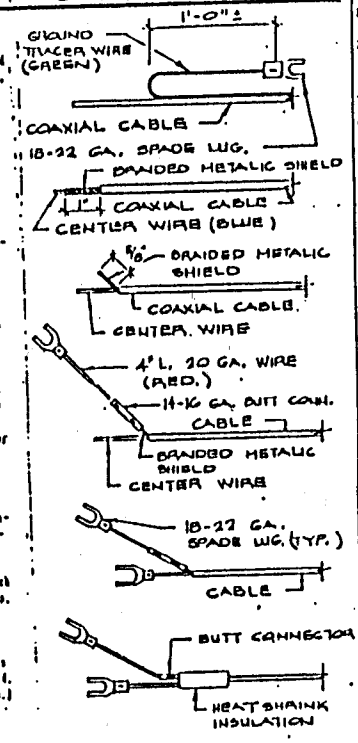
2. Trim outer insulation back 1", cutting down to but not including braided metallic shield.

3. Unravel the metallic braid from the center wire insulation. Twist the braid tightly together. Cut the twisted braid to a length of about 3/8".

4. Using a 14-16 ga. crimp-on butt connector, attach a 4" piece of 20 ga. stranded insulated wire to the twisted braid. In order to make a strong connection with the larger gauge of the butt connector, a 3/8" stripped length of the 20 ga. wire should be twisted and then folded back upon itself before insertion into the butt connector. Crimp on 18-22 ga. spade terminal lug onto the other end of the 4" wire. If possible, this wire should be color-coded red to match the color scheme for the coax-shield connections.

5. Trim about 1/4" of the inner plastic insulation to expose the center wire. Slip on 18-22 ga. spade terminal lug over the bare center wire so that the insulation of the spade lug bottoms out on the inner insulation and the tip of the wire shows at the lug end. Crimp the lug and trim any excess center wire. If possible, this wire should be color-coded blue to match the color scheme for the probe/center wire connections.

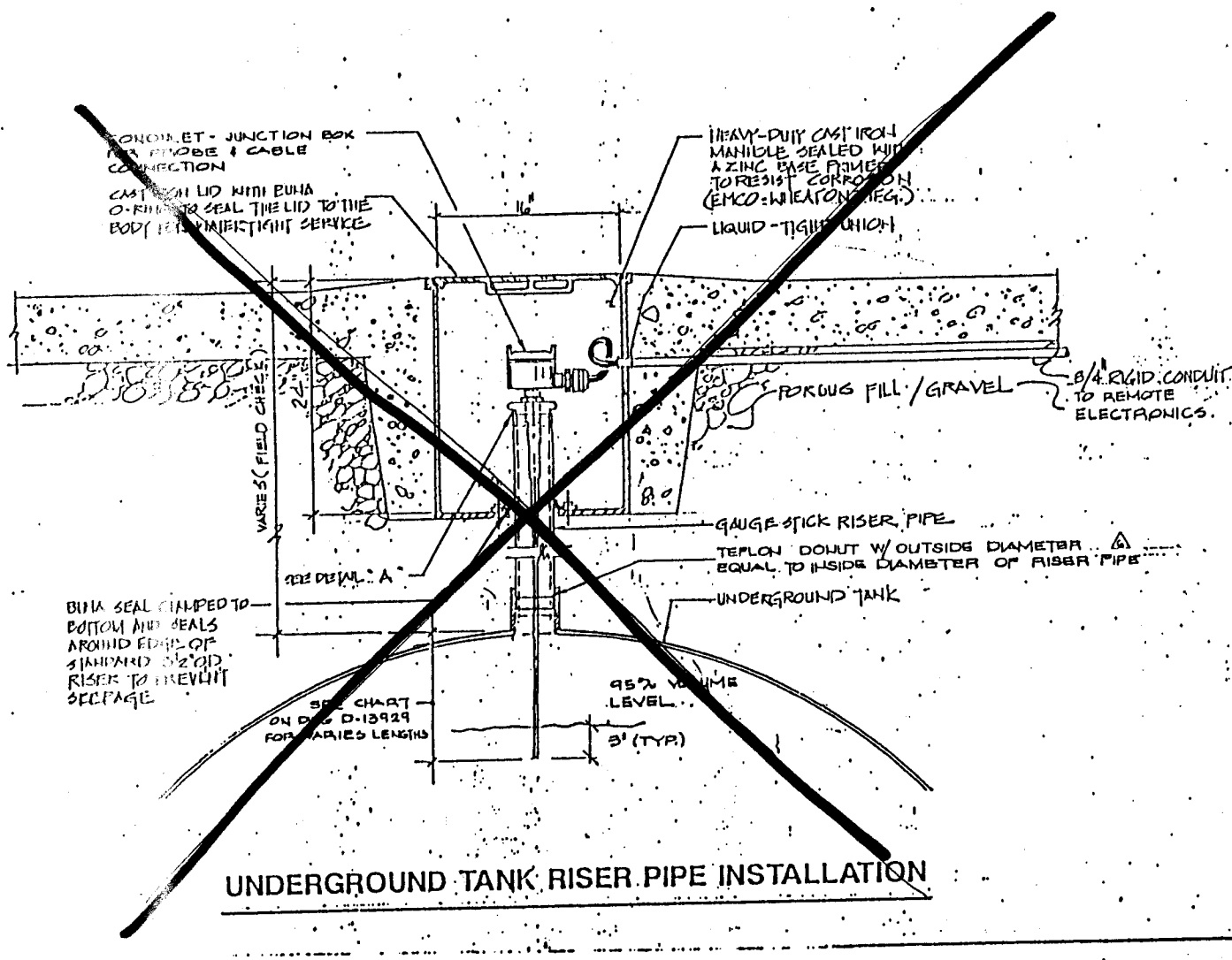
6. Slip 1" of 1/2" diameter heatshrink insulation over cable end so that all metallic braid is well covered. Heat the insulation until it shrinks and tightly grips the cable. (Dry hot source of 300-350 degrees needed. A propane torch with a low flame flame is recommended.)



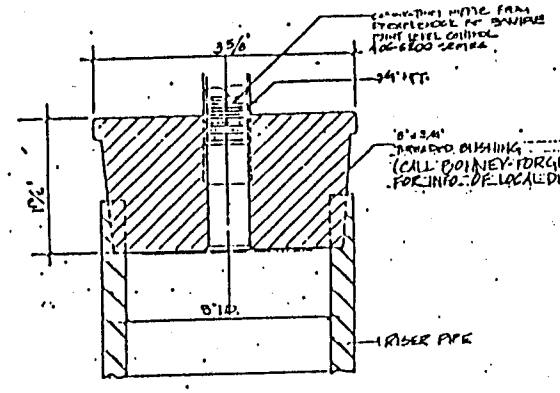
NOTE:
WORK THIS DWG. WITH SK DWGS D-13929 AND D-13102

GENERAL NOTES

1. POWER REQUIREMENT 13 TO 28 VDC
2. OUTPUT 4 - 10 m (ALARM STATE)
   13 - 25 m (NORMAL STATE)
3. OPERATING TEMP. -40°F TO +140°F
4. SHIELD-TO-GROUND LOADING: 25 ohm MIN. RESISTANCE
5. RFI EFFECT: LESS THAN 2 pF SHIFT IN OPERATING POINT FOR UNIT IN EXPLOSION-PROOF HOUSING FROM 5 V FIELD @ 27, 130, OR 450 mA, AT A DISTANCE OF 3 FT. FROM EXPOSED CABLE OR SIGNAL WIRE.
6. FAIL-SAFE: SWITCHABLE OR EITHER LOW-LEVEL FAIL-SAFE (LLFS) OR HIGH-LEVEL FAIL SAFE (HLFS).
7. HOUSING: NEMA 12-WATERPROOF EXPLOSION PROOF FOR CLASS I GROUPS A, B, C, D, AND CLASS II GROUPS E, F, G ON 1 OR 2.
8. SEE INDIVIDUAL SERVICE CENTER SITE PLANS FOR RELATIVE LOCATIONS OF THESE DETAILS.
9. CONTRACTOR TO SUPPLY & INSTALL CONDUIT SUPPORTS & . . BRACKETS AS REQUIRED.
10. THIS DRAWING CONTAINS INFORMATION PROPRIETARY TO SAFETY-KLEEN CORP. ANY REPRODUCTION, DISCLOSURE OR USE OF THIS DRAWING IS EXPRESSLY PROHIBITED BY SAFETY-KLEEN
11. ALL ITEMS SHOWN WITH A SAFETY-KLEEN PART NUMBER WILL BE SUPPLIED BY SAFETY-KLEEN CORP. (e.g. SK-- - -)
12. IF INDIVIDUAL SERVICE CENTER CONDITIONS ARE NOT COVERED BY DETAILS SHOWN HERE, PLEASE CONTACT TECHNICAL SERVICES AT THE CORPORATE OFFICE FOR ASSISTANCE.
13. CALCULATIONS FOR LENGTH OF PROBE INSIDE OF TANK ARE SET TO ACTIVATE THE ALARM AT THE 75% VOLUME LEVEL. (4)
14. "ALL" CALIBRATION OF UNIT SHALL BE DONE IN ACCORDANCE WITH DRESSER/DRAVO'S RECOMMENDATIONS. CALIBRATION SHALL BE DONE AFTER ALL COMPONENTS OF SYSTEM ARE IN PLACE. (4)
15. ALL "TANKS" SHALL BE GROUNDED PRIOR TO INSTALLATION OF ALARM SYSTEM.



UNDERGROUND TANK RISER PIPE INSTALLATION



DETAIL A

CALIBRATION OF ELECTRONICS

1. Verify that the liquid is not covering the probe. This can be done by checking the reading on the tank's tape gauge. If the tank is less than full, the probe will not be immersed in liquid.

2. The calibration should be performed with all electrical connections of the system already completed. Any change in these connections invalidates the calibration. Also, make sure that the wires are neatly dressed. This means that the slack in the wires should be pushed down in the conduit (without straining the wires). This protects the wires from damage when the cap of the conduit is screwed on. Also, if the wires are lying too high in the conduit, stray capacitance from the metal cap can affect the operating point of the electronics unit.

3. Using the plastic tuning wrench supplied with the electronics unit, turn the tuning capacitor to the fully counterclockwise position. Then slowly turn the tuning wrench clockwise until the green light illuminates. This is the operating point of the sensor.

4. Identify exactly the position of the operating point and then turn the tuning wrench clockwise exactly one-half additional turn (180 degrees). The green light should remain illuminated. Remove the tuning wrench. Carefully screw the cap on the conduit.

THIS DOCUMENT HAS BEEN PREPARED AND IS APPROVED BY ME FOR INCLUSION IN ENVIRONMENTAL PERMIT APPLICATIONS ONLY. IT IS NEITHER APPROVED NOR IS IT TO BE USED FOR PROCUREMENT OR MATERIAL PROCUREMENT, CONSTRUCTION, OR ANY OTHER PURPOSE.

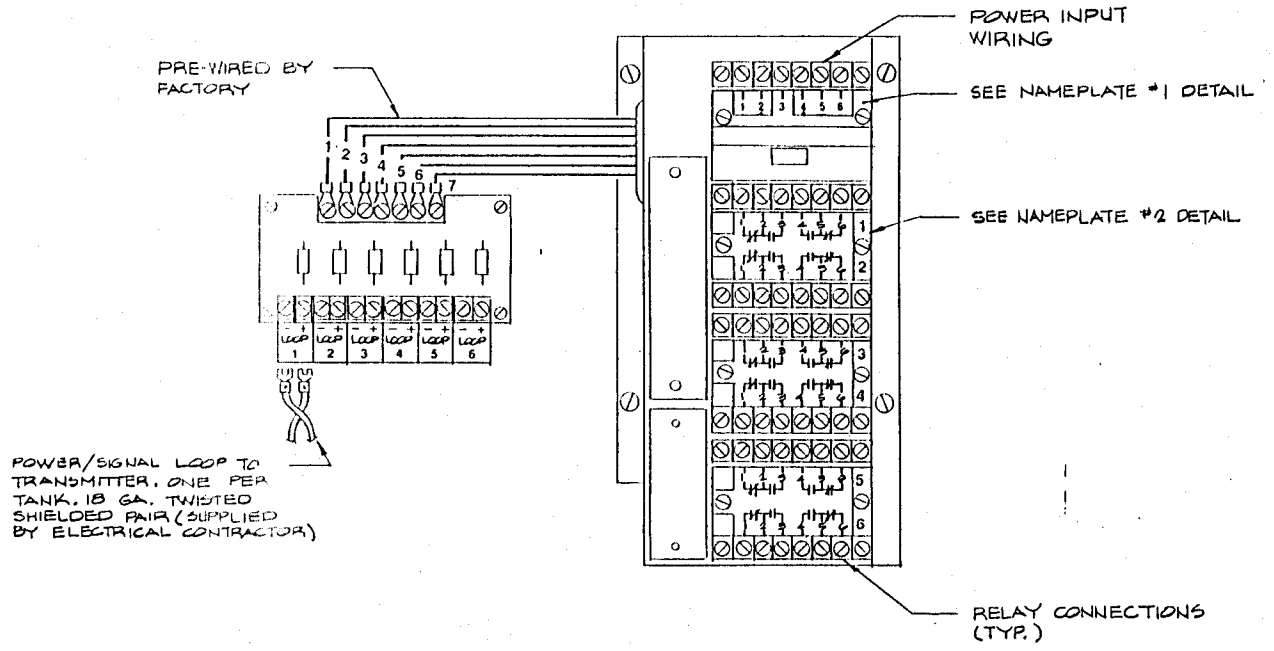
FIGURE II.C.2-5(b)

4	ADDED WIRING DETAILS AND NOTES FOR CABLE TERMINATIONS
3	ADD NOTES AND MODIFY THE DWG. ON VERT. & HOR. TANK INSTALLATION.
2	ADD "EXPLOSION PROOF SEAL OFF" NOTE.
1	"CHANGED PROBE DEPTH", NOTE 13

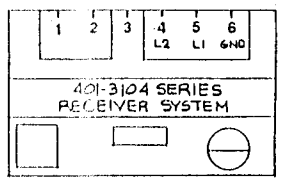
safety-kleen corp.

HIGH LEVEL ALARM REMOTE TRANS TO TANK INSTALLATION DETAILS

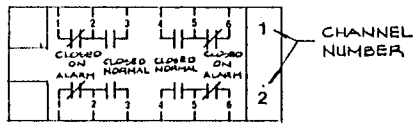
SCALE	NONE	
DATE	6-22-88	4 ADDED CHART / MISC. MODS
DR	CH	3 ADD'D DWG 13 & 14 MODS 10
APPR		2 ADDED SEAL-OFF
MFG	for: SERVICE CENTER BRANCH	D-



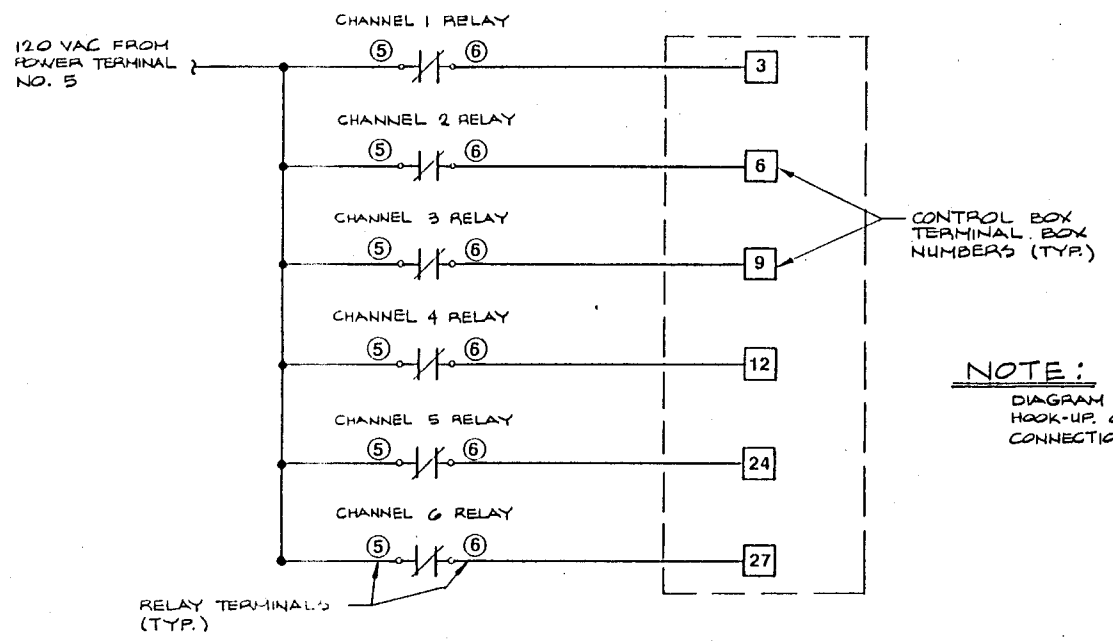
EXISTING TANK PROBE LENGTH		
TANK DIAMETER	DISTANCE FROM TOP OF TANK TO 95% VOL. LEVEL.	MINIMUM LENGTH OF PROBE INSIDE TANK
8' = 96"	9'	12"
10' - 120'	11"	14"
12' -, 144"	14"	17"



NAMEPLATE #1 DETAIL



NAMEPLATE #2 DETAIL (TYP.)



WIRING TO ALARM CONTROL BOX

NOTE:
DIAGRAM SHOWS 6 TANK HOOK-UP. ONLY MAKE CONNECTIONS FOR EXISTING TANKS.

