Florida Department of Environmental Regulation

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

Permit Data Form

Project Source Name Safety-Klean / Waste Streams

Type Code: HC Subcode HH Check if: ☐ GP ☐ Exempt

Correct Fee 350

Amount Received 250

Permit Processor's Initial RT6 Data Entry Operator's Initial _____

Amount Refund _____

Comments:

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

220303

RECEIPT FOR APPLICATION FEES AND MISCELLANEOUS REVENUE

Received from ERM - South Date 10/18/95

Address 9501 Princess Palm ave - Tampa Dollars $ 250.00
FL 33619

Applicant Name & Address

Source of Revenue modification 1988 75

Revenue Code 002232 HR 019827 Application Number HC-9 2295-7

By Dolores

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By Dolores

safety-kleen®

October 15, 1993

Mr. Robert Snyder
Florida Department of
Environmental Protection
3319 Maguire Boulevard, Suite 232
Orlando, Florida 32803-3767

RE: Classification of Waste Streams, Safety-Kleen Corp., Sanford, Florida; FLD 984171165

Dear Mr. Snyder:

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

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

mmm

Enclosure(s)

13113.22/01/RS101593.LTR/1

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

TABLE 1

INSTRUCTIONS FOR UPDATING THE OPERATING PERMIT APPLICATION SANFORD, FLORIDA FLD 984171165

Replace the following pages:

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

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 and Actrel®), and old and new formulations of immersion cleaner. The old formulation immersion cleaner solvent is labeled under the trade name of *Immersion Cleaner and Carburetor and Cold Parts Cleaner #609*. It is a two-phase system consisting of an upper aqueous (water) layer and lower 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 solvent is distributed from and used parts washer solvent returned to the service center where the parts washer solvent is stored in separate aboveground tanks for the clean and used parts washer solvent (Parts Cleaner 105, Premium solvent, and Actrel®). Any of the clean parts washer solvent may also be stored in containers. 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 with the waste in the barrel washer/dumpster. Spent premium solvent is transported from the customer in accordance with the customer's hazardous waste determination pursuant to 40 CFR 262.11. Used parts washer premium solvent becomes hazardous once it is mixed with the waste in the barrel dumpster washer in the used parts washer solvent barrel washer/dumpster. Warehouse space is dedicated for the storage of both clean and used immersion cleaner containers. The clean premium solvent and Actrel® are also in the warehouse. Safety-Kleen leases parts washing equipment, including partially filled containers, which double as the solvent reservoir of the parts washer. During servicing, the quantity of used solvent removed from each machine ranges from 5 to 20 gallons.

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. Parts washer solvent is transported in bulk tank trucks between the service centers and the recycle facilities. Fresh parts washer solvent is also received at the facility in containers. Parts washer solvent is transported in containers between the customer and the branch. At the branch, it is added to the used parts washer solvent tank. The immersion cleaner remains in the covered containers during transfer between the service centers and the recycle facilities. Approximately 97 percent of the solvent handled in the parts washer business is petroleum-based while the remainder is immersion cleaner. Immersion cleaner #609 is managed as a transfer waste.

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 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) and parts washer solvent are collected and stored temporarily at the service centers before shipment to the recycle centers for reclamation and residue disposal. Perchloroethylene dry cleaning wastes are managed as permitting wastes. Nonperchloroethylene 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 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:

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

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® and Premium Solvent systems may be equipped with a cyclonic 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 solvent container which is connected to the parts washer equipment. The filters are removed when the entire contents of the container are replaced with fresh product approximately every six months. The used product 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 transported to a recycle center for processing. The filters from the parts cleaning 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 facilities. These wastes are deposited into a carboy or containers by the customer, which are located on the customer's premises. The contents of carboy are pumped into a tanker truck or into containers by a Safety-Kleen sales representative. At the service center, 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 will be managed in drums. In the future, Safety-Kleen may request a modification to the facility to install a new tank into the existing tank farm to be used for used oil and/or oily water.

TABLE I.D.3-1

SAFETY-KLEEN CORP.
600 CENTRAL PARK DRIVE
SANFORD, FLORIDA
PART 1 ATTACHMENT

Waste Type	Process Code(s)	Estimated Annual Amount (Tons)	Waste Codes
Spent Parts Washer* Solvent	S01** S02***	1,524	D001 and D-Codes listed in Note below
Dumpster Mud and Tank Bottom	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-No. 609)	S01*****	48	F002, F004, and D-Codes listed in Note below
Spent Immersion Cleaner (New Formula-No. 699)	S01**	Included above	F002, F004, and 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**	97	D001, F003, 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

* Spent parts washer premium solvent is transported from the customer to the Service Center in accordance with the generator's hazardous waste determination pursuant to 40 CFR 262.11. 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.

