April 25, 1997

via Federal Express

Ms. Michele Anders, Chief
Generator and Recycling Branch
U.S. Environmental Protection Agency
Office of Solid Waste
401 M Street, S.W.
Washington, D.C. 20460

RE: Written Confirmation of Regulatory Interpretation of 40 CFR 261.2(e)(1)

Dear Ms. Anders:

Safety-Kleen is submitting the following information as Confidential Business Information and has been labeled as such pursuant to 40 CFR Part 2, Subpart B, Section 2.203(b).

The purpose of this letter is to follow up on an April 16 telephone conversation with Mr. Jeff Hannaple about a regulatory interpretation and to request that the interpretation Mr. Hannaple provided be confirmed in writing. The regulatory interpretation was provided in response to Safety-Kleen's request on how used parts washing solvent that was used for drum washing would be regulated, if it was used for the drum washing activity prior to any reclamation.

As previously discussed, Safety-Kleen collects used solvents from customers' parts cleaning operations and consolidates such materials at one of our branch collection facilities for shipment to one of our recycle centers. It is our intent to use a certain quantity of this material for washing drums prior to re-filling them with product. The quantity of solvent used in this manner will be dictated by the volume needed to wash a drum and the total number of drums used to service our customers. None of the solvent used in this manner will be reclaimed prior to its use as drum wash. Safety-Kleen will establish criteria for the amount and type of material to be used for this purpose.

Safety-Kleen believes that the parts washer solvent to be used in this manner is excepted from the definition of solid waste because it will be "used or reused as an effective substitute for [1] commercial product[s]..." (40 CFR 261.2(e)(1)). The preamble to the Definition of Solid Waste, dated January 4, 1985 (50 FR 619), discusses the use of substitutes for commercial products in the following manner:

> "When secondary materials are directly used as substitutes for commercial products, we [the Agency] also believe these materials are functioning as raw materials and therefore are outside of RCRA's jurisdiction and thus, are not wastes."

1000 NORTH RANDALL ROAD ELGIN, ILLINOIS 60123-7857 PHONE 847/697-8460 FAX 847/468-8500

Page 637 of the preamble also states,

> When secondary materials are directly used (or, in the case of previously used materials, reused)... they function as raw materials in normal manufacturing operations or as products in normal commercial applications. We [the Agency] reiterate these positions in the final regulation. These direct use recycling situations represent exceptions to the general principle that accumulated hazardous secondary materials are hazardous wastes.
>
> The final rule consequently states that secondary materials used as ingredients or used directly as commercial products are not wastes and are outside the Agency's RCRA jurisdiction. They thus are not subject to RCRA Subtitle C regulations when generated, transported, or used..."

See also attached guidance from the RCRA/Superfund Hotline.

The discussion on page 624 of the preamble, addresses "continued-use" when distinguishing between spent materials from those that are still fit for use,

> "...where solvents used to clean circuit boards are no longer pure enough for that continued use, but are still pure enough for use as metal degreasers. These solvents are not spent materials when used for metal degreasing. The practice is simply continued use of a solvent. (This is analogous to using/reusing a secondary material as an effective substitute for commercial products.)"

We request that EPA confirm in writing that the solvent Safety-Kleen intends to use for drum wash in the manner described above is not a solid waste pursuant to 40 CFR 261.2(e)(1) and thus not a hazardous waste when it is being used as an effective substitute for a commercial product.

Please contact me at (847) 468-2245, if you have any questions.

Sincerely,

Catherine A. McCord, Manager
Environment and Business Integration

Attachment

cc: Jeff Hannaple

ment must be installed with special leak detection and collection systems, many existing tank systems may not ha nism to detect and tain releases. Do the new July 14, 1986 reg ions have any leak testing requirements for e systems prior to installation of secondary containment?

Yes. The new hazardous waste tank regulations do provide for leak testing in existing tank systems prior to of secondary containment. 40 *CFR* 264.193(i) and 265.193(i) require all existing tank systems to be evalua in some manner. Non-enterable underground tanks must be tested for leaks at least annually. All other ta aboveground and enterable underground tanks) under interim status must be leak-tested, inspected internally, leaks, corrosion and erosion at least annually. Other permitted tanks must be either leak-tested placed on a schedule for overall integrity assessments. The frequency of assessments would depend on the construction of the tank, the age of the system, the type of waste stored or treated, the type of corrosion or tection, and the rate of corrosion or erosion of the tank. The annual leak testing requirement also applies to equipment. In addition, § 264.191 and § 265.191 require the owner/operator of an existing tank system that d a secondary containment system meeting the requirements of §§ 264.193 and 265.193 to obtain a written ass attests to the tank system's integrity by January 12, 1988. All assessments must be certified by an independe registered professional engineer and must be kept on file at the facility.

[December 1986; Regulatory Cross References: 264.193(i), 265.193(i), 264.191, 265.191]

RCRA-78 Existing Units, Replacement Units, and Minimum Technology Standards

The owner/operator of an existing landfill unit which is holding F006 waste, wants to remove all the waste fror in order to stabilize it. Once the waste is stabilized, it will be put back in the same landfill and the landfill will th Will this action change the status of the landfill from an existing unit to a replacement unit? If the landfill was the a replacement unit, would it have to meet minimum technology requirements under Section 3004(u) of RCR stabilized waste is replaced?

A unit is considered a replacement if it is taken out of service and all or substantially all waste is removed fror reused. If the removal, stabilization, and replacement of the waste is part of closure, and no new waste is being landfill, then EPA does not consider that the unit has been "reused." Therefore, the landfill would retain it existing unit and would not have to meet minimum technology standards prior to replacing the waste.

[Ed. Note: On January 29, 1992 (57 *FR* 3462), EPA promulgated liner and leak detection system standards for landfills, surface impoundments, and waste piles, effective July 29, 1992. As part of that rulemaking, EPA codified a definition of "replacement unit" that is essentially the same as the one described here.]

[December 1986; Regulatory Cross References: 260.10 "replacement unit," 264.301, 264.310, 265.301(a), 265.310]

RCRA-79 Land Disposal Definition

How is land disposal defined regarding the Section 3004(d) RCRA land disposal restrictions?

Land disposal is defined to include, but not be limited to, any placement of hazardous waste in a landfill, surface waste pile, injection well, land treatment facility, salt dome formation, or underground mine or cave (Section 3004 EPA also considers placement of hazardous wastes in concrete vaults or bunkers intended for disposal purposes waste management subject to the land disposal restrictions. However, EPA does not consider open detonation include open burning, as methods constituting land disposal and has concluded that the land disposal restrictions applicable to open detonation and open burning [51 *FR* 40580].