FIGURE II.C.2-5(c)

NO	DESCRIPTION	BY	CHK	APPR	DATE
	REVISIONS				

TITLE: L.C.T. HIGH LEVEL ALARM RECIEVER SYSTEM DETAIL

SAFETY-KLEEN CORP.
777 BIG TIMBER ROAD • ELGIN, ILLINOIS 60123 • PHONE 708/697-8460

SCALE	DRAWN	CHECKED	ENGINEERING APPR.	OPERATION APPR.	DATE
NONE	PLS				1-10

DRAWING NO. **II.C.2-3F** D-13929

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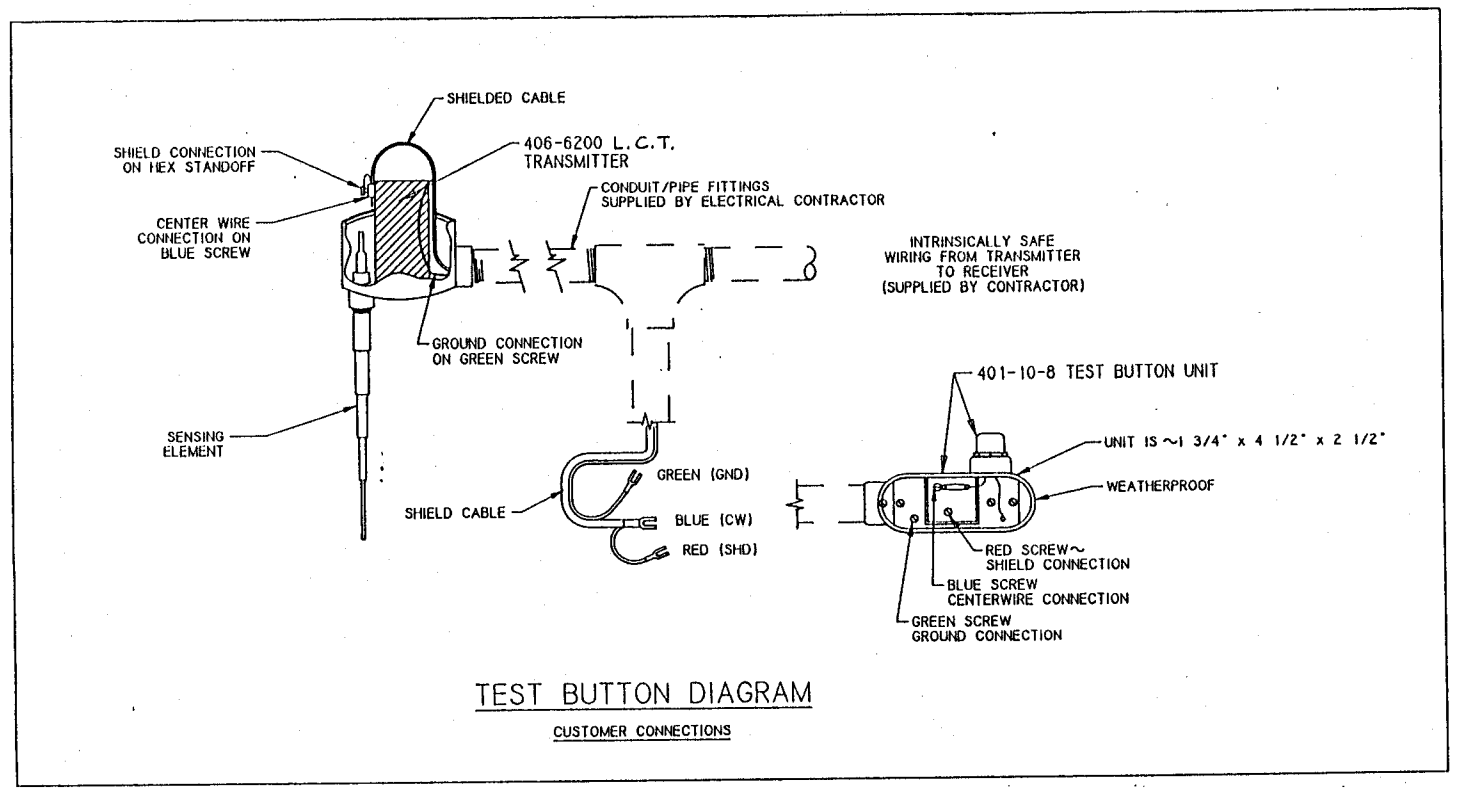
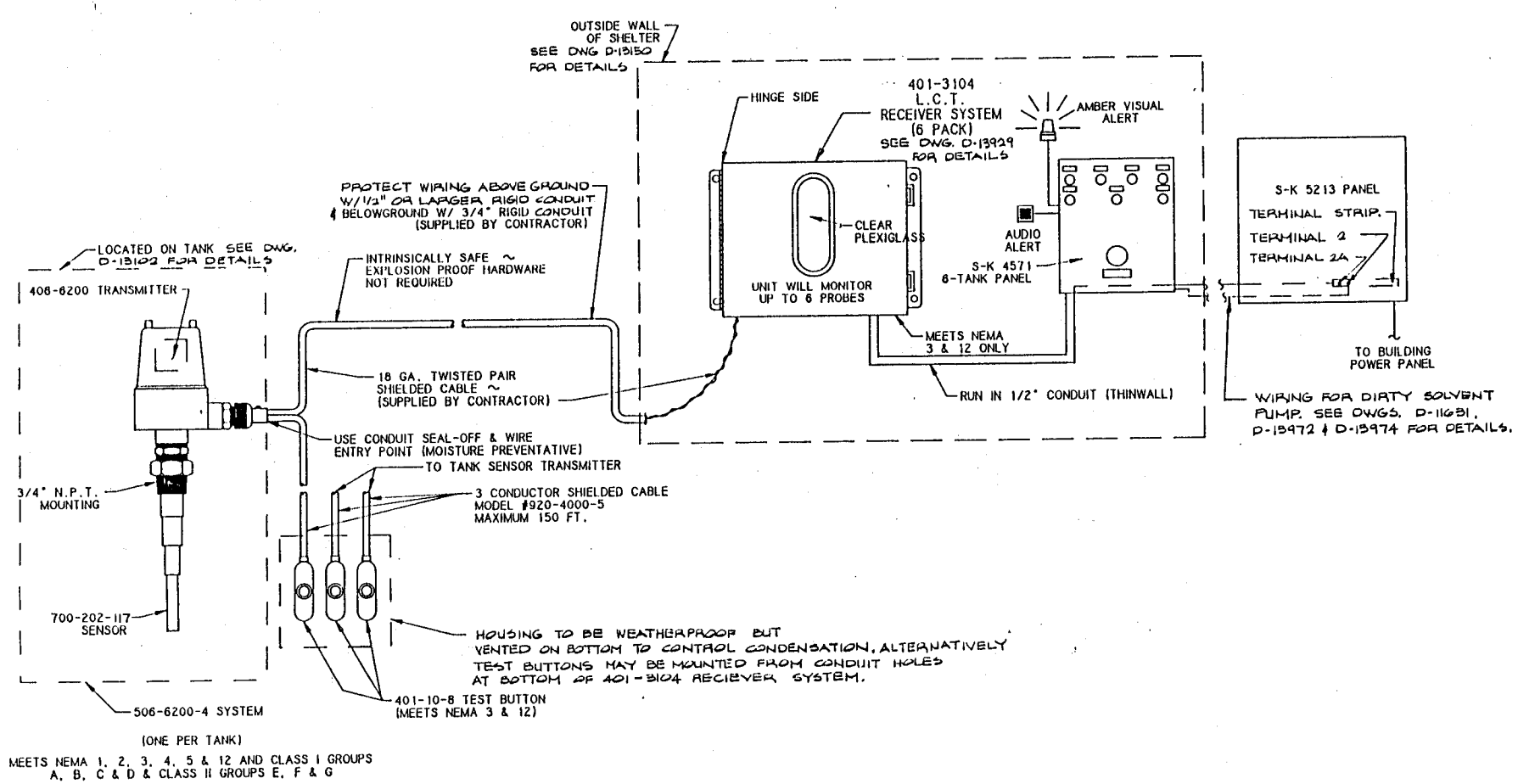


TEST BUTTON DIAGRAM

CUSTOMER CONNECTIONS



MEETS NEMA 1, 2, 3, 4, 5 & 12 AND CLASS I GROUPS A, B, C & D & CLASS II GROUPS E, F & G

WIRING DIAGRAM OVERVIEW

NO SCALE

GENERAL NOTES:

1. DRAWING IS INTENDED TO SHOW A TYPICAL INSTALLATION ONLY. SEE ACTUAL SITE PL
2. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF ACTUAL FIELD CONDITIONS.
3. ALL ITEMS SHOWN WITH A SAFETY-KLEEN PART NO. . THESE ITEMS WILL BE SUPPLIED BY S-K.
4. IF ANY FIELD MODIFICATIONS ARE REQUIRED, SAFETY-KLEEN BRANCH CONSTRUCTION GROUP IS TO BE NOTIFIED BEFORE PROCEEDING.
5. E.C. TO SUPPLY & INSTALL ALL RIGID CONDUIT, EMT & ANY NECESSARY LABOR & MATERIALS TO COMPLETE PROJECT.

FIGURE II.C.2-5(d)

NO.	DESCRIPTION	BY	CHKD	APPR
E	ADDED VARIOUS NOTATIONS	DS		
D	REV'D. & REDRAWN ON COMP'TR.	NWD		
C	ADDED TEST BUTTON UNIT	MA		
B	ADDED SEALOFF FITTING	RD		
A	REVISED & REDRAWN	RD		

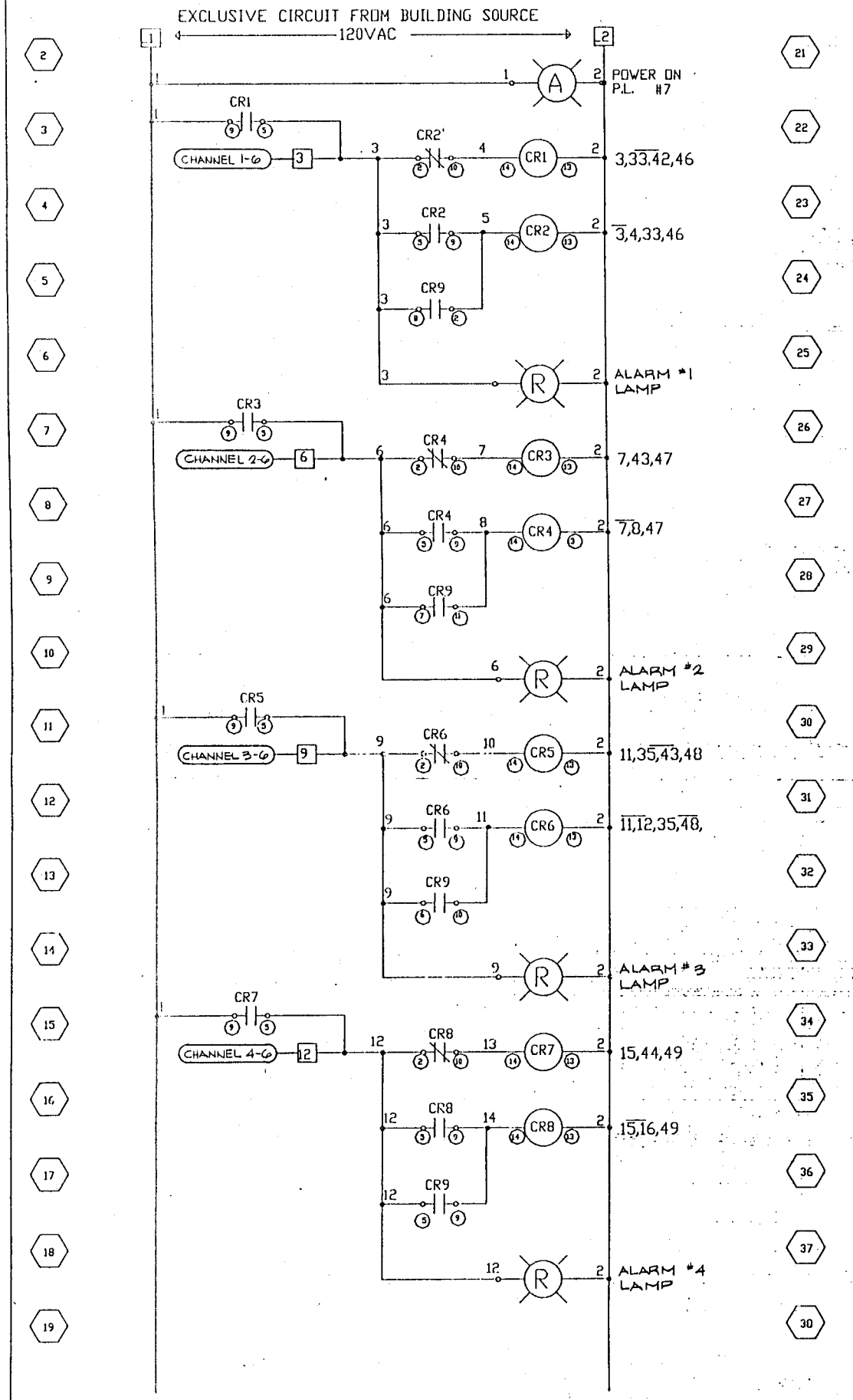
REVISIONS

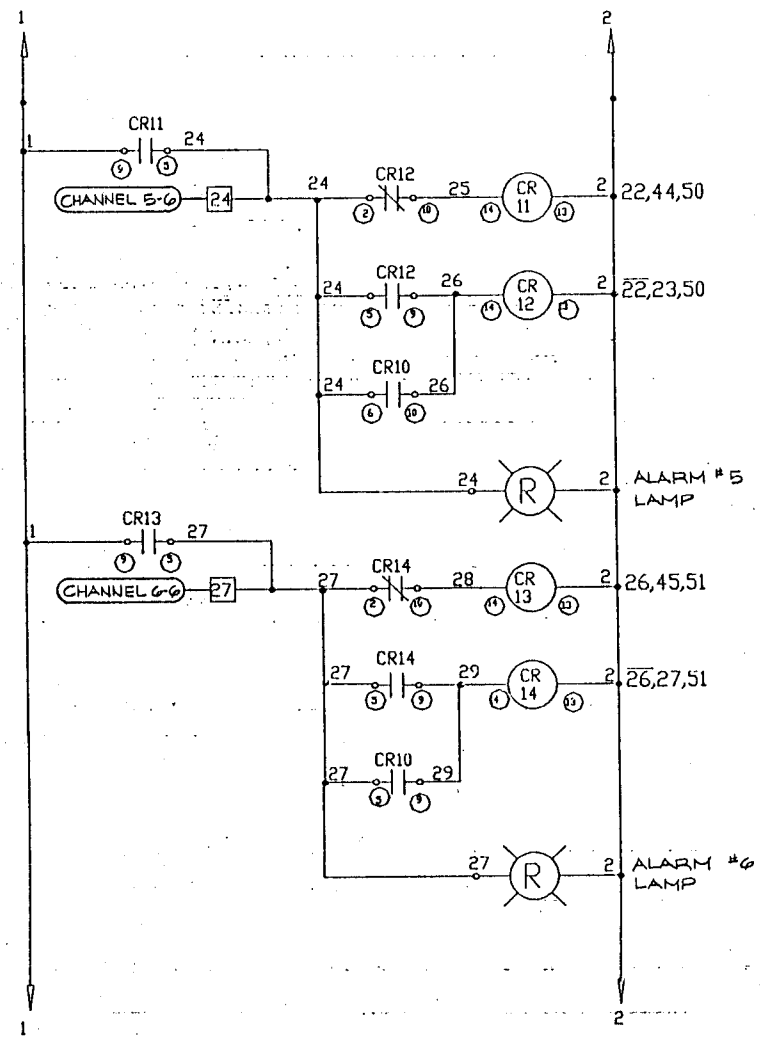
TITLE: L.C.T. HIGH LEVEL ALARM ELECTRICAL DIAGRAM

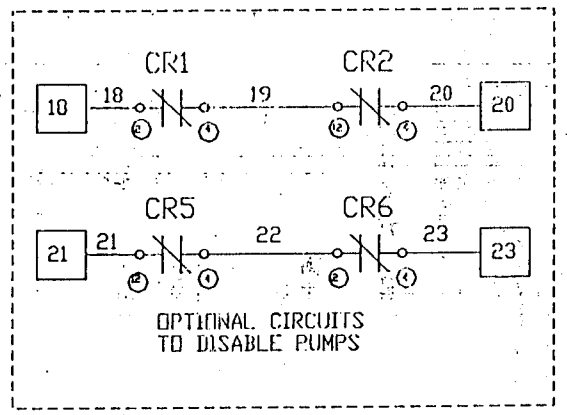
SAFETY-KLEEN CORP.
777 BIG TIMBER ROAD, ELGIN, ILLINOIS 60120 PHONE 312/697-84