** 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 are transfer wastes only.

The immersion cleaners #609 and #699 remain in covered containers at all times during transportation and storage. The solvent is not transferred to another container while being used by the customers or while in storage at the Service Center. The 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.

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

Spent antifreeze is accumulated in an aboveground storage tank (if handled in bulk). Wastes are transferred from tanker trucks to the storage tank (if handled in bulk) or containers (if handled in containers). Waste is removed from the tank for transport by pumping it to a tanker truck. The tank and the loading/unloading area are both secondarily contained. The containers are placed in the container storage area for shipment to a Safety-Kleen Recycle Center.

The Fluid Recovery Service (FRS) wastes are transfer wastes. They may be temporarily stored onsite for up to 10 days. The FRS wastes may also undergo truck-to-truck transfer. This transfer will occur on paved surfaces as outlined on figure II.A.4(b)-4 as Area E with containment and will require less than two hours to complete.

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 both the fresh and used products.

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

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

OPERATING FACILITY PROCEDURES

Inspection of Waste Management Facilities

The purpose of the inspection plan is to establish a procedure and schedule for the systematic monitoring and inspection of hazardous waste management and other material management facilities to ensure proper operation and maintain compliance. Table II.A.4(b)-1 provides an inspection schedule.

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

ATTACHMENT II.A.5

WASTE ANALYSIS REPORT

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

1. The used Parts Cleaner 105 is returned from customers in separate containers, transferred, and is stored in the aboveground tank awaiting shipment to the recycle facility and is considered to be an Ignitable Waste (D001). Used Actrel® and used premium solvent are considered non-ignitable. The used Parts Cleaner 105 and used Actrel® are considered a characteristic waste by toxicity characteristic leaching procedure (TCLP) (D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D023, D024, D025, D026, D027, D028, D029, D030, D032, D033, D034, D035, D036, D037, D038, D039, D040, D041, D042, and D043). Used parts washer solvent 105 is manifested from the customer as a hazardous waste. Used parts washer Premium Solvent is transported from the customer in accordance with the customer's hazardous waste determination pursuant to 40 CFR 262.11. The Spent Premium Solvent becomes hazardous once it is mixed with the waste in the barrel washer/dumpster. 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 this case, it will be managed as a non-hazardous waste until it is mixed with the waste in the barrel washer/dumpster at which time it will be a hazardous waste.

2. The used chlorinated solvent #609 (old) is returned from customers in separate containers and remains in the same container for shipment to the recycle facility. It 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) is returned from customers in separate containers and remains in the same container for shipment to the recycle facility. It 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 accumulates 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 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 the toxicity characteristic leaching procedure (TCLP) ((D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D023, D024, D025, D026, D027, D028, D029, D030, D032, D033, D034, D035, D036, D037, D038, D039, D040, D041, D042, and D043). The nonperchloroethylene dry cleaning wastes are managed as transfer wastes.

6. Antifreeze waste is approximately one-third water with the remaining third being antifreeze (ethylene glycol) and contaminants. As a protective measure, the storage tank area for spent antifreeze is 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 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 is collected in containers at the customer's place of business, and the containers are palletized whenever possible and stored in the paint waste storage area of the service 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 listed above (except FRS) are shown in the attached chemical analyses reports, based on existing data on these wastes generated

from similar processes within Safety-Kleen's current and/or potential customers.

USED PARTS WASHER SOLVENT

The clean parts washer solvent is labeled under the trade name of "Safety-Kleen 105 Solvent," so-named because of the flash point of the solvent being 105°F (minimum). Premium Solvent has a flash point of 148°F or higher. Actrel® has a flash point of 212°F. Chemically, the solvent primarily consists of petroleum hydrocarbon fractions (the parts washer solvent) with a boiling point range between 310°F and 400°F. Impurities, such as light aromatic hydrocarbons (LAHC) and chlorinated hydrocarbons, usually constitute less than one percent of the total volume. The parts washer solvent typically constitutes 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 consists primarily of parts washer 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 bottoms may range from 2 percent to 10 percent, by volume, in the used solvent. The used parts washer Premium Solvent is transported in accordance with the generator's hazardous waste determination pursuant to 40 CFR 262.11. The Spent Premium Solvent becomes hazardous when it is placed in the used parts washer solvent barrel washer/dumpster.

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 212F°, and are therefore not ignitable. Our preliminary data from other facilities indicates that the used Premium Solvent is not 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 is basically unchanged from its clean state, except oils, greases, and insoluble solids may be picked up during the various degreasing operations used by Safety-Kleen's customers. The spent solvent is non-flammable. It is regarded as toxic because it contains various toxic chemicals (see material safety data sheets (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 sludge is removed from the aboveground tank periodically and shipped to Safety-Kleen's facility for reclamation. The annual quantity is included in the estimate of used parts washer solvent.