[December 1986; Regulatory Cross Reference: 268.2(c)]

RCRA-80 Lab Packs and the Land Disposal Prohibitions

Are lab packs containing wastes restricted from land disposal included in the land disposal restrictions?

Neither the legislative history nor the statute indicates that lab packs can be excluded from the land dispo if they contain restricted wastes. If a lab pack contains these restricted wastes, the entire lab pack is subj disposal restrictions [51 *FR* 40585].

[December 1986; Regulatory Cross Reference: 268.1(a)]

RCRA-81 Definition of Solid Waste

A generator generates a 5% solution of sodium hydroxide from his metal cleaning operation. Another facility can us waste as a substitute for a commercial product in their process of cleaning out tanks, except the waste is too dilute t effective. If the generator adds 5% sodium hydroxide to his waste to make a 10% solution, would this material be

According to § 261.2(e)(1)(ii), materials are not solid waste when they can be shown to be recycled by being used reused as effective substitutes for commercial products. The waste is employed in a particular function or application an effective substitute for a commercial product (40 *CFR* 261.1(c)(5)(ii)). Since it would function as a product in a norm commercial use, it would not be a solid waste and is not subject to RCRA Subtitle C regulations when generated, tran ported or used (unless accumulated speculatively).

[May 1987; Regulatory Cross References: 261.2(e)(1)(ii), 261.1(c)(5)(ii)]

RCRA-82 Disposal Prior to November 19, 1980

A tank owner closed a tank which contained waste solvent in 1977. The waste solvent was an unlisted, ignitable waste (D00 which was pumped out of the tank. Some ignitable residues remained in the tank. The tank was sealed and has not been us since 1977. Is the tank a RCRA disposal facility?

The preamble of the May 19, 1980 *Federal Register* (40 *CFR* 264 and 265, page 33170) specifically states that the reg latory scheme of Subtitle C is prospective, i.e., it applies to hazardous waste management which takes place after t effective date of the Subtitle C regulations. Inactive (either closed or abandoned) disposal facilities could be subject RCRA Section 7003 enforcement authorities and CERCLA. If the tank was closed in accordance with existing indus practices, it would be an inactive disposal facility not subject to RCRA Subtitle C regulation unless the waste in the ta is subsequently managed in a manner that would constitute treatment, storage or disposal.

[May 1987; Regulatory Cross Reference: 265.197]

RCRA-83 Hazardous Waste Tanks

An existing above-ground hazardous waste tank is moved to another location at the same facility. Does it become subject new tank standards when it is moved? What would the situation be if the tank was underground?

For both above-ground and underground tanks, the tank would be classified as a new tank after being moved and reinstal (see 50 *FR* 25446, July 14, 1986). The tank would be subject to the requirements for new tank systems. The tank wo have to be reinstalled with secondary containment meeting the requirements specified in §§ 264.193(a) or 265.193.

[May 1987; Regulatory Cross References: 264.190, 265.190]

RCRA-84 Applicability of Contingent Closure and Post-Closure Plans for Tanks

Section 264.197(c)(1) and (2) requires that, unless a tank has secondary containment, a contingent plan for closure as a landfill a contingent post-closure plan must be prepared. 40 *CFR* 264.193(a)(3) requires that an existing tank be retrofitted with second containment by the time it reaches 15 years of age. If the owner of an existing tank is planning to install secondary containm before the tank reaches 15 years of age, is the owner/operator required to prepare the contingent plans?

Yes. The contingent closure and contingent post-closure plans are required for all tanks not having secondary containm even if the owner/operator is planning on installing secondary containment. The plans would be required until the second containment meeting the requirements of §§ 264.193 or 265.193 is installed.

[May 1987; Regulatory Cross References: 264.197(c), 264.193(a); 265.197(c), 265.193(a)]

RCRA-85 Dissolved vs. Entrained Metals Subject to the Land Disposal Restrictions

The land disposal restrictions in RCRA Section 3004(d) require that the California List wastes be banned from land disp by July 8, 1987. Concentrations of nickel greater than 134 mg/l are subject to the ban. Is hazardous wastewater contai nickel dispersed by agitation, but not chemically in solution, included in the restriction?

Yes. It does not matter whether the nickel is chemically or physically contained in the wastewater. The ban applies to total concentration of nickel in the filtrate as determined by subjecting a representative sample of wastewater to the I Filter Liquids Test. If the facility were to settle out the pieces of nickel and lower the concentration of nickel below mg/l, the wastewater would no longer be subject to the ban. Until treatment standards are finalized, this method of lowe the concentration is allowable.

[July 1987; Regulatory Cross Reference: 268.32]

RCRA-86 Domestic Sewage Exclusion

A RCRA hazardous waste is transported by truck accompanied by a Uniform Hazardous Waste Manifest to a publicly o treatment works (POTW). Does the domestic sewage exclusion apply to this hazardous waste if it mixes with domestic se prior to treatment? Is the sludge generated from treating the RCRA hazardous waste and the domestic sewage a haza waste due to the "Derived-From Rule" (40 *CFR* 261.3(c) and (d))?

STATE OF COLORADO

Bill Owens, Governor
Jane E. Norton, Executive Director
Dedicated to protecting and improving the health and environment of the people of Colorado
HAZARDOUS MATERIALS AND WASTE MANAGEMENT DIVISION
http://www.cdphe.state.co.us/hm/

4300 Cherry Creek Dr. S.
Denver, Colorado 80246-1530
Phone (303) 692-3300
Fax (303) 759-5355

222 S. 6th Street, Room 232
Grand Junction, Colorado 81501-2768
Phone (970) 248-7164
Fax (970) 248-7198

Colorado Department
of Public Health
and Environment

May 10, 1999

Sean McMahon
Regional Manager, Denver
Safety-Kleen Corp.
3333 Quebec Street, Penthouse A
Denver, Colorado 80207

Dear Mr. McMahon:

Gary Baughman and I appreciated the opportunity to meet you and Catherine McCord on April 22 and to discuss Safety-Kleen's Continued Use Program. We now have a much better understanding of the program and the regulatory status of the solvents used in the program. We have reviewed the August 21, 1998 letter to Catherine McCord from David Bussard of the U.S. EPA (attached) and generally concur with the regulatory interpretation in that letter. We believe that if solvents are managed in the manner you have described for the Continued Use Program that they will qualify for being excluded as an effective substitute for a commercial product in accordance with 6 CCR 1007-3, Section 261.2(e)(1).

The steps that Safety-Kleen has taken to establish criteria for continued use of solvents and segregation of solvents in the continued use program from waste solvents will allow the solvents to not be considered solid wastes. The record keeping and automatic control features of the continued use program are also important for documenting the legitimate continued use of the solvent as an effective substitute for a commercial product.

If you have any questions regarding this matter, please feel free to contact me at (303) 692-3342.