PROJ. ENG. APPR.	OPERATIONS APPR.	SCALE	DRAWN	DA
		NONE	RD	5

BRANCH II.C.2-3G | DRAWING NO. D13120







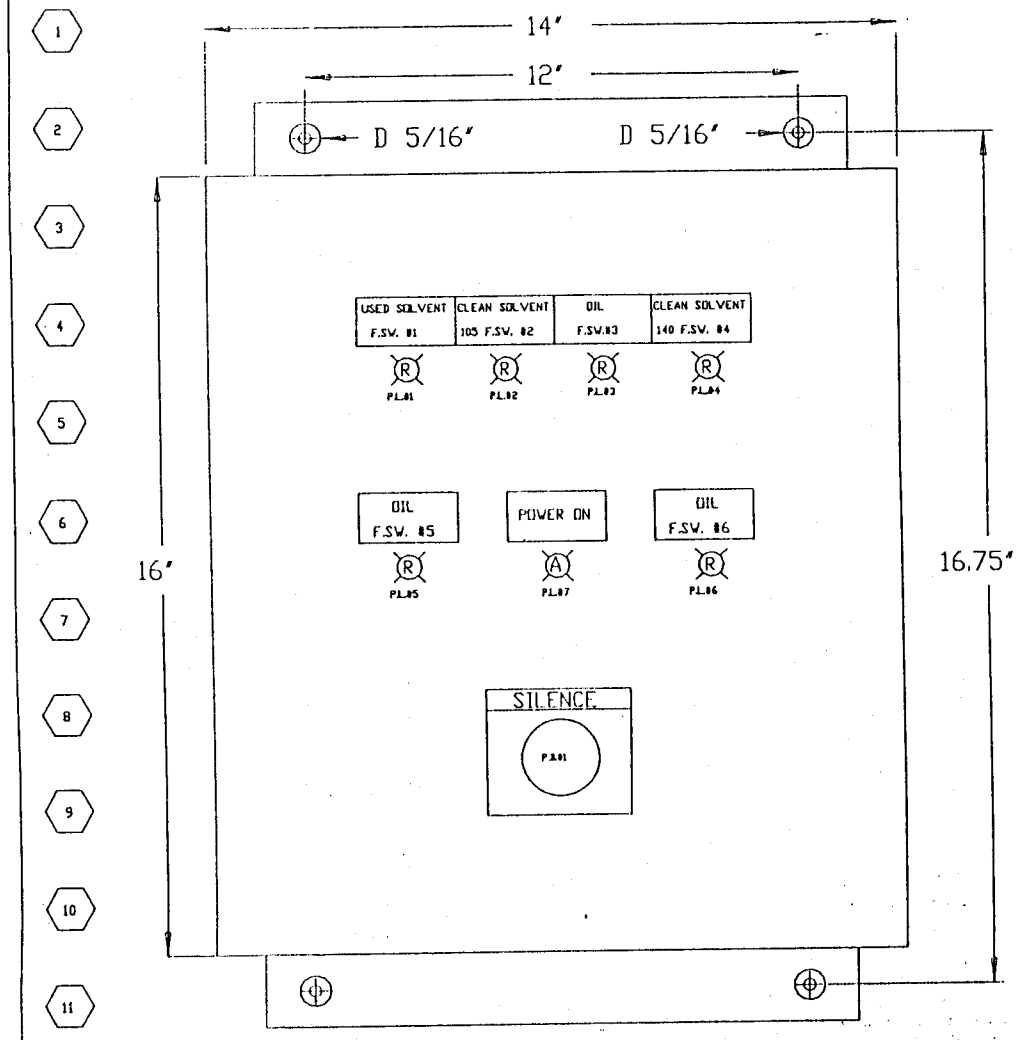
NOTE NUMBERS IN CIRCLES ARE RELAY SOCKET TERMINALS

NOTE NUMBERS IN SQUARE BOXES ARE TERMINAL BLOCK WIRE NUMBERS

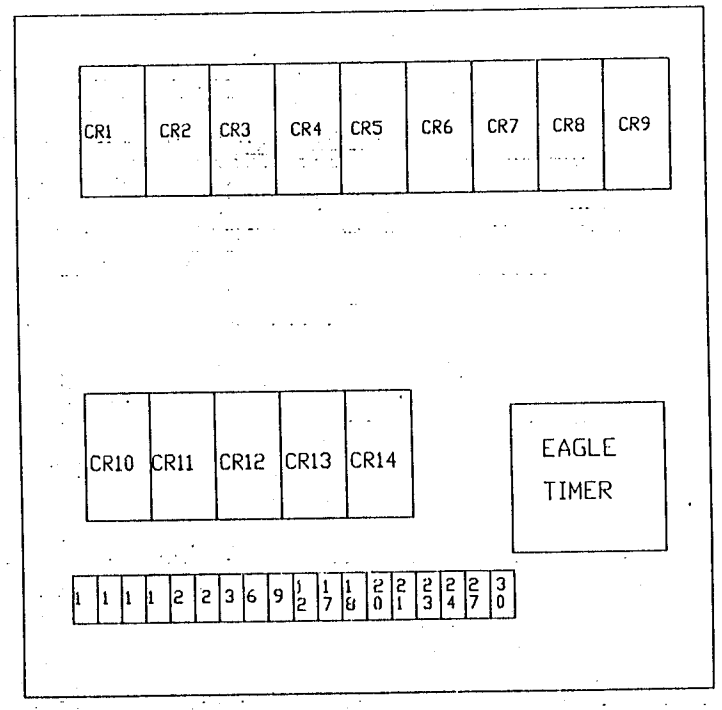
NOTE:

NUMBERS IN OVALS ARE RELAY TERMINALS IN DREXELBROOK RECIEVER PANEL. SEE DWG D-13929 FOR DETAILS.

NO.	
1	REMOVE FLOAT SWIT ADDED HIGH LEVEL AL

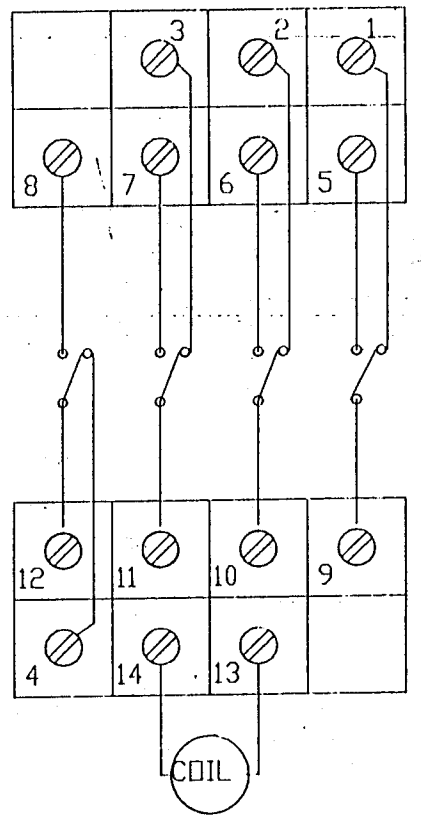


SUB PLATE
COMPONET LOCATION



PARTS LIST

QTY		
1	A1614CH	HOFFMAN ENCLOSER
1	A16P14	HOFFMAN SUB PLATE
1	800T-D6D1	A-B RED PUSHBUTTON
1	800T-X700	A-B NAME PLATE
1	BR1-7-A6-00	EAGLE TIMER 5MIN
14	MY4AC120	OMRON RELAY
14	PYF14A	OMRON RELAY BASE
1	PFP-50N	MOUNTING TRACK
7	30099	SYLVANIA LIGHT BASE
6	30120	SYLVANIA RED LENS
1	30126	SYLVANIA AMBER LENS
7	120 PSB	LIGHT BULBS
	1492-H1	TERMINAL BLOCKS A-B
	E-1x2WH6	PANDUIT WIRE WAY
	C-1WH6	PANDUIT COVER



OMRON RELAY
MY4AC120
TERMINAL
LAYOUT

FIGURE II.C.2-5(f)

NO.		BY	CHK	APPR	DATE
1	CHANGED PART NO. FOR EAGLE 5 MIN. TIMER	DS			1-8-90

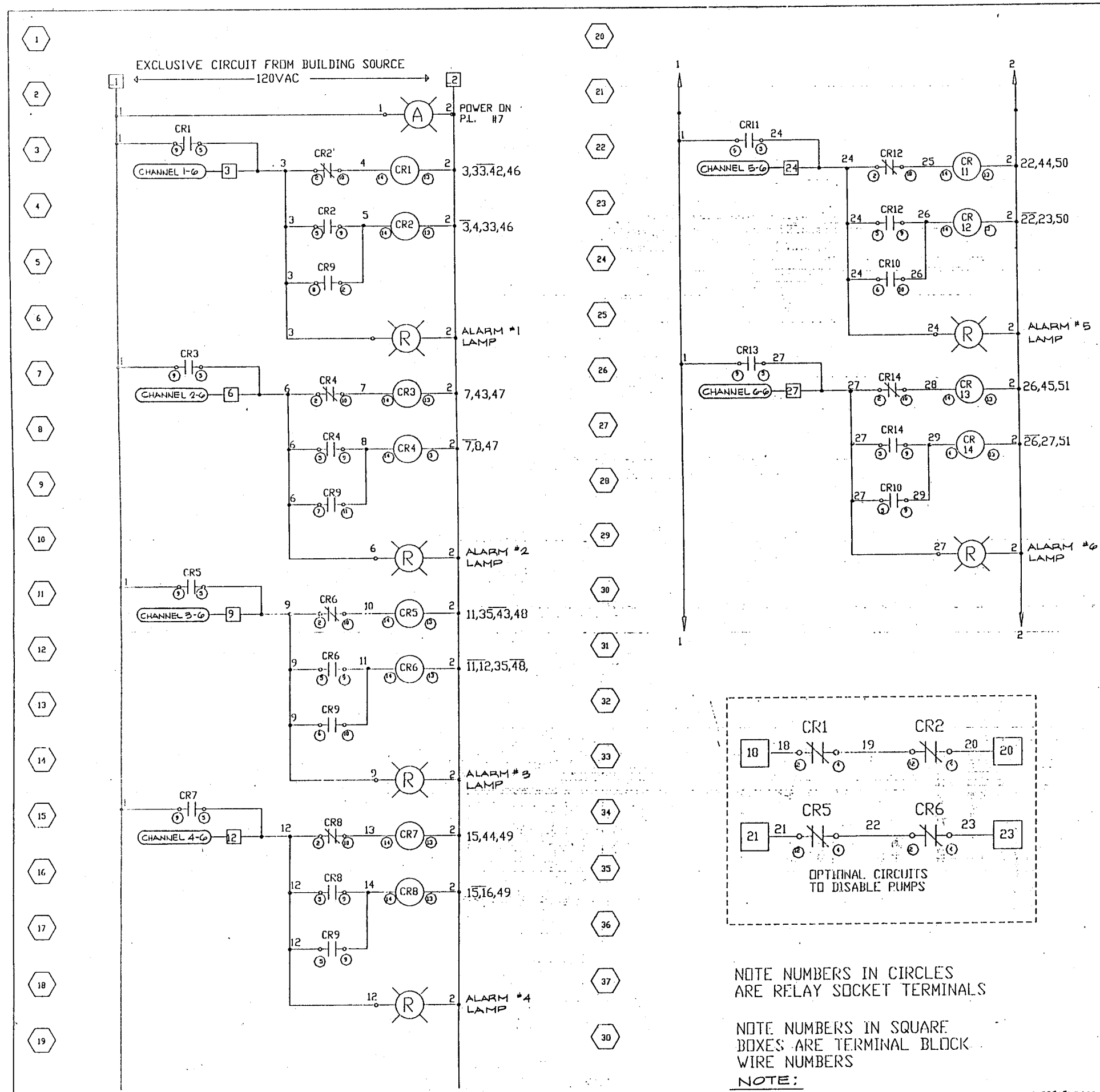
TITLE: 6 TANK ALARM CONTROL BOX WITH AUTO SILENCE
SHEET 2 OF 2

SAFETY-KLEEN CORP.

SCALE	DRAWN	CHECKED	ENGINEERING APPR	OPERATIONS APPR	DATE
NONE.	MCU				10-10-89

DRAWING NO. D-15975 REV. 1

N 5317



NOTE NUMBERS IN CIRCLES ARE RELAY SOCKET TERMINALS

NOTE NUMBERS IN SQUARE BOXES ARE TERMINAL BLOCK WIRE NUMBERS

NOTE:

NUMBERS IN OVALS ARE RELAY TERMINALS IN PRENELBROCK RECIEVER PANEL. SEE DWG D-13929 FOR DETAILS.

NO.	REVISION	BY	CHK	APPR	DATE
1	REMOVE FLOAT SWITCH WIRING AND ADDED HIGH LEVEL ALARM WIRING.	RLS			1-11-90

TITLE: 6 TANK ALARM CONTR BOX WITH AUTO SILENC

SHEET 1 OF

SAFETY-KLEEN CORP.

SCALE: NONE | DRAWN: MCU | CHECKED | ENGINEERING APPR | OPERATIONS APPR

5347

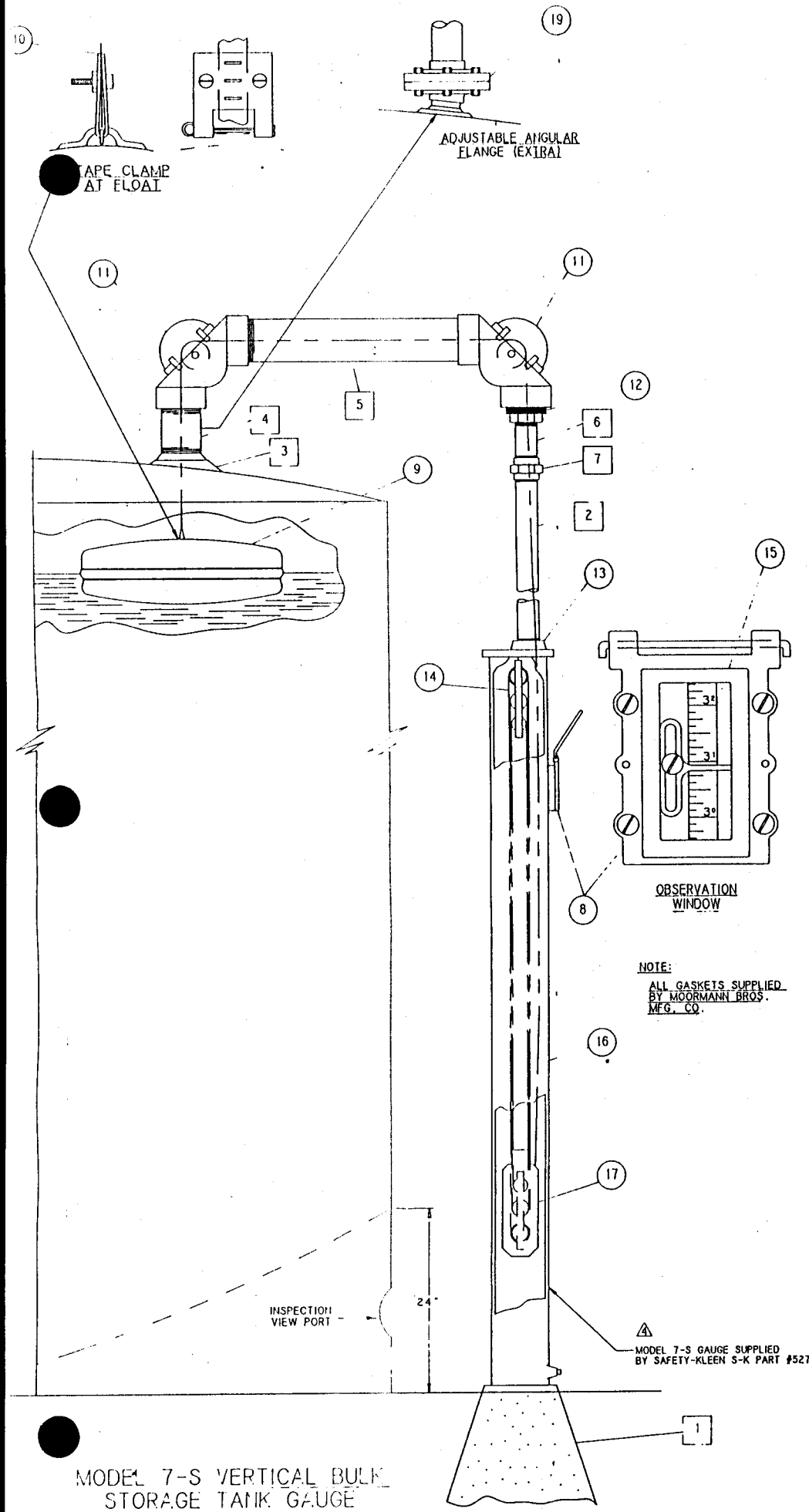
DRAWING NO. D-13974

FIGURE II.C.2-5(e)

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, then the rainwater will be pumped into drums and added to the used mineral spirits tank via the wet dumpsters.

The tank farm dike and the return/fill shelter are sealed with a chemical resistant coating (Semstone 140). Level gauges (Figure II.C.2-6) are used to measure liquid levels in tanks and float switch-activated automatic high level alarms (which consist of a strobe light and siren) signal the tank's being 95 percent full. The exact brand of level gauges in use are at least equivalent to those shown in Figure II.C.2-6. This alarm allows an operator more than two minutes to stop operations and avoid overfilling the tank. In addition, the gauges of the tank are read before filling and before and during the filling of a tanker truck (the available volume of which is noted prior to emptying the tank) to prevent overfilling of the truck or tank. A tank truck provided with a suction pump is used to withdraw used mineral spirits and ethylene glycol from the tanks. No other equipment or standby equipment is used in the operation of the aboveground tanks. The secondary containment under the tanks and return/fill shelter is cleaned within 24 hours of a spill.

"No smoking" signs are posted at the tank farm and return/fill shelter.



