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September 1, 2015

John E. Kieling, Chief  
New Mexico Environment Department  
Hazardous Waste Bureau  
2905 Rodeo Park Drive East, Building 1  
Santa Fe, NM 87505-6303

RE: Notice of Disapproval RCRA Hazardous Waste Facility Permit  
Revised Application  
Safety-Kleen Systems, Inc. NMD980698849

Dear Mr. Kieling:

On behalf of Safety-Kleen Systems, Inc., enclosed is the revised Hazardous Waste Facility Permit Application for Safety-Kleen's Farmington, NM Service Center. This submittal is in compliance with the Agency's requests.

- Information added to the document is highlighted in yellow.
- Deleted information is indicated by strike-out.
- Included with this letter is a table to indicate Safety-Kleen's response to each NOD item.
- There are 2 CDs included. Each CD has the revised text as a Microsoft Word™ document; and the Exhibits are included as an Adobe pdf.

If you have questions or require additional information, please contact Nahid Toossi at 714.429.4355, or via email at [nahid.toossi@safety-kleen.com](mailto:nahid.toossi@safety-kleen.com).

Sincerely,

Kelly Dale Taylor  
Environmental, Health and Safety Manager, C.H.M.M.  
Safety-Kleen Systems, Inc.

**Safety-Kleen's Response to March 20, 2015 Notice of Disapproval for the  
Part B Permit Renewal Application for  
Safety-Kleen Systems, Inc., Farmington Service Center,  
EPA ID No. NMD980698849**

1. TOC- Pages iii-iv, Use of Acronyms and Abbreviations, and Pagination:  
Provide a "Table of Contents" that includes, in addition to the content in the current table in the Application, a "List of Tables" and a "List of Figures" (figures include maps, plates, and photographs). Also list the appendices in the Table of Contents.

Include a "List of Acronyms and Abbreviations" used in the Application, and insert page numbers on every page of the Application.

In addition, designate the chapters of the revised Application in a logical order. For example, in the current Application, the first chapter is called "Section 1.0, Facility Description", after which all the remaining chapters are titled as Attachments A through G; there is no Section 2 and so forth that should follow Section 1.

**Safety-Kleen Response:** A Table of Contents includes a list of acronyms and abbreviations and all Exhibits.

All sections of the application have been re-designated as follows:

Section A – General Facility Info  
Section B – Waste Analysis Plan  
Section C – LDR Information  
Section D – Operating Record  
Section E – Subpart BB  
Section F – Subpart CC  
Section G – Facility Security  
Section H – Inspection Plan  
Section I – Training Plan  
Section J – Preparedness & Prevention  
Section K – Contingency Plan  
Section L – Closure Plan  
Section M – Liability Coverage

Exhibits are numbered to correlate to the applicable Section listed above. Example: Exhibits referenced in Section A are designated as A-1; A-2, etc.

2. PART A PERMIT APPLICATION, EPA Form 8700-U, Page 1, Item# 9, "Legal Owner and Operator of the Site", and Page 1 of 6, ((Hazardous Waste Permit Information Form": The legal owner is listed as Safety-Kleen Systems, Inc. Also, the Owner Type is not indicated in any of the 8 boxes from which the Applicant must choose.

- a. Check the appropriate box to indicate whether the *Owner Type* is private, county, district, federal, tribal, municipal or state.
- b. In the cover letter of the Application, the last line of the Facility's address reads, "Safety-Kleen Systems, Inc. /A Clean Harbors Company" which suggests that the Owner is Clean Harbors and Safety-Kleen is the Operator. Provide the name(s) and address(es) of the legal owner(s) of the Safety-Kleen Farmington Center in Permit Part A, item 9(A) under "Name of Site's Legal Owner". The Applicant must submit an updated Part A Application.

Hazardous Waste Permit Information Form, Page 1 of 6: Fill in the blank in item "Facility Existence Date".

**Safety-Kleen Response:** A new Part A Application is included as Exhibit A-1. Items referenced in a. and c. are complete.

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**Item b: Safety-Kleen Systems (the operating entity of our Branch/Service Center network) is not directly owned by Clean Harbors, so Clean Harbors should not be listed as facility owner. A SK ownership chart is included as Exhibit A-1a to illustrate ownership.**

3. DESCRIPTION OF THE FACILITY, Page 1-6 "*Regional Description*": Unit Location Map, and Scales for all Maps and Figures:

- a. Provide a regional map of New Mexico showing the Facility's location in Bernalillo County. Provide an additional map showing the Facility's location in Farmington to help third party reviewers understand where the Facility is located.
- b. Provide a scale and north arrow for each of the figures and maps in the Application.

**Safety-Kleen Response: Item a. A regional map is included as Exhibit A-6  
Item b. All maps have scale (if applicable) and North arrow.**

4. REGIONAL DESCRIPTION, Page 1-6, Section 1.2.1, second sentence in the second paragraph: "The majority of the vehicular traffic and loading/unloading operations occur at, and, near the return and fill station and this area is paved with asphalt and concrete".

- a. Explain how Safety-Kleen conducts loading and unloading of hazardous waste at the Facility, and whether these procedures are performed manually and/or with equipment, such as forklifts. Provide a depiction of the containment system drainage on Figures 1, E-2, and E-3.
- b. Highlight the hazardous waste loading and unloading areas on Figures 1, E-2, and E-3 of Attachment E-1. The writings and labels of the Figures must be legible.
- c. Figures E-2 and E-3 are the only figures provided in Attachment E-1. Provide Figure E-1 which is missing. Number the "Site Plan" and "Floor Plan" found on the next two pages after Figure 1. Label the Figures on the page opposite Figure E-3.
- d. Describe the storage area and containment system(s) design for management of liquids resulting from leaks, spills, or precipitation, and how containers are kept from contact with standing liquids, as required by 20.4.1.900 NMAC incorporating 40 CFR § 270.15(a)(2) and 40 CFR § 270.15(b)(2), and 20.4.1.500 NMAC incorporating 40 CFR § 264.175(b)(2).

**Safety-Kleen Response: Item a. Section J.1.1.1 describes tank feed system. Section J.2.2 describes Container/Drum management.  
Item b. Loading/unloading areas described in Section J.2.2 and are depicted on Exhibit A-3 (Site Diagram) as Concrete adjacent to storage areas.  
Item c. All exhibits have been renamed and included as the pdf document.  
Item d. Section J.1.2 describes the Container Storage Area's passive containment system; released material management; Section J.2.2 states that containers are stored on pallets to keep from contact with standing liquids.**

#### 5. TRAFFIC PATTERN

This topic was not addressed in the Application.

Provide a description of the road surface composition, traffic pattern(s), estimated volume (i.e., number, types of vehicles), traffic controls (for example signage directing traffic), and load bearing capacity of the access roads leading to and from and at the Facility, as required by 20.4.1.900 NMAC incorporating 40 CFR §270.14(b)(10).

Provide a description of the range of weights of waste conveyed per movement per vehicle for those vehicles used for such purpose.

**Safety-Kleen Response: An area map depicting routes of travel to the branch is included as Exhibit A-4 in the revised application. A description of vehicle numbers, weights and configuration; signage requirements, and stacking lanes is included in Section A.2.1 in the revised application.**

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6. "Figure 2, TOPOGRAPHIC MAP, 1 Mile Radius, Safety-Kleen Systems, Inc. Service Center, Farmington, New Mexico":

Figure 2, Attachment E-1, *Facility Drawings*, does not satisfy the requirements of 20.4.1.900 NMAC incorporating 40 CFR 270.14(b)(19), which specify the features that must be shown on the topographic map of a hazardous waste management facility. Therefore, in order to meet the regulatory requirements, the applicant must provide a topographic map of the Facility showing the features outlined below that occur within a distance of 1,000 feet around the Facility and at a scale of 1 inch equal to not more than 200 feet. Topographic contours must also be shown on the map. The contour interval must be sufficient to clearly show the pattern of surface water flow in the vicinity and from each operational unit of the Facility. The map must also clearly show the following features:

- a. Map title, scale, orientation (north arrow), and date.
- b. Surface waters including intermittent streams;
- c. Wind rose placed on the topographic map in a manner that does not obscure map details or included as a separate figure in the Application. The wind rose must show prevailing wind-speed and direction.
- d. The legal boundaries of the Facility;
- e. Access control features (such as fences and gates);
- f. Buildings, tanks and other areas and structures (such as recreation areas, runoff control systems, access and internal roads, storm, sanitary, and process sewage systems, loading and unloading areas, fire control facilities);
- g. Barriers for drainage or flood control;
- h. Location of units within the Facility where hazardous waste is, or will be stored, or otherwise managed.
- i. Horizontal bar scale, in addition to a relational scale (e.g., Scale: 1 inch equals 200 feet).

**Safety-Kleen Response:** Items a-f: The following maps are included with the revised application:

Exhibit A-2 Aerial Photograph of Facility

Exhibit A-3 Facility Site Diagram (depicts property lines, fence/gate location, buildings, tankfarm)

Exhibit A-4 Area Traffic Patterns

Exhibit A-5 Site Traffic Patterns

Exhibit A-6 Regional map of NM showing the Facility's location in San Juan County

Exhibit A-7 Topographic Map Depicting: 1,000 Ft Radius around facility; Topographic Contours

Exhibit A-8 Wind Rose Map for Gallup/FAA Airport (no MET data for the Farmington airport, closest is Gallup)

Exhibit A-9 FEMA 100-Year Flood Plain Map

Exhibit A-10 Plat Map (1980)

Exhibit A-11 City of Farmington Zone Map

Exhibit A-12 Local Drinking Water Supply Map

Exhibit A-13 Local Sanitary Sewer Supply Map

7. Attachment E-2, Tank System Certification, Figure 5: Zoning Map. Figure 5 is not legible. Revise the figure to make it legible.

**Safety-Kleen Response:** A new legible zone map is included as Exhibit A-11; a legible tank farm and piping schematic is included as Exhibit J-2

8. Figure 6, 100 YEAR FLOOD PLAIN MAP

Figure 6 does not contain enough information to equate it to 100-year flood plain map. Further, the text on the map and in the legend is not legible, and the map is therefore unacceptable. More specifically, the hundred-year flood plain is not shown clearly on the map as required by 20.4.1.900 incorporating 40 CFR 270.14(b)(11)(iii).

Revise Figure 6 to clearly show the 100-year flood plain for the Facility area. In addition, ensure that

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all text on the revised Figure 6 is legible and easily read. Include a north arrow on the map.

**Safety-Kleen Response:** A new legible FIRM/FEMA map is included as Exhibit A-9 in the revised application.

9. Surrounding Land Use A map showing surrounding land use (i.e., residential, commercial, agricultural, recreational) was not provided in the Application. Provide such a map meeting the requirements of 20.4.1.900 NMAC incorporating 40 CFR § 270.14(b)(19)(iv). See also Comment 6.

**Safety-Kleen Response:** A City of Farmington Zone Map is included as Exhibit A-11.

10. Page A-4, Section "A.2, QUALITY CONTROL PROCEDURES", second paragraph, second sentence: *"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."* Explain what is meant by the statement that the "quality of these materials are known".

**Safety-Kleen Response:** A revised Waste Analysis Plan is included as Section B. This statement is not included in revision.

11. Page A-9, "WASTE ANALYSIS AT THE RECYCLE CENTER", last paragraph of Section "A.3.1, Solvents", page A-10: "In addition to the tests listed above, which will be performed on a representative sample from every load received at the recycle center from the Farmington service center, a full Toxicity Characteristic Leaching Procedure (TCLP) analysis for all 40 constituents, (except for pesticides and herbicides) will be performed at least once each calendar year."

a. Sampling Methods: Sampling methods are not described in the application. Therefore, the Applicant must submit the following information:

- i. Indicate the methods to be employed when sampling waste (examples of acceptable methods for obtaining representative samples are described in 20.4.1.200 NMAC incorporating 40 CFR Part 261 Appendix 1). Provide a detailed description of the proposed sampling method(s) that will be used at the Recycle Center and at the operational units comprising the rest of the Facility.
- ii. Provide a table listing the 40 constituents which the Applicant plans to analyze for using TCLP and the associated chemical analytical testing method (e.g., EPA Method 8260b, EPA Method 6020).
- iii. Specify what will be subject to analysis for full TCLP constituents.

**Safety-Kleen Response:** As stated in Section B.4, *Detailed discussion of the Waste Analysis Plans for the Recycle Centers or other contract processor is extraneous to the Farmington facility's permit application.*

b. Page A-6, Section A.3.1, First Bullet, *"Flashpoint (must be greater than 90°F). If the flashpoint is unacceptable, the Albuquerque Branch Manager will be notified immediately and the load will received appropriate special handling."*

Explain why the Farmington Application designates the Albuquerque Branch Manager as the decision maker or this matter instead of the resident Farmington Center Branch Manager. Describe the "appropriate special handling."

**Safety-Kleen Response:** Reference to Albuquerque was in error. This section has been deleted.

c. Attachment E, Page E-3, Section E.2, paragraph 4, second sentence states: *"The wastes in the container storage area are not handled while on site, and are segregated in properly labeled containers to*

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*indicate their contents.:*

Revise the aforementioned sentence to clarify its meaning. For example, is the sentence intended to mean that wastes in the container storage area not combined with equivalent waste types, or mixed with different waste types, while in storage at the Facility?

**Safety-Kleen Response:** This section is J.2.2 in the revised application. The word "handled" has been changed to "opened (unless for sampling purposes) or mixed/comingled while on site."

12. Page A-8, Section A.5: *LAND BAN NOTIFICATION/CERTIFICATION FORMS: "In accordance with 40 CFR 268.7(a)(2), Safety-Kleen will provide notification/certification for wastes banned from landfills..."*

The statement above does not provide adequate information on land disposal restrictions (LDRs). Specify in greater detail the waste characterization requirements and procedures to be implemented to comply with LDRs, as specified at 20.4.1.800 NMAC incorporating 40 CFR § 268.7. The EPA guidance document "*RCRA Land Disposal Restriction: A Guide to Compliance*" illustrates an appropriate waste characterization compliance strategy. Note that the "point of waste generation" must be used to determine LDR requirements for a hazardous waste.

**Safety-Kleen Response:** Land Disposal Restrictions (LDR) information is located in Section C of the revised application.

13. ATTACHMENT B, Page B-1, SECURITY MEASURES

Security procedures and equipment are not described in sufficient detail in Attachment B of the Application. Provide, at a minimum, a description of the following security procedures, as required by 20.4.1.900 NMAC incorporating 40 CFR § 270.14(b)(4) and 20.4.1.500 NMAC incorporating 40 CFR § 264.14.

- a. A 24-hour surveillance system, (e.g., television monitoring, surveillance by guards or facility personnel), which continuously monitors and controls entry onto the active portion of the Facility; or
- b. An artificial or natural barrier (e.g., a fence in good repair or a fence combined with a cliff), which completely surrounds the active portion of the Facility; and a means to control entry at all times, through the gates or other entrances to the active portion of the Facility (e.g., an attendant, television monitors, locked entrance, or controlled roadway access to the facility).
- c. A description that the permanent perimeter fence surrounding the Facility and the entrance to the Facility shall be posted with "Danger: Unauthorized Personnel Keep Out" signs (or signs with equivalent language). The signs shall state the warning in English and Spanish, shall be legible from a distance of 25 feet, and shall be visible from any approach to the Facility. (See 40 CFR § 264.14(c)).

**Safety-Kleen Response:** Information is included in revised application. Item a. Section G.1.2; Item b. Section G.1.1; Section G.1.4; Item c. Section G.1.1; Section G.1.4.

14. Page C-1, Paragraph a., Tank Inspection

Provide information concerning the compatibility of tank construction materials with the wastes that are to be stored in the tanks.

**Safety-Kleen Response:** As verified in Exhibit J-1 Tank Installation Assessment; Considerations of Design Assessment 3 "System components are not provided with any specific internal corrosion protection measures. Review of the chemical composition of the waste material shows it to be compatible with and not corrosive to the dumpster, piping, and tank materials. A possible exception is

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*water which tends to form a layer at the bottom of the tank. However, corrosion at the tank wall/water interface is inhibited because of limited free oxygen in the waste, together with waste removal procedures by Safety-Kleen which result in little if any exposure of this interface to air. Additionally, prior experience at other Safety-Kleen installations indicates that the waste material is compatible with the system materials of construction.*

*It is therefore concluded that the waste materials are sufficiently compatible with the system materials of construction not to require additional corrosion protection"*

15. INSPECTION PLAN, Page C-2, Section C.2, "Safety Equipment" last sentence: "Emergency Equipment information is in Attachment F."

Although the inspection schedule lists some of the items that the Applicant will inspect, it is incomplete. Provide additional information to include the frequency of inspection and the types of problems that may be identified during an inspection of, but not limited to, 1) safety and emergency equipment, communication and alarm systems, decontamination equipment; 2) operational and structural equipment, and their inspection criteria, and 3) on containers and tanks. Provide a table or tables in a format similar to the following example, and meet all applicable requirements at 20.4.1.900 NMAC incorporating 40 CFR § 270.14(b)(5) and 20.4.1.500 NMAC incorporating 40 CFR § 264.174, 40 CFR § 264.195 and 40 CFR § 264.15. Note that not all inspection parameters are listed in the example table in this NOD. The example table is provided merely to show format and provide examples of some inspection parameters, criteria, and frequencies.

**Safety-Kleen Response:** Revised Inspection Plan Included in Section H – Table H.3 and Section H narrative.

16. Page E-2, Section "E.J.2, Drum Storage": This section does not contain a description of the types of drums or other containers the Applicant will use for hazardous waste storage. Provide a description of types and capacity of the containers that will be used to store hazardous waste. Specify the number of containers, their sizes, and how high they will be stacked, if stacked. If stacked, also describe how the containers will be stacked and their resulting configuration. Additionally, discuss whether containers will be used to store free liquids, and provide detailed design specifications and drawings showing the container storage areas, including aisle space and secondary containment systems.

**Safety-Kleen Response:** Description of containers is included in Section J.2.3; Exhibit J-6. Container Management (stacking) discussed in Section J.2.2. All containers are assumed to contain liquid: Section J.1.2.

17. Page E-3, Section "E.2, WASTE MANAGEMENT PRACTICES": Waste Minimization  
Waste Minimization was not discussed in the Application; therefore include in the Application a description of the waste minimization program that Safety-Kleen is to have in place for reducing the volume and toxicity of hazardous wastes accepted and stored at the facility see 40 CFR 264.73(b)(9)). The waste minimization program must include proposed, practicable storage, currently available to the applicant to minimize any present or and future threats to human health and the environment. The Waste Minimization Program shall include the following items:

- a. Plan for reducing the volume and toxicity of hazardous waste at the Facility and recycling of hazardous waste at the Facility;
- b. Employee training designed to identify and implement source reduction and recycling opportunities for all hazardous wastes;
- c. Waste minimization and recycling implemented over the last year and additional waste minimization efforts that could be implemented at the Facility in the next federal fiscal year; and,
- d. Estimated costs devoted to waste minimization and recycling of hazardous waste

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**Safety-Kleen Response:** Items a-d: The facility's Waste Minimization Plan is included as Exhibit D-1 in the revised application and these are included in the Plan.

18. BIENNIAL REPORT: Pursuant to 20.4.1.500 NMAC incorporating 40 CFR § 264.75 the Applicant must prepare and submit a biennial report to NMED by March 1 of each even numbered year. The report must cover the activities during the previous calendar year and must include:
- a. The EPA identification number, name, and address of the Facility;
  - b. The calendar year covered by the report;
  - c. The identification number of each hazardous waste generator from which the Facility received hazardous waste during the year;
  - d. A description of the quantity of each waste the facility received during the year;
  - e. Waste minimization and recycling implemented over the last year and additional waste minimization efforts that could be implemented at the Facility in the next federal fiscal year;
  - f. The most recent estimated costs devoted to waste minimization and recycling of hazardous waste; and
  - g. A report regarding progress made in the waste minimization program in the previous year. The report shall address items 1-4 above, shall show changes from the previous report, and shall be submitted annually by December 15 for the previous fiscal year ending September 30th, as required by 20.4.1.300 NMAC incorporating 40 CFR § 262.41(a)(6-7) and 20.4.1.500 NMAC incorporating 40 CFR § 264.75(h) and(i).

Revise the Application in accordance with the above noted requirements found at 20.4.1.500 NMAC incorporating 40 CFR § 264.75.

**Safety-Kleen Response:** Section D.4 of the revised permit application has been revised to include items e, f, and g. This was previously referenced as Section E.3 of the 2013 application.

19. ATTACHMENT E-1, Page E-10, "Facility Drawings", and ATTACHMENT E-2, Page E-17, "Underground Tank Installation Assessment Report". Revise Figures 4, 5, 6, and 7 to include the designations for each of the container and tank storage units, and ensure that all text is legible. Provide Figure 3, which is missing from the Application. NMED recommends that the format for numbering the figures be consistent throughout the Application to avoid confusion.

**Safety-Kleen Response:** All Exhibits (attachments) are re-numbered to correlate to text sections.

20. CONTINGENCY PLAN- Page F-2, Section F.2, Emergency Coordinator and Responsibilities
- a. Provide a list of the names, addresses and office and home phone numbers of all persons qualified to act as emergency coordinator. Where more than one person is listed, one must be named as primary emergency coordinator, and the others must be listed in the order in which they will assume responsibility as alternates. Describe the Chain of Command (e.g., Primary Emergency Coordinator, First Alternate, Second Alternate, Third Alternate). See 20.4.1.500 NMAC incorporating 40 CFR § 264.52(d).

**Safety-Kleen Response:** Emergency coordinator responsibilities are discussed at Section K.3.1; Chain of Command at K.3.2. An example emergency information sheet is included as Exhibit K-1.

- a. Page F-7, Section F.5, "Arrangements with Emergency Response Personnel and Support Agreements.  
Describe what type of support agreements the Applicant has made with the emergency response authorities listed in Attachment F-1. Include a description of how the Applicant plans to familiarize the police, fire department, local hospitals, and emergency response teams with the layout of the Facility.

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Further, describe how the Applicant will familiarize the police, fire department, emergency response teams, and local hospitals with the types and properties of hazardous waste managed at the Facility, and associated hazards and possible types of injuries or illnesses which could result from fires, explosions, or releases at the Facility, the places where Facility personnel would normally be working, entrances and roads inside the Facility, and possible evacuation routes. These requirements are specified at 20.4.1.500 NMAC incorporating 40 CFR § 264.37(a).

**Safety-Kleen Response:** Detailed in Sections K.2; K.3.3. Example of correspondence provided in Exhibit K-6.

- b. Provide a list of names of the specific agencies/organizations with which the Applicant has a memorandum of agreement (MOA) or memorandum of understanding (MOU) for aid and fire protection.

**Safety-Kleen Response:** Detailed in Section K.2.

- c. Provide a table listing the MOAs or MOU's for emergency response between the Applicant and the outside organizations. Include the specific type of service to be provided.

**Safety-Kleen Response:** Detailed in Section K.3.3; Table K.3.3.

- d. Emergency Equipment: Indicate whether portable fire extinguishers, fire control equipment, spill control equipment, and decontamination equipment are available, and, if so, specify their locations at the hazardous waste management units and Facility, as required by 20.4.1.500 NMAC incorporating 40 CFR § 264.32(c) and 40 CFR § 264.52(e).

**Safety-Kleen Response:** Detailed in Section K.3.1; A list (inventory) of emergency equipment available at the facility is included as Exhibit K-3. The location of equipment is included in Exhibit K-4.

- e. Water and Fire Control: Indicate whether adequate water volume and pressure, or foaming equipment, or automatic sprinklers or water spray systems are available, as required by 20.4.1.500 NMAC incorporating 40 CFR § 264.32(d). Describe the fire control systems.

**Safety-Kleen Response:** Discussed in Sections K.4.1.1.1 – K.4.1.1.2. The facility does not have fire suppression systems. Only incipient fires will be responded to with portable fire extinguishers. Water for fire control is provided by the City of Farmington.

- f. Testing and Maintenance of Equipment: Indicate whether communication or alarm systems, fire control equipment, spill control equipment, and decontamination equipment are tested and maintained, as required by 20.4.1.500 NMAC incorporating 40 CFR § 264.33. Provide a description of such testing and maintenance for each system.

**Safety-Kleen Response:** Inspection of emergency equipment detailed in Section H.1; Exhibits H-1; H-2.

- g. Access to Communication or Alarm System: Indicate when waste is being handled, that all personnel have access to an internal alarm or emergency communication device, or through visual or voice contact with another employee as required by 20.4.1.500 NMAC incorporating 40 CFR § 264.34. Provide a description of such access.

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**Safety-Kleen Response:** Communication discussed in Section J.10.

- h. Aisle Space : Indicate whether each waste storage unit has aisle space that is wide enough for unobstructed movement of personnel, medical and fire protection equipment, spill control equipment, and decontamination equipment in case of emergency, as required by 20.4.1.500 NMAC incorporating 40 CFR § 264.35. Provide a description of the minimum aisle space that will be maintained.

**Safety-Kleen Response:** Adequate aisle space maintained-Section J.2.2.

- i. Implementation of Contingency Plan and Control Procedures; Describe the actions Facility personnel will take in response to fires, explosions, or any unplanned or nonsudden release of hazardous waste or hazardous waste constituent to air, soil, or surface water, as required by 20.4.1.500 NMAC incorporating 40 CFR § 264. 56, and 40 CFR § 264. 52(a).

**Safety-Kleen Response:** Employee actions described in Sections K.3 through K.4.

- j. Sections F.3, and F.3.3, "Fire Control Procedures and incompatible Waste": Describe the difference between major and minor spills (provide dimensions and/or amounts of wastes that explain the differences). In consideration of the latter, specify what constitutes an emergency with respect to a spill that requires implementation of the contingency plan. Indicate the actions to be taken until cleanup is completed to ensure that incompatible waste is not stored together, and that emergency equipment will be decontaminated and fit for its intended use before operations are resumed, as required by 20.4.1.900 NMAC incorporating 40 CFR §270.14(b)(9) and 20.4.1.500 NMAC incorporating 40 CFR § 264.56(h).

**Safety-Kleen Response:** Minor spills discussed at K.4.1.3.1; major spills at K.4.1.3.3.

- k. Evacuation, Figure F-2: Revise Figure F-2 by including a complete legend and including arrows that indicate the evacuation pathways personnel will take during an emergency. Change the font of the text next to, and left of, the plan scale to make it legible. Provide a description of the evacuation plan. This plan must describe signals that will be used to begin evacuation, evacuation routes, and alternate evacuation routes, in cases where the primary routes could be blocked by releases of hazardous waste or fires. This requirement is at 20.4.1.500 NMAC incorporating 40 CFR § 264.52(f).

**Safety-Kleen Response:** Due to the size of the facility, onsite emergency notifications can be made by verbal cry (Section J.10). Evacuation plan diagram included as Exhibit K-5.

- m. Section F.2.4, Chain of Command and Implementation of the Contingency Plan: This section mentions that the Emergency Coordinator contacts the Safety-Kleen Emergency Response Team and NMED, if an emergency arises. Specify when the Applicant will notify federal, state and local authorities before resuming operations, as required by 20.4.1.500 NMAC incorporating 40 CFR § 264.56(d).

Additionally, the Applicant must include information in the Application that the New Mexico Department of Public Safety (DPS) will be verbally notified at phone number 1-505-827-9329 and the National Response Center (NRC) will be notified at 1-800-424-8802, in accordance with 20.4.1.900 NMAC incorporating 40 CFR 264.56(d), if human health or the environment outside the Facility is threatened. The notification shall include a description of the emergency with the following information:

1. Name, and telephone number of the person making the report;
2. Name and address of the Facility;

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3. Time and type of incident;
4. Name and quantity of material(s) involved, to the extent known;
5. The extent of injuries, if any;
6. The possible hazards to human health, or the environment, outside the Facility.

Furthermore, the Application must state that the Applicant will provide the information in items 1-6 above to the Department immediately after the DPS and NRC are notified.

**Safety-Kleen Response: Reporting requirements updated in Section K.7.**

- n. Section F.3.1, Minor Spills, and Section F.3.2, Major Spills: The Applicant must specify whether this section covers spills and leaks from containers, tanks, or containment systems, or some combination of these, or all of them.

**Safety-Kleen Response: Spill responses have been updated; Sections K.4.1.3.1 through K.1.3.4.**

- o. Post-Emergency Equipment Management: Provide a discussion of the decontamination procedures and other procedures that will be followed for the emergency equipment listed in the Contingency Plan, after a response to an emergency to ensure the equipment is fit for its intended use before operations are resumed, as required by 20.4.1.500 NMAC, incorporating 40 CFR § 264.56(h)(2).

**Safety-Kleen Response: Post emergency actions detailed in Section K.6.**

- p. Copies of Contingency Plan: Submit information that identifies where copies of the Contingency Plan will be maintained as required by 20.4.1.500 NMAC incorporating 40 CFR §264.53.