Sincerely,

Frederick R. Dowsett
Compliance Coordinator

cc: Catherine A. McCord, Safety-Kleen
Attachment

AUG 31 1998

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

AUG 21 1998

OFFICE OF
SOLID WASTE AND EMERGENCY
RESPONSE

Ms. Catherine A. McCord
Manager, Environment and Business Integration
Safety-Kleen
1000 North Randall Road
Elgin, Illinois 60123-7857

Dear Ms. McCord:

Thank you for your April 25, 1997 letter to Michele Anders requesting a written confirmation of the regulatory status of used parts washing solvent that is to be used for drum wash at Safety-Kleen's facilities without first being reclaimed. You asked whether the used parts washing solvent would be excluded from the definition of solid waste pursuant to 40 CFR §261.2(e)(1) when it is used as an effective substitute for a commercial product. Based on the information that you provided, it is the Agency's understanding that Safety-Kleen intends to collect used parts washing solvents from its customers. Some of the used parts washing solvent from designated customers would be used for drum washing at Safety-Kleen facilities. This used solvent designated for drum washing would be consolidated, but would not be reclaimed, prior to its use for drum washing. The solvents designated for drum washing would also be segregated (i.e., always in separate containers or tanks) from the other used solvents collected from Safety-Kleen's customers.

Because the material (i.e., used solvent continuing to be employed in solvent uses) remains a product, your question about the applicability of 40 CFR §261.2(e)(1) is moot. That regulatory section is intended to apply to secondary materials, which is not the case for used solvents that are not yet "spent."

The Agency has previously stated that when a used solvent is employed for another solvent use, this continued use indicates that the solvent remains a product. The used solvent in this case is a material continuing to be used as a solvent, the purpose for which it is intended, rather than a spent material being *reused*. Consequently, the used solvent to be employed for drum washing would not be considered a solid waste and would not be subject to the Resource Conservation and Recovery Act ("RCRA") Subtitle C hazardous waste regulations when generated, transported, or used. 50 Fed. Reg. 614, 624 (1985). Accordingly, used parts washing solvents that are collected and consolidated by Safety-Kleen and then used for drum washing without first being reclaimed would not be a RCRA solid waste.

In the case of shipments of used solvents in tanker trucks, if any part of a shipment of solvent is reclaimed, burned for energy recovery, or otherwise defined as solid or hazardous waste (as opposed to being directly used only for drum wash), the entire shipment must be managed according to the

applicable RCRA Subtitle C regulations. In situations in which used solvents collected from multiple sources are handled in separate drums or containers on the same truck, each container must be handled according to the applicable regulations (depending on how the solvent is to be used or managed), including hazardous waste manifest requirements. After the solvents have been used for drum washing, any residual solvents would be subject to a hazardous waste determination and must be managed according to the applicable RCRA Subtitle C requirements.

Furthermore, the Agency is aware of the potential for the "continued use" policy to be abused, and thus, notes that the continued use must be legitimate for the used solvents to be excluded from regulation as a solid waste. The Agency would consider the continued use of the used solvents for drum washing to be legitimate in situations in which: 1) the used solvents are effective for the drum-washing operation, especially if the used solvents substitute for solvents that would otherwise have to be purchased (if the used solvents would not be an effective washing agent for the drums, using the used solvents in lieu of other effective drum-washing agents would not be considered legitimate), 2) the used solvents are used only for washing drums that actually need it (if the used solvents are used as drum-washing agent when the drums do not need washing, using the used solvents would not be considered legitimate), and 3) the used solvents are not used in excess of what would normally be required to wash drums (if the used solvents are being used in excess of the amount of solvents needed for the drum-washing operation, e.g., more than would be necessary to wash the drums effectively, using the used solvents would not be considered legitimate).

The regulatory interpretation provided above is based on the U.S. EPA's interpretation of federal regulations. Some states in which the continued use of the used parts washing solvent occurs may have different regulatory requirements or interpretations. For case-specific determinations on the status of the continued use of the parts washing solvent for drum wash, please contact the appropriate state regulatory agency or EPA Regional Office.

If you have any questions or would like additional information, please contact Jeff Hannapel at (703) 308-8826.

Sincerely,

David Bussard
Director, Hazardous Waste Identification Division
Office of Solid Waste

HIGH FLASH HYDROCARBON BLEND STOCK

MATERIAL SAFETY DATA SHEET FOR USA AND CANADA

safety-kleen.

SECTION 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: HIGH FLASH HYDROCARBON BLEND STOCK

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

PRODUCT PART NUMBERS: Not available.

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

24-HOUR EMERGENCY TELEPHONES

	MEDICAL:	TRANSPORTATION (SPILL):
These numbers are for emergency use only. If you desire non-emergency information about this product, please call a telephone number listed below.	1-800-752-7869 (USA) Extension 2	1-800-468-1760 (USA)
	1-312-942-5969 (CANADA)	1-613-996-6666 (CANADA)

MANUFACTURER/SUPPLIER: Safety-Kleen Corp.
1000 North Randall Road
Elgin, IL, 60123-7857 USA
1-800-669-5740

TECHNICAL INFORMATION: **1-800-669-5740 Extension 7500**

MSDS FORM NUMBER: 82705

ISSUE: Original

ORIGINAL ISSUE: April 17, 1997

SUPERSEDES: New

PREPARED BY: Product MSDS Coordinator

APPROVED BY: MSDS Task Force

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

WT%	NAME	SYNONYM	CAS NO.	OSHA PEL TWA	OSHA PEL STEL	ACGIH TLV TWA	ACGIH TLV STEL	LD[a]	LC[b]
100	Distillates (petroleum), hydrotreated light	N.Av.	64742-47-8	500[c] ppm	N.Av.	100[c] ppm	N.Av.	>5000[d]	>2000 mg/m^3, 4 hours

N.Av. = Not Available
[a]Oral-Rat LD50 (mg/kg)
[b]Inhalation-Rat LC50
[c]Based on Stoddard Solvent.
[d]Skin-Rat LD50>2000 mg/kg

See 29 CFR 1910.1000(d)(2) and ACGIH *Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices* booklet (Appendix C) for the determination of exposure limits for mixtures. Consult an industrial hygienist or similar professional to confirm that the calculated exposure limits are appropriate.

SECTION 3: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

WARNING!

APPEARANCE
Liquid, brown or black, mild hydrocarbon odor.

IMMEDIATE HAZARDS
Combustible liquid and vapor.
Harmful if inhaled.
Eye and skin irritant.
May be harmful if swallowed.

DELAYED HAZARDS
Contains material which may cause central nervous system damage.