MODEL 7-S VERTICAL BULK STORAGE TANK GAUGE

INSTALLATION INSTRUCTIONS - MODEL 7-S

1. LOCATE GAUGE POSITION ON GROUND - MARK TOP EDGE OF TANK DIRECTLY ABOVE GROUND LOCATION.
2. MEASURE, CUT AND THREAD 2" PIPE (AS MARKED ON PRINT).
3. USE PIPE DOPE ON ALL CONNECTIONS.
4. ASSEMBLE BOTH A-30 ELBOWS AND 2" PIPE AS SHOWN ON PRINT.
5. SCREW (1) ELBOW A-30 ONTO 2" PIPE WITH REDUCING BUSHING, CLOSE NIPPLE AND UNION AS SHOWN ON PRINT; OTHER A-30 ELBOW ONTO 2" NIPPLE IN TANK THEN SCREW OTHER END OF 2" PIPE INTO TANK ELBOW, MAKE STRAIGHT WITH TANK MARKING.
6. LEVEL 2" PIPE, USE TEMPORARY WOOD BRACE OR ALIGNMENT FLANGE, IF NECESSARY.
7. SET GAUGE HOUSING WITH ECCENTRIC CAP ASSEMBLED ON GROUND DIRECTLY BELOW OVERHANGING ELBOW.
8. MEASURE FOR 1" PIPE (REDUCING BUSHING IN ELBOW TO ECCENTRIC CAP V-71 ON GAUGE HOUSING) ALLOW FOR THREADS, CUT AND THREAD 1" PIPE.
9. SCREW 1" PIPE INTO ELBOW, THEN REMOVE V-71 ECCENTRIC CAP FROM HOUSING AND PUT ON 1" PIPE. CAUTION - BE SURE ECCENTRIC CAP IS STRAIGHT AND 1" OUTLET IS FARTHEST AWAY FROM TANK.
10. FASTEN PULLEY RACK WITH LARGE PULLEY UP TO ECCENTRIC CAP USING STAINLESS STEEL PINS.
11. ASSEMBLE OTHER PULLEY RACK IN COUNTERWEIGHTS WITH LARGE PULLEY DOWN.
12. PLACE COUNTERWEIGHT ON GROUND DIRECTLY BENEATH ECCENTRIC CAP PULLEY RACK.
13. REMOVE A-33 CAPS FROM BOTH ELBOWS.
14. THREAD TAPE FROM TANK ELBOW WITH NUMBERS UP AND CLIP ENDS FIRST THROUGH 2" PIPE AND OVER ELBOW PULLEYS DOWN THROUGH 1" PIPE AND OUT ECCENTRIC CAP, STRAIGHT DOWN AND AROUND BOTTOM PULLEY IN C/W AND UP AND OVER TOP PULLEY IN ECCENTRIC CAP, DOWN TO MEDIUM PULLEY UP AND OVER MEDIUM PULLEY, DOWN AND AROUND SMALL PULLEY ON C/W AND UP AND AROUND SMALL PULLEY ON ECCENTRIC CAP, DOWN AND FASTEN TO LUG ON COUNTERWEIGHT PULLEY RACK - USE STAINLESS STEEL PIN. CAUTION - DO NOT THREAD TAPE OVER OR UNDER CROSS BARS IN PULLEY RACK. USE CAUTION - DO NOT KINK OR BEND TAPE.
15. FASTEN TAPE TO FLOAT WITH TAPE CLAMP (AS PER PRINT) CAUTION - DO NOT FASTEN TAPE CLAMP TOO TIGHT AS THIS MAY DAMAGE TAPE.
16. PLACE ECCENTRIC CAP GASKET ON HOUSING TOP AND INSERT COUNTERWEIGHT ASSEMBLY INTO HOUSING, CAUTION - DO NOT ALLOW C/W TO DROP OR JERK AS THIS MAY CAUSE DAMAGE TO BEARINGS, ALSO BE SURE THE TAPE IS IN GROOVE OF PULLEYS AND NOT ON THE EDGE.
17. FASTEN HOUSING TO ECCENTRIC CAP WITH OBSERVATION WINDOW DIRECTLY BELOW 1" PIPE.
18. PLACE OUTSIDE STRAND OF TAPE OVER TAPE GUIDE IN OBSERVATION WINDOW. CAUTION - DO NOT BEND OR KINK TAPE, AND PUT ONLY ONE(1) STRAND OF TAPE OVER THE TAPE GUIDE.
19. FIX BASE FOR HOUSING EITHER, CONCRETE, WOOD POST, OR STEEL PLATE WELDED TO TANK. - CAUTION - DO NOT WELD GAUGE HOUSING TO TANK.
20. PERFORM CALIBRATION AS DESCRIBED IN "CALIBRATION DETAILS - EMPTY TANK" (THIS DRAWING). IN PERFORMING THIS CALIBRATION, 1/2", 1/4" OR EVEN 1/8" IS NOT CLOSE ENOUGH. BE PARTICULAR; SET THE GAUGE AS CLOSE AS POSSIBLE TO THE CORRECT READING (1 3/8" FOR EMPTY TANK, TRUE FLUID LEVEL FOR NON EMPTY TANK).
21. CAUTION - LET FLOAT DOWN IN TANK EASILY, DO NOT LET IT DROP.
22. ASSEMBLE OBSERVATION FRAME AND LID A-34 & 38 PLACE ON HOUSING, TIGHTEN FOR VAPOR-PROOFING.
23. IN MOST CLIMATES, CONDENSATION FORMS INSIDE TANK AND GAUGE. A DRAIN PLUG HAS BEEN PROVIDED FOR DRAINING AT THE BOTTOM OF HOUSING. IN MOST CLIMATES THIS IS NECESSARY 2 TIMES A YEAR (SPRING & FALL). HOWEVER, IN EXTREME CASES DRAINING IS REQUIRED MORE OFTEN.

CALIBRATION DETAILS - EMPTY TANK

1. BEFORE CALIBRATION, COMPLETE INSTALLATION THROUGH STEP 19 OF INSTALLATION INSTRUCTIONS (THIS DRAWING).
2. IN ALL SUCCEEDING STEPS, BE CAREFUL NOT TO TWIST OR KINK THE TAPE.
3. THROUGH OPEN MANWAY AT THE TOP OF THE TANK, LOWER FLOAT SLOWLY AND LET IT COME TO REST GENTLY AT THE BOTTOM OF THE TANK, DIRECTLY BENEATH THE TANK ROOF FLANGE. BECAUSE THE TANK BOTTOM IS CONCAVE, THE FLOAT MAY TEND TO SIDESLIP TO THE CENTER OF THE TANK BOTTOM, THUS INTRODUCING ERROR INTO THE CALCULATION. GENTLY LOWERING THE FLOAT MINIMIZES THIS SLIPPAGE AND THE RESULTING ERROR.
4. DETERMINE THE REQUIRED TAPE ADJUSTMENT AS FOLLOWS: WITH THE FLOAT AT THE TANK BOTTOM DIRECTLY BENEATH THE ROOF FLANGE, RECORD THE TAPE READING AT THE OBSERVATION WINDOW. AN EMPTY TANK SHOULD READ 1 3/8" (THE FLOAT DRAFT). THE REQUIRED TAPE ADJUSTMENT CAN BE COMPUTED AS THE ACTUAL READING MINUS 1 3/8".
5. MARK THE TAPE AT THE POSITION AT WHICH IT IS FASTENED TO THE FLOAT. UNCLAMP THE TAPE FROM THE FLOAT. MEASURE OFF THE REQUIRED ADJUSTMENT USING A TAPE MEASURE AND MARK THE NEW POSITION. CUT THE TAPE TO SIZE, LEAVING ABOUT 2" EXCESS SLACK. THIS SLACK IS NECESSARY BECAUSE CUTTING OFF TOO MUCH TAPE WILL RENDER THE TAPE UNUSABLE. REFASTEN THE TAPE TO THE FLOAT AT THE NEWLY MARKED POSITION. DO NOT FASTEN THE TAPE CLAMP TOO TIGHTLY, AS THIS MAY DAMAGE THE TAPE.
6. REPEAT STEPS 3 & 4 TO CHECK THE CALIBRATION. IF THE ERROR IS LESS THAN 1", THE REMAINING ADJUSTMENT MAY BE MADE USING THE FINGER IN THE OBSERVATION WINDOW. FOR MAJOR ADJUSTMENTS (OVER 1"), REPEAT STEP 5.
7. WHEN CALIBRATION IS COMPLETE, CUT THE EXCESS TAPE AT FLOAT, LEAVING 6" FOR MINOR ADJUSTMENTS. LOWER THE FLOAT GENTLY TO THE TANK BOTTOM.

CALIBRATION DETAILS - NON-EMPTY TANK

1. DETERMINE THE REQUIRED TAPE ADJUSTMENT AS FOLLOWS:

   A) USE A MEASURING STICK OR WEIGHTED LINE TO MEASURE THE TRUE FLUID LEVEL IN THE TANK. BECAUSE THE CONCAVE BOTTOM OF THE TANK RESULTS IN VARYING DEPTHS, THIS MEASUREMENT SHOULD BE PERFORMED AS CLOSE AS POSSIBLE TO THE ACTUAL POSITION OF THE FLOAT IN THE TANK.

   B) RECORD THE TAPE READING AT THE OBSERVATION WINDOW.

   C) THE REQUIRED TAPE ADJUSTMENT CAN BE COMPUTED AS THE TAPE READING MINUS THE TRUE FLUID LEVEL.

2. TO GAIN ACCESS TO THE FLOAT AND TAPE IN THE TANK, OPEN THE MANWAY AT THE TOP OF THE TANK. ALSO REMOVE THE A-33 CAP FROM A-30 ELBOW ASSEMBLY. IN ALL SUCCEEDING STEPS, BE CAREFUL NOT TO TWIST OR KINK THE TAPE.
3. GRASPING THE TAPE THROUGH THE OPEN MANWAY, CAREFULLY RAISE THE FLOAT OUT OF THE TANK. MARK THE TAPE AT THE POSITION AT WHICH IT IS FASTENED TO THE FLOAT. UNCLAMP THE TAPE FROM THE FLOAT, MEASURE OFF THE REQUIRED ADJUSTMENT USING A TAPE MEASURE AND MARK THE NEW POSITION. CUT THE TAPE TO SIZE, LEAVING ABOUT 2" EXCESS SLACK. THIS SLACK IS NECESSARY BECAUSE CUTTING OFF TOO MUCH TAPE WILL RENDER THE TAPE UNUSABLE. REFASTEN THE TAPE TO THE FLOAT AT THE NEWLY MARKED POSITION. DO NOT FASTEN THE TAPE CLAMP TOO TIGHTLY, AS THIS MAY DAMAGE THE TAPE. CAREFULLY LOWER THE FLOAT INTO THE TANK.
4. REPEAT STEP 1 TO CHECK THE CALIBRATION. IF THE ERROR IS LESS THAN 1" THE REMAINING ADJUSTMENT MAY BE MADE USING THE FINGER IN THE OBSERVATION WINDOW. FOR MAJOR ADJUSTMENTS (OVER 1"), REPEAT STEP 3.
5. WHEN CALIBRATION IS COMPLETE, CUT THE EXCESS TAPE AT THE FLOAT, LEAVING 6" FOR MINOR ADJUSTMENTS. LOWER THE FLOAT GENTLY INTO THE TANK. REPLACE THE A-33 CAP ON THE A-30 ELBOW ASSEMBLY. CLOSE THE MANWAY.

MATERIAL LIST
MODEL 7-S

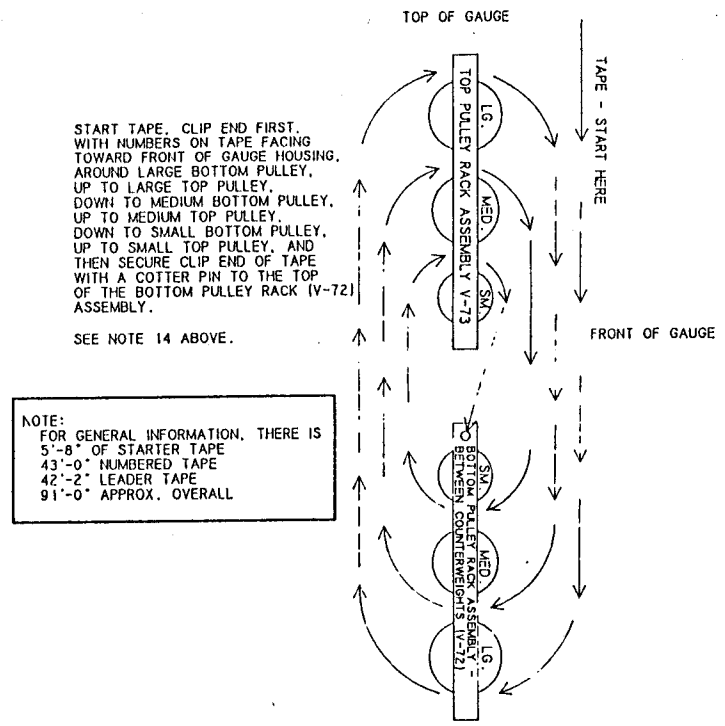
FOR ALL VERTICAL TANKS UP TO & INCLUDING 35'

[ ] MATERIAL SUPPLIED BY CONTRACTOR

1. GAUGE HOUSING BASE SUPPORT.
2. 1" GALVANIZED PIPE (CUT TO LENGTH).
3. TANK ROOF FLANGE.
4. 2" TANK OPENING PIPE.
5. 2" GALVANIZED PIPE (CUT TO LENGTH).
6. 1" GALVANIZED NIPPLE (ANY LENGTH).
7. 1" GALVANIZED UNION.

( ) MATERIAL SUPPLIED BY MOORMANN BROS. (SAFTY-KLEEN)

PART NAME	PART NO.	QUANTITY PER UNIT
8. OBSERVATION WINDOW ASSEMBLY	A-34-A-38	1
9. FLOAT	V-75	1
10. STAINLESS STEEL TAPE CLAMP & SCREWS	V-93	1
11. ELBOW ASSEMBLY COMPLETE	A-30, A-33	2
12. 2" TO 1" REDUCING BUSHING		1
13. ECCENTRIC CAP COMPLETE WITH NUTS & BOLTS	V-71	1
14. PULLEY RACK ASSEMBLY	V-73	2
15. LUFKIN STAINLESS STEEL HIGH VISIBILITY TAPE	V-49	1
16. RUST-PROOFED STEEL GAUGE HOUSING	V-77	1
17. COUNTERWEIGHT	V-72	2
18. CONDENSATION DRAIN PLUG		1
FRAME & LID ASSEMBLY FOR OBSERVATION WINDOW	A-34, A-38	1
GASKETS - SET FOR OBSERVATION WINDOW	V-81, V-82	1
GASKET - ELBOW CAP	V-83	2
GASKET - V-71 ECCENTRIC CAP	V-84	1
GLASS - WINDOW	V-86	1
STAINLESS STEEL INDICATOR FINGER FOR OBSERVATION WINDOW	V-94	1
WIRE PIN - STAINLESS STEEL	V-96	5



ENLARGED DETAIL SHOWING HOW TAPE IS WOUND ON PULLEY RACK ASSEMBLIES OF MOORMANN MODEL #7-S. CUT OFF EXCESS TAPE AT FLOAT.

GENERAL NOTES

1. TANK GAUGE ASSEMBLY SUPPLIED BY SAFETY-KLEEN CORP.
2. SEE INDIVIDUAL SERVICE CENTER SITE PLANS FOR LOCATION OF THE INSTALLATION.
3. GAUGE MUST BE ORDERED WITH THE PERFORATED TAPE FOR FUTURE REMOTE READ-OUT SYSTEM.
4. ALL EXPOSED NON-PROTECTED STEEL IS TO BE PAINTED PER SAFETY-KLEEN SPECIFICATIONS.
5. IF REQUIRED, ADDITIONAL VERBAL INSTALLATION INSTRUCTIONS CAN BE OBTAINED BY CALLING MOORMANN BROS. MFG. CO., RUSHVILLE, INDIANA - (317) 932-3590 - ASK FOR: BOB GAINES OR JIM RAVENCRAFT

FIGURE II.C.2-6

	DESCRIPTION	BY	CHKD	APPR	DATE
8	REVISED ITEM #, QTY # 9006	JHD			7-5-89
7	DRG. # WAS A10243	RD			2/8/89
6	REV'D NOTES 19-23 AND ADDITIONAL CALIBRATION INFORMATION	RD			1/12/89
5	RMV'D. HI-LEV. ALARM INFO.	RD			7/5/88
4	ADDED SAFETY-KLEEN PART #5	RD			2/15/88
3	ADDED ADDITIONAL HIGH LEVEL ALARM INFO	RD			10/5/87
2	ADDED TAPE WINDING INFO.	WLJ			6/2/87
1	ADDED NOTE 5	WLJ			2/11/87

REVISIONS

TITLE: MOORMANN BROS. TANK GAUGE INSTALLATION (DISHED BOTTOM TANKS ONLY)

SAFETY-KLEEN CORP.
777 BIG TIMBER ROAD, ELGIN, ILLINOIS 60120 PHONE 312/697-8460

PROJ. ENG. APPR.	OPERATIONS APPR.	SCALE	DRAWN	DATE
		NONE	WLJ	10/7/86

BRANCH: FOR SERVICE CENTER BRANCH
DRAWING NO.: STD-2015.