**Safety-Kleen Response: Availability of the Contingency Plan is updated in Section K.2.**

## 21. PROCEDURES TO PREVENT HAZARDS

The Applicant must include a description of the following items (a) through (f), as they were not discussed in the Application.

- a. Unloading Procedures: the procedures used to prevent hazards in loading and unloading operations, as required by 20.4.1.900 NMAC incorporating 40 CFR §270.14(b)(8)(i).

**Safety-Kleen Response: Discussed in Section J.2.2.**

- b. Runoff: the procedures used to prevent runoff from hazardous waste management areas as required by 20.4.1.900 NMAC incorporating 40 CFR § 270.14(b)(8)(ii).

**Safety-Kleen Response: Discussed in Section J.3.**

- c. Water Supplies: the procedures, structures and equipment used to prevent contamination of the water supply, to meet the requirements of 20.4.1.900 NMAC incorporating 40 CFR § 270.14(b)(8)(iii).

**Safety-Kleen Response: Discussed in Section J.4.**

- d. Equipment and Power Failure: the procedures used to mitigate the effects of equipment failure and power outages in compliance with 20.4.1.900 NMAC incorporating 40 CFR §

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270.14(b)(8)(iv).

**Safety-Kleen Response:** Discussed in Section J.5.

- e. Personnel Protection Procedures: the procedures, structures and equipment used to prevent undue exposure to hazardous waste as required by 20.4.1.900 NMAC incorporating 40 CFR § 270.14(b)(8)(v).

**Safety-Kleen Response:** Discussed in Section J.6.

- f. Procedures to Minimize Releases to the Atmosphere: the procedures, structures and equipment used to prevent hazardous waste from being released to the atmosphere as required by 20.4.1.900 NMAC incorporating 40 CFR § 270.14(b)(8)(vi).

**Safety-Kleen Response:** Discussed in Section J.1.1.4.

22. PREVENTION OF REACTION OF IGNITABLE, REACTIVE, AND INCOMPATIBLE WASTE  
The Applicant must include a description of the following items (a) through (f), as they were not discussed in the Application.

- a. Precautions to prevent ignition or reaction of Ignitable or Reactive Wastes: Describe the precautions to be taken to prevent accidental ignition, including sources of spontaneous ignition and radiant heat as required by 20.4.1.900 NMAC incorporating 40 CFR § 270.14(b)(9) and 20.4.1.500 NMAC incorporating 40 CFR § 264.17(a) and (b).

**Safety-Kleen Response:** Discussed in Section J.7.3.

- b. General Precautions for Handling Ignitable or Reactive Waste and Mixing of Incompatible Waste: Describe precautions to be taken by the Applicant to prevent reactions that generate heat, produce flammable by-products, cause risk of fire or explosion, threaten structural integrity, or pose a threat to human life or the environment, as required by 20.4.1.900 NMAC incorporating 40 CFR § 270.14(b)(9) and 20.4.1.500 NMAC incorporating 40 CFR § 264.17(a).

**Safety-Kleen Response:** Discussed in Section J.2.4.

- c. Management of Ignitable or Reactive Wastes in Containers: Indicate whether ignitable wastes are stored no closer than 50 feet (15 meters) from the Facility property line as required by 20.4.1.900 NMAC incorporating 40 CFR § 270.15(c) and 20.4.1.500 NMAC incorporating 40 CFR § 264.176.

**Safety-Kleen Response:** Ignitable wastes not stored within 50 feet of the property line. Discussed in Section J.1.2.

- d. Management of Incompatible Wastes in Containers: Describe procedures to ensure that incompatible wastes and materials are not placed in the same container as required by 20.4.1.900 NMAC incorporating 40 CFR § 270.15(d) and 20.4.1.500 NMAC incorporating 40 CFR § 264.177 and 40 CFR § 264.17.

**Safety-Kleen Response:** The only containers routinely opened at the branch are those containing parts washer solvent that will be placed into the bulk solvent tank; and these containers are cleaned and refilled with the same type of solvent. Discussed in Section J.2.4.

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- e. Management of Ignitable or Reactive Wastes in Tank Systems: Describe operational procedures and how ignitable or reactive wastes are stored in tanks to achieve compliance with the requirements of 20.4.1.500 NMAC incorporating 40CFR § 264.198.

**Safety-Kleen Response:** The only waste stored in the tank is used parts washer solvent. Discussed in Section J.1.1.3.

- f. Management of Incompatible Wastes in Tank Systems: Indicate the procedures that will be followed to ensure that incompatible wastes and materials are not stored in the same tank, thus meeting the requirements of 20.4.1.500 NMAC incorporating 40 CFR § 264.199.

**Safety-Kleen Response:** The only waste stored in the tank is used parts washer solvent. Discussed in Section J.1.1.3.

### 23. PERSONNEL TRAINING

Provide information on both the introductory and continuing training programs for Facility personnel. The job descriptions in Attachment D-2 of Application did not specify at minimum what type of emergency procedures, emergency equipment, and emergency systems personnel handling hazardous waste must be familiar with at the Facility in order to meet the requirements of 20.4.1.900 NMAC incorporating 40 CFR 270(14)(b)(12) and 20.4.1.500 NMAC incorporating 40 CFR § 264.14.16(a)(3). Please provide this information.

**Safety-Kleen Response:** Revised training plan included as Section I and Exhibit I-1. Example job descriptions included as Exhibit I-2.

### 24. CLOSURE PLAN, SECTION G

The closure plan in Section G lack the necessary detail and conformity with the regulatory requirements at 20.4.1.900 NMAC incorporating 40 CFR §264.111 through §264.115, and must be revised.

Provide a revised Closure Plan that contains the following information:

- a. Closure Performance Standards specified at 20.4.1.500 NMAC incorporating 40 CFR § 264.111, must be addressed with respect to how they will be achieved. Describe how closure will minimize the need for further maintenance, and will control, minimize, or eliminate the post-closure escape of hazardous waste, hazardous constituents, contaminated runoff, or hazardous waste decomposition products to the ground or surface waters or to the atmosphere; and how closure will comply with the applicable closure requirements of 20.4.1.500 NMAC incorporating 40 CFR § 264.111(c).

**Safety-Kleen Response:** Closure performance standards discussed in Section L.1.

- b. Amendment of the Closure Plan must be described, should it become necessary, including the situations where an amendment is required as found at 20.4.1.500 NMAC incorporating 40 CFR § 264.112(c)(2).

**Safety-Kleen Response:** The Plan will be amended as required. Discussed in Section L.1.

- c. Disposal or Decontamination of Equipment, Structure, and Soil Pursuant to 20.4.1.500 NMAC incorporating 40 CFR § 264.112(a)(4), provide a detailed description of the steps needed to remove or decontaminate all hazardous waste residues, containment system components, equipment, structures, and soil during closure, including, but not limited to, procedures for cleaning equipment and removing as necessary contaminated soil, methods for sampling and analysis of soil, and criteria for determining the extent of

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decontamination required to satisfy the closure performance standard specified at 20.4.1.500 NMAC incorporating 40 CFR § 264.111. Pages G-3 and G-4 do not contain the required information.

**Safety-Kleen Response:** Detailed in Section L.2.1; Section L.2.2; Section L.2.3; Section L.3; Section L.4; Section L.5.

- d. Maximum Waste Inventory Provide an estimate of the maximum inventory of hazardous wastes ever on-site over the active life of the Facility and a detailed description of the methods to be used during partial and final closure, including, but not limited to, methods for removing, transporting, treating, storing, or disposing of all hazardous wastes, and identification of the types of the off-site waste management units to be used, if applicable, as required by 20.4.1.500 NMAC incorporating 40 CFR §264.112(b)(3).

**Safety-Kleen Response:** The maximum waste on site would be 15,820 gallons. Reference Section L Abstract.

- e. Indicate that any hazardous waste constituents (i.e., the constituents listed in Appendices VII and VIII in 40 CFR Part 261) that remain in environmental media when a unit or the Facility is closed will not pose an unacceptable risk to human health or the environment.

**Safety-Kleen Response:** Discussed in Section L.5.3.

- f. Section G.3, Page G-4, Drum Storage Areas in Warehouse. Second sentence in the second paragraph, "A sample of the final rinsate will be analyzed for volatile organic compounds to determine the effectiveness of the cleaning." The NMED requires wipe sampling to be conducted at closure to demonstrate that a unit has been adequately decontaminated. Revise the closure plan to include wipe sampling in lieu of the sampling of wash and rinsate waters. An example of the scope of information on wipe sampling that NMED expects the Applicant to include in the revised Application can be found in the Sandia National Laboratories (SNL) Permit Part 6, which is available on the NMED website at: [www.nmenv.state.nm.us/HWB/snlperm.html](http://www.nmenv.state.nm.us/HWB/snlperm.html) under the link *SNL Permit and Corrective Action Complete*. See in particular SNL Permit Part 6, Section 6.3.10.1.

**Safety-Kleen Response:** Wipe sampling included in Section L.3.

- g. Section G.6, Facility Closure Schedule Provide a closure schedule in form of a table, showing the progression of closure activities beginning with notification to NMED on initiation of closure, through completion of closure and certification of closure as specified at 20.4.1.500. NMAC incorporating 40 CFR § 264.112(b)(6) and 40 CFR § 264.113. The time required for the various major closure activities, such as removal of wastes, records review and structural assessment must be included in the schedule.

**Safety-Kleen Response:** A closure schedule is included as Exhibit L-2.

- h. Structural Assessment: A structural assessment is a visual inspection and evaluation of the storage physical condition, with the intent of identifying areas of contamination or potential contamination. A structural assessment is required to meet the intent of information the Applicant must include in the revised Application on structural assessment is that found in the SNL Permit, issued in January 2015, which is available on the NMED website at: under the link *SNL Permit and Corrective Action Complete*. See SNL Permit Part 6, Section 6.3.5.

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**Safety-Kleen Response: Structural assessment discussed in Sections L.1.1; L.3.**

- i. Records Review: NMED requires a records review to be conducted to meet the intent of 20.4.1.500 NMAC incorporating 40 CFR § 264.111. The records review must be completed before the structural assessment. The Applicant is expected to review the Operating Record for the Facility to perform two functions: 1) the identification of all hazardous wastes and hazardous constituents of concern managed at the Facility, and 2) the identification of all known releases at the storage units. An example of the type of information in a records review that must be included in the revised Application can be found in the SNL Permit in Permit Part 6, which is available on the NMED website at: [www.nmenv.state.nm.us/HWB/snlperm.html](http://www.nmenv.state.nm.us/HWB/snlperm.html) under the link *SNL Permit and Corrective Action Complete*. See SNL Permit Part 6, Section 6.3.5.2

**Safety-Kleen Response: Records review discussed in Section L.1.1.**

- j. Closure of Hazardous Waste Container Storage Unit: Revise Section G.3, which describes the storage areas in the warehouse. The Applicant must address the following to meet the requirements of 20.4.1.500 NMAC incorporating 40 CFR § 264.112(b)(3) and 40 CFR § 264.178 and 20.4.1.900 NMAC incorporating 40 CFR § 270(14)(b)(I3). Describe hazardous waste removal and disposal.

**Safety-Kleen Response: Waste removal and disposal discussed in Section L.3.**

- k. Closure of Hazardous Waste Tanks: Revise Section G.2. The description must address the following topics as required by 20.4.1.500 NMAC incorporating 40 CFR § 264.112(b)(3) and § 264.197, and 20.4.1.900 NMAC incorporating 40 CFR § 270(14)(b)(I3).
- i) Waste removal from the storage tanks and equipment;
  - ii) Decontamination of all ancillary components;
  - iii) Verification of decontamination;
  - iv) Disposal of wastes and residues;

**Safety-Kleen Response: Tank closure detailed in Section L.2.1; L.2.2; and L.2.3.**

**I. Closure Soil Sample Locations and Cleanup Standards:**

Provide maps of the Facility that depict proposed soil sample locations. Indicate the number and depths of samples that will be collected around the buildings and the paved areas of the Facility where hazardous waste management activities have been conducted. Include the locations where background soil samples will be collected. The latter should be from areas that have not been impacted by waste management activities. In addition, include the following:

- a. A description of sample collection methods, sample preservation, handling and shipment, analytical methods, and chain-of-custody control;
- b. Provide information on what will constitute acceptable clean up levels consistent with all applicable state and federal regulations.
- c. Incorporate into Attachment G a provision for the analysis of soil samples for metals, volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), and all wastes (and their associated hazardous constituents) listed in Part A of the Application and all other wastes (and their associated hazardous constituents), which have been, or are anticipated to be, managed at the Facility. The information may be presented on an operating unit by operating unit basis.

**Safety-Kleen Response: Soil sampling plans included in Sections L.5; L.5.1; and L.5.2.**

- M. Closure Report and Certification: Include the following information in the Application: Within 60

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days of the completion of final or partial closure, the Applicant shall submit by registered mail a closure report for NMED approval. The closure report shall contain a certification that the Facility (or unit in the case of partial closure) has been closed in accordance with the specifications in the approved closure plan in compliance with 20.4.1.500 NMAC incorporating 40 CFR§264.115. The certification shall be signed by a New Mexico registered professional engineer.

**Safety-Kleen Response:** Reporting and certification discussed in Section L.6.

25. Attachment C-2, Subpart CC Compliance Plan, Paragraph 6, "*Point of Waste Origination*":
- a. Paragraph 7, "*Tanks*": "*Tanks, which manage organic wastes at this facility are described in detail in the Operation Plan/Permit.*" Provide a detailed description of the tanks that manage hazardous wastes at the Facility. The Application must not reference the current permit.

**Safety-Kleen Response:** An updated Subpart CC Compliance Plan is included as Section F. Description of the tank is in Section F.3

- b. Tanks: Paragraph 8, Last sentence, "*Documentation for the basis of this determination is found in the Waste Characteristics portion of the Operation Plan/Permit.*" Provide the documentation concerning the maximum organic vapor pressure. The Application must not reference the current permit.

**Safety-Kleen Response:** A vapor pressure summary for Safety-Kleen Solvents is included as Table F.4.3.

26. Financial Assurance and Annual Submittal
- Pursuant to 20.4.1.500 NMAC incorporating 40 CFR Part 264 Subpart H, as part of the Application, information concerning cost estimates, financial assurance mechanisms, and liability coverage for closure of the Facility. Include in the application, that during the active life of the Facility, the Applicant will maintain the latest closure cost estimate at the Facility, and that the estimate shall be prepared and adjusted and submitted in accordance with the requirements at 20.4.1.500 NMAC incorporating 40 CFR§264.142 and 40 CFR § 264.143.

**Safety-Kleen Response:** These requirements for the Closure Plan are included in Section L.7. Exhibit L-3 has a copy of the Certificate of Insurance for Closure issued by Indian Harbor Insurance.

Liability insurance coverage is discussed in Section M.1; and an example of the coverage is included as Exhibit M-1.



# RCRA Storage Facility Permit Application

Safety-Kleen Systems, Inc.  
4210A Hawkins Road  
Farmington, New Mexico  
NMD 980 698 849

Permit Application March 27, 2013  
Revised Application September 3, 2015

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B-1	Map of Annual Recharacterization Sampling Locations
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J-5	Moormann Bros. Tank Gauge Details
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J-11	Drum Storage Area Certification
J-12	Safety-Kleen Drum Spreadsheet
J-13	Personal Protective Equipment Matrix
K-1	Example Emergency Contact (Emergency Coordinator) Information Sheet
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K-3	Inventory of Emergency Equipment
K-4	Location Map of Emergency Equipment
K-5	Example Correspondence to Emergency Response Agencies
K-6	Evacuation Diagram
K-7	Safety Data Sheet-Safety-Kleen Premium Solvent (Petroleum Naphtha)
K-8	Safety Data Sheet-Safety-Kleen Lacquer Thinner
K-9	Safety Data Sheet-Safety-Kleen Immersion Cleaner
K-10	Safety Data Sheet-Armakleen 4 in 1 Cleaner Concentrate (Aqueous)
L-1	Closure Cost Estimate
L-2	Closure Schedule
L-3	Closure Insurance Certificate
M-1	Hazardous Waste Facility Certificate of Insurance

## List of Acronyms / Abbreviations

AR	Safety-Kleen's Annual Waste Recharacterization Program
CFR	Code of Federal Regulations
COC	Chain of Custody
COLIWASA	Composite Liquid Waste Sampler
COM	Customer Owned Machine
CSU-East	Container Storage Unit-East (Permitted Warehouse Storage)
CSU-West	Container Storage Unit West (Permitted Shed Storage)
EHS	Safety-Kleen's Environmental, Health & Safety Department
DOT	Department of Transportation (Federal)
EPA	U.S. Environmental Protection Agency
FEMA	Federal Emergency Management Agency
FIRM	Federal Flood Insurance Rate Map
GVW	Gross Vehicle Weight
HWMU	Hazardous Waste Management Unit
LDR	Land Disposal Restriction (Land Ban)
NFPA	National Fire Protection Association
OSHA	Occupational Safety and Health Administration
PCB	Polychlorinated Bi-Phenyls
PERC/perc	Perchloroethylene/Tetrachloroethylene
PPE	Personal Protective Equipment
PSI	Pounds per Square Inch
PSIA	Pounds per square inch absolute
R & F / RF	Safety-Kleen's Return and Fill Dock
RCRA	Resource Conservation and Recovery Act
STI	Steel Tank Institute
SVOC	Semi-Volatile Organic Compounds
TSDf	Treatment Storage and Disposal Facility
UL	Underwriters Laboratory
VOC	Volatile Organic Compound

## Terminology Reference List

The following terms are used interchangeably in this document

- Safety-Kleen / Safety-Kleen Systems, Inc.
- Branch / Service Center / Facility
- Branch General Manager / Service Center Manager / Facility Manager/Branch Manager
- Return and Fill / Return & Fill / R & F / Drum Washer / Wet Dumpster / Vat
- AR / Annual Waste Recharacterization Program

SIGNED CERTIFICATION STATEMENT

INCLUDED IN EXHIBIT A-1

## SECTION A - FACILITY DESCRIPTION

### ABSTRACT

Facility Address	Safety-Kleen Systems, Inc. ( <del>7-008-21</del> ) 4210 A Hawkins Road Farmington, NM 87401
<b>Facility</b> Telephone Number	505-327-9070
US EPA Identification Number	NMD 980 698 849
Geographic Location	36° 44' 20" N 108° 14' 11" W
Corporate Headquarters <b>Operator</b>	Safety-Kleen Systems, Inc. 2600 N. Central Expy. Richardson, TX 75080 972-265-2000
Property Owner	<b>J.D. Kinsey and Joy M. Kinsey Revocable Trust</b> 108 Hummingbird Cove <b>Georgetown, TX 78633</b> <del>COMET Corporation</del> <del>1215 Brentwood Circle</del> <del>Farmington, NM 87401</del> <del>(303)884-2602 (505)325-3743 (June 1992)</del>
Date Operations Began	January 1, 1981
<b>NAICS Code</b>	<b>562112</b>
<del>Responsible Officials</del>	<del>Randall Wood</del> <del>Branch Manager</del>

**This facility is not a new facility. This is a revised application.**

#### 4.4 A.1 DESCRIPTION OF BUSINESS ACTIVITY

Safety-Kleen Systems, Inc. is an international service-oriented company whose customers are primarily engaged in automotive repair, industrial maintenance and dry cleaning. The company has been operating since 1968 offering solvent collection and reclamation services for its customers.

Currently, Safety-Kleen offers several services that involve the accumulation, transfer and storage of spent materials. These materials are transported from the Service Center to one of the Safety-Kleen recycle centers or an independent **appropriate disposal facility** ~~reclaimer~~. A description of each of these services follows:

##### 4.A.1.1 Parts Cleaner Service

The original service offered by the Company in 1968 was the parts cleaner service and it remains the primary business activity. This service involves the leasing of a small parts degreasing unit which consists of a reservoir and a degreasing area. The reservoir contains a degreaser such as petroleum naphtha solvent, immersion cleaner solvent, or aqueous cleaner. On a regularly scheduled basis, a Safety-Kleen representative cleans and inspects the parts cleaner unit and replaces the reservoir of ~~spent~~ **used** material with clean (most often recycled) product. The material is then transported back to the ~~S~~**S**ervice ~~C~~**C**enter.

At the end of each day, the solvent is transferred from the drums to a storage tank at the Service Center and containers of product are prepared for the next day's services. Periodically, a tanker truck is dispatched from one of the recycle centers to deliver a load of clean solvent and collect the ~~spent~~ **used** solvent at the Service Center. ~~Two-thirds of the solvent used by Safety-Kleen customers has been reclaimed with the remainder being purchased from a vendor.~~

~~Spent~~ **Used** material is poured into the dumpster/drum washer in the Return and Fill station. It is then pumped into the used parts washer solvent storage tank. The sediment which accumulates in the bottom of the dumpster/drum washer is removed manually, drummed and stored in the Return and Fill station according to the satellite accumulation requirements of 40 CFR 262.34(b). The drummed sediment is manifested off-site prior to the expiration of the 90-day time frame for accumulation of hazardous waste.

Safety-Kleen has also established a parts cleaner service for users who own their machines. This service, known as the Customer Owned Machine (**COM**) Service, provides a solvent reclamation service to these customers regardless of machine model. The used solvent is pumped (~~using a hand pump~~) from the **COM** ~~customer owned machine~~ to a standard Safety-Kleen container which meets DOT requirements (typically a 16 or ~~thirty~~ **30** gallon container) by a Safety-Kleen sales representative. The ~~waste~~ **used** solvent is stored in the same manner as the ~~waste~~ **used** solvent collected from the leased parts cleaner machines.

The sales representative then refills the **COM** ~~customer-owned machine~~ with Safety-Kleen parts washer solvent.

A second type of parts washer, the immersion cleaner, is available for the removal of varnish and gum from such things as carburetors and transmissions. This machine consists of an immersible basket with an agitator affixed to a DOT-approved container (typically a 16 gallon drum). The immersion cleaner is non-halogenated hydrocarbon mixture. The ~~spent~~ **used** solvent remains in the drum after delivery to the Service Center where it is stored in a contained area of the warehouse. Periodically, a box trailer truck is dispatched from a recycle center to deliver containers of fresh solvent and collect the containers of spent immersion cleaner solvent for reclamation.

#### 4.A.1.2 Dry Cleaner Service

In 1984, Safety-Kleen began offering a service for the collection of filter cartridges and still bottoms contaminated with dry cleaning solvents (usually perchloroethylene). These wastes are drummed on the customer's premises and are periodically collected by a Service Representative. The containerized waste is accumulated in the container storage area prior to shipment to a Safety-Kleen recycle center **or an independent appropriate disposal facility**. ~~About 35% of this waste is returned to dry cleaners as usable product.~~

#### 4.A.1.3 Paint Waste Service

In 1986, a paint waste reclamation program was initiated to service automobile body repair businesses **and industrial painting applications**. Wastes containing thinners and paints are collected in containers meeting DOT specifications on the customer's premises. The ~~sales~~ **Service Representative** collects these containers and stores them in the container storage area of the warehouse. These wastes are periodically shipped to a reclaimer. ~~and the regenerated solvent is distributed to Safety-Kleen customers for use as product.~~

#### 4.A.1.4 Imaging/Photochemical Service

Imaging waste consists typically of three waste streams. 1. Photo fixer solution is used to etch photo film during processing. This material is characteristic for silver (D011). Safety-Kleen **(or other contract reclaimer)** is able to recover the hazardous constituent from the photo fixer solution. 2. Used photo developer is an aqueous solution used to neutralize the etching effects of the photo fixer. This material exhibits no hazardous characteristics but may not be discharged into public wastewater treatment system in some communities. 3. Silver collection canisters are sent to a recycle center for silver reclamation. These canisters do not meet the definition of a solid waste per 40 CFR 260.30(c) and are managed as a non-regulated material.

The Imaging/Photochemical wastes are placed in containers at the customer's place of business. Several of these wastes are not considered hazardous or solid wastes because the hazardous constituent may be reclaimed. However, the sales **Service Representative** collects

these containers and stores them in the container storage area of the warehouse. The imaging/photochemical wastes are then re-manifested and periodically sent to a Safety-Kleen recycle center, contract reclaimer, or other permitted treatment facility.

#### 4.A.2 DESCRIPTION OF THE FACILITY

The Farmington Service Center has been operating as a storage facility since January 1, 1981. The Farmington Service Center typically operates Monday through Friday from 7:00 AM to approximately 5:00 PM. The Service Center Manager (Branch General Manager) has the ultimate responsibility of the facility's operations. In the event of his/her absence, a qualified designate will assume the responsibility.

The facility consists of the following structures.

- a. 1,530 square foot warehouse with offices and a container storage area;
- b. two 12,000 gallon aboveground storage tanks, with diking used for storage of product and waste used solvents; and
- c. a solvent Return and Fill station with a loading dock, wet dumpster, drum washer (non-regulated, continued use unit), and secondary
- d. two 22,000-gallon aboveground storage tanks, with diking used for storage of used oil and antifreeze

This facility is an accumulation point for many used materials generated by Safety-Kleen customers. Wastes are ultimately transported to a Safety-Kleen recycling facility, an authorized disposal site, or a contract reclaimer for processing. There is no onsite hazardous waste processing or disposal. There are no land disposal units, injection or withdrawal wells, surface impoundments, or waste piles at the facility.

The following Exhibits are included as examples of containerized wastes managed or transferred through the facility:

Exhibit A-14 Example Container Process Flow at Farmington Service Center (Note: there are waste streams managed at the facility as non-hazardous or transfer wastes. This Exhibit is only to illustrate containers passing through the facility with no onsite processing).

Exhibit A-15 Example Paint Waste Process Flow at a Safety-Kleen Recycle Center or other permitted process facility or reclaimer

Exhibit A-16 Example Immersion Cleaner Process Flow at a Safety-Kleen Recycle Center or other permitted process facility or reclaimer

Exhibit A-17 Example Dry Cleaner Process Flow at a Safety-Kleen Recycle Center or other permitted process facility or reclaimer

Exhibit A-18 Example Used Solvent Process Flow at a Safety-Kleen Service Center

## Exhibit A-19 Example Solvent Use and Regeneration Loop at a Safety-Kleen Service Center

Descriptions of the surrounding area of the Service Center follow. ~~Applicable maps and site plans are presented at the end of this section.~~

### 4.A.2.1 Regional Description

The Farmington Service Center is located 600 feet northeast of the intersection of Troy King Road and West Main Street (U.S. Hwy 550) in San Juan County. This area is zoned industrial and to the best of Safety-Kleen's knowledge, no easements, title, deed, or usage restrictions exist which may conflict with operations at this site.

The western part of San Juan County is the Navajo Indian reservation. Eastern San Juan County, the location of Farmington, has a total area of 2,182,520 acres or 3,410 square miles. The total population of the area is approximately 50,000 with about 34,000 in Farmington. The major industries in Farmington are involved in the development of gas, oil and coal resources. Abundant rangeland contributed to the growth of the area through cattle raising and farming, however, this industry has largely declined.

Farmington has a continental climate with an average annual precipitation of 6 inches and total annual snowfall of 9 inches. The average temperate in winter is 44°F and the average summer temperature is 71°F. The average daily temperature range is 33°F. An average of 40 thunderstorms occur each year and prevailing winds are east-west.

San Juan County is in the San Juan Basin part of the Navajo section of the Colorado Plateau physiographic province. This area is a structural depression containing deep Tertiary till on rocks of late Cretaceous age. Farmington is located in the alluvial fan in the entrenched San Juan and Animas Rivers. The Service Center is not in the flood plain of either river. The elevation at the site is 5,470 feet above sea level. The San Juan River provides the principal drainage route for the area and the Animas River is its main tributary.

The soil in the area of the Service Center is the Avalon sandy loam. This is a deep well-drained soil on mesas and plateaus which formed in alluvial and eolian material derived from sandstone and shale. This soil is moderately permeable with slopes ranging from 5 to 8 percent.

The city of Farmington obtains its water primarily from the Animas River through two pump stations. Pump station 1 is located about two miles east of Farmington and pump station 2 and the Bee Line reservoir are several miles northeast of Farmington. Standby water is obtained from a pump station several miles south of Farmington on the San Juan River. The Service Center obtains water from the City of Farmington via a 6" water line on Hawkins Road. A drop inlet to the city storm sewer system is located approximately 500 feet west of the Service Center.

There are no known oil or gas wells within a mile of the Service Center. No parks, schools, wetlands, or critical habitats exist within one mile of the Service Center.

The Facility is not located in a 100-year flood plain area, nor is the area subject to other flooding factors. Therefore, there are no barriers or provisions for drainage or flood control. A FEMA 100-Year Flood Plain Map is included as Exhibit A-9.