POTENTIAL HEALTH EFFECTS

INHALATION (BREATHING): High vapor or mist concentrations may be harmful if inhaled. High concentrations of vapor or mist may irritate the respiratory tract (nose, throat, and lungs). High concentrations of vapor or mist may cause nausea and vomiting. High concentrations of vapor or mist may cause headaches, dizziness, incoordination, numbness, irregular heartbeat, and other central nervous system effects. Massive acute overexposure may result in rapid central nervous system depression, sudden collapse, deep coma, and death.

EYES: Direct contact with materials or exposure to vapors may cause irritation.

SKIN: Direct contact with materials or exposure to vapors may cause irritation. A single, prolonged exposure is not likely to cause the material to be absorbed through the skin in harmful amounts.

INGESTION (SWALLOWING): May cause throat irritation, nausea, vomiting, and central nervous system effects as noted under **INHALATION (BREATHING)**. Breathing material into the lungs during ingestion or vomiting may cause lung injury and possible death.

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

CHRONIC: Prolonged or repeated inhalation may cause toxic effects. Prolonged or repeated eye contact may cause inflammation of the membrane lining the eyelids and covering the eyeball. Prolonged or repeated skin contact may cause drying, cracking, redness, itching, swelling, or burns.

CANCER INFORMATION: No known carcinogenicity. For more information, see **SECTION 11: CARCINOGENCITY.**

Also see **SECTION 15: CALIFORNIA.**

SECTION 4: FIRST AID MEASURES

INHALATION: (BREATHING) Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Someone should stay with victim. Get medical attention if breathing difficulty persists.

EYES: For direct contact, immediately flush eyes with plenty of water, holding eyelids apart, for 15 minutes. If irritation or redness from exposure to vapo or mist develops, move away from exposure into fresh air. Get medical attention if irritation or pain persists.

SKIN: Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water. Get medical attention if irritation or pain persists.

INGESTION: (SWALLOWING) Immediately get medical attention. Do NOT induce vomiting. If spontaneous vomiting occurs, keep head below hips to avoid breathing material into the lungs.

NOTE TO PHYSICIANS: No specific antidote available. Treat symptomatically and supportively. Administration of gastric lavage, if warranted, should be performed by qualified medical personnel. Call medical emergency telephone number (see **SECTION 1**) for additional information.

SECTION 5: FIRE FIGHTING MEASURES

FLASH POINT: 140°F (60°C) Tag Closed Cup (minimum)

FLAMMABLE LIMITS IN AIR: **LOWER:** 0.5 VOL% (minimum)
UPPER: 9.3 VOL% (maximum)

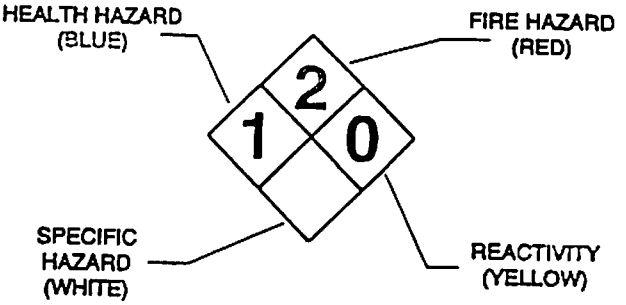
AUTOIGNITION TEMPERATURE: 440°F (227°C) (minimum)

HAZARDOUS COMBUSTION PRODUCTS: Burning may produce carbon monoxide.

CONDITIONS OF FLAMMABILITY: Heat, sparks, or flame.

EXTINGUISHING MEDIA: Carbon dioxide, foam, dry chemical, water spray, or water fog.

NFPA 704 HAZARD IDENTIFICATION: This information is intended solely for the use by individuals trained in this system.



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

FIRE AND EXPLOSION HAZARDS: Decomposition and combustion products may be toxic. "Empty" containers may retain residue and can be dangerous. Heated containers may rupture. Vapors can travel to ignition source and flash back. Vapor explosion hazard indoors, outdoors, or in sewers. Run-off to sewer may create fire or explosion hazard. Not sensitive to mechanical impact. Material may be sensitive to static discharge, which could result in fire or explosion.

EMERGENCY RESPONSE GUIDE NUMBER: 128
Reference *North American Emergency Response Guidebook*

SECTION 6: ACCIDENTAL RELEASE MEASURES

Remove all ignition sources. Do not touch or walk through spilled material. Stop leak if you can do it without risk. Wear protective equipment specified in **SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**. Ventilate area and avoid breathing vapor or mist. A vapor suppressing foam may be used to reduce vapors. Contain away from surface waters and sewers. Contain as a liquid for possible recovery or sorb with compatible sorbent material and shovel with a clean, non-sparking tool into sealable container for disposal.

Additionally, for large spills: isolate hazard area. Keep unnecessary and unprotected personnel from entering. Dike far ahead of liquid spill for collection and later disposal.

SECTION 7: HANDLING AND STORAGE

HANDLING: Keep away from heat, sparks, or flame. Where explosive mixtures may be present, equipment safe for such locations should be used. Use clean, non-sparking tools and explosion-proof equipment. When transferring material, metal containers, including trucks and tank cars, should be grounded and bonded. Avoid contact with eyes, skin, clothing, and shoes. Use in well ventilated area. Do not breathe vapor or mist.

SHIPPING AND STORING: Keep container tightly closed when not in use and during transport. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose containers to heat, flame, sparks, static electricity, or other sources of ignition; containers may explode and cause injury or death. Empty product containers may retain product residue and can be dangerous. See **SECTION 14: TRANSPORT INFORMATION** 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. Discard contaminated clothing, shoes, or protective equipment if they cannot be thoroughly cleaned.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: Provide general ventilation needed to maintain concentration of vapor or mist below applicable exposure limit. Where adequate general ventilation is unavailable, use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limit. Where explosive mixtures may be present, equipment safe for such locations should be used.

PERSONAL PROTECTIVE EQUIPMENT

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

EYE PROTECTION: Where eye contact is likely, wear chemical goggles; contact lens use is not recommended.

SKIN PROTECTION: Where skin contact is likely, wear nitrile, Viton®, or equivalent protective gloves; use of butyl rubber, natural rubber, or equivalent gloves is not recommended.