USED PARTS WASHER SOLVENT DUMPSTER MUD

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

The sludge in the dumpsters is cleaned out frequently. The waste is containerized and shipped to Safety-Kleen's facility for recycling.

DRY CLEANING WASTES

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

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

2. Muck: At some dry cleaning facilities, a mixture of powdered materials is used as the filter medium for the dry cleaning solvent, in lieu of the cartridge filter. This filter medium normally consists of diatomaceous earth and carbon. In

addition to lint, soil, oil, and grease retained by this medium, between 40 and 50 percent by weight of the "muck" is solvent.

3. Still Residue: After filtration, the dry cleaning solvent is distilled by the dry cleaning machine to remove the dissolved materials from the used solvent. The dissolved materials (still residues) are in liquid form and consist of primarily detergent, oil and grease, vinyl acetate (a sizing compound), and 20 to 30 percent of solvent.

ANTIFREEZE COLLECTION SERVICE

The spent antifreeze (ethylene glycol) is collected from automobile service facilities. 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 products provided by Safety-Kleen are collected by the service center and processed by the recycle centers. These wastes may or may not have been originally obtained from Safety-Kleen by the industrial customer. These wastes are handled as transfer wastes at the service center. Examples of the types of wastes that may be received from FRS customers include:

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

2. Lubricating, hydraulic oils, and machine oils.

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

4. Photographic and x-ray related wastes.

5. Paint and lacquer thinners and paint wastes.

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

FRS wastes received at the facility are classified as characteristic wastes (D-waste codes, non-specific source wastes (F-waste codes), listed wastes from specific sources

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

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

Certain solvents are not economically recoverable in their 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	Contains ingredients of F002 or contains a hazardous constituent. Perchloroethylene formula is the only waste managed as a permitted waste.
6. Paint Wastes	Toluene, Xylene, Methylethyl 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

NOTES:

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

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 (699 IC)	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 1	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 every five years
2. Used Parts Washer Solvent	Gas chromatograph annually Flash point annually TCLP every five years
3. Parts Washer Solvent, Tank Bottom Sludge, and Free Water	Gas chromatograph annually TCLP every five years
4. Parts Washer Solvent Dumpster Mud	Gas chromatograph annually TCLP every five years
5. Dry Cleaning Wastes	Gas chromatograph annually TCLP every five years
6. Paint Wastes	Gas chromatograph annually TCLP every five years
7. Spent Antifreeze	Gas chromatograph annually TCLP every five years

NOTES:

[a] In accordance with 40 CFR 264.13(a), Safety-Kleen performs 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 Department of Transportation (DOT)-approved. These containers are managed similar to the used immersion cleaner containers and contents within the containers are not be removed or processed at the facility. Nonperchloroethylene dry cleaning wastes are managed as transfer wastes.

The parts washer solvent are collected in containers. These containers are then emptied into the dumpsters in the return/fill shelter. If spent antifreeze is packaged in containers, then 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.

Fluid Recovery System (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. No other wastes are placed in the designated area.

Safety-Kleen will package all wastes under the guidelines for package applications and exceptions under 49 Code of Federal Regulations (CFR) 173. Each package will meet the testing requirements under 49 CFR 178 as it applies to each individual package.

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 will be near sources of extreme heat, fire, potential explosion sources, or subject to violent reactions. The tanks are vented and the containers kept at room temperature to minimize the potential for pressure build-up.

   b. *produce uncontrolled toxic mists, fumes, dusts or gases in quantities sufficient to threaten human health*--The vapor pressure of parts washer solvent is low (2 mm mercury). Parts washer solvent and the paint waste may react with strong oxidizers. Toxic mists, fumes, dusts, or gases will not form in quantities sufficient to threaten human health since strong oxidizers are not handled at this facility and the solvent vaporization will be minimal under normal working conditions.

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

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

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

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

5. *Fire extinguishers are 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.

6. *Lightning*--Each of the tanks are grounded. In addition, the tank farm cover is also grounded.

PERMIT #: 59 239557 APPLICANT NAME: Safety-Kleen / Waste Systems

TYPE OF PERMIT: HC SUBTYPE: HH

STATUS: _____ (IS, DE, GP, EX, WI, RAI) PERMIT PROCESSING (FORM #: DER-CA 01)

OFFICE:

ATE	TIME BEGIN	TIME END	TOTAL TIME (15 MIN)	COMMENTS	POSITION TITLE
ENTERED	OCT 18 1993		10		DEO

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TO: FDEP

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