ATTACHMENT II.C.7

TANK SYSTEM SECONDARY CONTAINMENT

ATTACHMENT II.C.7
TANK SYSTEM SECONDARY CONTAINMENT

TANK FARM CONTAINMENT

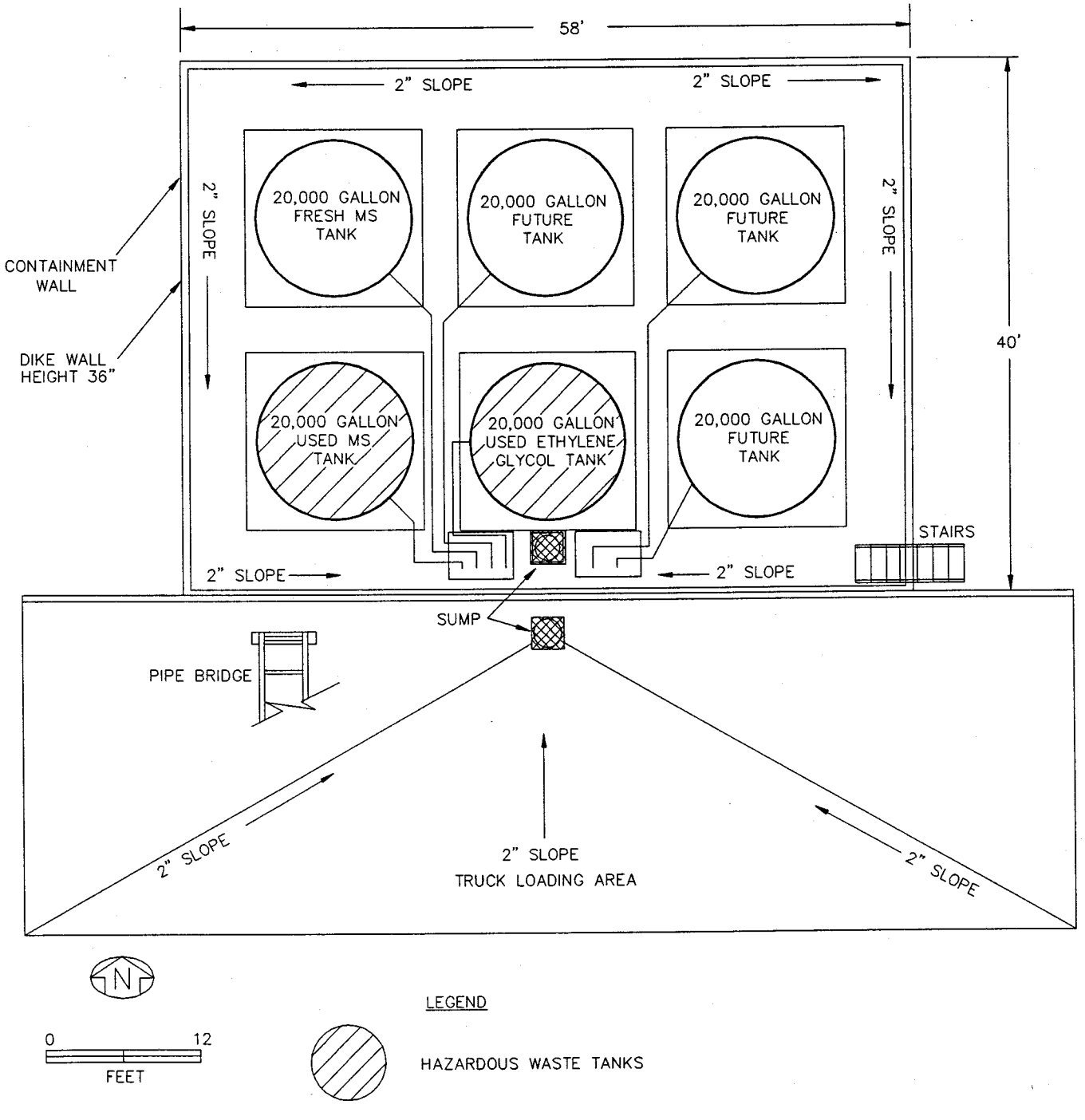
All tanks are aboveground, underlain by a 58' 0" x 40' 0" concrete slab, surrounded by a 36-inch to 38-inch high concrete dike, and will be covered by a roof by the end of July, 1992. The roof will extend over the tanker loading area. The dike is sealed with a chemical resistant coating (Semstone 140). Semstone 140 or equivalent will be used for any future repairs or recoating of the area. No surface run-on is in contact with the wastes stored in the tank farm, and no run-off collection and management system is deemed necessary. Precipitation management procedures are described in Attachments II.C.2 and II.C.9. The layout of the tank storage farm is provided in Figure II.C.7-1. It should be noted that the tank farm is designed to handle six 20,000-gallon tanks; however, only three have been installed to date. Containment calculations are in Figure II.C.7-2. These containment calculations are based on the presence of six tanks.

RETURN/FILL SHELTER CONTAINMENT

The return/fill shelter is located inside the center portion of the main building. The floor is sloped to two containment sumps. The entire area is coated with a chemical resistant coating (Semstone 140). Semstone 140 or equivalent will be used for any future repairs or recoating of this area. The barrel washers are on a raised grating which rests approximately 33 inches above the floor (Figure II.C.7-3).

The shelter is designed such that the route trucks can be backed inside the building and the garage doors shut so that no precipitation can get into the return/fill shelter containment area. The measured containment capacity for the return/fill area is 3,693 gallons which exceeds the storage capacity of the four dumpsters (504 gallons per dumpster, total of 2,016 gallons). The containment calculations are presented in Figure II.C.7-4.

Figure II.C.7-1
Tank Farm
Safety-Kleen Corp. Facility
Medley, Florida



NOTE: ENTIRE AREA IS CONCRETE

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Environmental Resources Management

Project CK - Naples W.O. No. 1312.21 Sheet 1 of 2
Subject Available Tank Capacity By JDS Date 7-16-92
Chkd by VH Date 7/16/92

TANK FARM (Figure II.C.7-1):

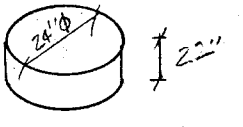
$$\text{Total Vol} = \text{Vol}_{\text{CONT.}} + \text{Vol}_{\text{Sump}} - \text{Vol}_{\text{TANK}} - \text{Vol}_{\text{PAD}} - \text{Vol}_{\text{RAINFALL}}$$

1. Containment Area:

$$V_c = (58'-16")(40'-16")\left(\frac{36+38"}{2}\right)$$
$$= (56.67')(38.67')(3.08')$$
$$= 6749.60\ ft^3\ (7.48\ gal/ft^3)$$
$$= 50,487.0\ gal$$

2. Sump ($qty = 1$):

$$V_S = \left(\pi \frac{d^2}{4}\right)(h)$$
$$= \pi \frac{(2)^2}{4}\left(22"/12\right) = 5.76\ ft^3$$
$$= 5.76\ ft^3\ (7.48\ gal/ft^3)$$
$$= 43.1\ gal$$



Circular Sump

ERM-South, Inc.
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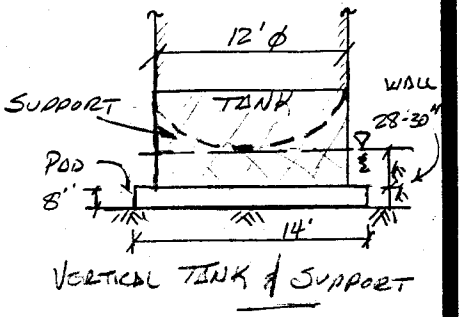
Project SK - Medley W.O. No. 13112.21 Sheet 2 of 2
Subject Available Storage Capacity By DS Date 7-16-92
TANK FARM Chkd by VH Date 7/16/92

3. Tank (Qty = 6, w/ 1 ruptured & 5 intact)



VERTICAL TANK & SUPPORT

(a) $V_T = 5\left(\pi \frac{(12)^2}{4}\right)\left(\frac{28+30"}{2(12)}\right)$

$= 1366.59\ ft^3 (7.48\ gal/ft^3)$

$= 10,222.1\ gal$

(b) $V_P = 6(14)(14)(8"/12)$

$= 784\ ft^3 (7.48\ gal/ft^3) = 5864.3\ gal$

4. Rainfall:

Based on 25yr - 24 Hr rainfall of 10 inches

V_R = (Containment Area)(Rainfall)

$= (56.67' \times 38.67')(10"/12)$

$= 1826.27\ ft^3 (7.48\ gal/ft^3) = 13,659.9\ gal$

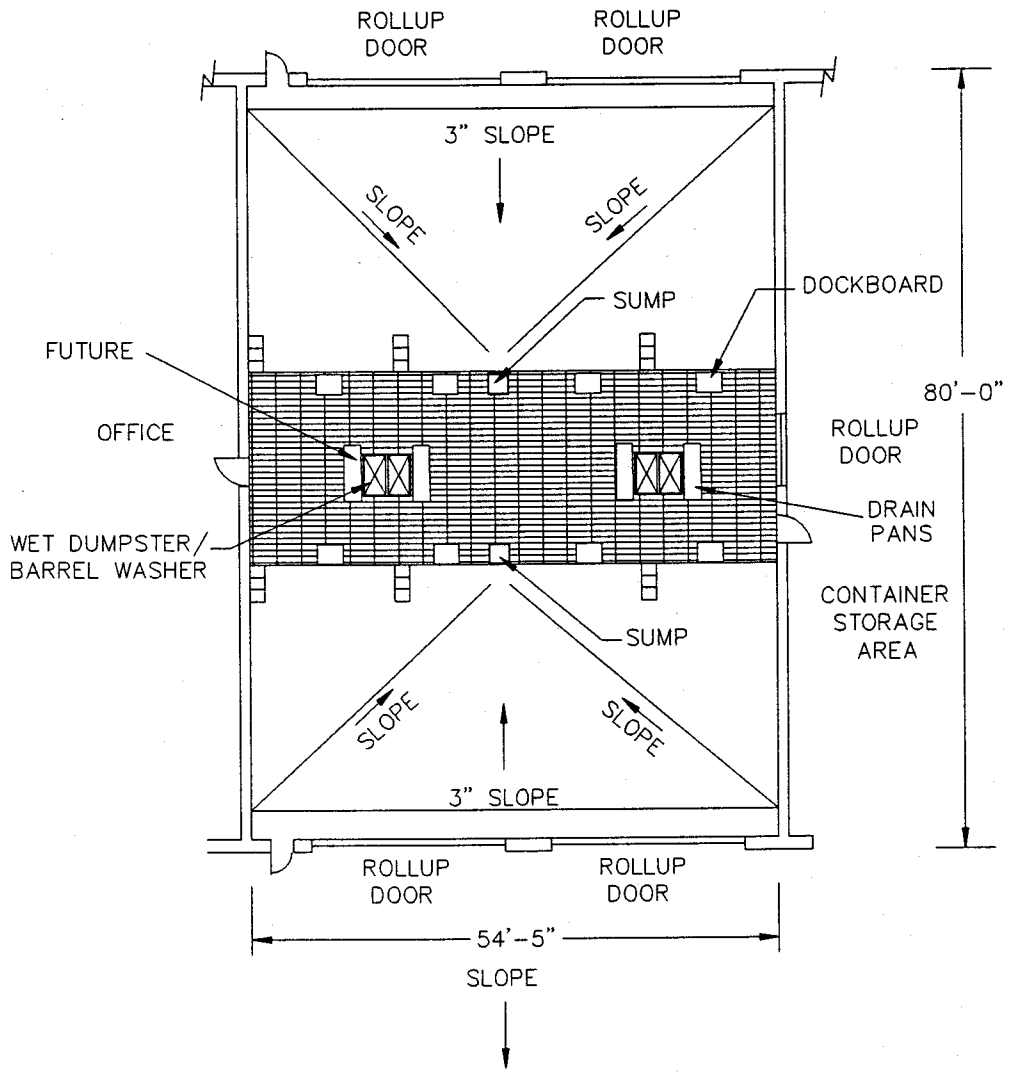
Total Available Storage Vol. = $V_C + V_S - V_T - V_P - V_R$

$Vol = (50,487.0 + 43.1 - 10,222.1 - 5864.3 - 13,659.9)\ gl$

$Vol = 20,783.8\ gal$

∴ Total Available Storage volume (20,783.8 gal) exceeds single tank volume (20,000 gal).

Figure II.C.7-3
Return/Fill Shelter
Safety-Kleen Corp. Facility
Medley, Florida



LEGEND

STEPS

GRATING

N

0 20

FEET

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Project SK - Medley W.O. No. 13112.21 Sheet 1 of 4
Subject Available Storage Capacity By DJ Date 7-16-92
Chkd by VH Date 7/16/92

RETURN/FILL SHELTER (Figure II.C.7-3)

Total Available Storage Vol = $V_{Sloped\ Floor} + V_{Sumps} - V_{Barrel\ Washer} - V_{supports}$

$$Vol = V_{SF} + V_S - V_{BW} - V_{ST}$$

1. Sloped Floor (see attached sketch):

$$A_1 = \pi d^2/4 = \pi \frac{(2)^2}{4} = 3.14\ ft^2 \quad \text{(sump)}$$

$$A_2 = (12'3" + 2' + 10')(12'4" + 2' + 11'4")$$
$$= (24.25')(25.67') = 622.42\ ft^2 \quad \text{(Pool @ 1½")}$$

$$A_3 = (2[12'3"] + 2' + 10')(2[12'4"] + 2' + 2[11'4"])$$
$$= (36.50')(49.32) = 1800.67\ ft^2 \quad \text{(Pool @ 3")}$$

$$Vol\ @\ 1½" = \frac{1.5"}{12}\left(3.14 + 622.42 + [(3.14)(622.42)]^{1/2}\right)/3$$
$$= 27.91\ ft^3\ (7.48\ gal/ft^3)$$
$$= 208.7\ gal$$

$$Vol\ @\ 3" = \frac{1.5"}{12}\left(622.42 + 1800.67 + [(622.42)(1800.67)]^{1/2}\right)/3$$
$$= 145.07\ ft^3\ (7.48\ gal/ft^3)$$
$$= 1085.2\ gal$$

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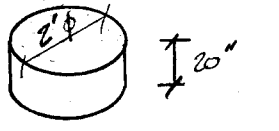
Environmental Resources Management

Project SK - Hedley W.O. No. 13112.21 Sheet 2 of 4
Subject Available Storage Capacity By DS Date 7-16-92
Return/Fill Shelter Chkd by VH Date 7/16/92

Since the Return/Fill Shelter is symmetrical:

$$Vol_{SF} = 2(Vol @ 1\frac{1}{2}" + Vol @ 3")$$
$$= 2(208.7 gal + 1085.2 gal)$$
$$= 2587.7 gal$$

2. Sump ($Qty = 2$):

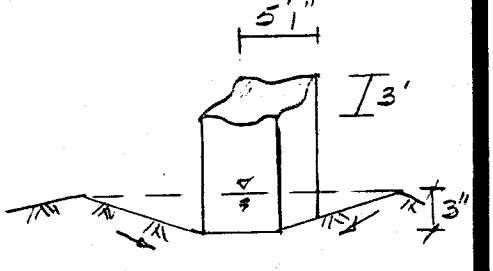


Circular Sump

$$A_1 = 3.14 ft^2$$
$$V_S = 2(3.14 ft^2)(20"/12 ft) =$$
$$= 10.47 ft^3 (7.48 gal/ft^3) = 78.3 gal$$

3. Barrel Washers ($Qty = 4$):

$$V_{BW} = 4(5'1")(3')(3")$$
$$= 4(5.08')(3)(0.25')$$
$$= 15.24 ft^3 (7.48 gal/ft^3)$$
$$= 114.0 gal$$



Barrel Washer

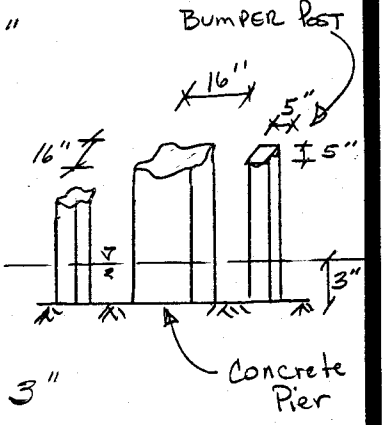
ERM-South, Inc.
Environmental Resources Management

Project SK - Medley W.O. No. 13112.21 Sheet 3 of 4
Subject Available Storage Capacity By DS Date 7-16-92
Return Fill Shelter Chkd by VH Date 7/16/92

4 Supports:

(a) Bumper Packs (Qty = 16) @ 5" x 5" x 3"

$$Vol_{BP} = 16\left(5" \times 5" \times 3"\right)\left(\frac{ft^3}{1728\ in^3}\right)$$
$$= 0.69\ ft^3\ (7.48\ gal/ft^3)$$
$$= 5.19\ gal$$