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

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE, APPEARANCE, AND ODOR:	Liquid, brown or black, mild hydrocarbon odor.
ODOR THRESHOLD:	30 ppm (based on Stoddard Solvent)
SPECIFIC GRAVITY:	0.78 to 0.82 60°F/60°F (15.6°C/15.6°C) (water = 1)
DENSITY:	6.5 to 6.8 lb/US gal (780 to 820 g/l)
VAPOR DENSITY:	5 (air = 1) approximately
VAPOR PRESSURE:	0.2 mm Hg at 68°F (20°C) (approximately) 0.6 mm Hg at 100°F (38°C) (approximately)
BOILING POINT:	350°F (177°C) (initial)
FREEZING/MELTING POINT:	less than -45°F (-43°C)
pH:	Not applicable.
EVAPORATION RATE:	0.1 (butyl acetate = 1)
SOLUBILITY IN WATER:	Insoluble.
MOLECULAR WEIGHT:	160 (approximately)

SECTION 10: STABILITY AND REACTIVITY

STABILITY:	Stable under normal temperatures and pressures. Avoid heat, sparks, or flame.
INCOMPATIBILITY:	Avoid acids, alkalies, oxidizing agents, reducing agents, or reactive halogens.
REACTIVITY:	Polymerization is not known to occur under normal temperatures and pressures. Not reactive with water.
HAZARDOUS DECOMPOSITION PRODUCTS:	None under normal temperatures and pressures. See also **SECTION 5: HAZARDOUS COMBUSTION PRODUCTS.**

SECTION 11: TOXICOLOGICAL INFORMATION

SENSITIZATION:	Based on best current information, there is no known human sensitization associated with these materials.

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 limited evidence of carcinogenicity in humans or sufficient evidence of carcinogenicity in experimental animals. ACGIH recognizes several categories of carcinogens, including confirmed human carcinogens and suspected human carcinogens.

Based on best current information, there is no known carcinogenicity associated with these materials.

Also see **SECTION 15: CALIFORNIA.**

REPRODUCTIVE TOXICITY: Based on best current information, there is no known reproductive toxicity associated with these materials.

Also see **SECTION 15: CALIFORNIA.**

TERATOGENICITY: Based on best current information, there is no known teratogenicity associated with these materials.

MUTAGENICITY: Based on best current information, there is no known mutagenicity associated with these materials.

TOXICOLOGICALLY SYNERGISTIC PRODUCT(S): Based on best current information, there are no known toxicologically synergistic products associated with these materials.

SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICITY: A Static Acute Bioassay as per the California Department of Fish and Game WPCL, was done using fathead minnows, and up to 750 ppm of the products in water.

The material passed the bioassay with only 1 out of 10 minnows dying. To fail the bioassay, more than 40% of the fish would die in 750 ppm.

OCTANOL/WATER PARTITION COEFFICIENT: Not available.

VOLATILE ORGANIC COMPOUNDS: 100 WT%; 6.5 to 6.8 lb/US gal; 780 to 820 g/l Photochemically reactive as per 40 CFR Part 51.100(s).

SECTION 13: DISPOSAL CONSIDERATIONS

DISPOSAL: Dispose in accordance with federal, state, provincial, and local regulations. Regulations may also apply to empty containers. The responsibility for proper waste disposal lies with the owner of the waste. Contact Safety-Kleen regarding recycling or proper disposal.

USEPA WASTE CODE(S): Not regulated.
Based on available data. this information applies to the material as supplied to the user. Processing, use, or contamination may make this information inappropriate, inaccurate, or incomplete.

SECTION 14: TRANSPORT INFORMATION

DOT: COMBUSTIBLE LIQUID, N.O.S. (PETROLEUM NAPHTHA), NA1993, PGIII

TDG: Not regulated.

SECTION 15: REGULATORY INFORMATION

USA REGULATIONS

SARA SECTIONS 311 AND 312: Materials pose the following physical and health hazards as defined in 40 CFR Part 370 and are subject to the requirements of sections 311 and 312 of Title III of the Superfund Amendments and Reauthorization Act of 1986:

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

SARA SECTION 313: These products do not contain toxic chemicals subject to the requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

TSCA: All the components of these products are listed on the TSCA Inventory.

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

CANADIAN REGULATIONS

These products have been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

WHMIS: B3, D2B

CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA): All the components of these products are listed on the Canadian Domestic Substances List.

SECTION 16: OTHER INFORMATION

REVISION INFORMATION: New format.

LABEL/OTHER INFORMATION: Not available.

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 Corp.
Continued Use Program

FL Department of Environmental Protection
May 24, 1999

Background

- Two competitors offer a non-waste option for management of used mineral spirits from parts cleaning
- Competition sells used mineral spirits to third parties for use as a substitute ingredient in manufacture products
- Material is not recycled/reclaimed prior to introduction into production process

Background (cont.)

- Material removed by competitors' programs are not considered a waste under the Definition of Solid Waste because it is directly re-used as a substitute ingredient

Recycle Center Scrap Wash Program

- New Castle KY Recycle Center has a shredder used to empty drums of industrial wastes destined for fuel program
- Scrap metal has to be washed prior to selling to scrap dealer
- Large volume of material required for scrap washing operation
- Material pre-qualified via sampling

20-May-99 4

Branch Drum Wash Program - Original Design

- At branch, parts washer waste (mineral spirits) is bulked
- Parts washer waste poured into wet dumpster and pumped to waste tank or 10-day transfer tanker
- Level of fluid in wet dumpster controlled by a float switch

20-May-99 5

Branch Drum Wash Program - Original Design (cont.)

- Green and red 16 &30-g drums are washed with waste from customers in a mechanical drum washer that is part of wet dumpster
- Drum washer spins drums against brushes with waste from pool of material at the bottom of wet dumpster being sprayed on interior of drum

20-May-99 6

Branch Drum Wash Program - Original Design (cont.)

- Cleaning material falls back to bottom of wet dumpster with other waste from drum emptying operation
- Float switch again controls level of material in bottom of wet dumpster
- Drums are removed from drum washer unit and re-filled with fresh product

Branch Drum Wash Program - New System Design

- SK completed engineering cleaning study to establish standardized cleaning system
- Flow rate, time, and volume established
- Second smaller vat installed next to wet dumpster
- Material from cone shaped bottomed Continued Use vat is preferentially pumped to washer

Branch Drum Wash Program - New System Design (cont.)

- When Continued Use vat is empty, new electrical valve box allows system to be converted to former approach of pulling material off the bottom of wet dumpster
- Drums are washed with Continued Use material which falls into the bottom of wet dumpster and is co-mingled with waste from customers

Branch Drum Wash Program - Administrative Controls

- Original construction and future maintenance are P.E. certified as to standardized cleaning system
- Drum identification system established
- Material tracked with separate shipping description and code in computer system
- Separate computer designated location for logging material into facility

10-May-99 10

Branch Drum Wash Program - Administrative Controls

- Each branch given capacity for selling
- Capacity monitored electronically

10-May-99 11

Branch Drum Wash Program Operations

- Material balance - use on daily or two business day cycle
- All DOT packaging, labeling, and shipping paper requirements are met
- Spills managed same as product spills - SK generated waste
- No net change in flow of material through SK branches

10-May-99 12

Branch Drum Wash Program Operational Design (cont.)