The non-building areas of the facility are paved with asphalt, concrete or gravel, as noted on the Site Plan in Attachment A-3 E. The majority of the vehicular traffic and loading/unloading operations occur at and near the Return and Fill station and this area is paved with asphalt and concrete. Primary access to the facility is from Hwy 64 (West Main) to Troy King Road to Hawkins Road, or Pinon Hills Boulevard to Troy King Road. The entrance to the facility is on Hawkins Road which is the major access road to the facility. The access road was designed in accordance with engineering criteria appropriate for sustaining the traffic volume and loading for the industrial activities in this area. The route truck that daily travels the routes between the Service Center and its customers uses the two-lane approach driveway. The trucks dispatched from the recycle center to deliver and pick up fresh and used solvents perform these activities at the aboveground tank area.

The Service Center currently has 2 box trucks and 3 bulk tank trucks based at the facility. The number of route vehicles may vary due to business needs. Vehicles typically make one round trip to / from the facility each operating day. Traffic generated by Safety-Kleen's operations does not have a major impact on the traffic volume of adjacent and nearby roadways, or the routes the trucks travel.

The facility's hazardous waste collection vehicles that deliver wastes daily to the Service Center are completely enclosed cargo-box straight trucks with a GVW of 33,000 pounds. The bulk trucks are used to collect used oils and non-hazardous industrial and commercial wastes.

Waste containers will be transported from the Service Center in completely enclosed box trailers. The facility is serviced by 18-wheel, 5-axle tractor-trailers with a maximum load of 80,000 pounds, with 13,000/pounds per axle attributed to the steering axle (axle 1); approximately 34,000 pounds maximum gross weight between axles 2 and 3; and 34,000 pounds maximum gross weight between axles 4 and 5. The tractor/trailer is generally dispatched to the Service Center one time per week.

Bulk tractor/tankers are dispatched from a Recycle Center approximately every 60-90 working days to deliver the clean solvent and pick up used bulk solvent. These transfer activities are conducted at the aboveground tank area. These trucks have a maximum GVW of 80,000 pounds.

The size of the vehicles used to transport waste to and from the facility may vary from what is described above; however, the cargo-carrying portion of the vehicle will always be a completely

enclosed box-type cargo truck or bulk tanker. The frequency of the solvent delivery and pickup will vary, depending on business needs.

Due to the low-volume of vehicles entering and leaving the facility, there are no onsite traffic control signs or signals; nor are stacking lanes or signage necessary on Hawkins Road. Area traffic patterns are included as Exhibit A-4, and Site Traffic Patterns are included as Exhibit A-5.

The following Exhibits provide additional information:

- Exhibit A-1 Part A Permit Application (OMB Forms 8700-12; 8700-23)
- Exhibit A-1a Safety-Kleen Ownership / Organizational Chart
- Exhibit A-2 Photographs of Facility
- Exhibit A-3 Facility Diagram (formerly referenced as Figure 1)
- Exhibit A-4 Area Traffic Patterns
- Exhibit A-5 Site Traffic Patterns
- Exhibit A-6 Regional map of NM showing the Facility's location in Bernalillo County
- Exhibit A-7 Topographic Map Depicting:
  - 1,000 Ft Radius around facility
  - Topographic Contours
- Exhibit A-8 Wind Rose Map for Farmington Airport
- Exhibit A-9 FEMA 100-Year Flood Plain Map
- Exhibit A-10 Plat Map (1980)
- Exhibit A-11 Farmington Zoning/Land Use Map
- Exhibit A-12 Local Drinking Water Supply Map
- Exhibit A-13 Local Sanitary Sewer Supply Map

This permit application has been organized using a format similar to the previously approved permit application to maintain consistency. The remaining sections of this permit application (Waste Analysis Plan, Security Measures, Inspection Plan, etc.) are included in attachments A through H. Information relevant to each of the specific attachments is presented at the end of each attachment, and separated by cover pages.

FACILITY TYPE:

Storage in an aboveground tank (S02) and in containers (S01)

<del>STORAGE UNIT</del>	<del>CAPACITY (GAL.)</del>	<del>SECONDARY CONTAINMENT (GAL.)</del>	<del>MATERIAL TO BE STORED</del>
Tank	12,000	18,266	Spent Solvent (D001) <sup>1</sup>
Container Storage	3,820	382	Spent Immersion Cleaner, Dry Cleaning Waste (F002) <sup>1</sup>  Sediment from Tank Bottoms or Ancillary Equipment <sup>1</sup>  Aqueous Parts Washer Solvents <sup>1</sup>  Paint Wastes (D001, F002, F005) <sup>1</sup>  Photo Imaging Wastes (D011) <sup>2</sup>

Notes: <sup>1</sup>Waste may also include the following 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

<sup>2</sup>Photo imaging wastes may not be considered a hazardous or solid waste if the hazardous constituent (silver) is reclaimed.

**SECTION B - WASTE ANALYSIS PLAN**

**ABSTRACT**

Waste analysis requirements mandate that before an owner or operator transfers, treats, stores, or disposes of any hazardous waste, detailed chemical analysis of a representative sample of the waste must be obtained. This analysis, at a minimum, must contain all of the information that must be known to transfer, treat, store, or dispose of the waste. The analysis may include data developed under 40 CFR 261 of the regulations and existing published or documented data on the hazardous waste or on hazardous waste generated from similar processes. The Waste Analysis Plan for the Safety-Kleen Farmington Service Center has been developed to meet the Waste Analysis requirements described above and as found in 40 CFR 270.14(b) and 264.13.

Waste Description	EPA Waste Code No. Facility Code Nos.	Annual Facility Capacity <sup>1</sup> (gallons)	Estimated Annual Amount <sup>2</sup>
Used Spent Solvents (Petroleum Naphtha)	D001 <sup>3</sup>	12,000	443,500
Bottom Sediment from the tank and ancillary equipment	D001 <sup>3</sup>	N/A	3
Spent Used Immersion Cleaner	D006 <sup>3</sup> D004	3,820	3,250
Dry Cleaning Waste	D001, F002 <sup>3</sup>	Included with Used Immersion Cleaner	6,650
Paint Waste	D001, F003, F005 <sup>3</sup>	Included with Used Immersion Cleaner	44,900
Photo Chemical Wastes	D011	Included with Used Immersion Cleaner	3

<sup>1</sup> The facility capacity is in gallons.

<sup>2</sup> The annual amount is in thousands of gallons.

<sup>3</sup> and may include 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.

The total amount of drummed waste stored in the warehouse will not exceed 3,820 gallons

## A.B.1-DESCRIPTION OF WASTES

Several types of waste ~~representing core Safety-Kleen Products~~ result from the servicing of Safety-Kleen customers and the maintenance of the Service Center. **It should be noted that the solvents managed at this facility are incompatible with strong oxidizers and reactive metals, none of which are present in the container storage areas, or the concrete sealant. The solvents are compatible with one another.** ~~Analytical data for the waste and specifications for the products are in Attachment A.1 and qualitative descriptions follow.~~

### A.B.1.1 Wastes Resulting From the Parts Washer Service

Used solvents from parts washers is accumulated in a nominal 12,000 gallon aboveground storage tank via the Return and Fill station. Containers of ~~spent~~ **used** material (typically 16- and 30- gallon containers) are poured into a dumpster at the Return and Fill station which in turn empties into the tank. ~~Five types of parts washer waste are generally produced as a result of the parts washer service.~~ This waste handling method results in several types of solvent waste:

- a. Used solvent – The ~~spent~~ **used** solvent is removed from the tank by a tanker truck on a scheduled basis. About 5,000 gallons are removed every month. This waste is ignitable (D001) and may exhibit the toxicity characteristic of 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.
- b. Bottom sediment in the tank - Periodically, it is necessary to remove sediment and other heavy material from the bottom of the tank. A Safety-Kleen vacuum truck is generally used for this purpose. The sediment is ignitable (D001) and may exhibit the toxicity characteristic of 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.
- c. Dumpster Sediment - Sediment also accumulates in the bottom of the drum washer/dumpster in the Return/Fill station. The sediment is manually removed with a shovel, containerized and the containers are stored in the Container Storage Area of the warehouse. Containers are properly labeled to indicate their contents. The chemical composition of this waste is very similar to that of the bottom sediment from the tank and therefore carries the same EPA hazardous waste codes **in items a. and b above.**
- e. Immersion Cleaner – remains in the container in which it was originally packaged and used until it is ultimately received at the recycle center. Drums are placed in the drum storage area of the warehouse and are stacked no more than two-high in the Container Storage Area of the warehouse. The Immersion Cleaner is a

non-halogenated hydrocarbon mixture and may exhibit the toxicity characteristics of 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

- f. Used Aqueous Parts Cleaning Solvent – This waste may be placed into the used parts cleaner solvent tank as discussed above, bulking onsite in larger DOT approved containers and stored in the CSA (Container Storage Area), or remain in the container in which it was originally used. The aqueous parts cleaner may exhibit the toxicity characteristics of 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.

#### A.B.1.2 Wastes Resulting From the Dry Cleaner Service

Dry cleaning wastes consist of used 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 **meeting DOT specifications** (~~which meet DOT requirements typically 16-, 30-, or split 30-gallon containers~~). The containers are then palletized, stacked two-high and placed in the Container Storage Area of the warehouse. Approximately 90% of the dry cleaning solvent used is perchloroethylene (F002 and 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 5% is trichloro-trifluoroethane (F002) and toxic using the characteristic 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). Five percent is mineral spirits which would add the waste code D001. Other types of dry cleaning wastes (e.g. Freon) will be managed on a transfer basis only.

Dry cleaner separator water is generated during the distilling of the used perchloroethylene **at the generator's location**. Perchloroethylene and water are separated during distilling. Separator water is typically less than 10% perchloroethylene and is being handled as an F002 waste.

#### A.B.1.3 Wastes Resulting From the Paint Service

Paint wastes consist of various lacquer thinners (D001, F003, and F005) and paints. Paint wastes may also exhibit the toxic characteristics of 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 DOT-approved containers at the customer's place of business. The containers are then transported to the facility and stored in the Container Storage Area of the warehouse.

#### A.B.1.4 Photographic/Imaging Wastes

Some photographic imaging wastes managed by the facility are not solid wastes per 40 CFR 261.2(c) because their hazardous constituent is reclaimed. Others are managed under the provisions of Subpart F of 40 CFR 266 – Recyclable Materials Utilized for Precious Metals Recovery. Imaging waste consists typically of three waste streams. Photo fixer solution is an aqueous solution used to etch photo film during processing. This material is characteristic for silver (D011). Safety-Kleen is able to recover the silver from the solution. Used Photo developer is an aqueous solution that exhibits no hazardous waste characteristics but may not be allowed to discharge into public wastewater treatment systems in some communities. Silver collection canisters are sent to a recycle center for reclamation. These canisters do not meet the definition of a hazardous waste as per 40 CFR 260.30(c) and are managed as a non-regulated material.

#### A.B.2 QUALITY CONTROL PROCEDURES

The used solvents are the primary feed stocks for the generation of Safety-Kleen solvent products. As a result, quality control of the spent used solvents is necessary to ensure that reclamation occurs in the safest and most efficient manner possible. The Service Center collects spent used solvents from approximately 400 customers, most of who are small quantity generators, and containers of recoverable solvents are returned to the Service Center for shipment to a reclaimer. With such large numbers of waste generators and waste shipments, performing detailed analyses at the Service Center is economically and logistically infeasible.

Safety-Kleen performs a customer prescreening for all parts washer and immersion cleaner service customers. The other permitted waste streams (dry cleaning wastes and paint wastes) are generated from facilities where there is one process generating hazardous waste and the possibility of cross-contamination from other chemicals or wastes is minimal. These wastes remain in the container they were originally packaged until received at a Safety-Kleen Recycle Center or other properly permitted recycling or disposal facility. These waste containers remain closed from customer to final disposition.

Prior to leasing a parts cleaning machine or placing a Customer Owned Machine (COM) service, the customer's business is reviewed. Where the possibility exists for contamination of the parts cleaner solvent (e.g. pesticide, herbicide, or pharmaceutical operations), the process is reviewed to insure that the solvent is protected from the sources of potential contamination. In reviewing a customer's business, the Safety-Kleen Representative provides customers with written and verbal information on use of the equipment. This information will contain at a minimum:

- Proper usage and management of the unit
- Information on the reasons to not add materials to the unit, and
- Examples of what not to add to the unit

#### B.2.1 Analysis

Safety-Kleen conducts qualitative/visual analysis as a part of all parts washer and immersion cleaner services. Qualitative/visual analysis is not conducted on the dry cleaning and paint waste streams as these containers are not opened by the Safety-Kleen Service Representative and the likelihood of contamination is remote.

#### B.2.1.1 Qualitative/Visual Analysis

Safety-Kleen sales representatives are instructed to visually examine the spent solvent (parts washer and immersion cleaner) when the machines are serviced, noting the quantity, odor, and appearance of the material recovered as follows:

a. The quantity of spent solvent in the drum – When the amount of parts cleaner solvent or immersion cleaner fluid is more than 25% greater than originally supplied, the container will not be accepted. Contingent on the customer's responses to Safety-Kleen's inquiry regarding the customer's operation and handling practices, the solvent is accepted or left with the customer until an analysis is completed to determine its acceptability. ~~Normally the 16-gallon containers of spent mineral spirits contains approximately nine gallons of liquid, the 30-gallon drum about nineteen gallons and the 16-gallon containers of spent immersion cleaner about four and one-half gallons. When the liquid is substantially different from the expected quantity, an inquiry of the customer's operation and handling procedures is made.~~

b. The odor of the liquid in the container – Personnel must never make an effort to "sniff" the solvent. However, if in the normal course of servicing the customer, the odor of the fluid in the container is noticed to be different from that of parts cleaner solvent or immersion cleaner, the container will not be accepted. Contingent on the customer's responses to Safety-Kleen's inquiry of the customer's operation and handling practices, the solvent is accepted or left with the customer until an analysis is completed to determine its acceptability.

~~Should the odor of the liquid in the drum be different from that of the mineral spirits or immersion cleaner, the container is set aside for further action as described in item 'a'.~~

c. The appearance of the liquid in the drum – The used mineral spirits have a normally brown or black appearance ~~should be greenish-brown in color~~ and float on water. Certain contaminants containing dyes and color pigments (such as transmission fluid, printers' ink, and water-based paints) may change the color of the spent parts cleaner solvent to other colors. The immersion cleaner is a single-phase liquid, which is dark brown in color. Liquids in the containers which deviate from the above description or which contain substantial amounts of water, high density solvent and/or oil at the bottom will be set aside for further action as described in item 'a'.

Safety-Kleen trains personnel to verify the physical characteristics of the wastes at several points in the management of the solvent. These procedures are described briefly 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. Limiting the uses of each type of solvent for (example, dry cleaning waste is only collected from dry cleaner shops);
3. Determining the customer's type of business and the purpose for which the customer will use the machine;
4. Training customers on proper use of the machines;
5. Training employees to inspect the physical characteristics of used solvent and determine whether it is acceptable;
6. When waste is collected from a customer, indicate on the service document whether the used solvent meets Safety-Kleen's acceptance criteria;
7. Marking each container with the customer's name, address, and EPA I.D. number (if available). This information remains on containerized waste until it is accepted at the reclamation facility;
8. Keeping a record of each incoming and outgoing shipment in the operating log; and

Safety-Kleen's customers sign a service document containing the following information:

- a. the name, address and EPA I.D. number of the facility to which the waste is being shipped;
- b. the customer's name, address and EPA I.D. number (if available); and
- c. the description and amount of Safety-Kleen solvent waste generated.

At the Service Center, the sales-representative or the Material Handler warehouseman again observes the quantity, odor and appearance of the solvent prior to emptying the solvent into the wet drum washer. Containers with questionable contents are set aside and the customer is questioned. Pending their response, the drum is accepted, returned to the customer, or properly disposed of at the customer's expense. The immersion cleaner containers are never opened at the service center, so additional verification is not possible until it reaches the recycle center.

In addition, receipt analysis is performed by the Safety-Kleen Recycle Centers on all inbound bulk solvent deliveries. Receipt analysis includes a screen for atypical flash point, PCBs, and halogenated organics.

### A.2.2 Dry Cleaner Waste Collection Service

The dry cleaning wastes are collected from facilities where one process is managed and the possibility of cross-contamination from other chemicals or wastes is minimal. The containers are picked up by the sales representative and delivered to the service center and stored in the container storage area. The containers are not reopened until they reach the recycle center.

### A.2.3 Paint Wastes

Safety-Kleen handles both lacquer thinner waste generated from the paint gun cleaning process and paint waste.

a. Lacquer thinner waste: The significant criterion for determining whether lacquer thinner waste will be accepted is volume. The solvent is provided to customers in 5-gallon containers. The paint gun cleaning machine operates as a closed system whereby there should never be a combined volume of more than 7 ½ gallons of solvent in the containers. If a service representative discovers more than a total of 7 ½ gallons of solvent in the two containers, the waste will be rejected or sampled for analysis to determine its acceptability.

b. Paint Waste: Paint wastes are collected from the facilities where one process is managed and the possibility of cross contamination from other chemicals or wastes is minimal. The contents of the containers are verified by the sales representative when he or she services the customer and the containers are not reopened until they reach the recycle center.

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### A.2.4 Photographic/Imaging Waste

Photographic/imaging waste is collected from facilities where one process is managed and the possibility of cross contamination is minimal. The sales representative inspects the contents of the containers of photographic/imaging waste when the sales representative services the customer. The pH and silver content of the waste is checked at the time of service, and the waste is also inspected visually.

### **B.2.1.2 Quantitative Analysis (Lab Analysis)**

After 50 years of servicing over 250,000 parts washer customers each year, Safety-Kleen has determined that the wastes generated by its customers are relatively homogeneous. The homogeneity of these wastes is evaluated annually through the Safety-Kleen Recharacterization Process (Quantitative Analysis).

Analytical data from the Recharacterization sampling is subjected to an EPA SW846 approved statistical model. Waste samples come from a variety of Safety-Kleen facilities across the

country. The Farmington facility is routinely included as one of the facilities sampled in the process. Samples included in the Annual Recharacterization process are selected from random customers at selected Safety-Kleen facilities. Exhibit B-1 depicts the facilities where Annual Recharacterization samples have pulled over the last 10 years. Not every location was sampled every year.

The waste streams collected by Safety-Kleen are uniform across business types and geographical locations. This is demonstrated by the minimal changes in the codes assigned to each stream through the Annual Recharacterization statistical evaluation each year.

The waste streams included in the Safety-Kleen Recharacterization process are by their nature consistent and predictable. The process includes streams generated by Safety-Kleen customers and terminated as permitted streams at Safety-Kleen facilities as well as streams generated by Safety-Kleen facilities. Waste streams currently included in the Recharacterization process are:

CUSTOMER GENERATED	SAFETY-KLEEN GENERATED
Immersion Cleaner	Bulk Solvent
Petroleum-Based Parts Washer Solvent	Dumpster Sludge
Paint Gun Cleaner/Paint Wastes/Clear Choice	Tank Bottoms
Dry Cleaning Related Streams (Perc and Naphtha, filters, bottoms, and separator water)	
Aqueous Brake Cleaner	

Final Annual Recharacterization (National) Waste Code Assignments are included in Exhibit B-2.

The purpose of the Recharacterization is to determine the waste codes applicable to core waste streams managed and generated by Safety-Kleen facilities. As such, a waste stream may be excluded from Recharacterization once it has been designated as non-hazardous. A stream may also be excluded from Recharacterization when it has been determined that the codes assigned to the stream are stable and marginal changes in trace constituents will not affect the management of the stream. Streams expected to be phased out of the Recharacterization program in coming years include the Dry Cleaning related streams and Paint Gun Cleaner/Paint Wastes/Clear Choice streams. Lastly, a set of analytes may be omitted if they are not expected; or demonstrated to not be present in a waste stream. Pesticides and herbicides have never been included in the Recharacterization process as these constituents are not allowed in wastes picked up by Safety-Kleen. Analysis for semi volatiles is in the process of being phased out as codes for semi volatiles have never been assigned.

Details on the Statistical Method employed by Safety-Kleen for its Annual Recharacterization process are included in Exhibit B-3. As noted in this Exhibit, the Statistical method has been developed and is conducted in accordance with U.S. EPA SW846 Chapter 9 (September 1986)

guidance on determining if a waste is hazardous. Annual Recharacterization Sample Testing Protocol is located in Exhibit B-4.

This analysis is currently being conducted at  
TestAmerica-Pittsburgh  
301 Alpha Drive  
Pittsburgh, PA 15238

B.2.1.2.1 For off-site waste, analysis upon receipt to verify waste matches description on manifest

The Safety-Kleen Representative inspects each load of waste at the generator's facility for conformance with the Qualitative/Visual Analysis (described in B.2.1.1 above). If the waste does not conform to these criteria, a paper profile may be completed, or a sample collected for additional analysis to determine if the waste can be accepted. The waste is retained at the customer location until the analysis is complete.

In accordance with 40 CFR 264.13(b), Safety-Kleen will perform physical and chemical analysis of a waste stream if notified or has reason to believe that the process or operation generating the waste has changed, or when the result of the Qualitative/Visual Analysis indicates that the waste collected does not match that designated. All of Safety-Kleen's customers have agreed to notify the Safety-Kleen Representative if the process or nature of his business has changed. If a container with questionable contents is returned to the Service Center, a sample will be taken and an analysis will be performed. The container will be held at the facility until analysis is complete. If analysis indicates the waste to be different than what was manifested to the Service Center, the waste will be returned to the customer or managed at the Service Center in accordance with the customer's direction. Records of all sampled and/or rejected wastes will be kept on file at the Service Center.

#### B.2.2 Procedures for Unacceptable Shipments

However, In accordance with HWMR 206.B.3, Safety-Kleen will 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 collected does not match that designated on the manifest or shipping documents. It is Safety-Kleen's practice that suspected non-conforming material must not be accepted until a full analysis has been conducted ~~or the material must be rejected~~. Procedures to verify waste characteristics occur at several checkpoints in the management of the solvent. If a container with questionable contents is returned to the Service Center, a sample will be taken and analysis will be performed at an approved laboratory.

Sampling methods for unacceptable or suspect unacceptable waste containers and Annual Recharacterization Sampling performed at the Farmington facility are found in Exhibit B-5.

#### B.3 METHODS TO BE USED FOR ENSURING COMPATIBILITY OF WASTES WITH HANDLING METHODS

Safety-Kleen manages a limited number of waste streams, most of which originate from new products that are supplied to its customers. Safety-Kleen has evaluated the chemical composition of these products and wastes and has determined that the wastes are compatible with the methods with which they are handled.

#### B.3.1 Waste Compatibility with Containers

Safety-Kleen manages a limited number of waste streams, most of which originate from new products that are supplied to its customers. Safety-Kleen has evaluated the chemical composition of these products and wastes and has determined that the wastes are compatible with the containers in which they are stored.

##### B.3.1.1 Procedures for analyzing liquids that are collected in a storage area (40 CFR 264.175(b)(5); NR 664.0175(b)(5))

All wastes kept at the facility are properly segregated and only a limited number of waste streams are stored at the facility. Additionally, the composition of these waste streams are well-known, as described above. It is therefore unnecessary to analyze any spilled liquid collected in the storage area. Any material will be identified by the container labeling and manifest information.

##### B.3.1.2 Procedures for analyzing ignitable or reactive containerized wastes (40 CFR 264.17, 264.176, 270.15(c); NR 664.017, 664.0176, 670.015(c))

Containerized waste received at the facility is analyzed according to the procedures described in the Waste Analysis Plan. All ignitable wastes terminated at the facility are compatible with each other and the containers in which they are stored. Therefore, additional analyses to evaluate compatibility are not necessary.

##### B.3.1.2 Procedures for determining compatibility of waste to be placed in the same container

The only waste opened at the facility is the solvent waste, which is co-mingled in the aboveground storage tank. Compatibility with tanks is discussed below. The remaining containers of wastes are not opened at the facility and would not be placed in the same container.

##### B.3.1.3 Procedures for determining compatibility of wastes previously held in reused containers that were not decontaminated

The only containers reused at the facility are drums containing spent parts washer solvent. These drums are emptied and washed with same solvent in a drum washer and are then refilled with clean solvent for delivery to customers. As the only material placed in these drums is new or spent solvent, there is no potential for contact with incompatible materials.

#### B.3.1.4 Procedures for determining compatibility to other wastes stored nearby

Safety-Kleen has determined that all wastes stored at the facility are compatible with each other. There is no need for additional procedures to evaluate if a waste stream is compatible with another waste stream stored nearby.

#### B.3.2 Waste Compatibility with tanks

##### B.3.2.1 Procedures for analyzing liquids collected in the collection area (40 CFR 264.196(b); NR 664.0196(b))

All wastes are analyzed according to the procedures described above and have known composition. Therefore, additional analyses will not be required.

##### B.3.2.2 Procedures for determining compatibility of a waste to a tank (40 CFR 264.194(1); NR 664.0194(1))

The only waste stored in the aboveground storage tank is spent parts washer solvent. This material has been analyzed and found to be compatible with the steel tank in which it is stored.

##### B.3.2.3 Procedures for analyzing ignitable or reactive wastes managed in tanks (40 CFR 264.17, 264.198, 270.(16)(j); NR 664.017, 670.016(j))

The aboveground storage tank used for storage of the spent parts washer solvent was new when installed, and is dedicated to the storage of this waste stream. Incompatible raw materials or wastes will not be stored in this tank.

#### A.3 B.4 WASTE ANALYSES AT THE RECYCLE CENTER

Analyses performed at the Safety-Kleen recycle centers are undertaken to safeguard the recycling process and to assure a product quality. Detailed discussion of the Waste Analysis Plans for the Recycle Centers or other contract processor is extraneous to the Farmington facility's permit application.

#### A.4 B.5 WASTE ANALYSIS PLAN UPDATE

This waste analysis plan will be modified when a new waste product is collected or when sampling and material management methods change. Revisions to the Waste Analysis Plan is typically the responsibility of the Safety-Kleen corporate or regional compliance offices. All revisions will be provided to the Facility Manager and training will be conducted for appropriate personnel.

~~Furthermore, as discussed earlier in the Facility Description, all the Materials collected at the Service Center are managed at all times in a closed loop system and 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 as described in Section A.2.1. This mode of operation has been proven to safeguard the recycling process and maintain a quality product.~~

#### A.3 Waste Analyses at the Recycle Center

~~Analyses performed at the Safety-Kleen recycle centers are undertaken to safeguard the recycling process and to assure a product quality. The following section summarizes the waste analyses practiced at the recycle center for the hazardous materials returned from the Farmington branch. For each waste type stored at the branch, at least the following analyses must be performed annually (annual re-characterization analysis). If a particular waste stream is not managed at the Service Center during the previous year, no re-characterization analysis is performed. Copies of the results for the annual analyses must be maintained at the branch office for the life of the permit. A copy of the most recent re-characterization analysis is contained in Attachment A-1.~~

#### A.3.1 Solvents

- ~~Flash point (must be greater than 90°F).~~

~~If the flashpoint is unacceptable, the Farmington Branch Manager will be notified immediately and the load will receive appropriate special handling. If the results are acceptable, the following tests will be performed:~~

- ~~Volatile Organic Analysis, using EPA Methods 8015, 8021, 8260, or approved equivalents.~~
- ~~Physical appearance, including bottom sediment and water content~~
- ~~Specific gravity \_\_\_\_\_~~
- ~~pH~~
- ~~Distillation performance~~

~~\_\_\_\_\_ If any of these tests yield unacceptable results or indicate solvent contamination outside the normal range, the Branch Manager will be notified immediately.~~

~~\_\_\_\_\_ In addition to the tests listed above, which will be performed on a representative sample from every load received at the recycle center from the Farmington Service Center, a full Toxicology Characteristic Leaching Procedure (TCLP) analysis for all 40 constituents, (except for pesticides and herbicides) will be performed at least once each calendar year.~~

#### A.3.2 Solvent Tank Bottom Sludge and Free Water

- ~~Flash point (Must be greater than 90°F).~~
- ~~Analysis for content of lead, cadmium, and chromium.~~
- ~~pH~~

~~As described above for solvent, a full TCLP analysis (except for the pesticides and herbicides) will be performed on a representative sample at least once each calendar year.~~

#### A.3.3 Immersion Cleaner Solvent

~~Containers of waste immersion cleaner are typically characterized at the recycle center using the following criteria:~~

- ~~• Flash point~~
- ~~• Physical appearance~~
- ~~• Specific gravity~~
- ~~• Percent water~~
- ~~• Volatile Organic Analysis (using EPA methods 8015, 8021, 8260 or approved equivalents)~~

~~If any of these tests yield unacceptable results or indicate solvent contamination outside the normal range, the Branch Manager will be notified immediately. As described above, a full TCLP test (except for pesticides and herbicides) will be performed on a representative sample of immersion cleaner at least once each calendar year.~~

#### ~~A.3.4 Dry Cleaning Solvent/Still Bottoms~~

- ~~• Physical appearance~~
- ~~• Volatile Organic Analysis for Perchloroethylene (using EPA methods 8015, 8021, 8260 or approved equivalents)~~
- ~~• Specific gravity~~

~~If any of these tests yield unacceptable results or indicate contamination outside the normal range, the Branch Manager will be notified immediately.~~

~~As described above, a full TCLP test (except for pesticides and herbicides) will be performed on a representative sample of dry cleaning waste at least once each calendar year.~~

#### ~~A.3.5 Paint Waste~~

~~Paint wastes are generally characterized at the recycle center using the following criteria:~~

- ~~• Metals~~
- ~~• Flash points~~
- ~~• Physical appearance~~
- ~~• Specific gravity~~
- ~~• Percent water~~
- ~~• Volatile organic analysis (using EPA methods 8015, 8021, 8260, or approved equivalents)~~

~~As described above, a full TCLP test (except for pesticides and herbicides) will be performed on a representative sample of paint waste at least once each calendar year.~~

## SECTION C - LAND DISPOSAL RESTRICTIONS

All of the permitted waste streams received and stored at the Service Center are treated or recycled at an approved Safety-Kleen Recycle Center, contract reclaimer, or other properly permitted facility. The drum washer sediment generated at the facility is containerized and shipped offsite for reclamation. The Service Center does not dispose of any hazardous wastes onsite and does not send any permitted wastes to land disposal facilities. Therefore, the Farmington Service Center is not required to certify that hazardous wastes that are restricted from land disposal are below treatment standards. The following sections discuss how Safety-Kleen determines appropriate Land Disposal Restriction (LDR) classification and treatment standards and how LDR notification requirements are met.