(b) Concrete Pier (Qty = 12) @ 16" x 16" x 3"

$$Vol_{CP} = 12\left(16" \times 16" \times 3"\right)\left(\frac{1}{1728}\right)$$
$$= 5.33\ ft^3\ (7.48\ gal/ft^3)$$
$$= 39.89\ gal$$

$$V_{ST} = Vol_{BP} + Vol_{CP}$$
$$= 5.19\ gal + 39.89\ gal$$
$$= 45.1\ gal$$

TOTAL AVAILABLE STORAGE VOL. $= V_{SF} + V_S - V_{BW} - V_{ST}$

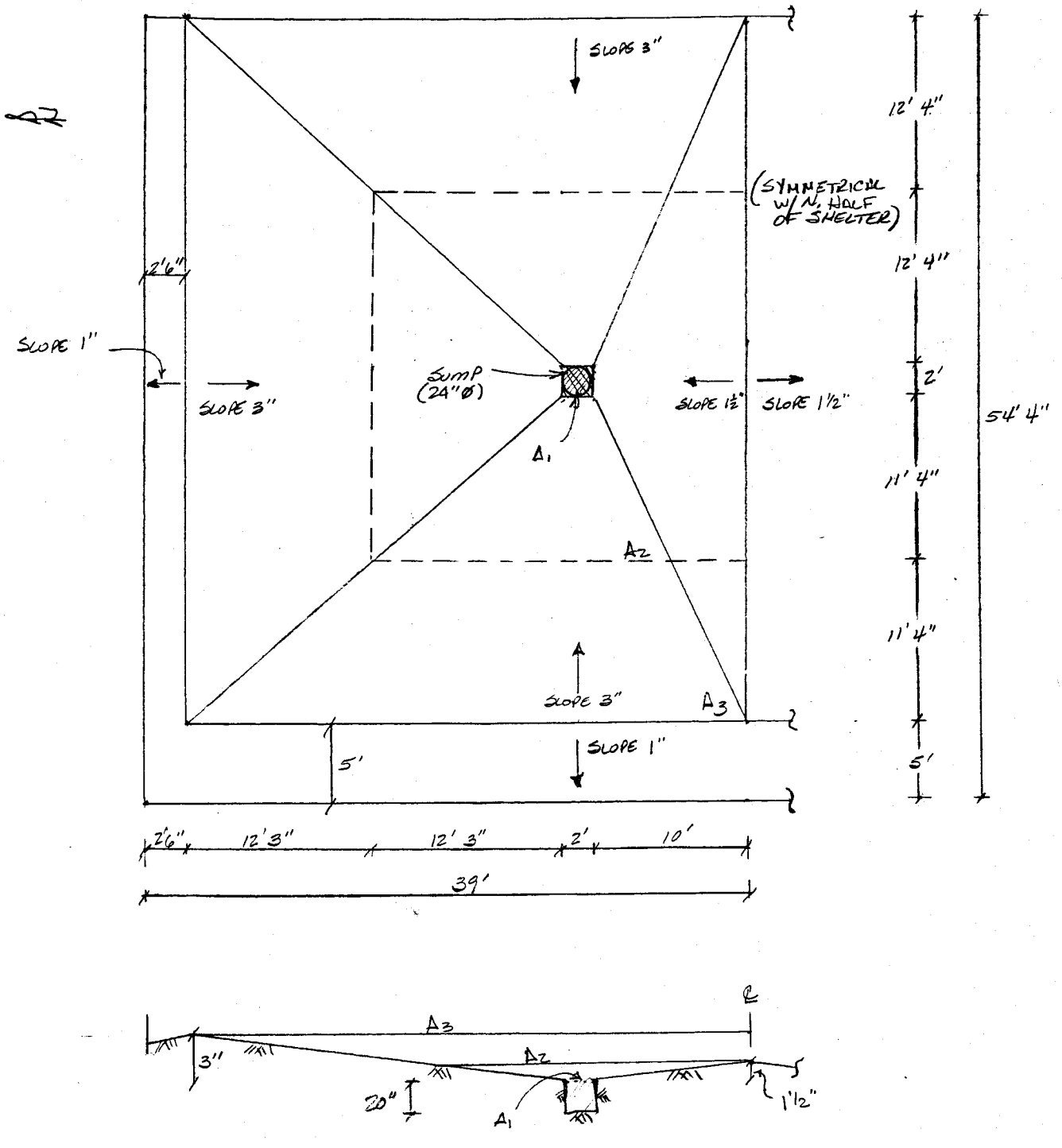
$$Vol = (2587.7 + 78.3 - 1140 - 45.1)\ gal$$
$$= 2506.9\ gal$$

∴ Allowable Storage capacity = 25,069 gal
w/single container ≈ 2507 gal

ERM-South, Inc.
Environmental Resources Management

Project SK - Hadley W.O. No. 13112.21 Sheet 4 of 4
Subject Available Storage Capacity By DS Date 7-16-9-
Return/Fill Shelter Chkd by Date

SLOPED FLOOR CONFIGURATION



DEFINITIONS:

A_1 = Surface Area of Sump

A_2 = Surface Area of Pool @ 1½" depth

A_3 = Surface Area of Pool @ 3" depth

ATTACHMENT II.C.9

CONTROLS AND SPILL PREVENTION

ATTACHMENT II.C.9
CONTROLS AND SPILL PREVENTION

The facility includes the capacity for six aboveground steel tanks. Used mineral spirits housed in containers returned from the customers is transferred via the wet dumpster into a 20,000-gallon tank, awaiting bulk shipment to the recycle center. The other two installed tanks consist of one 20,000-gallon mineral spirits product tank, and one 20,000-gallon spent ethylene glycol tank. The remaining three tanks are intended for future installation.

Mineral spirits (petroleum naphtha) and ethylene glycol are compatible with the mild steel tank structure; in fact, mineral spirits are often used as a light hydrocarbon coating to prevent rusting of metal parts. As with all petroleum storage vessels, water will accumulate over time due to condensation. The mineral spirits have a specific gravity less than water and the water will accumulate in the bottom of the tank. Ethylene glycol and water are soluble in all proportions and no separate water plume will form in this tank. There is the potential for corrosion of the tank at the product/water interface.

Spent mineral spirits from parts washers is accumulated in the 20,000-gallon aboveground storage tank by transfer through the return and fill station. Containers of spent solvent are poured into the dumpsters (barrel washers) in the return and fill shelter, and material in the dumpster is pumped into the storage tank for spent solvent. The return and fill shelter has secondary containment.

The barrel washers are located within the return and fill shelter. The drawings (Figures II.C.2-2(a) through II.C.2-2(j)) provide detailed information on the barrel washer. The barrel washer is a totally enclosed unit.

The spent ethylene glycol that arrives at the service center in tanker trucks is pumped directly into the spent ethylene glycol tank. The tanker truck connects to the fill nozzles located on the south side of the tank farm.

The tanks are designed and constructed to be compatible with the materials stored in them. Typical construction and installation standards for the aboveground tanks are discussed in Attachment II.C.2. All tanks are vented in accordance with National Fire Protection Association (NFPA) standards, and the tanks are equipped with high level-alarms.

Attachment II.C.1 provides an independent assessment of the tank system performed upon completion of construction. The following is a concise description of the main features of the tank system.

All tanks are aboveground, underlain by a 58' 0" x 40' 0" concrete slab, surrounded by a 36-inch to 38-inch high concrete dike and will be covered by a roof by the end of July 1992. Therefore, no surface run-on or precipitation is in contact with the wastes stored in the tank farm and no run-off collection and management system is deemed necessary. If rainwater does accumulate in the containment area and it has been verified that no spill has occurred, then 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, then the rainwater will be pumped into drums and added to the used mineral spirits tank via the wet dumpsters. The tank farm dike is sealed with a chemical resistant coating (Semstone 140). Semstone 140 or equivalent will be used for all future repairs or recoating of this area. Level gauges (Figure II.C.2-6) are used to measure liquid levels in tanks and float switch-activated automatic high level alarms (which consist of a strobe light and siren) signal the tank's being 95 percent full. The exact brand of level gauges in use is at least equivalent to

those shown in Figure II.C.2-6. This alarm allows an operator more than two minutes to stop operations and avoid overfilling the tank. In addition, the gauges of the tank are read before filling and before and during the filling of a tanker truck (the available volume of which is noted prior to emptying the tank) to prevent overfilling of the truck or the tank. A tanker truck provided with a suction pump is used to withdraw used mineral spirits and spent ethylene glycol from the tank. No other equipment or standby equipment is used in the operation of the aboveground tanks. The secondary containment under the tanks and return/fill station is cleaned within 24 hours of a spill.

ATTACHMENT II.C.10

TANK SYSTEM INSPECTIONS

ATTACHMENT II.C.10
TANK SYSTEM INSPECTIONS

The purpose of the inspection plan is to establish a procedure and schedule for the systematic monitoring and inspection of hazardous waste management and other material management facilities to ensure proper operation and maintain compliance.

The Branch Manager or his designate is 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 designee inspects the facility weekly for security (gates and locks) using the inspection log (Figure II.C.10-1 or similar), and any evidence of sticking, corrosion, or uncommon activity. The facility fence is checked weekly for deterioration, gaps under the fence, and broken wire ties. The Weekly Inspection log is shown in Figure II.C.10-2.

Figure II.C.10-3 presents the daily inspection log for the tank system. Daily inspections of tanks and dumpsters consist of the following:

- Physically examine the tank area to verify that no leaks have occurred since the last inspection.
- Verify that no tanks have been damaged and rusted to the point of near leakage.
- Examine and verify that all tank identification, dates, loading data, hazardous waste labels are attached and current.

Daily inspections of containment consist of the following:

FIGURE II.C.10-1

INSPECTION LOG SHEET FOR WEEKLY INSPECTION OF GATES AND LOCKS

Check all gates and locks for security, sticking, corrosion, lack of warning signs, or uncommon activity.

Name	Date	Time	Status

FIGURE II.C.10-2

INSPECTION LOG SHEET FOR: Weekly Inspection of SAFETY AND EMERGENCY EQUIPMENT SECURITY DEVICES AND MISCELLANEOUS EQUIPMENT

INSPECTOR'S NAME/TITLE: _____

INSPECTOR'S SIGNATURE: _____

DATE OF INSPECTION (Month/Day/Year): _____

TIME OF INSPECTION: _____

SAFETY AND EMERGENCY EQUIPMENT

Fire Extinguishers: A* N

If "N" circle appropriate problem: overdue inspection, inadequately charged, inaccessible, other: _____

Eyewash and Shower: A N

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

First-Aid Kit: A N

If "N" circle appropriate problem: inadequate inventory, other: _____

Spill Cleanup Equipment: A N

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

Personal Protection Equipment: A N

If "N" circle appropriate problem: inadequate supply of aprons, gloves, glasses, respirator, other: _____

SECURITY DEVICES:

Gates and Locks: A N

If "N" circle appropriate problem: sticking, corrosion, lack of warning signs, fit, other: _____

Fence: A N

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

MISCELLANEOUS EQUIPMENT:

Dry Dumpster: A N

If "N" circle appropriate problem: rust, corrosion, split seams, distortion, deterioration, excess debris, liquids in unit, other: _____

OBSERVATIONS, COMMENTS, DATE, AND NATURE OF ANY REPAIRS: _____

*A = Acceptable
N = Nonacceptable

FIGURE II.C.10-3

INSPECTION LOG SHEET FOR: Daily Inspection of STORAGE TANK SYSTEM

INSPECTOR'S NAME/TITLE: _____

INSPECTOR'S SIGNATURE: _____

	MON	TUE	WED	THU	FRI
Date: (Month/Day/Year)					
Time:					
STORAGE TANKS: (TANKS MUST NEVER BE MORE THAN 95% FULL!)					
Volume in Product Tank (in/gal)					
Volume in Second Product Tank (in/gal)					
Volume in Waste MS Tank (in/gal)					
Volume in Waste Ethylene Glycol Tank (in/gal)					
Volume in Third Waste Tank (in/gal)					

Tank Exterior A* N A N A N A N A N

If "N" circle appropriate problem: rusty or loose anchoring, lack of grounding, wet spots, discoloration, leaks, distortion, other: _____

High Level Alarms A N A N A N A N A N

If "N" circle appropriate problem: malfunctioning "Power On" light, malfunctioning siren/strobe light, other: ___

Volume Gauges A N A N A N A N A N

If "N" circle appropriate problem: disconnected, sticking, condensation, other: _____

CONTAINMENT AREA (Tank Dike):

Bottoms and Walls A N A N A N A N A N

If "N" circle appropriate problem: cracks, debris in dike, open drums in dike, ponding/wet spots/stains, deterioration, displacement, leaks, other: _____

Self-Closing Drain Valve A N A N A N A N A N

If "N" circle appropriate problem: open, leaks, other: _____

Rigid Piping and Supports A N A N A N A N A N

If "N" circle appropriate problem: distortion, corrosion, paint failure, leaks, other: _____

OBSERVATIONS, COMMENTS, DATE, AND NATURE OF ANY REPAIRS: _____

*A = ACCEPTABLE
N = NOT ACCEPTABLE

FIGURE II.C.10-3 - Continued

INSPECTION LOG SHEET FOR: Daily Inspection of STORAGE TANK SYSTEM

INSPECTOR'S NAME/TITLE: _____

INSPECTOR'S SIGNATURE: _____

TRANSFER PUMPS AND HOSES

Pump Seals	A*	N	A	N	A	N	A	N	A	N
If "N" circle appropriate problem: leaks, other: _____										
Motors	A	N	A	N	A	N	A	N	A	N
If "N" circle appropriate problem: overheating, other: _____										
Fittings	A	N	A	N	A	N	A	N	A	N
If "N" circle appropriate problem: leaks, other: _____										
Valves	A	N	A	N	A	N	A	N	A	N
If "N" circle appropriate problem: leaks, sticking, other: _____										
Hose Connections and Fittings	A	N	A	N	A	N	A	N	A	N
If "N" circle appropriate problem: cracked, loose, leaks, other: _____										
Hose Body	A	N	A	N	A	N	A	N	A	N
If "N" circle appropriate problem: crushed, cracked, thin spots, leaks, other: _____										

RETURN AND FILL STATION

Wet Dumpster	A	N	A	N	A	N	A	N	A	N
If "N" circle appropriate problem: excess sediment buildup, leaks, rust, split seams, distortion, deterioration, excess debris, other: _____										
Secondary Containment	A	N	A	N	A	N	A	N	A	N
If "N" circle appropriate problem: excess sediment/liquid, leaks, deterioration, distortion, excess debris, other: _										
Loading/Unloading Area	A	N	A	N	A	N	A	N	A	N
If "N" circle appropriate problem: cracks, ponding/wet spots, deterioration, other: _____										

OBSERVATIONS, COMMENTS, DATE, AND NATURE OF ANY REPAIRS: _____

_____

_____

_____

*A = ACCEPTABLE
N = NOT ACCEPTABLE

- Physically examine containment areas to detect signs of deterioration and failure of the containment system such as cracks, breakage, settling, and spillage.

In addition to daily inspections, each waste tank is inspected once every five years by a Professional Engineer registered in Florida. A general structural inspection, hydraulic test of the tank, internal inspection, and wall thickness inspection is made.

This inspection and testing involves withdrawal of contents, a squeegee cleaning, visual inspection and performance of hydrostatic or pneumatic test per manufacturer's instructions, or other leak detection tests. Frequency and method of future inspection and testing is determined based upon results of prior evaluations.

ATTACHMENT II.C.12(a)

TANK SYSTEM CLOSURE PLAN

ATTACHMENT II.C.12(a)
TANK SYSTEM CLOSURE PLAN

The Closure Plan for the tank farm is incorporated into the Closure Plan for the entire facility presented in Attachment II.K.1.

ATTACHMENT II.C.12(b)

TANK SYSTEM CONTINGENT POST-CLOSURE PLAN

ATTACHMENT II.C.12(b)
TANK SYSTEM CONTINGENT POST-CLOSURE PLAN

See Attachment II.K.2 for a discussion of the Tank System Contingent Post-Closure Plan.

ATTACHMENT II.C.13

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

ATTACHMENT II.C.13

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

In the event that a leak or spill were to occur from a tank system or secondary containment system, the actions identified herein will be undertaken.

IMMEDIATE RESPONSE

All waste flow to the tank system in question will be ceased immediately. An inspection will be undertaken to identify the cause of the release. Waste flow to the tank system will not be reinstituted until the tank system has been inspected, repaired, and declared fit for use.

In order to prevent further releases, or to allow inspection and a repair of the system, it may be necessary to remove the waste from the tank system. This waste removal will occur within 24 hours after detection of the leak, or at the earliest practicable time.

All material released to the secondary containment area will be removed within 24 hours, or in as timely a manner as possible, to prevent harm to human health and the environment. Every reasonable effort will be made to prevent migration of the release to soils or surface water.

If necessary, visible contamination of surface water and soil will be removed and properly disposed of.

NOTIFICATIONS

If a spill from a tank system is less than one pound and is immediately contained and cleaned up, no notifications are required. All other releases require notification to the Regional Administrator and Florida Department of Environmental Regulation (FDER).

The reporting requirements identified in the Contingency Plan will satisfy this requirement.

SUBSEQUENT REPORTING

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

1. Likely route of migration of the release;

2. Characteristics of the surrounding soil (soil composition, geology, hydrogeology, climate);

3. Results of any monitoring or sampling conducted in connection with the release. If sampling has occurred and is not available within 30 days, it must be submitted as soon as available.

4. Proximity to downgradient drinking water, surface water, and populated areas; and

5. Description of response actions taken or planned.

REPAIR OR CLOSURE

If the integrity of the containment system has not been damaged, then the system may be returned to service as soon as the released waste is removed and repairs, if necessary, are made.

If the tank was the source of the release, then the tank must be repaired prior to returning the tank system to service.

If the release was from a tank system component which did not have secondary containment, then secondary containment must provide for this component before the system can be returned to service. The exception to this is if the component can be visually inspected. In this instance, the component may be repaired and returned to service. If a component is replaced, then the component must satisfy the requirements for new tank systems and components.

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

If repairs that meet these requirements cannot be performed, then the tank system must be closed in accordance with the Closure Plan.

PART II K

CLOSURE

ATTACHMENT II.K.1

CLOSURE PLAN

ATTACHMENT II.K.1
CLOSURE PLAN

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.