- Customer acceptance criteria
  - all material must be able to go through Continued Use cleaning system

Regulatory Status

- RCRA Definition of Solid Waste (and state equivalent) governs what is and is not a waste
- Solvent initially used by customers, will be used or reused as an effective substitute for commercial products [40 CFR 261.2(e)(1)] for cleaning operations

Regulatory Status (cont.)

- Preamble to DSW, 1/4/85 (50 FR 619) discusses use of substitutes for commercial products,
  - "When secondary materials are directly used as substitutes for commercial products, we (the Agency) also believe these materials are functioning as raw materials, and therefore are outside of RCRA jurisdiction and thus, are not wastes

Regulatory Status (cont.)

- Rule states that secondary materials used as ingredients or used directly as commercial products are not wastes
- Solvents from customers still have some capacity to clean in low grade use, as demonstrated by SK's use of waste to clean drums

Regulatory Status Summary

- Material in Continued Use program is a substitute for commercial products
- Material is used directly without any reclamation prior to its use
- All material is used for cleaning
- No land storage or speculative accumulation
- Material used for washing becomes SK generated waste

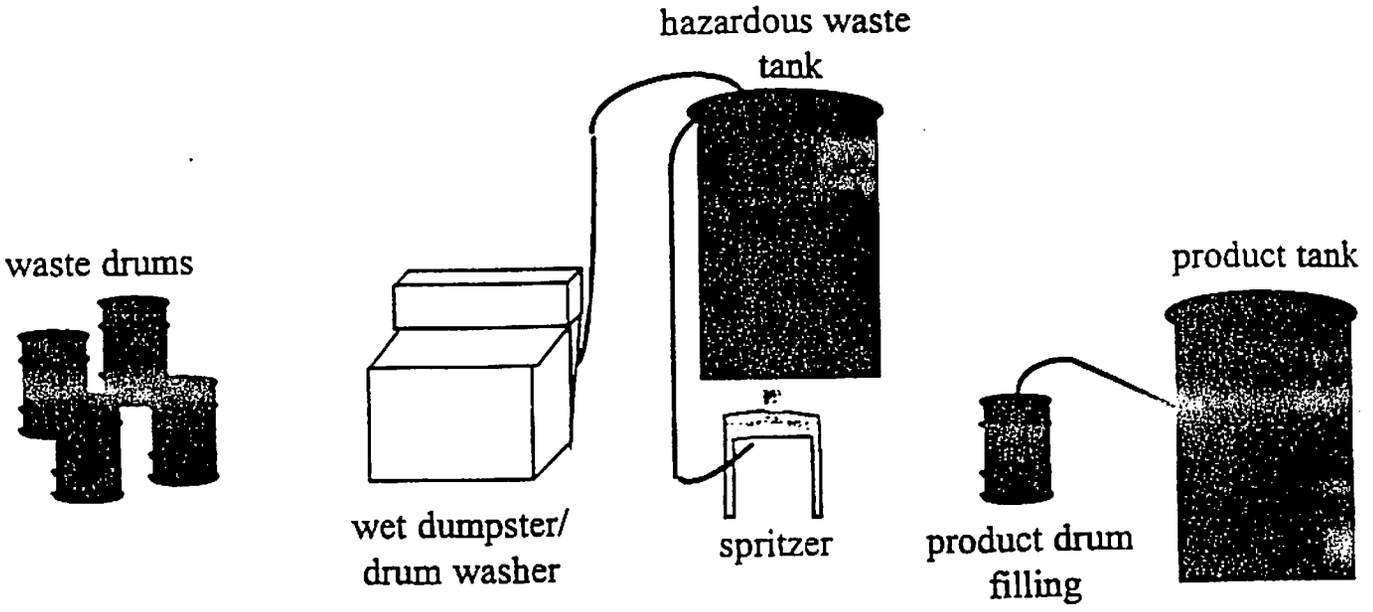
Regulatory Concurrence

- Competitors obtained letters of concurrence on regulatory determinations from state environmental departments
- S-K has obtained such letters from USEPA, CA, CO, IN, KY, OH, TX, and WV
- Discussions with additional states, but S-K may not seek letters from all states as roll-out of branch program accelerates

Program Status and Roll-Out Schedule

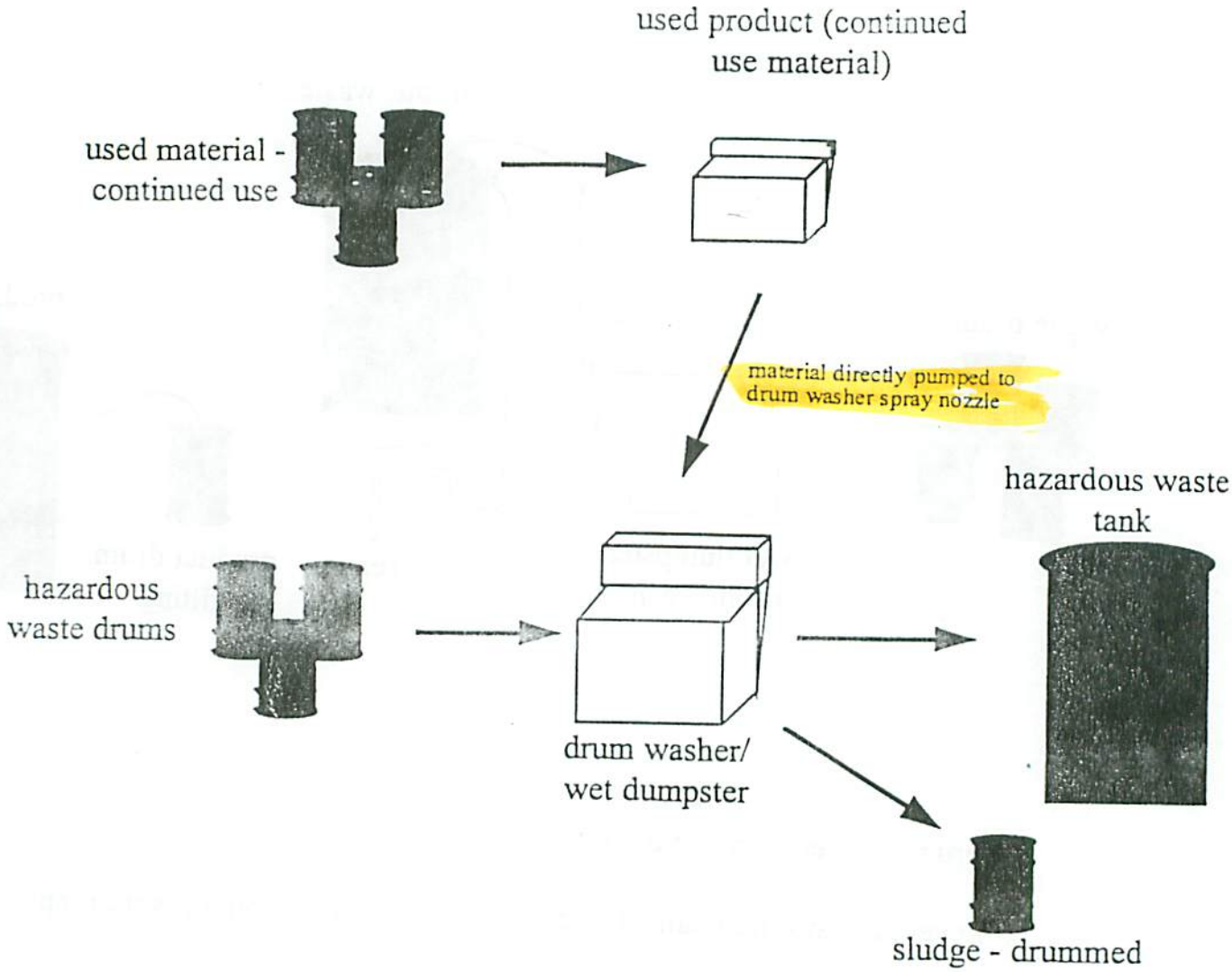
- S-K has registered name "Continued Use"
- Recycle Center Scrap Metal Wash Program
  - program is at capacity (continuously monitored
  - material accepted from different customers in many states
- Branch Drum Wash Program
  - program rolled out in IN and OH
  - next states TX,WV,UT,KY,CA,CO,FL & ID