### C.1 WASTE ANALYSIS

The majority of hazardous wastes managed at the Farmington Service Center are received from offsite generators.

#### C.1.1 Point of Generation

##### C.1.1.1 Self-Generated Hazardous Wastes

The point of generation for self-generated wastes will be when a material is no longer useful or it is decided to discard the material.

##### C.1.1.2 Wastes Received from Off-Site Sources

The point of waste generation for all wastes generated at off-site sources and transported to the Facility is the boundary at the entrance gate. These wastes are untreated and are assumed to exceed the LDR treatment standards.

#### C.1.2 Selection of LDR Treatment Standards

The rationale for the selection of LDR treatment standards are provided below.

##### C1.2.1 Spent Solvent and Dioxin Containing Waste

Safety-Kleen will manage F-listed solvent wastes in the permitted storage areas. The spent dry cleaning perchloroethylene is F-listed solvent non-wastewater waste with the following treatment standard: tetrachloroethylene (0.05 mg/L). None of the permitted wastes Safety-Kleen handles contain dioxins.

#### C.1.2.2 Listed Wastes

Safety-Kleen does not handle non-solvent F-listed, K-listed, U-listed or P-listed waste in its permitted areas. Any transfer waste having these codes will have the appropriate LDR accompany the manifest so the designated facility can treat the material properly.

#### C1.2.3 Characteristic Wastes

Wastes with treatment Standards – Safety-Kleen may generate or store D001 wastes, including parts washer solvent. Since this waste contains high levels of organics, Safety-Kleen assumes that all D001 wastes will contain > 10 percent total organic carbon (TOC). The technology-based standards for these non-wastewaters are “RORGS”, (recovery of organics) or CMBST (high temperature organic destruction).

Safety-Kleen may also generate or store wastes that may be classified with additional characteristic waste codes, such as D006, D007 (example: immersion cleaner, dry cleaner waste). The treatment standards for these wastes are 1.0 mg/L, and 5.0 mg/L respectively.

#### C.1.2.4 Radioactive Mixed Waste

Safety-Kleen Farmington does not accept radioactive wastes. Therefore, this section does not apply.

#### C.1.2.5 Leachate

Safety-Kleen Farmington does not create or accept leachate in their permitted areas. Therefore, this section does not apply.

#### C.1.2.6 Lab Packs

Safety-Kleen Farmington does not handle lab packs in its permitted areas. Therefore, this section does not apply.

#### C.1.2.7 Contaminated Debris

Safety-Kleen Farmington handles contaminated debris in its permitted areas.

#### C.1.2.8 Waste Mixtures and Waste with Overlapping Requirements

Waste that carries more than one characteristic or listed waste code will be treated to the most stringent treatment requirement for each hazardous waste constituent of concern.

#### C.1.2.9 Dilution and Aggregation of Wastes

Safety-Kleen's parts washer solvent is the only permitted waste consolidated at the site. All solvent is either recycled or destroyed via combustion offsite so this section does not apply.

### C.2 DOCUMENTATION

For all waste streams terminated at this facility, in accordance with the regulations listed above, Safety-Kleen will provide to the Recycle Centers or authorized treatment or disposal facility, and require from its' regulated customers, notification/certification which provided the treatment standards for the wastes banned from landfills. These will be updated any time the waste should change or the waste is delivered to a new final permitted site. A copy of this notification/certification shall be available at the Farmington facility.

#### C.2.1 Retention of Generator Notices and Certifications

The notice is required paperwork for all Safety-Kleen permitted waste types that are received from offsite generators and managed at the facility. The notices and certifications provided by regulated customers must be kept on file at the Service Center for at least three years as part of the operating record. Records may be maintained electronically.

### C.3 STORAGE OF RESTRICTED WASTES

Safety-Kleen Farmington stores restricted wastes in tanks and containers solely for the purpose of the accumulation of such quantities of hazardous waste as necessary to facilitate proper recovery, treatment, or disposal and the facility complies with the requirements in 40 CFR 262.34 and parts 264 and 265 for no more than one year, typically much less. Containers are marked with their contents and the accumulation start date is maintained in the operating record. Waste movements into and out of the used solvent storage tank are maintained in the operating record.

A.5 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:~~

- ~~a. Printing the Notice language on the manifests – such as for core-business customers to branch shipments; or~~
- ~~b. Special forms for each regularly handled waste type (e.g., MS, IC, perc, freon); or~~
- ~~c. A general form that must be completed for unique or non-standard waste streams.~~

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~~These wastes will only be handled on a transfer basis, in accordance with 40 CFR 263.12.~~

~~The Notice is required paperwork for all Safety-Kleen waste types. 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.~~

## A.6 SECTION D - OPERATING RECORD

### D.1 DOCUMENTS MAINTAINED

Safety-Kleen maintains an operating log record on site which includes the following information as it becomes available:

1. A description and the quantity of each hazardous waste received, and the method and date of its storage as required by Pt. V. Sec. 264, Appendix I;
2. The location of hazardous waste within the facility and quantity;
3. Records and results of waste analyses performed;
4. Summary reports and details of all incidents that require implementing the contingency plan;
5. Records and results of inspections;
6. Monitoring, testing or analytical data and corrective action where required;
7. For off-site facilities, Notices to generators as specified in 40 CFR 264.12(b);
8. Closure and post-closure cost estimates;
9. 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; and
10. The land ban notices and requirements. These records are kept on file at the facility.

Many of the above-referenced records may be maintained electronically.

### E.3 RECORDKEEPING REQUIREMENTS

#### D.2 COMPLIANCE WITH THE MANIFEST SYSTEM

Safety-Kleen complies with must implement the manifesting system required under 40 CFR 264.71.

~~In accordance with 40 CFR 264.73, Safety-Kleen maintains a manifest system, an operating record, biennial reports and all other records required under these sections.~~

#### E.3.1 Manifest System

##### D.2.1 Waste Received from Off-Site Generators

If the facility receives hazardous waste accompanied by a manifest, the Branch Manager or designate shall do all of the following:

- a. Sign and date each copy of the manifest to certify that the hazardous waste covered by the manifest was received.
- b. Note any significant discrepancies in the manifest on each copy of the manifest.
- c. Within 30 days after the delivery, send a signed copy of the manifest to the generator.

- d. Retain, at the facility, a copy (either paper or electronic) of each manifest for not less than 3 years from the date of delivery. (Safety-Kleen is generally the TSDF as well as the transporter, so only one copy is kept on file).
- e. ~~Return a copy of the manifest to the director or his or her designee within a period of 10 days after the end of the month in which the waste was received.~~

The requirements described above do not apply to hazardous waste produced by generators of more than 100 kilograms but less than 1,000 kilograms in a calendar month if both of the following requirements are met:

- a. The waste is reclaimed under a contractual agreement pursuant to which the type and frequency of shipments are specified in the agreement and the vehicle used to transport the waste to the recycling facility and to deliver the regenerated material back to the generator is owned and operated by the reclaimer of the waste.
- b. The generator maintains a copy of the reclamation agreement in his or her files for a period of not less than 3 years after termination or expiration of the agreement.

The facility will not receive bulk shipments of hazardous waste from a rail or water transporter.

#### D.2.2 Site-Generated Waste Manifests

When a shipment of hazardous waste is initiated from this facility, the Branch Manager or his designate must:

- a. Prepare a manifest before transporting the waste offsite.
- b. Designate on the manifest one facility which is licensed to handle the waste described on the manifest. The Branch Manager may also designate on the manifest one alternate facility which is licensed to handle the waste if an emergency prevents delivery of the waste to the primary designated facility.
- c. Use a transporter who is properly licensed under the act or a generator-owned vehicle licensed under the act to transport the waste.
- d. If the transporter is unable to deliver the hazardous waste to the designated facility or the alternate facility, the generator shall either designate another facility or instruct the transporter to return the waste.

Except as described in the next paragraph, the Branch Manager shall use a manifest form approved by the Director (or other appropriately titled NMDE employee) which contains all of the following information.

- a. A manifest document number.
- b. The generator's name, mailing address, telephone number, and EPA identification number.
- c. The name and EPA identification number of each transporter.
- d. The name, address, and EPA identification number of the designated facility and an alternate facility, if any.

- e. The description of the waste required by regulations of the DOT provisions of 49 CFR 172.101, 172.202, and 172.203.
- f. The total quantity of each hazardous waste by units of weight or volume, and the type and number of containers loaded into or onto the transport vehicle.
- g. The hazardous waste number describing the waste.
- h. The following certification: "I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations and applicable state regulations."
- i. Other certification statements required by the director based on requirements of the Solid Waste Disposal Act.

~~\_\_\_\_\_ If the Branch Manager manifests a shipment of hazardous waste out of state, and if the state to which the shipment is manifested requires the use of another manifest, then the generator shall use that manifest.~~

The Branch Manager (or designate) shall do all of the following when initiating a shipment:

- a. Sign the manifest certification by hand.
- b. Obtain the handwritten signature of the initial transporter and the date of acceptance on the manifest.
- c. Retain one copy for his files.
- d. ~~Submit one copy to the director or his or her designee, which shall be postmarked no later than 10 days after the month in which shipment was made, and;~~
- e. Give the remaining copies to the transporter.

When Safety-Kleen receives or ships hazardous waste, the Branch Manager or designate must review the manifest and check the information on the manifest for correctness. It should be noted that the Safety-Kleen prints most of the required information electronically on the majority of its manifests. The employee checking the manifest must review the names, addresses, EPA and New Mexico I.D. and transporter numbers, the manifest document number and the telephone numbers listed. In addition, the hazardous material (HM) box should be checked, the waste description, DOT classification, DOT I.D. number and EPA Waste Code must be verified. The number of drums and pounds (or unit of measure appropriate for the waste), as well as the symbols for these units must be correct and an "H" must be entered in the last column. The generator, transporter(s) and TSD operator must all print and sign their names and enter the date the waste was shipped or received, as appropriate.

Upon discovering a significant manifest discrepancy, the Branch Manager (or designate) shall attempt to reconcile the discrepancy with the waste generator or transporter through telephone conversations or otherwise. If the discrepancy is not resolved within 15 days after receiving the waste, the Branch Manager shall immediately submit, to the director and regional administrator, a letter describing the discrepancy and attempts to reconcile it and a copy of the manifest or shipping paper with the discrepancy. Significant manifest discrepancies are differences

between the quantity or type of hazardous wastes designated on the manifest or shipping paper and the quantity or type of hazardous waste a facility actually receives, as follows:

- a. For bulk waste, significant discrepancies are variations of more than 10% in weight.
- b. For batch waste, a significant discrepancy is any variation in piece count, such as a discrepancy of one drum in a truckload.
- c. Significant discrepancies in type are obvious differences which can be discovered by inspection or waste analysis, such as waste solvent substituted for waste acid or toxic constituents not reported on the manifest or shipping paper.

### E.3.2 Operating Record

#### **D.3 OTHER RECORDS**

The operating record must include:

- a. a record of hazardous waste shipments rejected by the facility including the following:
  - a. the name of the generator and transporter;
  - b. the manifest number;
  - c. the date the shipment was rejected; and
  - d. the reason for rejection.
- b. personal training records for all current personnel; and
- c. the contents of the waste storage tank, the quantity of each waste received, and the date each period of accumulation begins (i.e., the date each waste solvent pickup occurs) must also be included in the operating record.

#### **D.4 ~~E.3.3~~ BIENNIAL REPORTS**

A biennial report must be submitted by March 1 of each even numbered year. The biennial report shall be submitted on form 8700-13B **(or other form as deemed appropriate)**. The report shall cover facility activities during the previous calendar year and shall include all of the following information:

- a. The EPA identification number, name, and address of the facility.
- b. The calendar year covered by the report.
- c. For offsite facilities, the EPA identification number of each hazardous waste generator from which the facility received a hazardous waste during the year, and for imported shipment, the name and address of the foreign generator.
- d. A description and the quantity of each hazardous waste the facility received during the year. For offsite facilities, this information shall be listed by EPA identification number of each generator.
- e. The method of treatment, storage, or disposal for each hazardous waste.
- f. The most recent closure cost estimate under 40 CFR 264.142.

- g. The certification signed by the owner or operator of the facility or the owner or operator's authorized representative.
- h. Waste minimization and recycling implemented during the reporting period.
- i. Estimated costs devoted to waste minimization and recycling of hazardous waste
- j. A report including progress made in the waste minimization program in the previous year. The report shall be submitted annually by December 15 for the previous fiscal year ending September 30.

#### D.5 WASTE MINIMIZATION

A copy of the facility's Waste Minimization Plan is included as Exhibit D-1.

## SECTION E- SUBPART BB COMPLIANCE

### E.1 WASTE DETERMINATION

#### E.1.1 Applicability

The used solvent managed in the tank system is presumed to contain hazardous waste with an organic concentration of at least 10-percent by weight, so Subpart BB regulations apply. The used parts washer solvent managed in the tank system is a heavy liquid (vapor pressure less than 0.3 kilopascals at 20°C) and has a maximum concentration in the vapor phase of 2,000 ppm. The hazardous waste state at each piece of equipment is liquid.

### E.2 EQUIPMENT LEAKS

#### E.2.1 Definition of Equipment

Equipment includes one 12,000 gallon aboveground storage tank with associated piping and one drum washer/wet dumpster unit with associated piping. The aboveground storage tank is located adjacent to the tank farm. The drum washer unit is located at the facility's Return and Fill station next to the tank farm. See Exhibit A-3 for a facility map.

Each valve, pump, and flange associated with the hazardous waste storage tank and drum washer unit is identified. A listing of the tag numbers, descriptions of the tagged equipment, and location of each piece of equipment is located on Air Emission Equipment Inventory Form and schematic is included as Exhibit E-1.

Safety-Kleen complies with Subpart BB requirements by inspecting the piping and equipment each operating day. Each valve, joint, flange, pressure relief device, pump, etc. is inspected to insure the equipment is not leaking and is functioning properly. Open-ended pipes are capped when not in use.

#### E.2.2 Monitoring and Leak Detection

Compliance with the standard will be achieved through facility inspections. These inspections will be conducted each operating day, typically Monday through Friday.

Because the spent parts washer solvent is a heavy liquid, a photoionizer type instrument will not detect leaks at 10,000 ppm. A leak will be observed based on visual, audible, or olfactory inspection. Records of equipment monitoring and repair are maintained in the operating record. Equipment in question will be tagged with the identification number, date of potential or actual leak, and date of leak confirmation. After a valve has been repaired, it will be visually monitored as part of the daily facility inspection. After two successive months with no leak detection, the identification tag may be removed. For other equipment, such as pumps, the tag may be removed after a successful repair.

Any leak or potential leak must be repaired as soon as practicable, but at least within 15 days, with the first attempt at repair made no later than 5 days after the leak is detected. The Environmental Compliance Manager will be contacted immediately to arrange for the equipment to be monitored (if required). The piece of equipment in question must be tagged with the identification number, date of potential or actual leak, and date of leak confirmation.

Leak detection monitoring and repair records are maintained. Records of equipment monitoring and repair are maintained in the operating records. This leak detection and repair record will be kept on file at the facility.

#### A.7 WASTE DETERMINATION FOR SUBPART BB AND CC COMPLIANCE

~~For purposes of waste determination, this facility utilizes knowledge of the wastes described in Section A.1, A.2 and A.3 above. For those hazardous wastes which are managed on a transfer basis, the Subpart CC regulation does not apply. However, the owner/operator may use knowledge of the waste based on information included in manifests, shipping papers, or waste certification notices to confirm waste determination for the generator or the ultimate receiving facility.~~

~~Based upon this knowledge, it has been determined that all wastes managed in tanks or containers at this facility may display an average volatile organic concentration of greater than 500 ppmw at the point of waste origination. Documentation of this knowledge is provided in Attachment A-1 (waste characterization analytical results), as required in 40 CFR 264.1063(d) and 264.1083. Therefore, hazardous wastes managed in tanks or containers at this facility shall be managed in accordance with the applicable Subpart CC standards.~~

## SECTION F - SUBPART CC COMPLIANCE PLAN

The Safety-Kleen Farmington, New Mexico facility shall control air pollutant emissions from waste management units at this facility pursuant to the requirements of RCRA Subpart CC, through implementation of this compliance plan.

The following plan describes this facility's waste determination procedures, tank and container design/management practices, organic emission controls, inspection and monitoring, and recordkeeping and reporting, pursuant to requirements/standards promulgated under RCRA Subpart CC.

### F.1 WASTE DETERMINATION PROCEDURES

For purposes of waste determination, this facility utilizes knowledge developed in the Waste Characterization (Waste Analysis Plan) portion of the Operation Plan/Permit. For those hazardous wastes which are managed on a transfer basis, and which are not described in the Operation Plan/Permit, the Subpart CC regulation does not apply. However, the owner/operator may use knowledge of the waste based on information included in manifests, shipping papers, or waste certification notices to confirm waste determination for the generator or the ultimate receiving facility.

Based upon this knowledge, it has been determined that all wastes managed in tanks or containers at this facility may display an average volatile organic concentration of greater than 500 ppmw at the point of waste origination. Therefore, all hazardous wastes managed in tanks or containers at this facility shall be managed in accordance with the applicable Subpart CC standards.

### F.2 POINT OF WASTE ORIGINATION

The point of waste origination for all wastes generated offsite and transported to the site in closed containers, which are subsequently managed in tanks or containers at this facility, is effectively the site boundary at the entrance gate.

For those hazardous wastes generated onsite, the point of waste origination is the point of waste generation, as previously defined in RCRA.

### F.3 TANKS

~~Tanks which manage organic wastes at this facility are described in detail in the Operation Plan/Permit.~~ Hazardous waste is managed in a 12,000 gallon aboveground storage tank (AST). The AST is designed in accordance with UL Standard 142, constructed of carbon steel and is installed in accordance with NFPA standards. Certain features of these units, as they relate to the Subpart CC standards, are described below.

Waste Used mineral spirits AST is a fixed roof, non-pressurized, quiescent tanks. All The waste used solvent tank tanks at the facility are is a Level 1 tank under Subpart CC. The tank design capacity is less than 75 cubic meters or about 19,813 gallons, and the waste in these tanks exhibits a vapor pressure of less than 76.6 kpa (11.1 psi). The actual vapor pressure of the waste managed in tanks is  $\approx 0.2$  psia. The actual vapor pressure of the waste managed in tanks is shown in Attachment 5-2 Table 1. The maximum organic vapor pressure is determined using knowledge of the waste pursuant to 265.1084(c)(4). Documentation for the basis of this determination is found in the waste characteristics portion of the operation plan/permit Safety-Kleen Solvents Vapor Pressure Summary table included at the end of this Subpart CC Plan.

These tanks are is designed so that all cover openings can be closed with no visible gaps, holes, cracks, or other open spaces into the interior of the tank. The cover and all cover openings operate with no detectable emissions when in a closed position. Cover openings are maintained in a closed position at all times except when waste is being added to or removed from the tank, or when necessary sampling or repair/maintenance is performed on the tanks.

These tanks are is vented to the atmosphere through a safety device (conservation vent) which has been designed to operate with no detectable organic emissions when the device is in the closed position. In addition, these tanks are is designed with a long-bolted manway pressure relief device, which remains in the closed position when not in use to relieve pressure.

The drum washing unit at this facility is ancillary equipment to the tank. fixed roof, Level 1 tanks. These tanks This unit is kept closed except when adding or removing wastes, sampling, or performing routine maintenance that requires the lid to be open.

#### F.4 CONTAINERS

Containers managing hazardous wastes generally fall into three categories.

1. Those hazardous waste containers less than 26 gallons in capacity are wholly exempt from consideration under Subpart CC. Safety-Kleen manages waste with vapor pressures greater than 0.3 kPa at 20°C (e.g lacquer thinner / paint wastes) both in containers less than 0.1 m<sup>3</sup> (about 26 gallons) and in containers less than 0.46 m<sup>3</sup> or about 122 gallons. Containers of hazardous wastes that are transferred through the facility are "still in the course of transportation" and therefore are exempt from Subpart CC.
2. Containers with capacities between 26 gallons and 122 gallons are all Level 1 containers and generally meet the Level 1 standards as covered containers designed with no gaps, holes, cracks, or other open spaces into the container. In addition, all Safety-Kleen containers used to manage hazardous waste meet applicable U.S. DOT regulations on packaging hazardous materials for transportation.
3. Containers of greater than 122 gallons that manage hazardous wastes at this facility are not in light service (i.e. containers greater than 122 gallons are not used to manage

wastes with vapor pressures greater than 0.3 kPa at 20°C). Containers greater than 122 gallons are however, Level 1 covered containers designed and operated with no gaps, holes, cracks, or other open spaces into the container and comply with applicable U.S. DOT regulations on packaging hazardous materials for transportation.

**F.4.1 Level 1 Containers**

Provided below is a summary of the criteria applicable for a container to be identified and managed as a Level 1 container.

LEVEL	VOLUME	USAGE	REQUIREMENTS
Level 1	> 26 gallons but ≤ 119 gallons  OR  >119 gallons	Any hazardous waste    Not "in light material service"	- Meet DOT specs or is a lab pack - Keep closed except when adding or removing waste - Safety relief devices - Minimize exposure of waste when transferring, - Remediate defective containers within 5 days, initiate within 24 hours

A hazardous waste is a "light material" if it (1) contains at least one organic constituent with a vapor pressure above 0.3 (kPa) at 20°C, and (2) has a total concentration of such constituents of 20% or greater by weight. This definition will generally apply to all hazardous waste received at the facility in non-bulk containers.

Level 1 containers typically received and managed by this facility include, but are not limited to include 5 gallon, 15 gallon, 30 gallon, 55 gallon, 275 gallon containers. These containers meet applicable DOT specifications and/or authorizations. Therefore, these containers are acceptable for use in accordance with Level 1 controls. Containers greater than 26 gallons managing site generated hazardous waste will be visually inspected upon their initial filling and within one year if the container is not completely emptied of its contents.

**F.4.2 Inspection and Monitoring**

Hazardous wastes accepted from off-site generators are already containerized when the facility accepts the waste. Such containers are visually inspected either at the time they are unloaded for storage or staged for transfer at the facility, or during the daily facility inspection. ~~The inspection occurs within 24 hours of the waste's arrival at the facility.~~ This written plan and schedule to perform the inspections is incorporated in the facility inspection plan by this reference.

An initial visual tank inspection was conducted on August 24, 1992. No defects were noted on the waste solvent tank which could result in air pollutant emissions. Visual tank inspections shall be conducted on an annual basis.

**F.4.3 Recordkeeping**

Documentation of tank and tank cover design: See **Exhibit J-1 (Tank System Installation Assessment)** ~~Operation Plan/Permit.~~

Documentation of waste determination: ~~See Attachment 5-2 Table 1.~~ For purposes of waste determination, this facility utilizes knowledge of the wastes described in Section B (Waste Analysis Plan) of this permit application. For those hazardous wastes which are managed on a transfer basis, the Subpart CC regulation does not apply. However, the owner/operator may use knowledge of the waste based on information included in manifests, shipping papers, or waste certification notices to confirm waste determination for the generator or the ultimate receiving facility. Based upon this knowledge, it has been determined that all wastes managed in tanks or containers at this facility may display an average volatile organic concentration of greater than 500 ppm<sub>w</sub> at the point of waste origination. Therefore, hazardous wastes managed in tanks or containers at this facility shall be managed in accordance with the applicable Subpart CC standards.

Records of all visual inspection: See Section **H (Inspection Plan)** of this permit application. ~~(daily facility inspection records, and enclosed record of initial tank inspection.~~

~~Listing of all tanks, by unique identifying number, which are difficult or unsafe to inspect: See enclosed.~~

~~Results of the determination of the maximum vapor pressure of waste in tanks and record of the tank dimensions and design capacity: See Operation Plan/Permit.~~

**SAFETY-KLEEN SOLVENTS  
 VAPOR PRESSURE SUMMARY  
 (ISOTENISCOPE METHOD)**

TABLE F.4.3

PRODUCT NAME	PRODUCT NUMBER	68° F (20° C)				100° F (38° C)			
		mm-Hg	psia	K Pa	atm	mm-Hg	psia	K Pa	atm
S-K 150 (Premium)	6605	0.7	0.012	0.080	0.001	1.7	0.033	0.227	0.002
Immersion Cleaner	699	<0.41	<0.0079	<0.055	-	-	-	-	-
Heavy Duty Lacquer Thinner	6782	75-94.7	1.45-1.83	10-12.6	0.10-0.134	-	-	-	-
Low V.P. Lacquer Thinner	6664	24-35	0.46-0.68	3.20-4.67	0.03-0.05	-	-	-	-

## SECTION G - SECURITY MEASURES

### G.1 SECURITY AND SAFETY EQUIPMENT

#### G.1.1 Artificial Barrier/Means to Control Entry

The facility is secured with a chain link fence topped by ~~three strands of~~ barbed wire surrounding the operational areas. All access gates are locked when the facility is unoccupied. In addition, outdoor lights are on sensing devices that activate at low light conditions.

The fence and gates are inspected at least weekly. Any needed repairs will be initiated immediately upon detection.

#### G.1.2 24-Hour Surveillance System

The facility does not have a 24-hour surveillance system. Security is achieved by the passive fence and gate system.

#### G.1.3 Warning Signs

Warning signs in English, Navajo and Spanish are placed on all sides of the fence stating "Caution – Hazardous Waste Area – Unauthorized Personnel Keep Out" (or similar wording) which are visible from twenty-five feet.

#### G.1.4 Building Access

The office/warehouse building is secured with locks on all doors and warning signs are posted at entrances to work and waste storage areas. The Container Storage Area is also locked unless occupied by Safety-Kleen personnel.

The tanks are enclosed in the secured, fenced area. The tank pump controls are outside the Return and Fill station. The pumps are not activated unless mineral spirits product or waste is being added to or removed from the tanks by Safety-Kleen personnel.

As a result the tanks and container storage area are accessible only by Safety-Kleen personnel. In addition, warning signs are posted on the Return and Fill station.

### G.2 INSPECTIONS

Inspections of security equipment are further described in Section H.

**SECTION H - INSPECTION PLAN**

**C-H.1 INSPECTION PROCEDURES**

Area / Item to be Inspected	Criteria	Frequency
<b>SAFETY AND SECURITY EQUIPMENT</b>		
Fence / Gate / Signage	Gate is functioning, fence is intact and in good condition, warning signs present and not faded	Weekly
Emergency Eyewash / Shower	Present and functioning; access not blocked	Weekly
Fire Extinguishers / Suppression	Extinguishers-present, adequately charged, tagged. Suppression system-adequate pressure	Weekly
Spill Clean Up Equipment	Stocked and accessible	Weekly
<b>TANK SYSTEM</b>		
Tank Volume	Sudden deviations in the solvent volume will be investigated and their causes determined	Each operating day
High Level Alarm	Test for aural and visual alarming	Each operating day
Secondary Containment System	Evidence of liquid in containment space indicating leak	Each operating day
<b>CONTAINER STORAGE UNITS</b>		
Volume in storage area	Volume cannot exceed permitted storage capacity	Each operating day
Containers in storage area	Evidence of leaks, bulging or corrosion of containers, proper closure, required labeling, adequate aisle space	Each operating day
Secondary containment	Inspect for evidence of spills, cracks or gaps, deterioration	Each operating day

**H.1.1 Inspection Schedule**

The Branch **General** Manager (i.e., **Service Center Manager**) or **designee** designate is responsible for carrying out and documenting the facility inspection. ~~(example inspection forms are in Attachment C-1.~~ The inspections are performed each operating day (typically Monday through Friday). He/**she** must note any repairs that are needed and assure that they are completed. If the repairs cannot be implemented by onsite personnel, the ~~Technical Services~~ **Engineering** Department at ~~Safety-Kleen's corporate headquarters~~ must be notified for assistance. Completion of repairs must also be documented on the inspection form **record**.