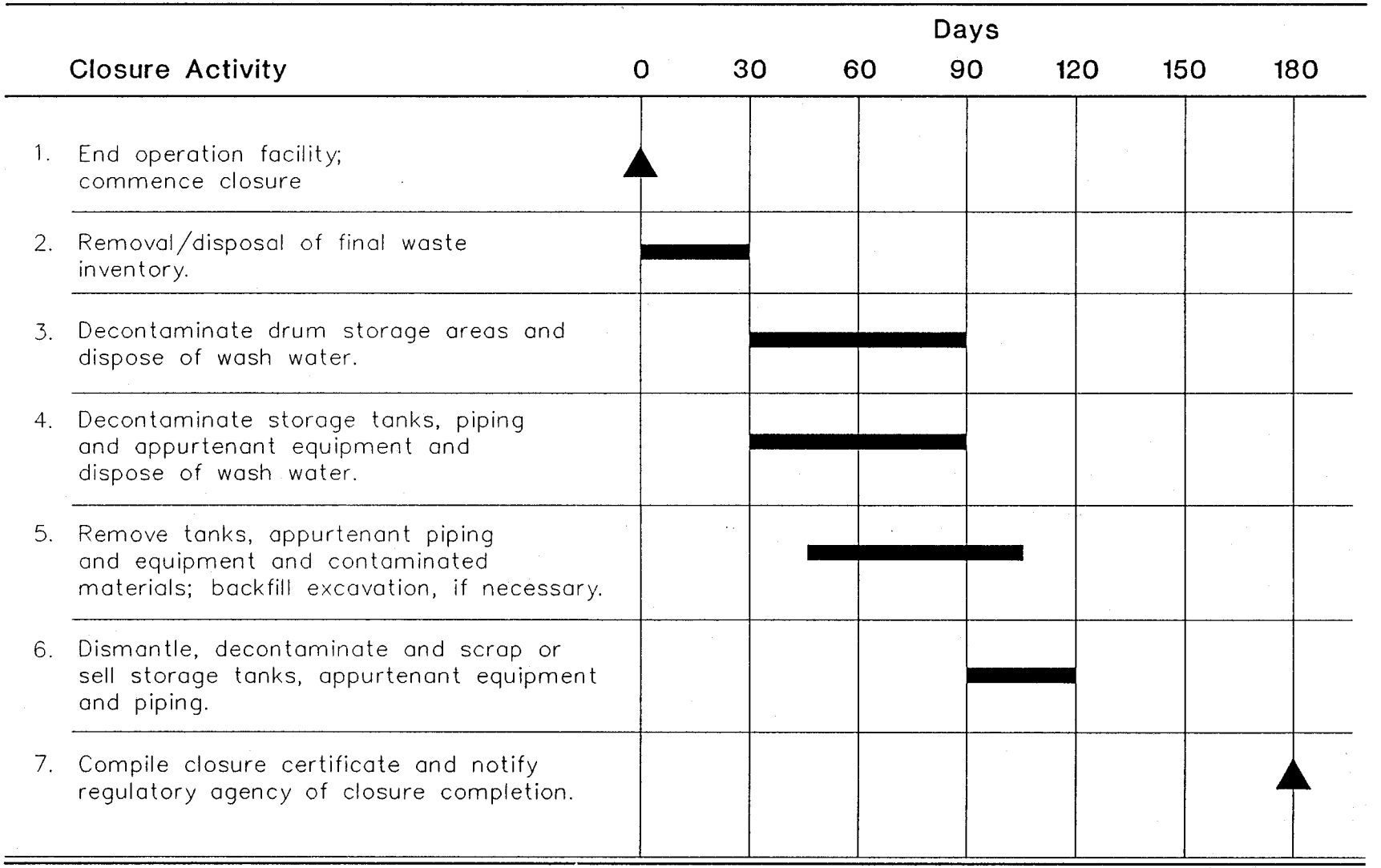
In the event that some presently unforeseen circumstance(s) results in the discontinuance of operations and permanent closure or sale of the facility, the following closure plan is designed to identify the steps necessary to completely close the facility at any point during its intended life, and should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



The ERM Group ®

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.

MEDLEY, FLORIDA SERVICE CENTER
CLOSURE COST ESTIMATE

1. TANK CLOSURE - Open, remove contents of, clean, remove, and dispose of two 20,000-gallon aboveground storage tanks

   Phase II - Remove Contents and Clean

   a. Ship contents to a reclaimer (approximately 38,000 gallons @ 95% capacity)

      Crew:

8 truck drivers @ $17.56/hr. x 8 hrs.	$ 1,123.84
2 20,000-gallon tanks x 95% = 38,000 gal. 38,000 ÷ 5,000 gal/truck = 8 trucks	
8 trucks x 80 miles x 1.75/loaded mile	$ 1,120.00
Reclamation cost ($0.30/gal. x 38,000 gal.)	$11,400.00

   b. Clean tanks

      Crew:

1 foreman @ $18.30/hr. x 24 hrs.	$ 439.20
2 laborers ($17.00/hr. & $3.00/hr. hazard pay) x 24 hrs.	$ 960.00
c. Pressure washer (2 days @ $400/day)	$ 800.00
d. Disposal and transportation of wash water (4,000 gal. @ $0.50/gal.)	$ 2,000.00
e. Transportation of wastewater (1,250 miles x $1.75/loaded mile)	$ 2,187.50
f. Analysis of 2 rinsate samples (1 per tank)	$ 400.00
TOTAL PHASE I	**$20,430.54**

Phase III - Remove and Dispose of Tanks

a. Disconnect and remove appurtenant equipment

Crew:

1 foreman @ $18.30/hr x 8 hrs.		$ 146.00
4 laborers @ $17.00/hr x 8 hrs.		$ 544.00

b. Remove tanks

Crew:

1 foreman	$18.30/hr. x 8 hrs.	$ 146.40
4 laborers	$16.80/hr. x 8 hrs.	$ 537.60
1 backhoe	$250/day x 1 day	$ 250.00
1 crane w/operator	$500/day x 1 day	$ 500.00

c. Decontaminate and remove secondary containment system

Crew:

1 foreman	$18.30/hr. x 24 hrs.	$ 439.20
3 laborers	$16.80/hr. x 24 hrs.	$ 1,209.60
1 backhoe	$250/day x 2 days	$ 500.00
1 jackhammer	$150/day x 2 days	$ 300.00
1 pressure washer	$200/day x 1 day	$ 200.00
Test rinsate	(2 @ $200 each)	$ 400.00
Remove and dispose of rinsate	$0.50/gal. x 1,000 gal.	$ 500.00
Remove and dispose of concrete	$50/ton x 70 tons	$ 3,500.00
	TOTAL PHASE III	**$ 9,172.80**

Phase IV - Backfilling, Regrading, Soil Testing

a. Tests for soil contamination (1 per tank, 1 per pipe system)

4 samples x $640.00/each		$ 2,560.00

b. Test backfill material (1 sample @ $320) $ 320.00

c. Regrading

Crew:

1 foreman	$18.30/hr. x 8 hrs.	$ 146.40
1 laborer	$16.80/hr. x 8 hrs.	$ 134.40
Front-end loader	$350/day x 1 day	$ 350.00
Backfill (assume 20 CY required)	$10/CY x 20 CY	$ 200.00
	TOTAL PHASE IV	**$ 3,710.80**

Summary of Closure Costs for 2 20,000-Gallon Tanks

Phase II	$20,430.54
Phase III	$ 9,172.80
Phase IV	$ 3,710.80
TOTAL	**$33,314.14**

Phase V - CLOSURE OF CONTAINER STORAGE AREA -

Remove and return containers to a reclaimer,
clean the container storage area,
and dispose of wash water generated

a.	3 truck drivers @ $17.56/hr. x 8 hrs.	$ 421.44
	3 trucks @ $750.00 lump sum	$ 750.00
	Hauling cost - 180 miles x $1.75/mile	$ 312.00
b.	Clean drum storage area	
	Crew:	
	1 foreman @ $18.30/hr. x 10 hrs.	$ 183.00
	1 laborer ($17.00/hr. & $3.00/hr. hazard pay) x 10 hrs.	$ 183.00
c.	Dispose of wash water - 700 gal. x $0.50/gal.	$ 350.00
	350 gal. (RCRA disposal) @ $1.50/gal	$ 525.00
d.	Dispose of used solvents - 126 drums x $30.00/drum	$ 3,900.00
e.	Testing for contamination - 2 samples x $640.00/each	$ 1,280.00
	Testing of rinsewater - 2 rinsate x $320 each	$ 640.00
	TOTAL DRUM CLOSURE COST	**$ 8,544.44**

Phase VII - CLOSURE OF RETURN/FILL SHELTER -

Remove, package, and dispose of sludge;
clean the dumpster and dock area;
remove dumpster and dock structure for reuse

a. Clean dumpster and dock area

Crew:

1 foreman @ $18.30/hr. x 16 hrs.	$ 292.80
1 laborer ($17.00/hr. & $3.00/hr. hazard pay) x 16 hrs.	$ 320.00
Pressure washer @ $400/day	$ 800.00

b. Disposal of wash water - 1,000 gal. x $0.50/gal. $ 500.00

c. Dispose of dumpster mud - 16 55-gal. drums x $300/drum $ 4,800.00

d. Testing for contamination (soil) - 2 samples x $320.00/each $ 640.00
Test rinsewater - 1 sample x $320.00/each $ 320.00

e. Torch, disassemble, and remove dumpster and dock

Crew:

1 foreman @ $18.30/hr. x 16 hrs.	$ 292.80
2 laborers @ $17.00/hr. x 16 hrs.	$ 578.00
Equipment	$ 350.00
TOTAL DOCK CLOSURE COSTS	**$ 8,893.60**

5. PROFESSIONAL ENGINEER CERTIFICATION	$ 1,200.00
6. TOTAL CLOSURE COSTS	
Two 20,000-Gallon Tanks	$33,314.14
Container Storage Area	$ 8,544.44
Return/Fill Shelter	$ 8,893.60
Professional Engineer Certification	$ 1,200.00
TOTAL	**$51,952.18**

NOTE: These estimates are based on third-party costs.

ATTACHMENT II.K.2

CONTINGENT POST-CLOSURE PLAN

ATTACHMENT II.K.2
CONTINGENT POST-CLOSURE PLAN

Closure and post-closure regulations have been promulgated by the United States Environmental Protection Agency (EPA) at 40 CFR, Part 264, Subpart G for permitted hazardous waste facilities. Specific post-closure requirements for hazardous waste storage tanks are contained in 40 CFR 264, Subpart J. The FDER has adopted these regulations by reference in Chapter 17-730.180 of the Florida Administrative Code (FAC).

264.197(c) requires post-closure of tanks as landfills if the tank system does not have secondary containment that meets the requirements of 264.193(b) through (f) or been granted a variance from secondary containment requirements in accordance with 264.193(g). The tank system at Medley meets the requirements of 264.193, and is, therefore, not required to have a contingent post-closure plan under 264.197(c).

264.197(b) requires post-closure of tanks as landfills if the owner or operator demonstrates that not all contaminated soils can be practically removed or decontaminated. At the present time, Safety-Kleen intends at the time of closure to remove or decontaminate all tank system components, associated containment systems, and contaminated soils. If at a subsequent time or at the time of the closure permit application, it is determined that all contaminated soils and tank system components cannot practicably be decontaminated or removed, then a plan to perform post-closure care in accordance with the post-closure care requirements that apply to landfills (Part 264-310) will be prepared and submitted for FDER approval.

P. Information Regarding Potential Releases From Solid Waste Management Units

Facility name: Safety-Kleen Corp. Medley, Florida

EPA I.D. Number: FLD 984171694

Location: City Medley

State Florida

1. Are there any of the following solid waste management units (existing or closed) at your facility?
NOTE: DO NOT INCLUDE HAZARDOUS WASTES UNITS CURRENTLY SHOWN IN YOUR PART B APPLICATION

	YES	NO
■ Landfill	___	X
■ Surface impoundment	___	X
■ Land farm	___	X
■ Waste pile	___	X
■ Incinerator	___	X
■ Storage tank	___	X
■ Container storage area	___	X
■ Injection wells	___	X
■ Wastewater treatment units	___	X
■ Transfer stations	___	X
■ Waste recycling operations	___	X
■ Land treatment facility	___	X

2. If there are "Yes" answers to any of the items in 1. above, please provide a description of the wastes that were stored, treated or disposed of in each unit. In particular please focus on whether or not the wastes would be considered as hazardous wastes or hazardous constituents under RCRA. Also include any available data on quantities or volumes of wastes disposed of and the dates of disposal. Please also provide a description of each unit and include capacity, dimensions, and location at facility. Provide a site plan if available.

Not applicable

NOTE: HAZARDOUS WASTES ARE THOSE IDENTIFIED IN 40 CFR PART 261. HAZARDOUS CONSTITUENTS ARE THOSE LISTED IN APPENDIX VIII OF 40 CFR PART 261.

3. For the units noted in 1. above and also those hazardous waste units in your Part B application, please describe for each unit any data available on any prior or current releases of hazardous wastes or constituents to the environment that may have occurred in the past or still be occurring.

Please provide the following information:

a. Date of release
b. Type of waste released
c. Quantity or volume of waste released
d. Describe nature of release (i.e., spill, overflow, ruptured pipe or tank, etc.)

This is a new facility. Hazardous wastes have not been stored on site.

4. In regard to the prior releases described in 3. above, please provide (for each unit) any analytical data that may be available which would describe the nature and extent of environmental contamination that exists as a result of such releases. Please focus on concentrations of hazardous wastes or constituents present in contaminated soil or ground water.

Not applicable

Signature and Certification

The following certification must be included with the submittal of this information. The certification must be signed by a principal executive officer of at least the level of Vice President or by a duly authorized representative of that person.

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments. Based on my inquiry of those individuals immediately responsible for obtaining the information, the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Scott E. Fore

Signature

Scott E. Fore Vice President - Environment Health & Safety

Name and Title (typed)

Safety-Kleen Corp. Medley, FL

Facility Name

Date: 7/7/92 Telephone: (708) 468-2480

92-294

PART II Q

INFORMATION REQUIREMENTS FOR SOLID WASTE MANAGEMENT UNITS

PART II Q
SOLID WASTE MANAGEMENT UNITS

Safety-Kleen Corp. has identified the following solid waste management units in addition to the permitted hazardous waste management units which are the subject of this Operating Permit Application.

- Two dry trash dumpsters--one is used for recyclable materials such as paper, aluminum and cardboard. The second one is for non-recyclable garbage.

- Underground stormwater collection system.

PART II R

PROCESS VENTS - SUBPART AA

PART II.R
PROCESS VENTS - SUBPART AA

Subpart AA does not apply to the Medley facility since the Medley facility is strictly a storage facility. No process vents associated with distillation, fractionation, thin film evaporation, solvent extraction, or air or steam stripping operations that manage hazardous wastes with organic concentrations of at least 10 ppmw are present at the facility.

PART II S

EQUIPMENT REQUIREMENTS - SUBPART BB

ATTACHMENT II.S.1

EQUIPMENT

ATTACHMENT II.S.1
EQUIPMENT

The following information is required under Section 270.25 for each piece of equipment which Subpart BB of Part 264 applies:

1. Equipment is associated with the 20,000-gallon used mineral spirits tank and the 20,000-gallon spent ethylene glycol tank.

2. A site plan identifying the hazardous waste management unit at the facility is enclosed. Also enclosed are complete equipment inventory forms listing each piece of regulated equipment.

3. Types of equipment include pumps, flanges, and valves.

4. The hazardous waste streams are spent mineral spirits and ethylene glycol, both of which can be considered to contain organics.

5. The hazardous waste state of mineral spirits is liquid. The hazardous waste state of ethylene glycol is also liquid.

6. The equipment is considered to be heavy liquid service (mineral spirits vapor pressure is 2 mm Hg, and ethylene glycol is 0.517 mm Hg). Compliance with the standard (264.1058) will be achieved through daily facility inspections and, if required, leak detection monitoring and repair. A copy of the daily inspection record and leak detection and repair record for equipment is enclosed.

The requirements of 270.25(b), 270.25(c), and 270.25(e) do not apply to Safety-Kleen's Medley facility.

safety-kleen corp.

MEMORANDUM

SUBJECT: Subpart BB Requirements
Anti-freeze/Coolants

DATE: February 13, 1992

TO: Regional Environmental Engineers
Jeff Bard
Ellen Jurczak
Catherine McCord

FROM: Desi Chari
DMC 92-122

cc: Bill Constantelos
Dan Dowling
Gary King
Rick Peoples
Ken Snell
Stan Walczynski

During the recent environmental staff meeting questions were raised regarding the applicability of Subpart BB Air Emission Standards for Equipment Leaks requirements for used antifreeze managed at the Service Centers and Recycle Centers.

Pursuant to 40 CFR 264 and 265.1050-1064, the equipment (pumps, valves and flanges) that come into contact with waste organic compounds are subject to the requirements of the equipment leak standards. Pumps, valves and flanges that come into contact with waste antifreeze must be identified in a process flow diagram and must be tagged.

The vapor pressure of ethylene glycol, which constitutes greater than fifty percent of antifreeze (remaining being water), is 0.01 PSIA (0.069 Kilo Pascals) at standard temperature and pressure. This shows that the waste antifreeze is less volatile than mineral spirits.

Therefore, as per 40 CFR 264 and 265.1031, waste antifreeze is defined as a heavy liquid and the equipment that come into contact with waste antifreeze is subject to 264 and 265.1058 standards applicable to heavy liquid service. Therefore, we must comply with air emission leak detection and repair standards based on visual inspection similar to the standards applicable to waste mineral spirit solvents.

Because the waste antifreeze exhibits a very low vapor pressure (0.01 PSIA), the portable organic analyzers <u>will not</u> detect more than 1000 ppm of organics at the liquid-surface. However, the standard for leak detection using portable analyzer is 10,000 ppm. Therefore visual inspection is adequate to detect leaks and portable instruments are not required.