CURRENT RETURN & FILL OPERATION



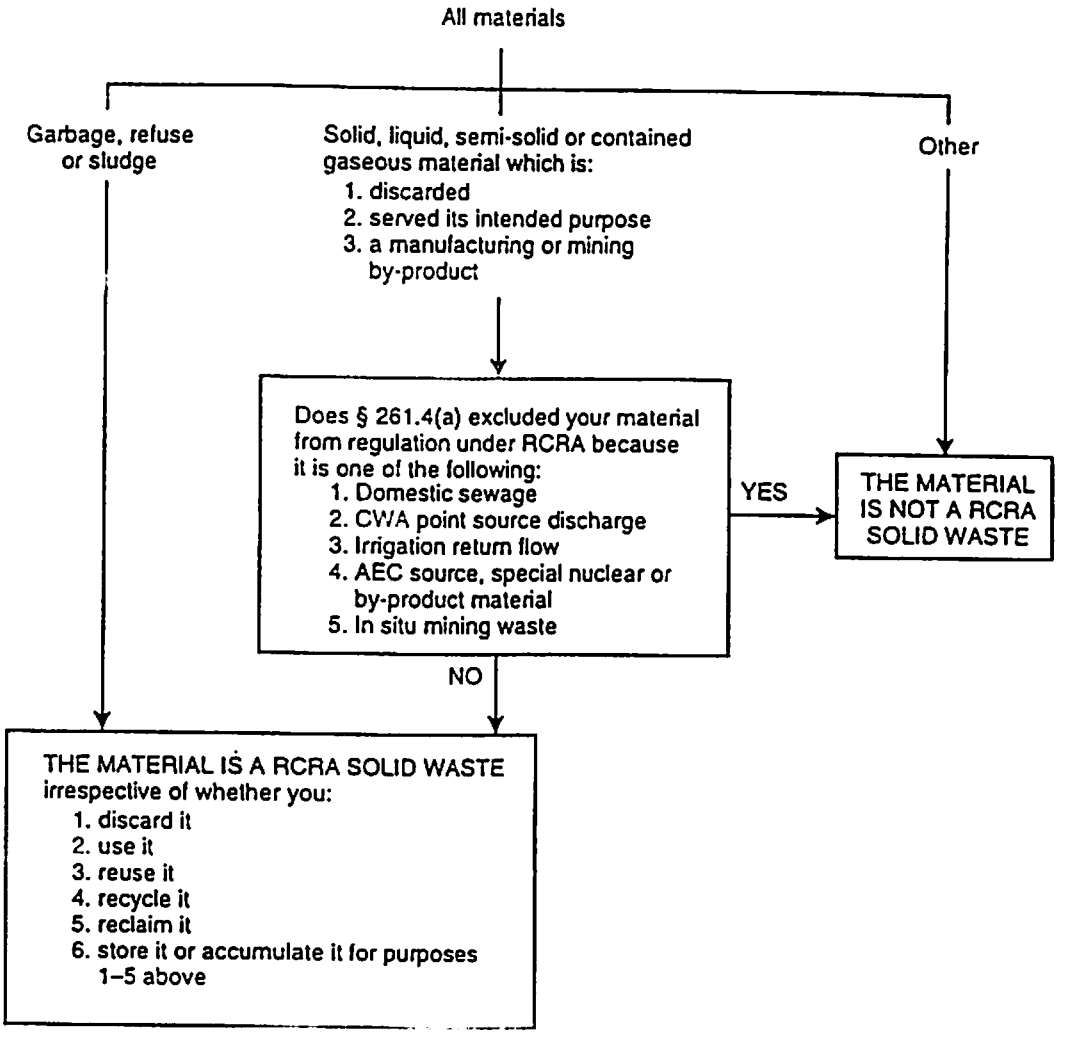
1. Drums poured into wet dumpster.
2. Level indicator maintains fixed level of waste in bottom of wet dumpster.
3. Drum placed on drum washer within wet dumpster.
4. Drum washer brushes spin and spray waste inside of drum.
5. If necessary, product is dispensed on outside and inside drum.
6. Drum placed upside down on wet dumpster drain rack.
7. If non-haz drum, drum placed in drum spritzer for polishing rinse with 150 Premium Gold Product.
8. Drum is filled with 105 or 150 Premium Gold.