~~The Environment, Health & Safety Manager or other regional or corporate personnel responsible for compliance issues reviews the Facility Inspection Record with the Branch Manager periodically to insure that they are properly completed and that any necessary repairs have been conducted.~~

### H.1.2 Tank Inspections

At a minimum, the tanks holding the product and used solvent are inspected each operating day, typically Monday through Friday. The inspections include checks of the high level alarm and the volume held in the tank. Sudden deviations in the solvent volume will be investigated and their causes determined. If necessary, repairs must be initiated immediately. The solvent must not exceed 95% of the tank volume at any time. ~~The tank is also inspected to comply with Subpart CC requirements.~~

The secondary containment for the spent solvent storage tank must be checked for cracks or other deterioration and for evidence of precipitation accumulation or spills each operating day. Any damage to tank (such as rust or loose fixtures) or secondary containment must be noted and repairs initiated.

### H.1.3 Container Storage Area

The container storage area is inspected each operating day, typically Monday through Friday, ~~and the number and condition of the drums noted.~~ The total volume of the material held in the drum storage area must not exceed ten times the amount that can be collected in the secondary containment system. The contents of any leaking or suspect drums must be placed in a drum of adequate integrity. The drums must be properly labeled and marked in accordance with U.S. DOT, EPA and New Mexico hazardous waste regulations. The secondary containment systems must be inspected for deterioration on failure. If cracks or leaks are detected, ~~they must be repaired~~ repairs will be initiated immediately.

### H.1.4 Dumpster/Drum Washers

The ~~two~~ wet dumpsters/drum washers (in the Return and Fill station) must be inspected each operating day ~~weekly~~ for leaks and sediment buildup. Any leaks must be noted and repaired immediately and excess sediment must be removed from the dumpster.

### H.1.5 Safety Equipment and Security Equipment

Reference Table H.1 above.

### H.1.6 Recording of Inspections

Daily and Weekly inspections may be recorded and maintained electronically. The electronic inspection records are producible as needed. Example inspection records are included as:

- Exhibit H-1 Example Weekly Safety-Security Inspection (paper form)
- Exhibit H-2 Example Weekly Safety-Security Inspection (electronic producible form)
- Exhibit H-3 Example Daily Container Storage Area Inspection (paper form)

Exhibit H-4	Example Daily Container Storage Area Inspection (electronic producible form)
Exhibit H-5	Daily Tank Storage System Inspection (paper form)
Exhibit H-6	Daily Tank Storage System Inspection (electronic producible form)

~~The fire extinguishers must be checked weekly to insure that the units are charged and accessible. In addition, the operation of the eyewash must be confirmed weekly and the first aid kit and sorbents must be inspected weekly for adequate content and accessibility. Emergency equipment information is in Attachment F.~~

### Security

~~The operation of each outside light, gate, and lock must be checked each operating day. In addition, the fence must be inspected for deterioration on a weekly basis.~~

### C.2 SUBPART CC COMPLIANCE (MOVED TO SECTION F)

~~Safety-Kleen has developed a Subpart CC Compliance Plan, which details procedures to achieve compliance with Subpart CC requirements. The plan includes provisions for an annual visual tank inspection of the waste solvent storage tank (to the extent possible) and vent system, as well as container inspections upon arrival at the facility and proper container management. A copy of the Subpart CC Compliance Plan is included in Attachment C-2.~~

### C.3 SUBPART BB COMPLIANCE (MOVED TO SECTION E)

~~Safety-Kleen complies with Subpart BB requirements by inspecting the process piping and equipment. Each valve, joint, flange, pressure relief device, pump, etc. is inspected to insure the equipment is not leaking and is functioning properly. Open-ended pipes are capped when not in use. An equipment inventory for inspections (Attachment C-3) is used to document compliance with Subpart BB inspections, and as required by 40 CFR 270.25~~

**SECTION I - PERSONNEL TRAINING**

ABSTRACT

<b>Job Title</b>	<b>Prior to Starting Work</b>	<b>On The Job</b>	<b>Annually</b>	<b>When Regulations or Procedures Change</b>
Branch General Manager	X	X	X	X
Branch Administrator		X	X	X
Sales/Service Representatives	X	X	X	X
Warehouse Employees	X	X	X	X

**D.I.1 OUTLINE OF TRAINING PROGRAM**

**I.1.1 Purpose**

The purpose of training 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. The program is designed to ensure that facility personnel are able to respond effectively to emergencies by familiarizing them with emergency procedures, emergency equipment, and emergency systems. All employees receive basic training on Hazard Awareness and the facility Contingency Plan. The level of training an employee receives is dependent upon the employee's level of involvement in hazardous waste management.

Each employee is trained to operate and maintain the facility safely, and to understand hazards unique to the job assignment. This section contains information on Service Center personnel and trainers, job descriptions, training outlines and training record forms. The training is designed to meet federal regulations and requirements. All employees at the facility have had training that satisfies the requirements of 40 CFR 264.16. The regional environmental professional directly assists with the training of new Branch General Managers. The Branch General Manager or the Compliance Manager, in turn, train other employees. An employee may not work in an unsupervised position until he or she has received proper training as outlined in Exhibit I-1. Attachment D-2.

## D.1.2 ORGANIZATION STRUCTURE AND JOB DESCRIPTIONS

Environmental compliance and training of facility employees is the responsibility of the Branch **General** Manager. The Safety-Kleen corporate office provides a training program to be executed annually. The training program is directed by personnel trained in hazardous waste management procedures and includes instruction on hazardous waste management for facility personnel that is in accordance with 40 CFR 264.16(a)(2). In accordance with 40 CFR 264.16(d)(1), **example** job descriptions for branch personnel are in **Exhibit I-2 Attachment D-2. Job descriptions may change as business needs dictate.** A list of employees, their job titles and job functions will be maintained at the facility.

### D.1.2.1 Branch General Manager

The Branch General Manager is responsible for the business and environmental operations at the Service Center. The sales and service representatives, administrators, **and Material Handlers** (warehouse employees) report to the Branch Manager. The Branch General Manager or his/her designee provides the training and materials necessary for the branch employees to execute their duties. With respect to environmental compliance, the Branch General Manager must:

- a. keep the Service Center clean and orderly;
- b. execute or designate an employee to execute the daily inspection, keep a written log and remediate any problems;
- c. know the potential hazards of the material and waste handled on site;
- d. identify potential spill and fire sources and be able to execute the contingency plan;
- e. inform all employees of their environmental responsibilities;
- f. act as emergency coordinator and notify the proper authorities during an emergency, remediate the situation to the best of his abilities, and submit necessary reports to the corporate office; and
- g. maintain all environmental records (such as manifests, training records and spill reports) on file.

### D.1.2.2 Corporate Compliance Department

Safety-Kleen's Corporate Compliance Department has personnel on staff who provide guidance to divisional and regional personnel for training, permitting, and other compliance issues for Service Centers in a given geographic area of the country.

## D.1.3 DESCRIPTION OF THE TRAINING PROGRAM

Employee training may be accomplished using classroom, online, videotape, written, and on-the-job methods. The **Training Department** ~~regional/corporate offices~~ prepares a training program for employees and the Service Center personnel 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 annually thereafter. The Safety-Kleen ensures that the Branch General Manager has received adequate training to train branch personnel. Appendix G Exhibit I-1 contains an example outline of the training program, which demonstrates that facility personnel are trained in hazardous waste management procedures.

#### D.I.3.1 Training of New Branch General Managers

New Branch General Managers are trained for several weeks before they begin their new positions. This training occurs onsite, on-the-job, and offsite classroom training. While being trained at a designated training facility, a new Branch General Manager reviews all environmental records and learns the recordkeeping requirements. These records may include Waste Analysis Profiles, manifests, personnel records, training records, facility inspection records, and spill reports.

The training culminates in additional training at his/her new facility at the direction of an environmental professional. The training may include at a minimum, a review of the facility permit, including the Waste Analysis Plan, Preparedness and Prevention Plan, Contingency Plan, Training Plan, and Closure Plan. Additional time is spent reviewing past environmental compliance at the Branch General Manager's facility. Regulations unique to the state are discussed as well.

#### D.I.3.2 Training of New Branch Administrators

Branch administrators are trained in the proper record keeping procedures as soon as they begin working for Safety-Kleen. While they are not usually responsible for preparing the documentation, they must check as well as checking 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 if needed. It may include the items listed in the Example RCRA Training Plan Outline (Attachment D-4 Exhibit I-1), and may include emergency response, shipping documents (including manifests), drum labels and other safety and environmental compliance issues.

#### D.I.3.3 Training of New Sales and Service Representatives

New Sales and Service Representatives are trained onsite during which they are introduced to manifests, facility inspection records and training records. A Sales Representative may also be trained as a designate for performing the facility inspection. The Contingency Plan must be reviewed with the Branch Manager before the Sales Representative formally begins his new position and annually thereafter. All items listed in the Example Training Plan Outline (Attachment D-4 Exhibit I-1), must be explained within six months of starting. Additional training is in the form of classroom, electronic (i.e. video, e-Learning), written, and on-the-job methods.

#### D.I.3.4 Training of New Material Handlers

A Material Handler is trained to maintain the Service Center and assist the other branch employees in their tasks. He/She may be a designate for performing the daily inspection and must be trained by the Branch Manager as such. Additional training may be in the form of videotape presentations, classroom, electronic (i.e. video, e-Learning), written, and on-the-job methods. ~~Within two weeks of the warehouse person's starting,~~ The Branch Manager must review the Contingency Plan with the Material Handler before they formally begins his/her new position, and annually thereafter. ~~and within six months the~~ The Material Handler must review the items listed in the Example Training Plan Outline (Attachment D-1 Exhibit I-1) within six months of hire.

#### D.I.3.5 Annual Training

On an annual basis, employees are trained using a program prepared and updated annually by the Safety-Kleen regional and/or corporate compliance offices and health and safety offices. The annual training includes updates on environmental regulations, an in-depth review of the Contingency Plan and a review of RCRA inspection criteria.

Service Center employees must annually review the items listed in the Example Training Plan Outline. This review may be in the form of slide/tape, videotapes and/or classroom presentation, and a review and discussion of the storage facility permit application. In addition, periodic memoranda on changes in environmental regulations are issued by the regional/corporate offices and must be read and discussed by branch personnel.

#### D.I.4 TRAINING RECORDS

All employee regulatory training must be documented. Records of current employees will be kept at the facility until closure. Some training documentation will be maintained electronically. Records for employees transferring within the company will be sent to the employee's new facility. Training records for employees are kept for 3 years after termination of their employment.

~~Employees may not work in unsupervised positions until the contingency plan has been reviewed and they understand emergency response procedure~~

## SECTION J - PREPAREDNESS AND PREVENTION PLAN

### ABSTRACT

SECURITY MEASURES--The site is secured as follows:

- a. There is a chain link fence with three strands of barbed wire around the facility.
- b. Warning signs are posted at all entrances.
- c. Locks are on all entrances to the warehouse building.
- d. Remote controls for all tank operations inside the secured, fenced area
- e. There is outdoor lighting on sensing devices and automatically comes on at low light hours of the day

INSPECTION PROCEDURES: See Section H and Exhibits H-1 through H-6 Attachment C for examples sample copy of the Facility Inspection Record and Procedure.

REQUIRED EQUIPMENT--The emergency equipment requirement is met with the following:

- a. Internal communications will be by voice.
- b. Telephones are available in the warehouse and office areas that can be used to summon assistance if there is an emergency. These phones are accessible to all employees when waste is being handled.
- c. Fire extinguishers are available next to the three exits in the warehouse.
- d. Water is supplied by the City of Farmington.

## E.J.1 FACILITY DESIGN

Specifications for the storage facilities, secondary containment and other equipment are described in the following sections. Attachment E contains drawings of the waste management facilities.

Spent parts washer solvents are accumulated in a nominal 12,000 gallon aboveground storage tank via the return and fill station. Spent material is poured into the drum washers/dumpsters in the return and fill station, and material is pumped into the used parts washer solvent storage tank.

The aboveground tanks have been designed in accordance with NFPA standards and are constructed of carbon steel painted white to reflect sunlight. The secondary containment is a steel reinforced concrete dike measuring 37' x 22' x 3' which holds 18,266 gallons. Two tanks holding a nominal 12,000 gallons each are situated in the diked area; one is for clean and one is for spent parts washer solvents. Each tank is equipped with an audio and visual high level alarm.

In accordance with 40 CFR 264.73, Safety-Kleen maintains a manifest system, an operating record, biennial reports and all other records required under these sections.

### E.J.1.1 Tank Storage

The nominal 12,000-gallon waste storage tank is 10'6" in diameter and 19' high. It is constructed of 3/16" thick (1/4" thick in the lower third of the tank) carbon steel painted white to reflect sunlight. The tanks are constructed in accordance with Underwriter's Laboratories Standard 142 and they are located more than 15 feet from property line, in accordance with National Fire Protection buffer zone requirements.

The used and product parts washer solvent tanks are equipped with an audio (siren) and visual (strobe light) high level alarm system which will alert employees when the tank is approximately 600 gallons (or is at 95% capacity) from being full. The two 20,000-gallon used oil and used antifreeze tanks are of similar constructions.

The drum washer is tight-piped to the tank with welded joints and all piping is above ground. Elevated grating is situated above the containment area, which allows workers to easily remove or return containers to the route trucks, and transfer used solvents to the waste storage tank via the drum washer unit.

The total volume of waste and product will not exceed 10 times the secondary containment volume.

As discussed in Considerations of Design Assessment, Item 3 of Exhibit J-1 (Tank System Assessment) the tank system and all components are compatible with the petroleum naphtha solvent (product and used) managed in the system.

#### J.1.1.1 Description of Feed Systems

Used parts washer solvent is returned to the facility in containers that can range in size from 5 to 55 gallons. Once at the branch, the transport vehicle will back up to the R & F building unloading dock. The Return and Fill station is a concrete block structure with a metal roof and has secondary containment in the form of a 17'6" x 11'2" concrete slab with a 6- inch high curb (730 gallons). The secondary containment is monolithically poured concrete. The concrete is coated with a material so as to be impermeable to contain leaks and spills. The truck staging area in front of the R & F is concrete and will contain any leaks that may occur in this area. The containment will prevent migration of spills, leaks, or precipitation into or out from this area.

Containers of used parts washer solvent are manually unloaded onto the R & F to be emptied into the used solvent tank. Emptying a container requires the operator to open the lid of the drum washer unit and individually pour each drum of used parts washer solvent into it. The drum washers consist of a vat with a capacity of approximately 162 gallons each. The drum washer is used to remove any solids that may have accumulated on the interior of the container. The drum washer uses solvent previously removed from the container by recirculating the solvent through a low-pressure spray to clean the interior of drums. Revolving brushes clean the exterior of drums. During container processing, the solvent level in the drum washer is closely monitored and once solvent accumulates to a certain level, it is pumped automatically via float switch activation to the used solvent tank. The pump can also be manually operated. An isometric diagram of the drum washer is included as Exhibit J-7.

After a container has been emptied and washed, it is allowed to drain on a rack inside the drum washer. After draining, it is staged to be refilled with clean parts washer solvent, or it will be placed into storage for future use.

Following the emptying of all containers of used parts washer solvent in a shipment, the operator will pump any solvent remaining in the drum washer unit to the lowest possible level (about 2 inches) and close the lid until the next shipment arrives. This practice is repeated until all daily shipments are received. At the end of the operating day, the drum washer is pumped to the lowest possible level and cleaned to be ready for the next day's use. All solids collected from the reservoir of the drum washer are containerized and managed as site-generated hazardous waste. Used parts washer solvent stored in the RCRA permitted tank is regularly transported to a Safety-Kleen Recycle Center where it is recycled into clean product for redistribution.

If the level in the tank is 95% of capacity, the high level float activates a switch that activates both a visual strobe light located at the tank, and audible (siren) alarm. The Return and Fill dock is located adjacent to the tank and alarms so the employee emptying drums would be alerted to the detected 95% capacity. Movement of used solvent into the tank can be halted simply by discontinuing the drum emptying process. Simultaneously, the transfer pump is disabled so the tank will not overflow. The pump cannot be restarted until the level of solvent in

the tank is below 95% capacity. The high level alarm is tested daily for proper functioning of electrical and mechanical components.

Product solvent is pumped from the product storage tank into drums by a pump. The solvent is dispensed through a hose/nozzle configuration typical of what is utilized at fuel/gas stations. The nozzles are calibrated to click off when the solvent reaches a predetermined level in the drums. This is a manned operation, so there is little risk of overfilling the product drum if the nozzle fails to click off automatically.

Another pump located within the R & F structure (beneath the grating; above the secondary containment) transfers the used solvent placed into the drum washer/wet dumpster to the used solvent tank. The pumps are energized only when the power is turned on at the panel. The pumps are not activated unless parts washer solvent is being added to the used solvent tank or being pumped from the product solvent tank.

Product solvent is delivered by bulk tanker with typically a 7,000 gallon capacity. The same vehicle transports a load of used solvent. The driver of the transport vehicle conducts product and waste transfer. The vehicle parks on a concrete loading pad adjacent to the loading area. Prior to transferring product into the tank, the driver verifies there is adequate tank capacity for the entire load scheduled for delivery. The driver places a bucket to capture any drips that may occur when connecting and disconnecting the delivery hoses on the tanker. Any drips that may occur when connecting and disconnecting the delivery hoses to the tank piping are captured in a containment box surrounding the inlet and outlet. The product tank is equipped with a high-level alarm system; same as the used solvent tank. If the alarm sounds, the driver can immediately shut down transfer operations.

After the driver delivers the load of clean product, he/she determines available capacity in the tanker. The transfer hose is connected to the exit line on the used solvent tank and the used solvent is transferred into the tanker. The transfer operations are monitored at all times by the driver. To eliminate the risk of a static charge during transfer operations, the tanker is grounded and bonded.

#### J.1.1.2 Secondary Containment of Storage Tank

The secondary containment for the tanks consists of a monolithically poured slab and concrete block dike wall with steel reinforced cement. The secondary containment measures 37' x 22' x 3', and holds 18,266 gallons. The slab is 6" thick and the walls are 8" thick (nominal). Two 12,000 gallon tanks are located within the containment; one for ~~spent~~ used parts washer solvents and one for new (product) parts washer solvents.

The secondary containment for the ~~spent~~ used solvent tank is provided with a leak detection system that is designed and operated to detect the failure of the primary containment structure and the presence of any release of hazardous waste or accumulated liquids within 24-hours.

### J.1.1.3 Ignitable, Reactive, and Incompatible Wastes

The facility does not receive nor treat any reactive or incompatible waste in the tank system. Ignitable waste is not treated, rendered, or mixed before or immediately after placement into the tank system so that the resulting waste, mixture, or dissolved material no longer meets the definition of ignitable.

The ignitable waste is stored and managed such that it is protected from any material or conditions that may cause the waste to ignite. No smoking or hot work (i.e. welding) is done in the vicinity of the tank.

The only waste stored in the storage tank is used parts washer solvent. This material has been analyzed and found to be compatible with the steel tank in which it is stored. The tank used for storage of the spent parts washer solvent was new when installed, and is dedicated to the storage of this waste stream. Incompatible raw materials or wastes will not be stored in this tank.

Additional drawings and diagrams are included in the Exhibits as:

- J-2 Tank Farm and Piping Schematic
- J-3 Tank Farm Slab and Dike Wall Construction Detail
- J-4 Emergency and Gate Valve Installation Details
- J-5 Moorman Bros. Tank Gauge Installation
- J-6 Solvent Pump Piping Details
- J-7 Drum Washer Isometric Diagram
- J-8 Tank Pallet/Skid Detail
- J-9 Tank Farm Leak Detection HLA Mounting

### J.1.1.4 Description of procedures, structures, or equipment used to prevent releases to the atmosphere.

The tank system is equipped with a high level alarm which indicates when the tank is 95% full. The high level alarm is inspected each operating day for proper functioning of electrical and mechanical components. The volume of used solvent in the tank is monitored each operating day to ensure adequate capacity for the day's activities. In order to prevent releases from the hazardous waste storage tank, the tank is equipped with a high level alarm that is activated by a float. If the level in the tank is 95% of capacity, the float activates a switch which activates both visual and audible alarms. The transfer pump is also disabled so that the tank will not overflow.

The tank is equipped with a 2" atmospheric vent. The specific gravity of the hydrocarbon-based parts washer solvents is approximately 0.8 and the vapor pressure is less than 2 mm at 68 degrees F.

With the exception of the parts washer solvent drums that are emptied into bulk storage, containers of waste are not opened while onsite, unless required for sampling. The containers are inspected each operating day (when the facility is in operation) for signs of deterioration.

The wet dumpster/drum washer unit and aboveground piping are inspected each operating day for signs of deterioration.

#### E.J.1.2 Drum Storage

The slab, curbing and collection trenches for the Container Storage Area in the warehouse are made of steel-reinforced concrete and the concrete has been poured so that no cracks or gaps exist. The curbing is four inches high and six inches wide and encompasses the storage area except where there is a trench. The container storage area has secondary containment in the form of a six inch wide by four inch high steel reinforced concrete curb with a 44.7' 12' x 1.7' x 2.5' (382 gallons) collection trench. No more than 3,820 gallons of waste materials will be stored in the drum storage area at any time. Steel grates cover the trench to facilitate the movement of containers across it. The trench is designed only to capture any released material; there is no discharge outlet or pump.

The concrete on the floor and curbing is coated with a chemical-resistant epoxy and urethane, or equivalent, so as to be impermeable to contain leaks and spills. The materials placed in the drum storage areas are compatible with the containers in which they are stored. All containers are managed as if they contain free liquids.

A diagram and example pallet layout of the Container Storage Area is included as Exhibit J-10, and a certification of the storage area as Exhibit J-11.

The storage areas and containment systems are inspected each operating day. All accumulated liquids will be identified and removed within 24 hours of detection to prevent overflow. The wastes stored in the Container Storage Area are compatible with the containers in which they are stored. The containers used to store wastes meet DOT requirements (if required). All containers are marked with a proper DOT shipping description, generator information, and manifest numbers. If there has been a release that has accumulated, it will be easily identified by locating the leaking container. The leaking container would be placed in a DOT-approved salvage container. Due to the size of containers stored in the CSA, absorbents such as socks or pads would be used to clean up the spill. This waste would be placed into the salvage drum (along with the original shipping container) and shipped off-site for disposal.

#### E.J.2 WASTE MANAGEMENT PRACTICES

The Farmington Service Center was designed to facilitate the handling and storage of the wastes resulting from the services offered by Safety-Kleen. The aboveground storage tanks, drum storage area, and Return and Fill station have secondary containment and the Service Center has the equipment necessary for employees to safely manage wastes on-site.

### J.2.1 Bulk Solvent Management

Used solvent from parts washers is accumulated in a 12,000 gallon aboveground storage tank via the Return and Fill station. Used material in containers meeting DOT specifications is poured into the dumpsters in the Return and Fill station and the material in the dumpster is pumped into the used solvent storage tank. The Return and Fill station has secondary containment in the form of a 17'6" x 11'2" (730 gallons) concrete slab with curbing. The total volume of waste and product will not exceed 10 times the secondary containment volume.

The sediment which accumulates in the bottom of the drum washer/dumpster is removed manually, drummed and stored in the return and fill station according to the satellite accumulation requirements of 40 CFR 262.34(b). The drummed sediment is manifested off-site prior to the expiration of the 90 day time frame for accumulation of hazardous waste.

### J.2.2. Container (Drum Management)

The Farmington Service Center was designed to facilitate the handling and storage of the wastes resulting from the services offered by Safety-Kleen. Proper handling of hazardous waste is ensured through proper training. Employees are trained on hazardous waste procedures during their initial training and then annually. Proper handling of hazardous waste is ensured through proper training and use of proper equipment. When practicable, containers will be moved with a forklift, pallet jack, or drum dolly.

Containers of waste are off-loaded from route trucks into the Container Storage Area. Entrance to the CSA is at grade level. Waste containers that will be placed into storage into this area are moved from the route truck via a hydraulic platform lift gate that is on each route truck. The employee moves containers from the cargo carrying portion of the vehicle onto the lift gate that is extended flush with bed of the truck. The lift gate is then lowered to grade level. The drums are moved from the lift gate into the appropriate storage area by forklift, pallet jack, or drum dolly. The area where the route trucks park while unloading is paved.

Drums of waste that will be emptied into the used solvent tank will be delivered to an overhead door of the Return and Fill building. The building has an elevated dock (grating). Waste containers that will be emptied are moved from the route truck via a hydraulic platform lift gate that is on each route truck. The employee moves containers from the cargo carrying portion of the vehicle onto the lift gate that is extended flush with bed of the truck. The lift gate is then lowered to the level of the dock. Alternatively, the drums may be moved to the dock using mechanical material handling equipment. Due to the size of containers stored in this area (typically 5, 15, and 30 gallon) and the area of the dock, the drums are manually moved from the lift gate. The area where the route trucks park while unloading is paved.

The Container Storage Area in the warehouse is used for the storage of (1) spent immersion cleaner, (2) dry cleaning wastes, (3) paint waste, (4) photo imaging waste, and (5) aqueous parts washer solvent. Non-hazardous material, wastes that are not regulated

(including transfer wastes) and Safety-Kleen products may also be stored in this area. The wastes in the container storage area are not handled **opened (unless for sampling purposes) or mixed/comingled** while on site, and are segregated in properly labeled containers to indicate their contents. Incompatible wastes or materials are not anticipated to be stored in the warehouse Container Storage Area. All containers are stored on pallets. As shown on the site plan in **Exhibit A-3 Appendix E**, ignitable/flammable wastes are stored at least 50 feet from the property line.

The container storage area has secondary containment in the form of a six inch wide by four inch high steel reinforced concrete curb with a ~~44.7'~~ **12'** x 1.7' x 2.5' (382 gallons) collection trench. No more than 3,820 gallons of waste materials will be stored in the drum storage area at any time. **A warehouse layout diagram is included as Exhibit J-11.**

Proper aisle space will be maintained in the Container Storage Area. Containers in the drum storage areas will be placed on pallets and moved with a forklift or pallet jack **when feasible. If containers of 15 gallons or larger are stacked, a pallet will separate the layers. The maximum number of containers stored per pallet layer is: twelve-5 gallon containers; nine-15 gallon containers, five-30 gallon containers, and four-55 gallon containers. Containers of hazardous waste will be stacked no more than two pallets high to ensure stability and safe material handling. The storage height of a typical double-stacked configuration is approximately 7 feet.** An example of the configuration for storage of containers is shown on the Floor Plan in **Exhibit J-11. Attachment E.** ~~and the drums will be stored no more than two high.~~

### **J.2.3 Description of Containers**

**It is Safety-Kleen's standard operating procedure to use containers made of or lined with materials that will not react with, and are otherwise compatible with, the hazardous waste to be stored, so that the ability of the container to contain the waste is not impaired. Safety-Kleen will store and transport any incompatible wastes in accordance with 49 CFR 177.848 (segregation of hazardous materials).**

**Containers stored in the CSA typically range from 5 gallon capacity to 55 gallon capacity. Containers stored are typically provided to the waste generators by Safety-Kleen. A table detailing the waste containers provided is included as Exhibit J-12. While the type of container listed on this table associates to the line-of-business, the containers are DOT approved and may be used for other waste streams as needed.**

**Safety-Kleen customers may package wastes in containers not provided by Safety-Kleen. These containers will be inspected prior to pickup to ensure proper DOT rating. Contents of each waste container are verified by the waste marker (label) that is affixed to each container. Safety-Kleen Systems has a Special Permit issued by the U.S. Department of Transportation-Pipeline and Hazardous Materials Safety Administration that allows re-use of specification drums for transportation without being subjected to the leak-proof testing of 49 CFR 173.28(b)(2). Each drum is inspected for leakage before filling/refilling and shipment. This**

Special Permit applies to the following drums listed on the table in Exhibit J-12: Safety-Kleen part numbers 13348,3348,13349, 3349, 3395, and 3399.

With the exception of used parts washer solvent drums, waste drums managed at the facility are not opened unless for sampling purposes. Containers are handled to prevent rupture or leaking. Proper handling of hazardous waste is ensured through proper training. Employees are trained on hazardous waste procedures during their initial training and then annually thereafter, or as needed. When feasible, containers are moved using mechanical means such as drum carts, dollies, or fork trucks. Safety-Kleen employees inspect each waste drum prior to transporting from the customers' location. In the event a container is found to be damaged, leaking, or not in good condition while in storage at the facility, it will be placed into an appropriate salvage container. The salvage container will be properly labeled and the entire packaging will be transported offsite as per normal waste management protocols.