The attached equilibrium calculation shows that the maximum concentration of ethylene glycol in air at standard conditions will be 680 ppm volume. This calculation must be kept in file at the facility to justify that portable instrument monitoring is not required.

264 and 265.1058 require that if a visual leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected. The first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

If you have any questions regarding this update, please contact me at X2579.

Theoretical (Equilibrium) Saturation Concentration of Ethylene Glycol in Air at Atmospheric Pressure (760 mm Hg) and Ambient Temperature (68 0 F).

Concentration of Ethylene Glycol in Air , PPM Volume = 1 - Mole Fraction of Air x 1,000,000

Atmospheric Pressure	= 760 mm Hg
Weight of Air	= 1.0 pounds
Ambient Temperature	= 68 0F
Vapor Pressure of Ethylene Glycol	= 0.517 mm Hg

CALCULATIONS

Partial Pressure of Air = Atmospheric Pressure - Vapor Pressure
= 760 mm Hg - 0.517 mm Hg
= 759.483 mm Hg

Mol. Fraction of Air = Partial Pressure/Atmospheric Pressure
= 759.483/760 mm Hg
= 0.99932

Equilibrium Concentration PPM Volume =(1-Mol Fraction) x 1,000,000

ppm Volume of Ethylene Glycol =(1-0.99932) x 1,000,000

= 680 ppm Ethylene Glycol <<<< 10,000 ppm

safety-kleen corp.

MEMORANDUM

SUBJECT: RCRA Air Emission Standards
Immediate Action Required

DATE: December 17, 1990

TO: Branch Managers

FROM: Ellen Jurczak

cc: Reg. Engrs.
Rick Peoples
Anita Pendry
Jennifer Jendras
Melissa Hlebasko
Reg. Mgrs.
Div. V.P.'s
Bill Heyn
Dan Dowling

On December 21, 1990, new EPA rules take effect which regulate air emissions from equipment (such as pumps and valves) used to manage hazardous wastes. Included are requirements for equipment marking and identification, inspection, recordkeeping and specific repair procedures.

Enclosed are some new inspection forms which you must complete to comply with these rules. An explanation of the forms follows:

I. Equipment Inventory Form

This form must be completed and kept in file 1070 (with a copy sent to EHS, Elgin). **SITE PLANS SHOWING THE I.D. NUMBER AND LOCATION OF ALL EQUIPMENT WILL BE SENT TO YOU BY TECH SERVICES.** Each valve and pump which is associated with the hazardous waste tank(s) (i.e. from the dumpster/barrel washer to the tank and from the tank to the fill pipes) must be marked and listed on this form. The site plan shows the location and newly assigned (by Tech Services) I.D. numbers of all the equipment. You should verify this information to make sure it is correct and use the same I.D. numbers when completing the inventory forms. Tags are used to mark the equipment with its I.D. number. In the column headed Hazardous Waste Management Unit, enter "storage tank". If there are two tanks at the branch, (e.g. waste mineral spirits and waste antifreeze) differentiate between the two for equipment which is only associated with one tank. In the columns headed Pump Description or Valve Type, enter a descriptive term such as spent solvent pump, dumpster shutoff valve, gate valve or check valve.

2. Revised Facility Inspection Record

An additional page has been added to the facility inspection record (file 1210) for the daily inspection of equipment. You should begin using it on December 21, 1990. If a potential leak is discovered (by visual evidence or excessive odor) note it as "N" on the form and follow procedures in #3 below.

3. Leak Detection and Repair Record

After detection of a potential or actual leak, a pump or valve must be monitored with a photoionizer-type instrument within five days. If the instrument reading is 10,000 ppm or greater, a leak is confirmed and a repair must be made within 15 days. Contact your Regional Environmental Engineer immediately to arrange for the equipment to be monitored by a local environmental consultant.

The third form must only be completed for each potential or actual leak detected. The piece of equipment must be tagged with the I.D. number, date of potential or actual leak detection and date of leak confirmation. Tags may be obtained from Tech. Services. After a valve has been repaired, it must be monitored monthly by a consultant using a photoionization detector. After two successive months with no leak detection, the identification may be removed and monitoring discontinued. For other equipment, such as pumps, the tag may be removed after a successful repair. This form must be kept in a new file (1220.2 - Leak Detection and Repair Record).

EQUIPMENT INVENTORY

TO BE FILLED OUT AT THE BRANCH AND KEPT IN THE OPERATING RECORD (FILE 1070) WITH THE SITE PLAN AND PUMP AND VALVE LIST

Listed on the attached pump list and valve list is all equipment at the facility which is subject to the requirements of 40 CFR 264 and 265, Subpart BB. The equipment is also identified on the attached site plan.

The hazardous waste influent to and effluent from the hazardous waste management unit(s) is spent mineral spirits (D001, D004-D011, D018, D019, D021-D030 and D032-D043). Tanks are used for storage of spent mineral spirits which is usually 100% by weight organic. The vapor pressure of mineral spirits at 68^{o} F is 0.27 kPa (equivalent to 2 mm Hg - see MSDS and the attached EPA guidance document page). The waste stream has a vapor pressure equal or lower than that of the clean mineral spirits due to contamination during use with oil, grease and sediment and it is in a liquid state at the equipment, so all equipment is in contact with materials defined as heavy liquid under the cited regulations.

Equipment associated with the waste antifreeze tank(s) is also in heavy liquid service. Ethylene glycol has a vapor pressure at 68^{oF} of .08 mm Hg or 0.01 kPa and is usually 100% organic.

Compliance with the standard (264.1058) will be achieved through daily facility inspections, and if required, leak detection monitoring and repair. The facility inspection record has been updated to include a detailed daily equipment inspection. Records of equipment monitoring and repair are maintained on a separate form in the operating record.

LEAK DETECTION AND REPAIR RECORD

EQUIPMENT I.D.# _____ BRANCH #_____
DESCRIPTION_____

	DATE	INSPECTOR'S SIGNATURE
HOW WAS POTENTIAL OR ACTUAL LEAK DETECTED?_____	_____	_____
DESCRIBE THE POTENTIAL OR ACTUAL LEAK:_____ _____		
INSTRUMENT MONITORING WITHIN FIVE DAYS	_____	_____
(1.) RESULTS_____		
REPAIR ATTEMPT METHOD_____	_____	_____
(2.) RESULTS_____		
REPAIR ATTEMPT METHOD_____	_____	_____
(3.) RESULTS_____		
DATE OF SUCCESSFUL REPAIR (must be completed w/in 15 days)	_____	_____
METHOD_____		
(4.) RESULTS_____		
FOLLOWUP MONTHLY MONITORING FOR VALVES		
(5.) RESULTS_____	_____	_____
(6.) RESULTS_____	_____	_____

MONITORING SUMMARY

	(REFERENCE NUMBER - SEE ABOVE) (1)	(2)	(3)	(4)	(5)	(6)
INSTRUMENT #/OPERATOR	___	___	___	___	___	___
CALIBRATION	___	___	___	___	___	___
BACKGROUND READING	___	___	___	___	___	___
READING AT EQUIPMENT LEAK DETECTED?	___	___	___	___	___	___
	___	___	___	___	___	___

ATTACH ANY DOCUMENTATION PREPARED BY THE CONSULTANT

INSPECTION LOG SHEET FOR: Daily Inspection List of EQUIPMENT

INSPECTOR'S NAME/TITLE: _____

INSPECTOR'S SIGNATURE: _____

	MON	TUES	WED	THURS	FRI
DATE: (M/D/Y)	____	____	____	____	____
TIME:	____	____	____	____	____

Pump or Valve Number

1	A* N	A N	A N	A N	A N
2	A N	A N	A N	A N	A N
3	A N	A N	A N	A N	A N
4	A N	A N	A N	A N	A N
5	A N	A N	A N	A N	A N
6	A N	A N	A N	A N	A N
7	A N	A N	A N	A N	A N
8	A N	A N	A N	A N	A N
9	A N	A N	A N	A N	A N
10	A N	A N	A N	A N	A N
11	A N	A N	A N	A N	A N
12	A N	A N	A N	A N	A N
13	A N	A N	A N	A N	A N
14	A N	A N	A N	A N	A N
15	A N	A N	A N	A N	A N
16	A N	A N	A N	A N	A N
17	A N	A N	A N	A N	A N
18	A N	A N	A N	A N	A N
19	A N	A N	A N	A N	A N
20	A N	A N	A N	A N	A N
21	A N	A N	A N	A N	A N
22	A N	A N	A N	A N	A N
23	A N	A N	A N	A N	A N
24	A N	A N	A N	A N	A N
25	A N	A N	A N	A N	A N
26	A N	A N	A N	A N	A N
27	A N	A N	A N	A N	A N
28	A N	A N	A N	A N	A N
29	A N	A N	A N	A N	A N
30	A N	A N	A N	A N	A N
31	A N	A N	A N	A N	A N
32	A N	A N	A N	A N	A N
33	A N	A N	A N	A N	A N
34	A N	A N	A N	A N	A N
35	A N	A N	A N	A N	A N
36	A N	A N	A N	A N	A N
37	A N	A N	A N	A N	A N
38	A N	A N	A N	A N	A N
39	A N	A N	A N	A N	A N

If "N", enter pump or valve # _____ and circle appropriate problem: potential leak, actual leak, sticking, wear, does not operate smoothly, other: _____ .

For all leaks and potential leaks, the Leak Detection and Repair Record must be completed.

* A = ACCEPTABLE
N = NOT ACCEPTABLE

Draw a line through valve and pump I.D. numbers which do not apply.

FLANGE LIST

PAGE

DATE

BRANCH #

PREPARER'S SIGNATURE

	SIZE	INDIVIDUAL NUMBER	TYPE	HAZARDOUS WASTE MANAGEMENT UNIT	LOCATION
					Refer to site plan

PUMP LIST

DATE 7-15-92

BRANCH # 3-097-02

PREPARER'S SIGNATURE CH Norton

	PUMP NUMBER	PUMP DESCRIPTION	HAZARDOUS WASTE MANAGEMENT UNIT	LOCATION
	4	Recirculating Pump	Barrell Washer	Refer to site plan
	8	Recirculating Pump	" "	
	13	Used Solvent Pump	Tank Storage	

VALVE LIST

DATE 7-15-92
BRANCH # 3-097-02
PREPARER'S SIGNATURE CA Norton

VALVE SIZE	INDIVIDUAL VALVE NUMBER	VALVE TYPE	HAZARDOUS WASTE MANAGEMENT UNIT	LOCATION
1½"	1	Ball	Barrell Washer / Tank Storage	Refer to site plan
2"	2	Gate		
1½"	3	Ball		
1½"	5	Ball		
1½"	6	Ball		
2"	9	Gate		
2"	9	Ball		
2"	10	Ball		
2"	11	Ball		
—	12	Strainer		
2"	14	Check		
3/8"	15	Vacum Breaker		
3"	16	Ball		
3"	17	Gate		
3"	18	Check		
3"	19	Ball		

VALVE LIST

DATE 7-15-92

BRANCH # 3-097-02

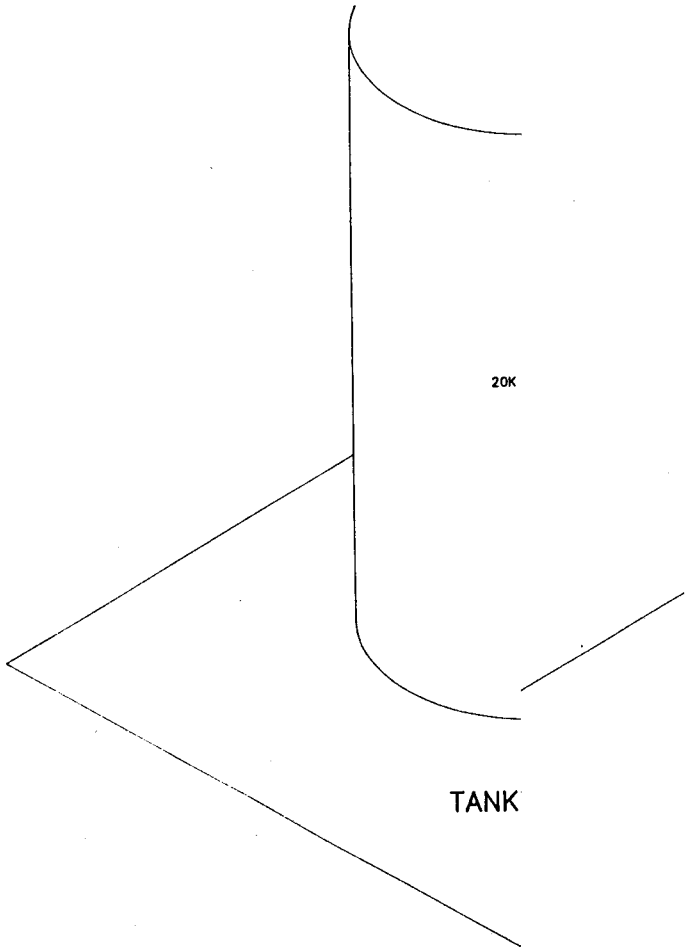
PREPARER'S SIGNATURE CH Norton

VALVE SIZE	INDIVIDUAL VALVE NUMBER	VALVE TYPE	HAZARDOUS WASTE MANAGEMENT UNIT	LOCATION
3"	20	Camlock	Storage Tank	Refer to site plan
3"	21	Ball		
3"	22	Gate		
3"	23	Camlock		
3"	24	Ball		
3"	25	Gate		
3"	26	Camlock		
3"	27	Vacuum Breaker		
3"	28	Ball		
3"	29	Gate		
3"	30	Check		
3"	31	Ball		
3"	32	Camlock		
3"	33	Ball		
3"	34	Gate		
3"	35	Camlock		

VALVE LIST

DATE 7-15-92
BRANCH # 3-097-02
PREPARER'S SIGNATURE C Norton

VALVE SIZE	INDIVIDUAL VALVE NUMBER	VALVE TYPE	HAZARDOUS WASTE MANAGEMENT UNIT	LOCATION
3"	36	Ball	Tank Storage	Refer to site plan
3"	37	Gate	(	(
3"	38	Cam Lock		
3"	39	Vacuum Breaker		



GENERAL NOTES

THIS DRAWING CONTAINS INFORMATION PROPRIETARY TO SAFETY-KLEEN CORPORATION. ANY REPRODUCTION, DISCLOSURE OR USE OF THIS DRAWING IS EXPRESSLY PROHIBITED EXCEPT BY SAFETY-KLEEN OR AS SAFETY-KLEEN MAY AGREE IN WRITING.

EQUIPMENT SCHEDULE

MARK	DESCRIPTION
1	1 1/2" BALL VALVE (BARREL WASHER)
2	2" GATE VALVE
3	1 1/2" BALL VALVE (BARREL WASHER)
4	RECIRCULATING PUMP (BARREL WASHER)
5	1 1/2" BALL VALVE (BARREL WASHER)
6	1 1/2" BALL VALVE (BARREL WASHER)
7	2" GATE VALVE
8	RECIRCULATING PUMP (BARREL WASHER)
9	2" FLANGED BALL VALVE
10	2" FLANGED BALL VALVE
11	2" FLANGED BALL VALVE
12	STRAINER ASSY.
13	USED SOLVENT PUMP
14	2" FLANGED CHECK VALVE
15	3/8" AUTOMATIC VACUM BREAKER
16	3" FLANGED BALL VALVE
17	3" FLANGED EXTERNAL EMERGENCY GATE VALVE
18	3" FLANGED CHECK VALVE
19	3" FLANGED BALL VALVE
20	3" FLANGED CAM LOCK
21	3" FLANGED BALL VALVE
22	3" FLANGED EXTERNAL EMERGENCY GATE VALVE
23	3" FLANGED CAM LOCK
24	3" FLANGED BALL VALVE
25	3" FLANGED EXTERNAL EMERGENCY GATE VALVE
26	3" FLANGED CAM LOCK
27	3" PRESSURE VACUM BREAKER
28	3" FLANGED BALL VALVE
29	3" FLANGED EXTERNAL EMERGENCY GATE VALVE
30	3" FLANGED CHECK VALVE
31	3" FLANGED BALL VALVE
32	3" FLANGED CAM LOCK
33	3" FLANGED BALL VALVE
34	3" FLANGED EXTERNAL EMERGENCY GATE VALVE
35	3" FLANGED CAM LOCK
36	3" FLANGED BALL VALVE
37	3" FLANGED EXTERNAL EMERGENCY GATE VALVE
38	3" FLANGED CAM LOCK
39	3" PRESSURE VACUM BREAKER

NO.	DESCRIPTION	BY	CHK	APPR	DATE
A	RELEASED FOR PART 'B' PERMIT	MBH		-	071092

REVISIONS

TITLE

ENVIRONMENTAL PIPING SCHEMATIC – EXISTING

SAFETY-KLEEN CORP.
777 BIG TIMBER ROAD ELGIN, ILLINOIS 60123 PHONE 708-697-8460

SCALE	BY	CHKD	APPR	OP. APPR	DATE
NONE	MBH		-	-	07-09-92

SERVICE CENTER LOCATION	SC-DWG NUMBER	REV. NO.
MEDLEY, FL.	GDPB200	A

071092

ATTACHMENT II.S.4

DOCUMENTATION

ATTACHMENT II.S.4
DOCUMENTATION

Safety-Kleen maintains an operating record in the facility. This record provides a place in which the required information is record under 264.1064. The forms and plans in Attachment II.S.1 contain the necessary information.