PROPOSED ALTERNATIVE OPERATION

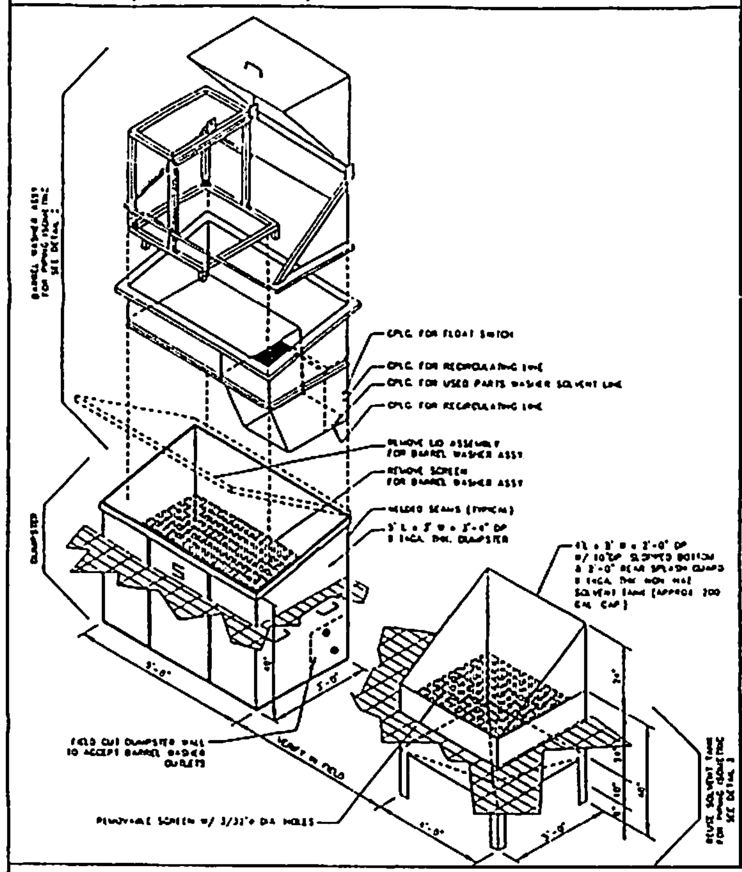


1. Drums of "continued-use product" emptied into separate dumpster/tank.
2. Hazardous waste drums are emptied into wet dumpster.
3. To clean drums, continued-use material is pumped to drum washer spray. Material is pumped to hazardous waste tank after use as drum wash. All drums are washed in the drum washer.

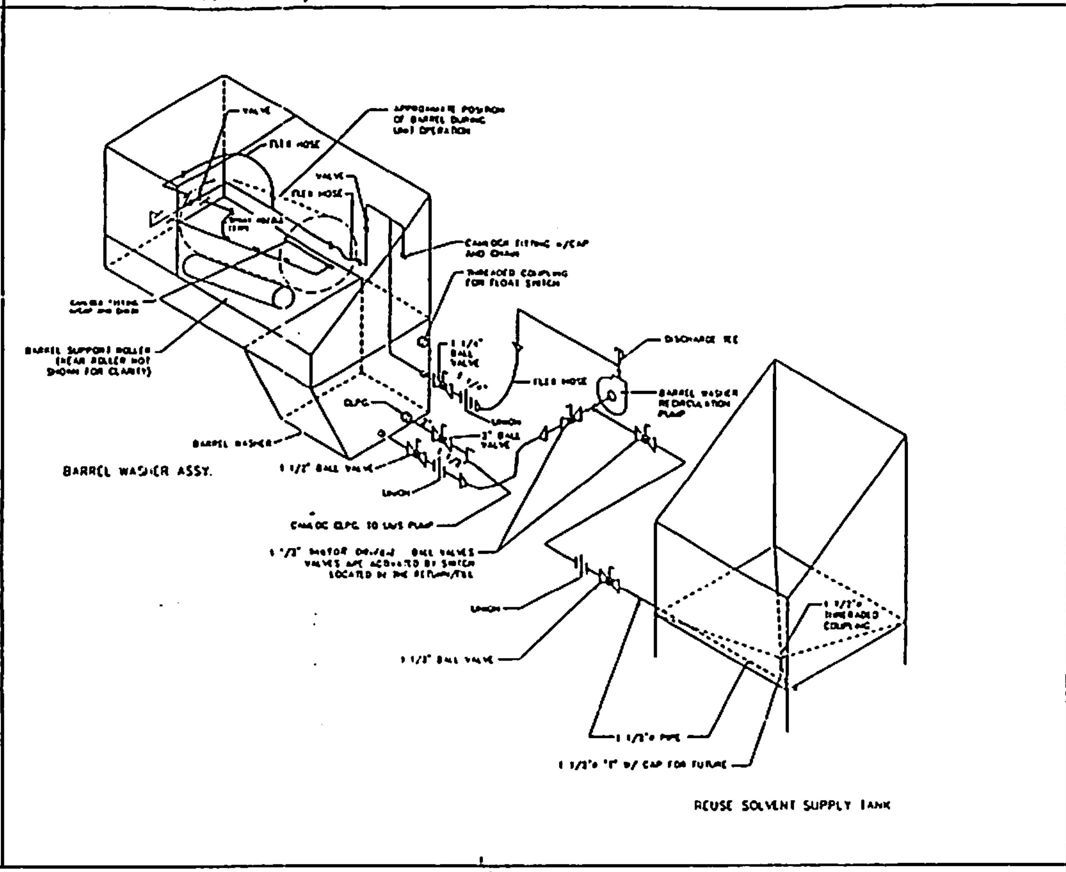
FIGURE 1
DEFINITION OF A SOLID WASTE



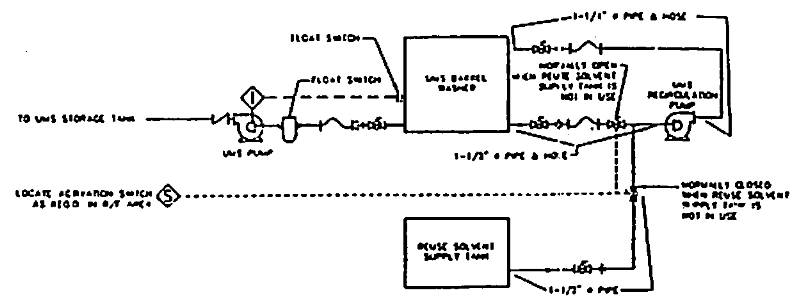
DUMPSTER/BARREL WASHER/REUSE SOLVENT TANK ASSY – DETAIL 1



BARREL WASHER/ REUSE SOLVENT SUPPLY TANK PIPING ISOMETRIC – DETAIL 2



BARREL WASHER/ REUSE SOLVENT SUPPLY TANK PIPING SCHEMATIC – DETAIL 3



GENERAL NOTES

REVISIONS

NO.	DESCRIPTION	BY	CHK	APPD	DATE
A	RELEASED TO [illegible] FOR REVIEW	[illegible]	[illegible]	[illegible]	[illegible]
B	REVISED PER COMMENTS	[illegible]	[illegible]	[illegible]	[illegible]
C	ADDED [illegible] VALVES [illegible] FLOAT SWITCH DETAIL & NOTES	[illegible]	[illegible]	[illegible]	[illegible]

PROPRIETARY STATEMENT

TITLE: BARREL WASHER W/ REUSE SOLVENT SUPPLY TANK

Safety-Kleen Corp.

SCALE	BY	CHKD	APPROVED	OPERATIONS	DATE
AS SHOWN	[illegible]	[illegible]	[illegible]	-	[illegible]

STANDARD TYPE	STD-DWG NUMBER	REV NO.
MECHANICAL	BSD-333	C