#### J.2.4 Management of Incompatible Wastes in Containers

The only waste containers routinely opened at the facility is the solvent waste, which is co-mingled in the aboveground storage tank. The remaining containers of wastes are not opened at the facility and would not be placed in the same container, so there is no potential of incompatible wastes being placed into the same container.

The only containers reused at the facility are drums containing used parts washer solvent. These drums are emptied and washed with same solvent in a drum washer and are then refilled with clean solvent for delivery to customers. As this is the only material placed in these drums is new or spent solvent, there is no potential for contact with incompatible materials.

#### J.3 PREVENTING RUNOFF FROM HAZARDOUS WASTE HANDLING AREAS

Containers of waste are off-loaded from route trucks into enclosed storage area. The containers are stored in an enclosed warehouse, and not subject to run on or run off. Drums of used mineral spirits solvent are emptied in the Return and Fill which is contained so that any material splashed, dripped, or spilled will not runoff. As illustrated in Exhibited A-3, the non-building areas of the facility are paved with asphalt, concrete or gravel.

#### J.4 PREVENTION OF CONTAMINATION OF WATER SUPPLIES

The Farmington Service Center is operated in a manner that is protective of water supplies. Containers of waste are stored in an enclosed storage area and the transfer of parts washer solvent to the bulk storage tank is conducted over secondary containment. Bulk aboveground storage tanks are constructed of carbon steel and are located in a containment system. The facility is maintained to prevent waste materials migrating to the environment.

## J.5 MITIGATING EFFECTS OF EQUIPMENT FAILURE AND POWER OUTAGES

A power failure does not result in a spill. Should a power failure occur, all activities requiring electricity are ceased. The transfer pump used to pump the used solvent into the storage tank is electric and fails during a power outage. Since the tank is not pressurized, the lines will be in a stable state until the power is restored and the pump is restarted. The high level alarm on the tank requires electricity to operate. However, the only way used solvent can be transferred into the storage tank is via the transfer pump and the pump will not be operable during a power outage. The transfer pumps used to pump clean solvent into the storage tank, or remove used solvent from the tank are located on the transport vehicles so a power failure does not have any effect on removal of material from the tank.

## J.6 PREVENTING UNDUE EXPOSURE OF FACILITY PERSONNEL

All Safety-Kleen employees receive extensive training on recognizing hazards in the workplace and how to avoid or best manage them. Safety-Kleen's Health and Safety department completes hazard assessments for all branch activities and issues a Personal Protection Equipment Matrix that all employees are required to follow. An example PPE Matrix is included as Exhibit J-13. There is an emergency eyewash/shower located in the warehouse. There is a standard shower located in the office area that can be used to decontaminate in the event of accidental contact with contaminants and end-of-day decontamination.

## E.4 J.7 PLANT OPERATIONS – POTENTIAL SPILL AND FIRE SOURCES AND CONTROL PROCEDURES

Employees must perform their duties in the safest, most efficient manner possible and the sService eCenter has been equipped to facilitate these activities. Containers of product or waste will be moved using a handcart or placed on pallets, and moved using a forklift or pallet jack. Upon arrival at the sService eCenter, containers of spent used solvent must immediately (within 24 hours) be added to the storage tank or placed in the drum storage area. Open containers of solvent must not be left unattended. Below are descriptions of situations which can result in accidents and the precautions taken to prevent their occurrences.

### E.4.J.7.1 Potential Minor Spill Sources

The following is a list of activities that have the potential for a minor (one that can be remediated without assistance from a clean-up contractor) pollution incident:

- a. Pouring of drummed solvent into the dumpster— As the contents of the containers are poured into the drum washer dumpster, waste can splash out. Employee training emphasizes the importance of taking care in emptying the drums. The Return and Fill station is underlain by concrete containment with a sump. This design will contain this type of spill.

- b. Filling of drums with solvent product--A low pressure hose with an automatic shut-off valve, similar to those used at automotive service stations, is used to fill the drums with parts washer solvent. Leaking fittings, a damaged hose or carelessness could lead to spilling the solvent. Manual emergency shut-off valves are on each hose, should the equipment not function properly. In addition, employee training emphasizes the importance of inspection, maintenance and reporting of conditions with pollution incident potential.
- c. Moving of containers--When a container is moved, a potential exists for it to tip over. To minimize the potential for spillage of waste, containers must be maintained in an upright position and remain tightly covered while in storage or in transit. The drum storage areas are designed so that if the contents of a container are spilled, the spilled material will be contained within the concrete trenches. If material is spilled, other containers are situated on pallets, therefore will not be in contact with the spilled material.
- d. Delivery truck transfers--The cargo should be secured in the route vehicle with straps before transport. Individual containers of solvent can tip over or be dropped when being moved on or off a delivery truck so transfers will be made using a handcart and a lift gate hoist, if necessary.

If a spill does occur, the amount of solvent in the containers is typically a quantity which can be collected with absorbents (i.e. sorbent clay or pads). Any contaminated soil that results from a spill will be removed manually, drummed, and shipped to a Safety-Kleen recycle center or proper disposal facility. ~~for proper disposal.~~

#### E.4.J.7.2 Potential Major Spill Source

The following activities have the potential for a major (one for which remedial action will require assistance) pollution incident:

- a. Overfilling of storage tanks--Both product and used solvent tanks can be overfilled with a resulting discharge of solvent. A high level alarm and daily checks of tank volumes will prevent this type of incident.
- b. Leaking pipelines--The pipelines to the storage tanks present a potential for leaks. Regular inspection of this equipment and the solvent inventory will detect any leaks.

#### E.4 J.7.3 Precautions Taken To Prevent Accidental Ignition Or Reaction Of Ignitable, Reactive, Or Incompatible Wastes

Reactive wastes are not received at this facility. It is Safety-Kleen's standard operating procedure to use containers made of or lined with materials that will not react with, and are otherwise compatible with, the hazardous waste to be stored, so that the ability of the container to contain the waste is not impaired. Safety-Kleen will store and transport any incompatible

wastes in accordance with 49 CFR 177.848, Segregation of Hazardous Materials. Any wastes that may be incompatible with other wastes would be managed as 10-day transfer wastes and these wastes remain in the container in which they were originally packaged until received at a Safety-Kleen Recycle Center or other properly permitted facility.

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

- a. All wastes and products are kept away from ignitable sources-- Personnel must confine smoking and open flames to remote areas, separate from any solvent. ~~(e.g., the office or locker room)~~. The solvent handling area and the aboveground storage tanks are separated from the warehouse building area to minimize the potential for a fire to spread or injury to personnel to occur.
- b. 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 solvent waste and other 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 drums kept at room temperature to minimize the potential for pressure build up.
  2. Produce uncontrolled toxic mists, fumes, dusts, or gases in quantities sufficient to threaten human health--The vapor pressure of S-K solvents is low (2 mm) and it is reactive with strong oxidizers only. Toxic mists, fumes, dusts or gases will not form in quantities sufficient to threaten human health since strong oxidizers are not stored at this facility and the solvent vaporization will be minimal under normal working conditions.
  3. Produce uncontrolled fires or gases in quantities sufficient to pose a risk of fire or explosion--See 'a' above and 'c' below.
  4. Damage the structural integrity of the Safety-Kleen facility--The parts washer solvents or other containerized wastes will not cause deterioration of the tank, containers or other structural components of the facility.
- c. 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.
- d. "No Smoking" signs are posted in areas where solvents are handled or stored.
- e. Fire extinguishers must be checked once per week by facility personnel and tested by the fire extinguisher company once per year. Fire extinguishers are placed at several locations throughout the facility.

- f. There is a potential for static electricity occurring during transfer activities to and from the bulk solvent storage tanks and the transport tanker. This is controlled through bonding and grounding. In bonding, two containers or fluid streams are electrically connected. This neutralizes the build-up of a difference in static charge or potential between the two containers. In grounding, the containers are electrically connected to the Earth, which also drains off the buildup of static charge or potential.
- g. The facility manager is responsible for implementation of the written site-specific hot-work permit system program. This responsibility includes identifying areas in the plant which will require a hot work permit, indicating which areas are considered safe for hot work, and ensuring that plant equipment and areas have been properly classified and maintained in a safe working condition. Open flames are not permitted in any areas where ignitable or flammable materials are stored.

#### E.5 J.8 TANK EVALUATION AND REPAIR PLAN

The product and waste used solvents, used oil, and used antifreeze stored in the tanks at this facility are compatible with the carbon steel structure. If, during the daily inspection, corrosion is noted on the tank systems, it will be removed from service and be repaired. If corrosion is significant and localized, the tank will be immediately taken out of service and repaired, (e.g., a patch welded over the corroded area). Should the corrosion of the vessel be extensive or if the tank is found to be leaking, the vessel will be immediately taken out of service and replaced. In the case of a tank which leaks outside of the dike, the facility's Contingency Plan will be implemented if necessary. Any extensive repairs to the tank system will be assessed and certified by an independent engineer before the system is returned to use.

#### E.6 J.9 EXTERNAL FACTORS

The design of the facility is such that a harmful spill is highly unlikely to occur from most external factors. The storage tanks are accessible only to Safety-Kleen personnel and the main power switches are located inside the secured fenced area. Also, the Container Storage Area is in a building which are accessible only to Safety-Kleen personnel.

- a. Vandalism – only extreme vandalism would result in a solvent spill or fire. Responses to spills and fires are described in the contingency plan.
- b. Strikes – A strike would not result in a solvent spill or fire.
- c. Power Failure – A power failure would not result in a spill or fire. Should a power failure occur, all activities requiring electricity will cease (i.e., pumps will shut off).

- d. Flooding – The site elevation is above the projected 100-year flood plain; therefore, a 100-year flood will not affect the facility. A flood plain map is shown in **Exhibit A-9**.
- e. Storms or Cold Weather - No storm, snow, or other precipitation event will affect the facility.

#### ~~E.7~~ **J.10** INTERNAL AND EXTERNAL COMMUNICATIONS AND ALARM SYSTEMS

Because the facility is small, internal communication within the building and the Return and Fill area is accomplished by voice. An alarm, located on the loading dock alerts employees to a problem. Telephones will be used to report a spill or a fire and to summon assistance from local and state emergency response agencies **(if necessary)**. Emergency phone numbers of local and state emergency response teams are posted by each phone located in the office. Included in these phone numbers is the 24-hour telephone number which can be used to contact Safety-Kleen's environmental response coordinators. ~~Releases to the environment will be reported within 24 hours as required by permit condition Module I, Section E.13 and Permit Attachment F, The Contingency Plan.~~

## SECTION K - CONTINGENCY PLAN

### ABSTRACT

**PURPOSE:** This plan describes the proper action to be taken by employees during an emergency.

**RESPONSIBILITIES:** The emergency coordinator or alternate is responsible for implementing the plan during an emergency.

**EMERGENCY COORDINATOR:** Typically, the branch manager is the emergency coordinator. The alternate emergency coordinator is a trained employee designated to this position by the emergency coordinator.

#### EMERGENCY NOTIFICATIONS:

Farmington Police Department	911 or (505) 334-6622
Farmington Fire Department	911 or (505) 599-1430
San Juan County Regional Medical Center	911 or (505) <del>325-5011</del> 609-2000
Safety-Kleen 24-hour Emergency Response	(800) 468-1760
New Mexico Health and Environment Dept.	(505) 827-9329
National Response Center	(800) 424-8802

## F. ~~K~~.1 PURPOSE

The Contingency Plan describes the actions to be taken by each employee in the event of a spill, fire, explosion, or other emergency. It includes the information necessary to address emergency situations efficiently and in such a manner as to prevent or minimize hazards to human health or the environment due to fire, explosion, or any other release of hazardous materials to the air, soil, surface, water, or groundwater.

The Contingency Plan is to be implemented immediately whenever there is a release of hazardous material which could threaten human health or the environment. It must be kept at the facility. The Branch Manager ensures that the Contingency Plan is updated as necessary.

## F.8 ~~K~~.2 AVAILABILITY AND REVISION OF THE 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 the Farmington Fire and Police Departments and the San Juan Regional Medical Center because local authorities and organizations listed on the Emergency Information Sheet (Attachment F-1) and they may be called upon to provide emergency services.** In addition, this plan and all revisions to the plan are made readily available to employees working at the facility.

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

- a. The facility ~~permitt~~ is modified to allow new wastes to be stored or treated, or applicable regulations are revised;
- b. The list or location of emergency equipment changes;
- c. The facility changes in its design, construction, operation maintenance, or other circumstances in a way that:
  - (1) increases the potential for fires, explosions, or releases of hazardous constituents, or
  - (2) changes the response necessary in an emergency;
- d. The names, addresses, or phone numbers of Emergency Coordinators change;
- e. The employee assigned to each emergency task changes; or
- f. The plan fails when implemented in an emergency.

## ~~F.2~~ **K.3 EMERGENCY RESPONSE PERSONNEL**

### ~~F.2~~ **K.3.1 Emergency Coordinator Responsibilities**

The Emergency Coordinator is responsible for implementing the Contingency Plan during an emergency; however, all employees must be familiar with the procedures in this plan and are responsible for proper implementation of the plan should the Emergency Coordinator or Alternate be unavailable. The Branch Manager (~~which may include the resource recovery manager, branch manager, branch automotive manager, etc., or designate~~) **typically** is the

Emergency Coordinator and the Alternate Emergency Coordinator is trained employee designated to this position by the Branch Manager (or Emergency Coordinator).

The Emergency Coordinator and Alternate must be familiar with all aspects of this Contingency Plan, the 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 necessary to carry out the Contingency Plan. Their ~~home addresses and~~ telephone numbers, as well as the office telephone number, are listed in Exhibit K-1 Attachment F-1. Also Listed in Exhibit K-2 Attachment F are the assigned typical duties of each employee during an emergency. At least one employee will be at the facility or on call to respond to an emergency situation. A list of emergency equipment available at the facility is included as Exhibit K-3. In addition, facility personnel should be aware of the location of emergency equipment. An emergency equipment location plan is included in Exhibit K-4. Attachment F-2, Figure F-1.

#### K.3.1.1 Assess The Situation

Whenever there is a release, fire, or explosion, the Emergency Coordinator must immediately try to identify the character, exact source, amount, and extent of any contamination. Because of the limited number of materials being handled at the facility, he or she may do this by observation of by review of facility records. If necessary, outside laboratories may be contacted to perform chemical analysis.

#### K.3.1.2 Protection of Personnel

Concurrently, the Emergency Coordinator must assess possible hazards to human health or the environment that may result from the result from the release, fire, or explosion. This assessment must consider both direct and indirect effects of the release, fire, or explosion (e.g., the effects of any toxic, irritating, or asphyxiating gases that may be generated, or the effects of any hazardous run-off).

#### K.3.1.3 Contain or Mitigate Hazards

During an emergency, the Emergency Coordinator must take all 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.

#### K.3.1.4 Post-Emergency Actions

The Emergency Coordinator must ensure that all facility equipment and response equipment is properly cleaned and decontaminated (if reusable), and that all spill recovery material and disposable equipment is properly disposed of.

F.2.4 **K.3.2** Chain of Command

Based on the emergency response procedures described above, the chain of command during an emergency is as follows:

- a. The person who discovers/causes the spill reports to the Emergency Coordinator.
- b. Based on the information gathered, the Emergency Coordinator will determine if the emergency warrants implementation of the Contingency Plan.
- c. The Emergency Coordinator contacts the Safety-Kleen Emergency Response Coordinator and New Mexico Environment Department.
- d. The Emergency Coordinator will act as an Incident Commander until an outside resource (i.e. Fire Department, or Spill Cleanup Contractor) arrives onsite; then they will assume Commander duties.

F.2.5 **K.3.3** Government Agencies and Local Authorities to Be Notified

During an emergency, the following government agencies and local authorities may be contacted:

**TABLE K.3.3**

Agency or Authority	Rationale / Service Provided
Farmington Police Department	Notify if there is imminent danger to human health. May assist with traffic control, evacuation (if required) if there is imminent danger to human health.
Farmington Fire Department	Notify if there is a fire, explosion, uncontrolled spill, or other imminent danger.
San Juan Reg. Medical Center Hospital	Notify if there are any injuries. Assist in providing emergency care of any injuries.
New Mexico Department of Public Safety	Notify if human health or the environment outside the Facility is threatened.
National Response Center	Notify if human health or the environment outside the Facility is threatened.
NMED	Report releases, fires, and explosions.
SK Emergency Response Contractor	Call to obtain assistance with remedial action after a release

Arrangements have been made to familiarize the police department, fire department and local emergency response teams with the layout of the facility, the properties of hazardous materials handled and associated hazards, locations where facility personnel normally work, entrances to and roads inside the facility and possible evacuation routes. Arrangements have also been

made to familiarize the local hospital with the types of injuries or illnesses which could result from fires, explosions, or releases at the facility.

Notifications, including a copy of the Contingency Plan, are provided to local emergency response agencies via mail or email, and a signed acknowledgement form is requested from each entity. If an agency refuses to enter into an agreement, this is kept on file. Notification of any significant modifications to the Contingency Plan is also provided to these agencies. Example correspondence to and from the Fire, Police, and the designated hospital (San Juan Regional Medical Center) is included as Exhibit K-5.

#### F.2.4 K-4 RESPONSIBILITIES DURING AN EMERGENCY

Whenever there is an emergency situation (imminent or actual) that requires implementation of this Contingency Plan, the Emergency Coordinator (or Alternate when the Emergency Coordinator is not available) must immediately:

- a. Activate the internal facility communication system to notify all facility personnel;
- b. Initiate facility evacuation if necessary
- b. Notify Safety-Kleen's Emergency Response Coordinator using the 24-hour telephone number - 800/468-1760; and
- c. Notify appropriate state or local agencies with designated response roles, as necessary. Reference Table K.3.3 above.

#### F.3 K.4.1 Emergency Response Procedures

Response actions to be taken in specific emergency situations are described in the sections which to follow.

##### F.3.3 K.4.1.1 Fire Control Procedures

If a small fire occurs, personnel must act quickly with an appropriately rated fire extinguisher to put out the fire before it spreads. If it cannot be extinguished immediately the facility will be evacuated and the fire and police departments will be contacted.

It is Safety-Kleen's policy that personnel only respond to incipient fires; that is, those which can immediately be extinguished using a fire extinguisher. Any fire which cannot be brought under control immediately or which has the potential to become uncontrollable, warrants implementation of the evacuation plan. Ignitable waste at the Farmington facility is stored in specially designed tanks, or in containers and placed in the Container Storage Area.

Safety-Kleen personnel and local authorities must be aware of appropriate response procedures, should a fire occur at the facility. This may include isolating the hazardous area and donning an appropriate positive pressure breathing apparatus.

#### K.4.1.1.1 Container Storage Area-Fire Control Procedure

A small fire in this area can be assessed by Facility personnel, and if deemed safe to do so, may be extinguished using an ABC-rated fire extinguisher present in this area. If the fire cannot be extinguished the Farmington Fire Department will be notified by Facility personnel, who will evacuate the area and await the Department's arrival. Upon arrival, the Fire Department Incident Commander will become the Site Incident Commander. Site personnel will provide details on inventory and site information to assist.

#### K.4.1.1.2 Tank Storage Area

There are two-12,000 gallon storage tanks at this facility. One is used for storage of product petroleum naphtha solvent (with a nominal 150°F flash point); and one tank is used to storage used petroleum naphtha solvent. There are two-20,000 gallon storage tanks for storage of used oil and used antifreeze. A small fire in this area can be assessed by Facility personnel, and if deemed safe to do so, may be extinguished using an ABC-rated fire extinguisher present in this area. If the fire cannot be extinguished the Farmington Fire Department will be notified by Facility personnel, who will evacuate the area and await the Department's arrival. Upon arrival, the Fire Department Incident Commander will become the Site Incident Commander. Site personnel will provide details on inventory and site information to assist.

Examples of potential fire response procedures that may be required are described below.

- a. Isolate the hazard area and deny entry to unauthorized personnel
- b. Stay upwind, keep out of low areas
- c. Ventilate closed space before entering (if this can be done safely)
- d. Wear personal protective clothing
- e. Evacuate an adequately protective radius (if required)

Wastes that may be involved with the fire can be identified by the following methods:

- a. Location of the container in the storage unit
- b. Label on the container (if safe to observe)
- c. Records of wastes currently stored onsite that would be available in the administrative office area

If possible, emergency response personnel should take measures necessary to collect and contain potentially hazardous run-off of fire suppression material (i.e. water) and the contents of container/s involved. This may require construction of temporary berms or use of absorbent materials to prevent migration to storm drains or sewers.

#### K.4.1.2 Explosion

Response actions to be taken in the event of an explosion or imminent threat of an explosion are:

- a. All facility personnel must immediately evacuate the area.
- b. The Emergency Coordinator must be notified. Due to the small size of the Facility, this notification will most often be by verbal notification if the Emergency Coordinator is onsite; or by telephone if offsite.
- c. The Emergency Coordinator will make the necessary notifications to the appropriate contacts/agencies listed in Table K.3.3.
- d. If required, the Farmington Fire Department will be notified by Facility personnel, who will evacuate the area and await the Department's arrival. Upon arrival, the Fire Department Incident Commander will become the Site Incident Commander. Site personnel will provide details on inventory and site information to assist.

Procedures detailed in Sections K.4.1.1.1 through K.4.1.1.3 may be required in the event of an explosion or imminent explosion.

#### K.4.1.3 Unintended (Incidental) Releases

Response actions to be taken in the event of a release of a hazardous waste or hazardous substance are described in the sections that follow. Employees must assess the possible hazards to human health or the environment (air, water, or soil) that may result from an unintended release. Identification of the material released may consist of review and a Safety Data Sheet (if the material is a Safety-Kleen product), the container label, or the hazardous waste manifest.

##### F.3.4 K.4.1.3.1 Minor Spills

A minor spill (as referenced in this Contingency Plan) is a spill that occurs within secondary containment and does not involve a release of material to the environment. This type of spill involves spills and leaks from containers (typically 5 gallon through 250 gallon containers). A minor spill does not require implementation of the Contingency Plan.

##### K.4.1.3.1.2 Parts Washer Solvent (Petroleum Naphtha)

Transfer of Safety-Kleen's petroleum naphtha solvent is the primary activity where containers are opened and clean and used solvent pumped or emptied. If a spill should occur while pouring ~~spent~~ used solvent into a dumpster or filling drums with solvent product at the Return and Fill station, and is it will be contained in the secondary containment at the base of the Return and Fill station, remedial action will not be necessary. Any material released into the secondary containment will be recovered by absorbent materials that will be properly managed as site-generated waste. Should the spill occur outside the containment, different actions must be taken depending on whether the spill occurs on a paved or unpaved area:

- a. If the solvent spills on a paved area, it must be collected with sorbent sheets and/or sorbent clay (such as "Oil Dry"). The sorbents will be collected, drummed and shipped to a Safety-Kleen recycle center for proper disposal.
- b. If the solvent spills on an unpaved area, the free solvent must be collected with sorbent material. The sorbent material and any contaminated soil must be collected, drummed and shipped to a Safety-Kleen recycle center or other permitted facility for proper disposal.

If a spill occurs while moving or delivering containers outside of the Container Storage Area, the response actions described in 'a' and 'b' above must be followed. Spills inside the Container Storage Area will be prevented from contaminating the environment by the concrete floor and the secondary containment trench. In the event of a spill indoors, the doors and windows should be opened to improve the ventilation in the confined area. If solvent is spilled in a non-explosion rated area or is flowing in such, insure that all sources of ignition (e.g., thermostats or light switches) are left in the same position (either on or off) as at the time of the spill.

Procedures specified on the appropriate Material Safety Data Sheet (MSDS) will be used to respond to an emergency, the worker will enter the area wearing specified PPE (i.e. rubber gloves, aprons, safety glasses, and/or a respirator), collect the liquid, drum it, and return it to storage. Example SDSs for typical S-K products are presented in Exhibits K-7 through K-10.

Cleanups are completed only when the workers have cleaned themselves and the emergency equipment with soap and water. All minor spills must be reported to the Safety-Kleen Emergency Response Coordinator and the New Mexico Environment Department (if the spill is of a reportable quantity).

#### ~~F.3.2~~ K.4.1.3.3 Major Spills

Any spill which cannot be completely remediated using the methods described in 'a' and 'b' of Section ~~K.4.1.3.1~~ 4.3.4 is a major spill. A major spill is usually the result of a vehicular accident, tank overfilling, equipment failure, or a fire. Spilled material which escapes containment collection can contaminate soil, surface water, groundwater, and/or sanitary sewer systems and storm sewer systems. Emergency response to this type of spill should be as follows:

- a. Assist any injured people, and call for medical assistance as necessary.
- b. Stop the flow of material, if possible.
- c. Retain, contain or slow the flow of the material if it cannot be stopped.
- d. If solvent escapes containment efforts, immediately call the local Fire Department, and report to the Emergency Coordinator and the Safety-Kleen Emergency Response Coordinator.
- e. Immediately recover the spilled solvent to reduce property and environmental damage. Start recovery operations immediately.

The Emergency Coordinator shall report any incident as soon as possible to the Safety-Kleen Emergency Response Coordinator using the 24-hour telephone number, (800)468-1760. The Emergency Coordinator shall call an emergency cleanup response contractor, if it is deemed necessary, and report the incident to the National Response Center (telephone: 800/424-8802) and New Mexico Environment Department (telephone: 505/827-9329 24-hour number), and **New Mexico Department of Public Safety (telephone (505) 827-9282).**

The person reporting a spill should be prepared to give:

- a. Their name, position
- b. Company name, address, and telephone number.
- c. The person reporting should also describe the material spilled and, if possible, some estimate of the amount, the containment status and specify any equipment needed.
- d. **Extent of injuries (if any)**

~~Contaminated material resulting from remedial actions for major spills will be disposed of at a properly permitted treatment or disposal facility.~~

Incidents will be documented and kept on file as part of the operating record. The incidents will be reviewed with branch personnel to prevent similar spills from occurring in the future.

**Equipment used to respond to spills must be cleaned and decontaminated with a detergent/water solution. All incidents will be documented and kept on file as part of the operating record. They will be reviewed with branch personnel to prevent similar spills from occurring in the future.**

**All rinsates, waste residues, and decontamination fluids from the cleanup of spills or releases (whether major or minor), will be containerized and managed as hazardous waste unless analytical results verify the wastes are not hazardous. Wastes resulting from spill cleanups will be disposed in accordance with applicable regulations (i.e., HWMR-5, Part VIII).**

#### **K.4.1.3.4 Response to Release from Tanks**

**The tanks at this facility are aboveground storage tanks. Any release will be detected by visual inspection or by noting unexplained inventory deviations. The following actions will be taken.**

- a. **All transfers into the tank will be stopped immediately.**
- b. **As soon as practicable, Safety-Kleen will remove as much of the material in the tank as practicable to prevent further release of the material to the environment. This will typically be accomplished by transferring material into containers or pumping into a tanker.**
- c. **Containment of released material will begin as soon as practicable.**
- d. **Investigation and remediation of any materials released to the environment will begin as soon as practicable.**
- e. **If investigation indicates a major repair is needed to the tank system, Safety-Kleen will obtain certification by a qualified Professional Engineer that the repaired system is capable of handling hazardous wastes without release for the intended life of the**

system. The certification will be placed in the Operating Record and maintained until closure of the facility.

#### F.4 K.5 EVACUATION PLAN

Exits are clearly marked in the warehouse and office area. Employees are trained to be aware of all potential escape routes. The facility evacuation plan is included in Exhibit K-6 Attachment F-2 (Figure F-2).

When an uncontrolled fire or release has occurred, all personnel are to be evacuated from the area and assemble across Hawkins Road to assure that all personnel are accounted for and out of the hazardous area. The order for evacuation may be given by verbal announcement via the facility paging system or by verbal cry/shout. The fire department must be notified at the time of evacuation either from a safe on-site building, from a neighboring facility, or using a cellular phone.

#### K.6 POST EMERGENCY ACTIONS

Immediately after an emergency, the Emergency Coordinator must ensure that, in the potentially affected area(s) of the facility:

- a. Monitoring for possible leaks, pressure buildup, and ruptures in pipes or valves does not occur until normal operations are resumed;
- b. No substance that may be incompatible with the released material is brought on site until cleanup procedures are completed; and
- c. All emergency equipment listed in the Contingency Plan is cleaned and fit for its intended use (if reusable), or is replaced before operations are resumed.

#### K.7 REPORTING

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

- a. If the assessment indicates that evacuation of local areas may be advisable, the coordinator must immediately notify appropriate authorities.
- b. The coordinator must immediately notify the Safety-Kleen Emergency Response Coordinator and the New Mexico Environment Department (NMED) of any spill or release of hazardous waste within 24 hours (except for spills of one pound or less that are immediately cleaned up). The facility will report to NMED the following:
  - (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.

Safety-Kleen will notify the appropriate state and local authorities that the facility is in compliance with ~~Section F.2.2~~ before operations are resumed in the affected area(s) of the facility.

The Emergency Coordinator must document the time, date, and details of any incident that requires the implementation of the Contingency Plan. Within 30 days of the incident, Safety-Kleen will submit a written report on the incident to the New Mexico Environment Department. The report will contain the information set out in Pt. V, 264.196(d)(3) and must include:

- a. Name, address, and telephone number of the owner or operator;
- b. Name, address, and telephone number of the facility;
- c. Date, time, and type of incident (e.g., fire, explosion);
- d. Name and quantity of material(s) involved;
- e. The extent of injuries, if any;
- f. An assessment of actual or potential hazards to human health or the environment, where this is applicable; and
- g. Estimated quantity and disposition of recovered material that results from the incident.

#### F.2.2 **K.8** REMEDIAL ACTION RESPONSIBILITIES

If the environment has been contaminated or there is a potential for contamination as a result of a fire, explosion, or spill, the emergency coordinator must contact Safety-Kleen's Emergency Response Coordinators to report the incident. The treatment, storage and/or disposal of recovered waste, contaminated soil or surface water that results from an emergency situation must be arranged by Safety-Kleen and carried out as expeditiously as possible.

The emergency coordinator must ensure that, in the affected area(s) of the facility:

- a. no substance that may be incompatible with the released material is brought on site until cleanup procedures are completed; and
- b. all emergency equipment listed in the contingency plan is cleaned and fit for its intended use before operations are resumed.

#### F.6 **K.9** POLLUTION INCIDENT HISTORY

There are no records of a pollution incident having occurred at this facility.

#### F.7 **K.10** IMPLEMENTATION SCHEDULE

Where a hazard is imminent or an accident has already occurred, remedial action must be taken immediately. The branch manager has the overall responsibility for remediating any

discrepancies found during a routine inspection, and will consult with the corporate environmental and engineering staffs to design an implementation schedule.

## **SECTION L - CLOSURE PLAN**

### ABSTRACT

LOCATION ADDRESS: Safety-Kleen **Systems, Inc.** Corp. (7-008-24)  
4210 A Hawkins Road  
Farmington, New Mexico 87401

U.S. EPA I.D. NO: NMD 980698849

#### WASTE UNITS TO UNDERGO CLOSURE:

- a. Tank Storage - one 12, 000 gallon aboveground storage tank.
- b. Drum Storage - an area of about 187 square feet with a storage capacity of 3,820 gallons.
- c. Return and Fill Station - This waste management unit (**ancillary to the used solvent tank**) is used to transfer wastes to the used solvent storage tank. It can hold 175 gallons of waste **during transfer activities.**

The volumes shown above are the maximum amounts that may be stored at this facility at any time. **The maximum inventory of hazardous waste that can be stored at the facility at any one time is 15,820 gallons.**

## CLOSURE PLAN

### G.L.1 PURPOSE

The Farmington Service Center operates as a storage facility for hazardous wastes. The hazardous waste management units (HWMUs) must be closed in accordance with the closure requirements of ~~New Mexico HWMR 206-G~~ 20.4.1.900 NMAC; 40 CFR 264.110 through 264.115. Closure of the facility HWMUs will be carried out in accordance with this plan. Implementation of this plan will minimize the need for further maintenance and will control, minimize, or eliminate the post-closure escape of hazardous wastes, hazardous constituents, contaminated runoff, or hazardous waste decomposition products to the ground or surface waters or to the atmosphere. Procedures to achieve these objectives, which will meet the intent of a closure performance standard in 20.4.1.500 NMAC and 40 CFR 264.111 are described below. Attachment H Exhibit L-1 contains an estimated cost for the completion of closure. The expected year of closure for this facility is 2050~~20~~. ~~Safety-Kleen will remediate hazardous wastes and residues from the facility to a level protective of human health and the environment. Upon completion of closure activities, the need for further maintenance will be minimized or eliminated.~~

The Hazardous Waste Management Units (HWMUs), which are subject to closure, are described in the Closure Plan Abstract. The units include one aboveground storage tank system, a Return and Fill station with drum washers (ancillary equipment), and a container storage area.. This closure plan identifies steps necessary to conduct facility closure, or closure of a unit (partial closure) at any point during its intended operation life. When implemented, the closure activities will be conducted under the supervision of a qualified independent engineer, registered in the State of New Mexico. If necessary to amend this plan prior to closure, amendments will be carried out in accordance with 20.4.1.500 NMAC incorporating 40 CFR 264.112(c)(2).

#### L.1.1 Records Review and Structural Assessment

Prior to implementing closure, a records review will be performed to verify the wastes managed at the facility prior to closure, and evaluate whether any spills or releases have occurred at the facility. In addition, a structural assessment will be performed to identify any areas of a release or potential lapses of integrity to the waste management unit structure or containment. The structural assessment will also be used to determine potential sampling locations to verify presence or absence of a release.

### G L.2 ABOVEGROUND TANK AND ASSOCIATED PIPING

Closure procedures for the tank system will remove waste and waste residue, equipment, structures, and will be carried out in accordance with applicable portions of 20.4.1.500 and 20.4.1.900 NMAC and 40 CFR 264 and 270. To safely clean and decontaminate the aboveground storage tank (one 12,000 gallon used parts washer solvent tank), the following general activities will be performed during partial or final closure, as appropriate:

- a. Remove the remaining material from the tank and send the materials to a recycle center, reclaimer or other permitted treatment/disposal facility.
- b. Provide access to the tank undergoing closure or decontamination.
- c. Pressure wash with detergent solution, scrape, squeegee (if necessary) and triple rinse the tank interior, removing all residual waste material and rinsate.
- d. Disconnect and decontaminate all appurtenant piping and pumping equipment.
- f. Visually inspect the tank and appurtenant piping, equipment or underlying surfaces for evidence of leakage (i.e., staining and residue).
- g. Remove tank, piping and appurtenant equipment for offsite or sell as scrap. The tank may also remain onsite for reuse (if applicable for partial closure).
- h. Transport and properly dispose or treat waste material generated during closure.

Closure of the tank system, Safety-Kleen will remove or decontaminate waste residues, contaminated system components, contaminated soils, structures and equipment contaminated with waste, and manage these materials as hazardous waste, unless determined to be non-hazardous. The procedures for tank decontamination and/or partial closure are described below.

#### ~~G~~ L.2.1 Removal of Waste Material and Opening of the Tank

The contents of the tank must be removed using a pump, vacuum or similar equipment and then be shipped to a recycle center, reclaimer other permitted treatment/disposal facility. To gain access, the manway at the bottom of the tank will be used. Depending on the type of opening and the condition of the equipment, a variety of tools may be used to open the manway. Care must be exercised to minimize spark generation when working on the tank.

Prior to entering the tank, personnel should have appropriate protective respiratory protective equipment and protective clothing. Once the tank has been opened, it must be provided with positive ventilation. The tanks will then be inspected to determine the approximate quantity and physical conditions of any remaining waste material, as well as the integrity of the tank system.

~~Procedures for purging or venting tanks are described in API, RP1604 "Removal and Disposal of Used Petroleum Storage Tanks" and OSHA "Permit Required Confined Spaces" (29 CFR 1910.146). The contractor will monitor vapors to ensure the tank atmosphere has combustible gas concentrations of less than 10% of the lower explosive limit (LEL).~~

#### ~~G~~ L.2.2 Removal of Residual Waste and Cleaning of Tank

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). ~~and~~ Confined space entry requires special procedures. Confined space entry will be conducted in accordance with 29 CFR 1910.146. Tank entry procedures will be specified in the site health and safety plan. In all cases, personnel

performing closure activities must have completed 40-hour OSHA hazardous waste training requirements (29 CFR 1910.120).

Prior to any person entering the tank, an effort will be made to remove as much liquid and sediment as possible. The method used to remove the residual waste material from the tank will depend on the physical properties and quantities of that material.

During closure, all piping and appurtenant equipment will be flushed with a detergent solution and rinsed. The flushing will begin at or near the piping origination, from the Return and Fill station toward the tank.

The tank will be decontaminated using a high pressure wash with a detergent solution and water rinse to wash residual material from the walls, roof, and floor of the tank. The wash water will be removed using vacuum equipment and managed on a vacuum truck/tanker, or placed into drums. The residual waste and wash water will be managed as hazardous waste and shipped to a recycle center or contract reclaimer. The quantity of wash fluid used will be kept to a minimum in order to limit the amount of waste material. Since the tank will be excavated, cut up, and recycled as scrap metal at closure, sampling to verify decontamination will not be required. Decontamination procedures will be monitored prior to removing the tank to verify appropriate tank atmosphere conditions exist so the tank may be safely removed and scrapped in accordance with appropriate guidance and/or regulations.

~~Subsequent to removing the majority of the material from the tank the tank interior will be washed using a high-pressure wash system and a detergent-water solution to decontaminate the walls, roof, and floor of the tank. The tank interior will then be rinsed with tap water. The wash/rinse water will be collected and shipped to a recycle center, reclaimer or other permitted treatment/disposal facility. The quantity of wash/rinse water will be kept to a minimum to limit the amount of waste material.~~

~~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), and confined space entry requires special procedures. The contractor entering the confined space will be required to adhere to applicable regulations (29 CFR 1910.146).~~

#### Ⓔ L.2.3 Removal of the Tank (if required)

Following removal of wastes and decontamination activities, the tank may be reused onsite (partial closure) or at an offsite location, or scrapped. If the tank is to be transported offsite or scrapped, the following procedures will be observed to safely remove the tank:

- a. Disconnect appurtenant piping.
- b. Disconnect appurtenant pumping equipment.

- c. If the tank is to be scrapped, the tanks and equipment will be removed and recycled in accordance with 40 CFR 261.1(c)(6) and (7). Verification of destruction will be provided by the contractor of scrap metal facility.
- d. If the tank is to be reused following decontamination, the final rinsate will be sampled. The rinsate sample will be analyzed for volatile organic compounds (VOCs). If the total volatile organic compound concentration is less than 1 mg/L, the tank will be considered properly decontaminated. If the results are greater than 1 mg/L, the decontamination procedures will be re-performed.

#### Ⓔ L.2.4 Tank Containment Area Decontamination

Following decontamination and removal of the aboveground tank and piping, the concrete slab containment area will be inspected by an independent registered Professional Engineer (or designate). The inspection will document whether any waste related staining or lapses in the tank secondary containment system exist that may have allowed the potential for waste to migrate to underlying soils and/or groundwater. In the absence of waste related staining and/or lapses of integrity, further evaluation of the potential for wastes to impact human health or the environment will not be considered necessary to complete closure.

The tank containment area will be decontaminated with a detergent water solution and triple rinsed. Any through-going cracks or gaps in the containment slab observed during the inspection will be sealed prior to washing to prevent wash water from migrating to underlying soils. The wash/rinse water will be ~~contained~~ and managed as a hazardous waste.

If the containment area is to remain in place at closure, a sample of the final rinsate will be collected and analyzed for VOCs. If total VOC concentrations are less than 1 mg/L, the containment area will be considered properly decontaminated. If total VOCs are detected above 1 mg/L, ~~the containment area will be re-cleaned and sampled.~~ **containment will be evaluated by the engineer to determine adequateness of decontamination**

If the containment area will be removed at closure, a rinsate sample will not be collected. The diked walls and concrete slab will then be excavated, loaded and transported for disposal at a concrete recycler (or similar) for disposal. The excavation will be filled with clean backfill (if necessary) and graded to match ground level.

#### Ⓔ L.3 CONTAINER STORAGE AREA

The container storage area is used for the storage of drums of **various wastes described in previous sections of this application** and/or products. ~~used immersion cleaner, dry cleaning waste, paint waste.~~ At closure, the drums ~~contents of the containers~~ will be removed and transported to an appropriate permitted hazardous waste management facility. ~~after~~ Proper packaging, labeling, and manifesting **will be followed. The closure procedures will be in accordance with applicable sections of 20.4.1.500 and 20.4.1.900 NMAC and 40 CFR 264 and 270.**

The concrete floor, curbing, and containment trench will be high-pressure cleaned with a detergent-water solution and triple rinsed with tap water to remove hazardous waste and waste residue from the containment system. Wash water from the decontamination will be containerized in a vacuum truck and/or drums and managed for offsite disposal. The final rinsate will be sampled and analyzed for volatile organic compounds to determine the effectiveness of the cleaning. If the total volatile organic compound level is less than 1 mg/L, the container storage area will be considered properly decontaminated. If the results are greater than 1 mg/L, the decontamination procedures will be re-performed. All rinsate wastes from the container storage area closure process will be reclaimed or properly treated at a permitted facility.

As required by NMED, wipe samples will be collected following decontamination to verify removal of waste residues from the container storage area. Due to the small size of the unit, 2 wipe samples will be collected for evaluation. Wipe samples will be collected in accordance with appropriate guidance, using laboratory-supplied wipe sampling kits with appropriate solvent. Wipe samples will be analyzed for VOCs, SVOCs, and metals. As there are no screening levels or risk standards for comparison of wipe sample results, the results will be evaluated by the certifying engineer in the closure report to verify decontamination effectiveness or recommend appropriate future activities.

Following decontamination of the container storage area, the containment area will be inspected by an independent registered Professional Engineer (or designate). The inspection will document any potential lapses of integrity that may have allowed potential migration of wastes outside the containment area. In the absence of any waste related staining and/or lapses of integrity, further evaluation of the potential for waste to impact human health or the environment will not be necessary. If any lapses of integrity are found (i.e., through-going or unsealed cracks), soil samples must be collected from beneath the cracks as discussed below. If constituents are present above appropriate risk-based standards or screening levels, a workplan must be developed to determine the extent of contamination and proper remedial action. The concrete floor, curbing, and trenches will remain onsite following decontamination.

#### G L4 SOLVENT RETURN AND FILL STATION

The Return and Fill station is used to collect and return the used solvents to the waste storage tank and to dispense clean solvents into containers. At closure, the sediment in the drum washer/dumpster will be removed, containerized, labeled, manifested for proper treatment and/or disposal through a Safety-Kleen Recycling Center, reclaimer or other treatment/disposal facility.

The drum washer(s) and the dock structure will be thoroughly washed with a detergent solution and rinsed to remove hazardous waste and waste residues. The rinsate may either be discharged through the appurtenant piping system into the storage tank (prior to cleaning and

removing the storage tank) or contained within separate containers, vacuum truck or other appropriate storage device.

If the Return and Fill dock structure or drum washers will be reused, a sample will be collected of the final rinsate. If the Return and Fill station and/or components will be scrapped during closure, rinsate samples will not be collected. The concrete containment slab and curbing will also be decontaminated with a detergent-water solution, high-pressure spray and triple rinsed with tap water. A sample will be collected of the final rinsate. The rinsate sample(s) will be analyzed for volatile organic compounds. If the total volatile organic compound concentration is less than 1 mg/L, the components will be considered properly decontaminated. **If the results are greater than 1 mg/L, the respective units will be evaluated by the engineer to determine adequateness of decontamination**

Following decontamination, the secondary containment structure will be inspected by an independent registered Professional Engineer (or designate). The inspection will document any potential lapses of integrity that may have allowed potential migration of wastes outside the containment area. In the absence of waste related staining and/or lapses of integrity, further evaluation of the potential for wastes to impact human health or the environment will not be necessary. **If lapses of integrity are found during the inspection (i.e., through-going or unsealed cracks) that may have allowed potential migration of wastes outside the containment area, soil samples will be collected from immediately beneath the cracked areas as described in Section L.5 following. If any constituents are detected at levels above appropriate risk-based standards or screening levels, a workplan will be prepared to determine the extent of impacts and possible remedial actions.**

#### **L.5 SOIL SAMPLING PLAN**

If the results of the inspections for the HWMUs indicate lapses of integrity exist in the secondary containment system(s) that may have allowed the potential for waste to migrate to underlying soils, soil samples may be collected. If the inspection indicates no lapses of integrity, soil samples will not be necessary to complete closure.

If determined to be necessary based on the inspections of the HWMUs, soil samples will be collected from immediately beneath the concrete slab or containment area. Soil samples will be analyzed for volatile organic compounds, semivolatile organic compounds and metals (cadmium, chromium and lead). If constituents are detected, the concentrations may be compared to appropriate risk-based screening levels to determine whether the HWMU(s) may be closed.

**Soil samples will be collected at closure to verify the presence/absence of contamination beneath the facility's HWMUs. Soil sampling locations will be determined at closure in consultation with the certifying engineer.**

### L.5.1 Soil Sampling Beneath Containment Structures

Soil sample locations will be targeted at areas of potential lapses of integrity in the tank containment structure at the container storage area, and the Return and Fill structure. Information from the structural assessment will be used to identify sampling locations. In the absence of any non-sealed cracks, gaps, or other potential lapses of containment integrity, a minimum of 2 soil samples will be collected from beneath each containment structure at areas identified by the certifying engineer where potential waste migration outside of the containment is most likely to have occurred.

Soil samples will be collected at areas identified by the engineer using a coring device to access underlying native soil. Once the concrete core is removed from each soil sampling location, soil sampling equipment (hand auger, or similar soil sampling device) will be advanced to native soil material beneath the concrete (generally 0.5 to 1 feet below the concrete). Native soil will be placed into appropriate laboratory-supplied sample containers. Sample containers will be submitted under chain-of-custody protocol to the laboratory for analysis of VOCs, SVOCs, and metals.

### L.5.2 Laboratory Analysis

The closure soil samples will be submitted for analysis of volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), and metals. These constituents are representative of the waste codes used for storage. Laboratory containers will be supplied by the laboratory and will contain proper preservative if required for the respective analyses. The analysis will be in accordance with the latest analytical methods for the desired analyses described in USEPA SW-846 at the time closure is implemented, such as 8260 for VOCs, 8270 for SVOCs, and 6010 for metals. The laboratory will be instructed to ensure that the analyses will include constituents representative of the waste codes listed above in the facility permit.

### L.5.3 Evaluation of Closure Soil Sample Results

Soil sample results will be tabulated in the closure certification report. For comparison, soil sample results will be compared to appropriate screening levels and/or risk based standards available at closure. These screening levels and/or standards will be used to determine compliance with the intent of closure performance standards referenced in 20.4.1.500 NMAC and incorporated by 40 CFR 264.111. In addition, background samples will be collected at closure (native soils from the 0 to 1 foot depth interval). Background samples will be collected from areas of the facility that are not influenced by waste management activities. Background samples will be analyzed for metals since metals are naturally occurring in soil. The background results will be used for comparison to the closure soil sample results. Should closure soil sample results meet appropriate levels, the closure results will be submitted in a closure certification report. Should closure soil samples exceed screening levels, appropriate steps will be taken to further delineate the extent of potential impacts, and/or verify that any constituents

detected in soil above screening levels or risk-based standards will not pose an unacceptable risk to human health or the environment.

#### ~~G-6~~ L.6 FACILITY CLOSURE SCHEDULE AND CERTIFICATION

Within 90 days of receiving the final volume of hazardous wastes, Safety-Kleen will remove all hazardous wastes from the site in accordance with the approved closure plan. The New Mexico Health and Environment Department 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:

- a. The facility has the capacity to receive additional wastes;
- b. There is a likelihood that a person other than Safety-Kleen will recommence operation of the site; and/or
- c. closure of the facility is incompatible with continued operation for the site. In this case, Safety-Kleen will take all steps necessary to prevent threats to human health and the environment.

Safety-Kleen will complete closure activities in accordance with the approved closure plan and within 180 days after receiving the final volume of wastes. A closure schedule identifying time frames for closure implementation is provided as Exhibit L-2. When closure is completed, Safety-Kleen shall submit to the NMED certification, both by the operator and by an independent registered professional engineer, that the facility has been closed in accordance with the approved closure plan and 40 CFR 264.115.

#### L.7. FINANCIAL ASSURANCE

During the active life of the facility, the closure cost estimate is adjusted annually to reflect inflation, in accordance with, and as required by and detailed in 40 CFR 264.142(b) and 20.4.1.500 NMAC. This estimate will be submitted in accordance with the referenced regulations. Safety-Kleen maintains an insurance certificate for closure, as included in Exhibit L-3.

## SECTION M – LIABILITY COVERAGE

### M.1 INSURANCE POLICY DEMONSTRATING LIABILITY COVERAGE.

A copy of the Hazardous Waste Facility Certificate Insurance (HWFCI) is included in Exhibit M-1. This provides coverage for bodily injury and property damage to third parties caused by sudden accidental occurrences arising from operations of the facility.

# Exhibit A-1

## Part A Application And Certification Page



I certify under penalty of law that this document and all attachments were prepared under my directions or supervision according to a system designed to assure that qualified personnel properly gather and evaluate the information submitted.

Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete.

I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name of Person Making Certification: Mori Sorenson  
Title of Person Making Certification: Director-EHS  
Signature of Person Making Certification: *Mori Sorenson*  
Date of Certification: 8-26-15

<p><b>SEND COMPLETED FORM TO:</b> The Appropriate State or Regional Office.</p>	<p>United States Environmental Protection Agency <b>RCRA SUBTITLE C SITE IDENTIFICATION FORM</b></p>	
<p><b>1. Reason for Submittal</b></p> <p>MARK ALL BOX(ES) THAT APPLY</p>	<p><b>Reason for Submittal:</b></p> <p><input type="checkbox"/> To provide an Initial Notification (first time submitting site identification information / to obtain an EPA ID number for this location)</p> <p><input type="checkbox"/> To provide a Subsequent Notification (to update site identification information for this location)</p> <p><input type="checkbox"/> As a component of a First RCRA Hazardous Waste Part A Permit Application</p> <p><input type="checkbox"/> As a component of a Revised RCRA Hazardous Waste Part A Permit Application (Amendment # _____)</p> <p><input type="checkbox"/> As a component of the Hazardous Waste Report (If marked, see sub-bullet below)</p> <p style="margin-left: 20px;"><input type="checkbox"/> Site was a TSD facility and/or generator of &gt;1,000 kg of hazardous waste, &gt;1 kg of acute hazardous waste, or &gt;100 kg of acute hazardous waste spill cleanup in one or more months of the report year (or State equivalent LQG regulations)</p>	
<p><b>2. Site EPA ID Number</b></p>	<p>EPA ID Number <input type="text"/> <input type="text"/></p>	
<p><b>3. Site Name</b></p>	<p>Name: <input style="width: 90%;" type="text"/></p>	
<p><b>4. Site Location Information</b></p>	<p>Street Address: <input style="width: 95%;" type="text"/></p>	
	<p>City, Town, or Village: <input style="width: 70%;" type="text"/></p>	<p>County: <input style="width: 20%;" type="text"/></p>
	<p>State: <input style="width: 15%;" type="text"/></p>	<p>Country: <input style="width: 55%;" type="text"/></p>
<p><b>5. Site Land Type</b></p>	<p><input type="checkbox"/> Private   <input type="checkbox"/> County   <input type="checkbox"/> District   <input type="checkbox"/> Federal   <input type="checkbox"/> Tribal   <input type="checkbox"/> Municipal   <input type="checkbox"/> State   <input type="checkbox"/> Other</p>	
<p><b>6. NAICS Code(s) for the Site (at least 5-digit codes)</b></p>	<p>A. <input style="width: 20%;" type="text"/> <input style="width: 5%;" type="text"/></p>	<p>C. <input style="width: 20%;" type="text"/> <input style="width: 5%;" type="text"/></p>
	<p>B. <input style="width: 20%;" type="text"/> <input style="width: 5%;" type="text"/></p>	<p>D. <input style="width: 20%;" type="text"/> <input style="width: 5%;" type="text"/></p>
<p><b>7. Site Mailing Address</b></p>	<p>Street or P.O. Box: <input style="width: 95%;" type="text"/></p>	
	<p>City, Town, or Village: <input style="width: 95%;" type="text"/></p>	
	<p>State: <input style="width: 15%;" type="text"/></p>	<p>Country: <input style="width: 55%;" type="text"/></p>
<p><b>8. Site Contact Person</b></p>	<p>First Name: <input style="width: 30%;" type="text"/></p>	<p>MI: <input style="width: 5%;" type="text"/></p>
	<p>Last: <input style="width: 60%;" type="text"/></p>	
	<p>Title: <input style="width: 95%;" type="text"/></p>	
	<p>Street or P.O. Box: <input style="width: 95%;" type="text"/></p>	
	<p>City, Town or Village: <input style="width: 95%;" type="text"/></p>	
	<p>State: <input style="width: 15%;" type="text"/></p>	<p>Country: <input style="width: 55%;" type="text"/></p>
	<p>Zip Code: <input style="width: 20%;" type="text"/></p>	
	<p>Email: <input style="width: 95%;" type="text"/></p>	
<p>Phone: <input style="width: 30%;" type="text"/></p>	<p>Ext.: <input style="width: 30%;" type="text"/></p>	<p>Fax: <input style="width: 30%;" type="text"/></p>
<p><b>9. Legal Owner and Operator of the Site</b></p>	<p>A. Name of Site's Legal Owner: <input style="width: 80%;" type="text"/></p>	
	<p>Date Became Owner: <input style="width: 20%;" type="text"/></p>	
	<p>Owner Type: <input type="checkbox"/> Private   <input type="checkbox"/> County   <input type="checkbox"/> District   <input type="checkbox"/> Federal   <input type="checkbox"/> Tribal   <input type="checkbox"/> Municipal   <input type="checkbox"/> State   <input type="checkbox"/> Other</p>	
	<p>Street or P.O. Box: <input style="width: 95%;" type="text"/></p>	
	<p>City, Town, or Village: <input style="width: 70%;" type="text"/></p>	
	<p>State: <input style="width: 15%;" type="text"/></p>	<p>Country: <input style="width: 55%;" type="text"/></p>
	<p>Phone: <input style="width: 20%;" type="text"/></p>	
<p>B. Name of Site's Operator: <input style="width: 80%;" type="text"/></p>		
<p>Date Became Operator: <input style="width: 20%;" type="text"/></p>		
<p>Operator Type: <input type="checkbox"/> Private   <input type="checkbox"/> County   <input type="checkbox"/> District   <input type="checkbox"/> Federal   <input type="checkbox"/> Tribal   <input type="checkbox"/> Municipal   <input type="checkbox"/> State   <input type="checkbox"/> Other</p>		

**10. Type of Regulated Waste Activity (at your site)**

Mark "Yes" or "No" for all current activities (as of the date submitting the form); complete any additional boxes as instructed.

**A. Hazardous Waste Activities; Complete all parts 1-10.**

- Y  N  **1. Generator of Hazardous Waste**  
 If "Yes," mark only one of the following – a, b, or c.
- a. LQG: Generates, in any calendar month, 1,000 kg/mo (2,200 lbs/mo.) or more of hazardous waste; or Generates, in any calendar month, or accumulates at any time, more than 1 kg/mo (2.2 lbs/mo) of acute hazardous waste; or Generates, in any calendar month, or accumulates at any time, more than 100 kg/mo (220 lbs/mo) of acute hazardous spill cleanup material.
- b. SQG: 100 to 1,000 kg/mo (220 – 2,200 lbs/mo) of non-acute hazardous waste.
- c. CESQG: Less than 100 kg/mo (220 lbs/mo) of non-acute hazardous waste.
- If "Yes" above, indicate other generator activities in 2-10.

- Y  N  **2. Short-Term Generator** (generate from a short-term or one-time event and not from on-going processes). If "Yes," provide an explanation in the Comments section.
- Y  N  **3. United States Importer of Hazardous Waste**
- Y  N  **4. Mixed Waste (hazardous and radioactive) Generator**

- Y  N  **5. Transporter of Hazardous Waste**  
 If "Yes," mark all that apply.
- a. Transporter
- b. Transfer Facility (at your site)
- Y  N  **6. Treater, Storer, or Disposer of Hazardous Waste** Note: A hazardous waste Part B permit is required for these activities.
- Y  N  **7. Recycler of Hazardous Waste**
- Y  N  **8. Exempt Boiler and/or Industrial Furnace**  
 If "Yes," mark all that apply.
- a. Small Quantity On-site Burner Exemption
- b. Smelting, Melting, and Refining Furnace Exemption
- Y  N  **9. Underground Injection Control**
- Y  N  **10. Receives Hazardous Waste from Off-site**

**B. Universal Waste Activities; Complete all parts 1-2.**

- Y  N  **1. Large Quantity Handler of Universal Waste (you accumulate 5,000 kg or more) [refer to your State regulations to determine what is regulated]. Indicate types of universal waste managed at your site. If "Yes," mark all that apply.**
- a. Batteries
- b. Pesticides
- c. Mercury containing equipment
- d. Lamps
- e. Other (specify) \_\_\_\_\_
- f. Other (specify) \_\_\_\_\_
- g. Other (specify) \_\_\_\_\_
- Y  N  **2. Destination Facility for Universal Waste**  
 Note: A hazardous waste permit may be required for this activity.

**C. Used Oil Activities; Complete all parts 1-4.**

- Y  N  **1. Used Oil Transporter**  
 If "Yes," mark all that apply.
- a. Transporter
- b. Transfer Facility (at your site)
- Y  N  **2. Used Oil Processor and/or Re-refiner**  
 If "Yes," mark all that apply.
- a. Processor
- b. Re-refiner
- Y  N  **3. Off-Specification Used Oil Burner**
- Y  N  **4. Used Oil Fuel Marketer**  
 If "Yes," mark all that apply.
- a. Marketer Who Directs Shipment of Off-Specification Used Oil to Off-Specification Used Oil Burner
- b. Marketer Who First Claims the Used Oil Meets the Specifications

**D. Eligible Academic Entities with Laboratories—Notification for opting into or withdrawing from managing laboratory hazardous wastes pursuant to 40 CFR Part 262 Subpart K**

❖ You can ONLY Opt into Subpart K if:

- you are at least one of the following: a college or university; a teaching hospital that is owned by or has a formal affiliation agreement with a college or university; or a non-profit research institute that is owned by or has a formal affiliation agreement with a college or university; AND
- you have checked with your State to determine if 40 CFR Part 262 Subpart K is effective in your state

Y  N  1. Opting into or currently operating under 40 CFR Part 262 Subpart K for the management of hazardous wastes in laboratories  
**See the item-by-item instructions for definitions of types of eligible academic entities. Mark all that apply:**

- a. College or University
- b. Teaching Hospital that is owned by or has a formal written affiliation agreement with a college or university
- c. Non-profit Institute that is owned by or has a formal written affiliation agreement with a college or university

Y  N  2. Withdrawing from 40 CFR Part 262 Subpart K for the management of hazardous wastes in laboratories

**11. Description of Hazardous Waste**

**A. Waste Codes for Federally Regulated Hazardous Wastes.** Please list the waste codes of the Federal hazardous wastes handled at your site. List them in the order they are presented in the regulations (e.g., D001, D003, F007, U112). Use an additional page if more spaces are needed.


**B. Waste Codes for State-Regulated (i.e., non-Federal) Hazardous Wastes.** Please list the waste codes of the State-Regulated hazardous wastes handled at your site. List them in the order they are presented in the regulations. Use an additional page if more spaces are needed.






**7. Process Codes and Design Capacities – Enter information in the Section on Form Page 3**

- A. PROCESS CODE** – Enter the code from the list of process codes below that best describes each process to be used at the facility. If more lines are needed, attach a separate sheet of paper with the additional information. For “other” processes (i.e., D99, S99, T04 and X99), describe the process (including its design capacity) in the space provided in Item 8.
- B. PROCESS DESIGN CAPACITY** – For each code entered in Item 7.A; enter the capacity of the process.
1. **AMOUNT** – Enter the amount. In a case where design capacity is not applicable (such as in a closure/post-closure or enforcement action) enter the total amount of waste for that process.
  2. **UNIT OF MEASURE** – For each amount entered in Item 7.B(1), enter the code in Item 7.B(2) from the list of unit of measure codes below that describes the unit of measure used. Select only from the units of measure in this list.
- C. PROCESS TOTAL NUMBER OF UNITS** – Enter the total number of units for each corresponding process code.

Process Code	Process	Appropriate Unit of Measure for Process Design Capacity	Process Code	Process	Appropriate Unit of Measure for Process Design Capacity
<b>Disposal</b>			<b>Treatment (Continued)</b>		
D79	Underground Injection Well Disposal	Gallons; Liters; Gallons Per Day; or Liters Per Day	T81	Cement Kiln	Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; Metric Tons Per Day; Metric Tons Per Hour; Short Tons Per Day; BTU Per Hour; Liters Per Hour; Kilograms Per Hour; or Million BTU Per Hour
D80	Landfill	Acre-feet; Hectares-meter; Acres; Cubic Meters; Hectares; Cubic Yards	T82	Lime Kiln	
D81	Land Treatment	Acres or Hectares	T83	Aggregate Kiln	
D82	Ocean Disposal	Gallons Per Day or Liters Per Day	T84	Phosphate Kiln	
D83	Surface Impoundment Disposal	Gallons; Liters; Cubic Meters; or Cubic Yards	T85	Coke Oven	
D99	Other Disposal	Any Unit of Measure Listed Below	T86	Blast Furnace	
<b>Storage</b>			T87	Smelting, Melting, or Refining Furnace	
S01	Container	Gallons; Liters; Cubic Meters; or Cubic Yards	T88	Titanium Dioxide Chloride Oxidation Reactor	
S02	Tank Storage	Gallons; Liters; Cubic Meters; or Cubic Yards	T89	Methane Reforming Furnace	
S03	Waste Pile	Cubic Yards or Cubic Meters	T90	Pulping Liquor Recovery Furnace	
S04	Surface Impoundment	Gallons; Liters; Cubic Meters; or Cubic Yards	T91	Combustion Device Used in the Recovery of Sulfur Values from Spent Sulfuric Acid	
S05	Drip Pad	Gallons; Liters; Cubic Meters; Hectares; or Cubic Yards	T92	Halogen Acid Furnaces	
S06	Containment Building Storage	Cubic Yards or Cubic Meters	T93	Other Industrial Furnaces Listed in 40 CFR 260.10	
S99	Other Storage	Any Unit of Measure Listed Below	T94	Containment Building Treatment	Cubic Yards; Cubic Meters; Short Tons Per Hour; Gallons Per Hour; Liters Per Hour; BTU Per Hour; Pounds Per Hour; Short Tons Per Day; Kilograms Per Hour; Metric Tons Per Day; Gallons Per Day; Liters Per Day; Metric Tons Per Hour; or Million BTU Per Hour
<b>Treatment</b>			<b>Miscellaneous (Subpart X)</b>		
T01	Tank Treatment	Gallons Per Day; Liters Per Day	X01	Open Burning/Open Detonation	Any Unit of Measure Listed Below
T02	Surface Impoundment	Gallons Per Day; Liters Per Day	X02	Mechanical Processing	Short Tons Per Hour; Metric Tons Per Hour; Short Tons Per Day; Metric Tons Per Day; Pounds Per Hour; Kilograms Per Hour; Gallons Per Hour; Liters Per Hour; or Gallons Per Day
T03	Incinerator	Short Tons Per Hour; Metric Tons Per Hour; Gallons Per Hour; Liters Per Hour; BTUs Per Hour; Pounds Per Hour; Short Tons Per Day; Kilograms Per Hour; Gallons Per Day; Metric Tons Per Hour; or Million BTU Per Hour	X03	Thermal Unit	Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; Metric Tons Per Day; Metric Tons Per Hour; Short Tons Per Day; BTU Per Hour; or Million BTU Per Hour
T04	Other Treatment	Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; Metric Tons Per Day; Short Tons Per Day; BTUs Per Hour; Gallons Per Day; Liters Per Hour; or Million BTU Per Hour	X04	Geologic Repository	Cubic Yards; Cubic Meters; Acre-feet; Hectare-meter; Gallons; or Liters
T80	Boiler	Gallons; Liters; Gallons Per Hour; Liters Per Hour; BTUs Per Hour; or Million BTU Per Hour	X99	Other Subpart X	Any Unit of Measure Listed Below

Unit of Measure	Unit of Measure Code	Unit of Measure	Unit of Measure Code
Gallons .....	G	Short Tons Per Hour .....	D
Gallons Per Hour .....	E	Short Tons Per Day .....	N
Gallons Per Day .....	U	Metric Tons Per Hour .....	W
Liters .....	L	Metric Tons Per Day .....	S
Liters Per Hour .....	H	Pounds Per Hour .....	J
Liters Per Day .....	V	Kilograms Per Hour .....	X
		Million BTU Per Hour .....	X
		Cubic Yards .....	Y
		Cubic Meters .....	C
		Acres .....	B
		Acre-feet .....	A
		Hectares .....	Q
		Hectare-meter .....	F
		BTU Per Hour .....	I





**9. Description of Hazardous Wastes (Continued. Use additional sheet(s) as necessary; number pages as 5a, etc.)**

Line Number	A. EPA Hazardous Waste No. (Enter code)	B. Estimated Annual Qty of Waste	C. Unit of Measure (Enter code)	D. PROCESSES												
				(1) PROCESS CODES (Enter Code)					(2) PROCESS DESCRIPTION (If code is not entered in 9.D(1))							
1																
2																
3																
4																
5																
6																
7																
8																
9																
1	0															
1	1															
1	2															
1	3															
1	4															
1	5															
1	6															
1	7															
1	8															
1	9															
2	0															
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2	6															
2	7															
2	8															
2	9															
3	0															
3	1															
3	2															
3	3															
3	4															
3	5															
3	6															



**10. Map**

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

**11. Facility Drawing**

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

**12. Photographs**

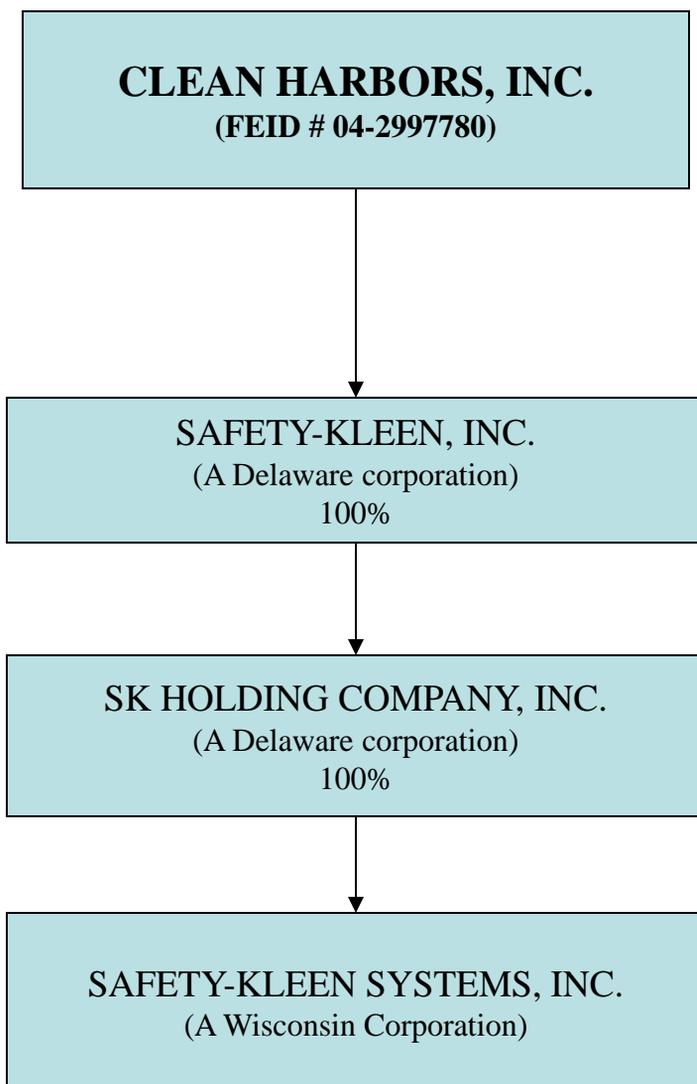
All existing facilities must include photographs (aerial or ground-level) that clearly delineate all existing structures; existing storage, treatment, and disposal areas; and sites of future storage, treatment, or disposal areas (see instructions for more detail).

**13. Comments**

# Exhibit A-1a

## SK Ownership Chart

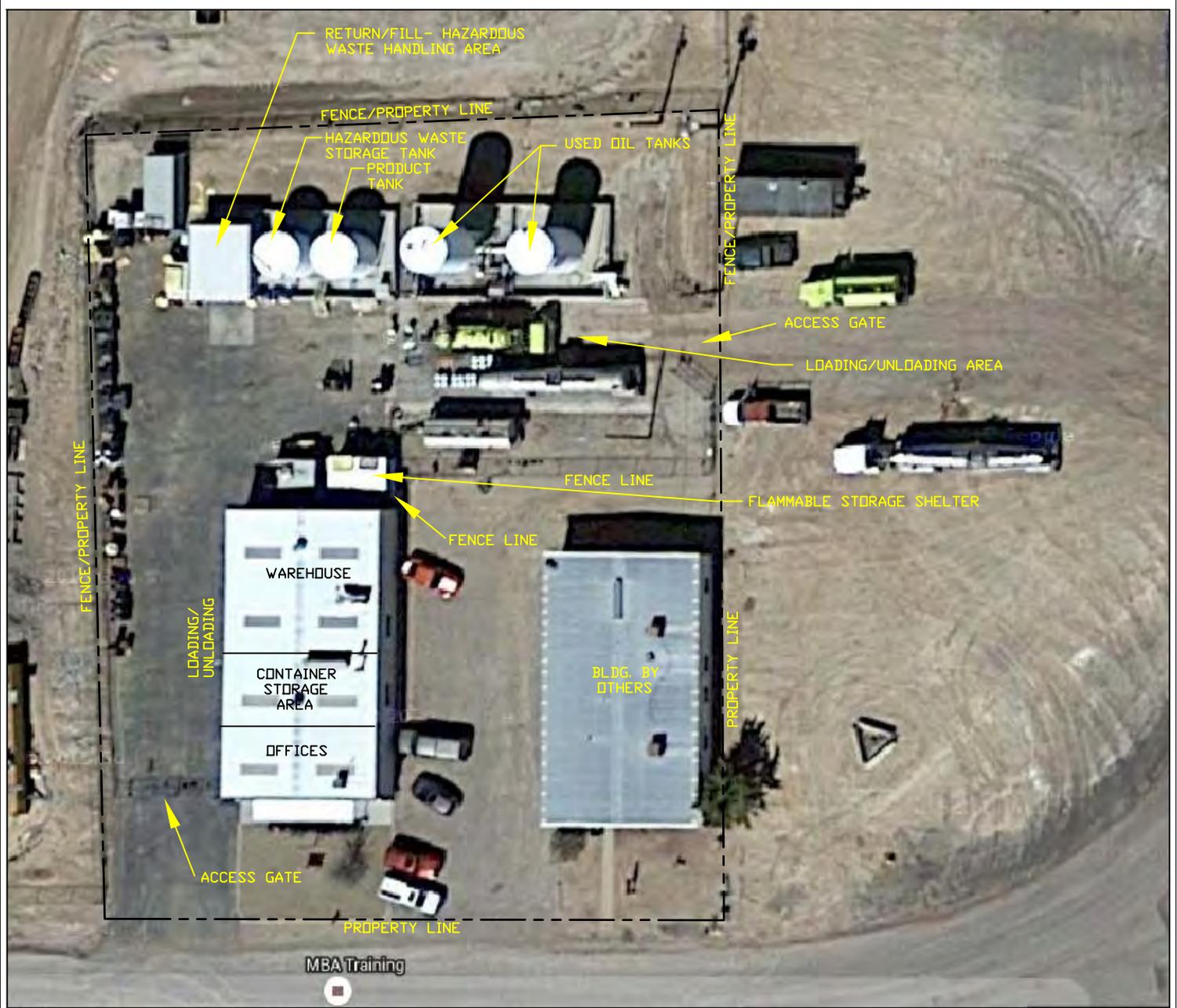
# SAFETY-KLEEN CURRENT ORGANIZATIONAL CHART



All entities are 100% owned by their parent companies, unless otherwise indicated on the chart. Clean Harbors, Inc. is the ultimate parent corporation.

# Exhibit A-2

## Facility Aerial Photo



PROPRIETARY STATEMENT

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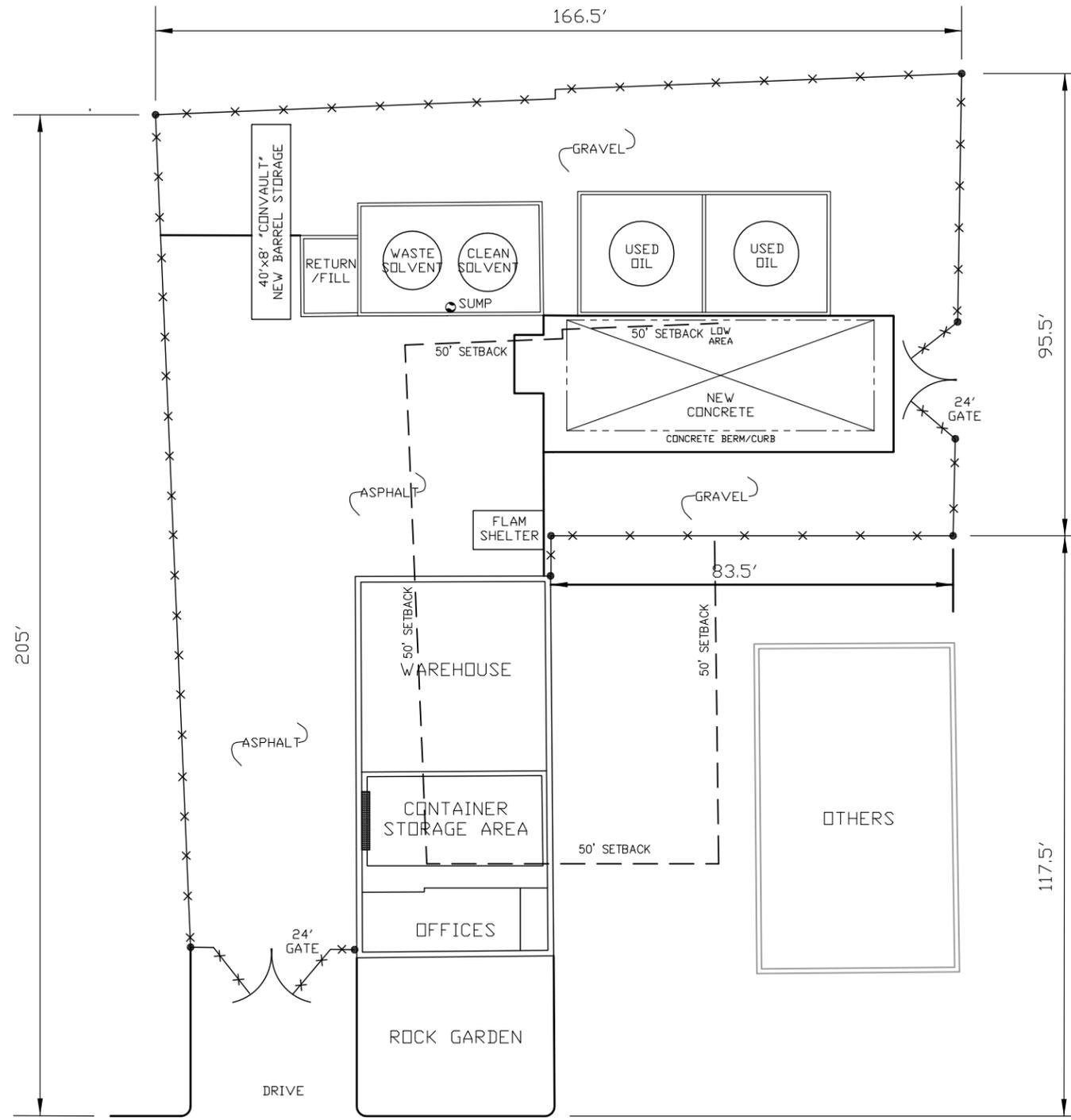
SAFETY-KLEEN SYSTEMS, INC.  
 SITE AERIAL MAP  
 4210A HAWKINS RD.  
 FARMINGTON, N.M. 87401

**S SAFETY-KLEEN SYSTEMS, INC.**  
 2600 N. CENT. EXPRESSWAY STE 400 RICHARDSON, TX. 75080  
 PHONE 800-669-5740

SCALE NONE	BY JEK	CHKD KDT	APPR KDT	OP. APPR KDT	DATE 8/18/15
STANDARD BRANCH LOCATION FARMINGTON, N.M.			SC-DWG NUMBER 7133-SP00-029		REV. NO. 0

# Exhibit A-3

## Facility Diagram



HAWKINS RD.

PROPRIETARY STATEMENT

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TITLE  
SITE PLAN  
4210A HAWKINS RD.

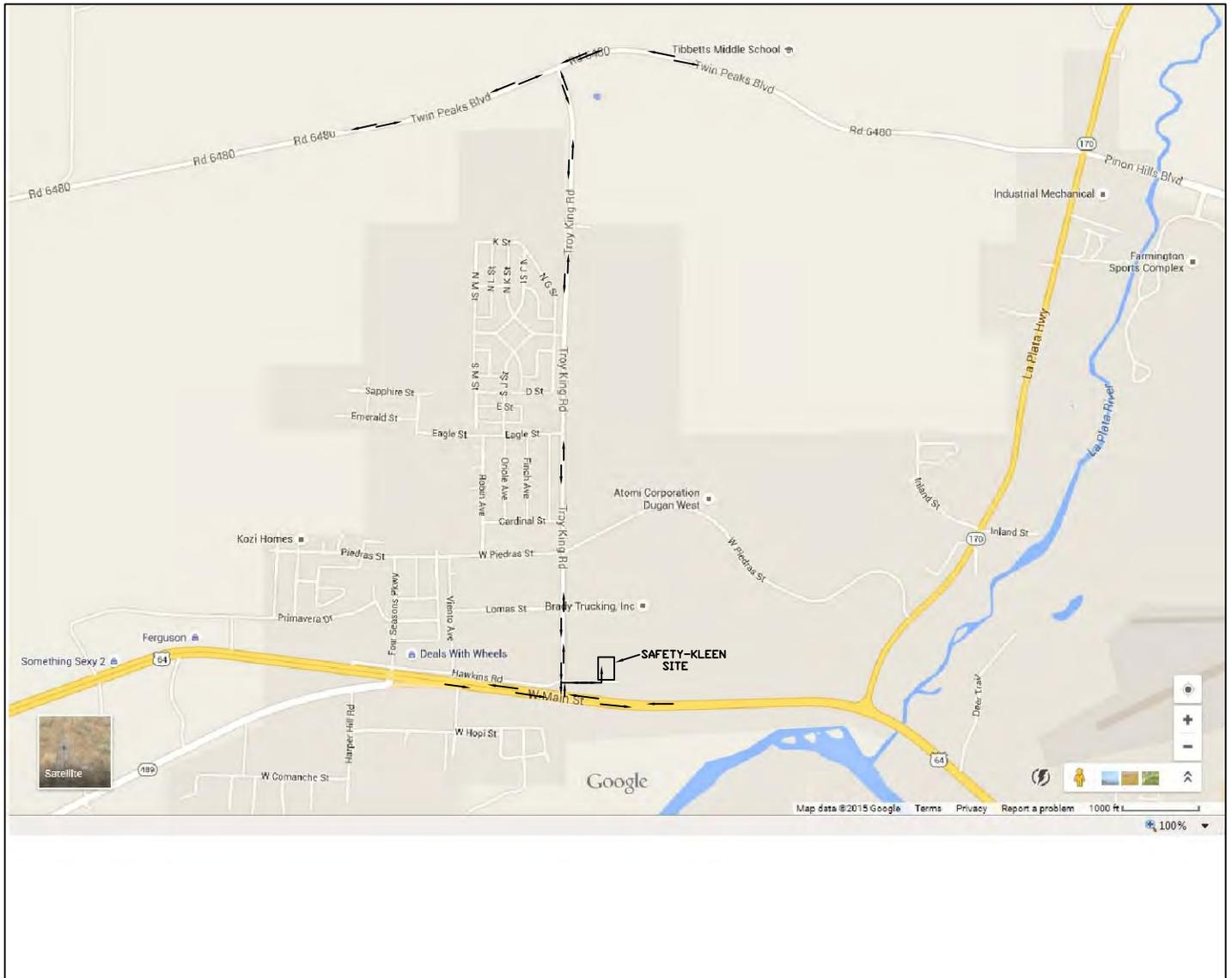
**SAFETY-KLEEN SYSTEMS, INC.**  
2600 N. CENT. EXPRESSWAY STE 400 RICHARDSON, TX. 75080  
PHONE: 800-669-5740

NO.	DESCRIPTION	BY	CHK	APPR	DATE
00	REVISED SAFETY KLEEN DRAWING TO SHOW CURRENT CONDITIONS	JEK	RS	RS	12/28/09
REVISIONS					

SCALE	BY	CHKD	P.E. APPR	OP. APPR	DATE
1" = 15'-0"	JEK	RS	RS	RS	12/28/09
SERVICE CENTER BRANCH AT FARMINGTON, N.M.					STD-DWG-REV NO. 7133-SP00-001

# Exhibit A-4

## Area Traffic Pattern



PROPRIETARY STATEMENT

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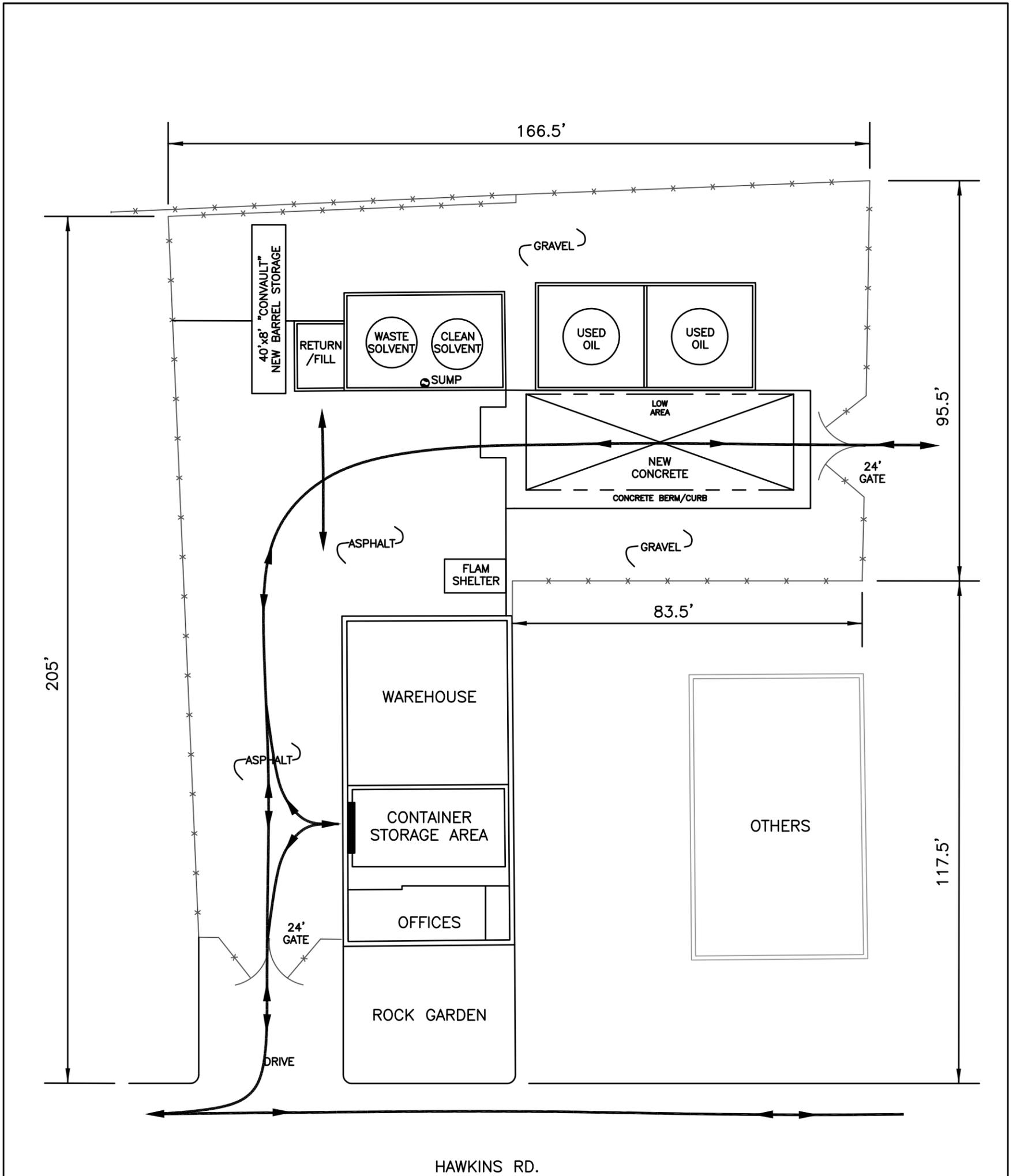
AREA TRAFFIC PATTERN  
 4210A HAWKINS RD.  
 FARMINGTON, N.M. 87401

**SAFETY-KLEEN SYSTEMS, INC.**  
 2600 N. CENT. EXPRESSWAY STE 400 RICHARDSON, TX. 75080  
 PHONE 800-669-5740

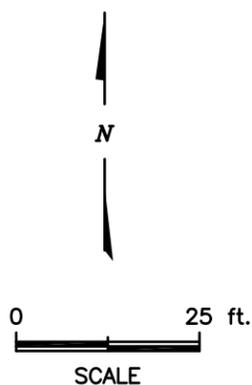
SCALE NONE	BY JEK	CHKD KDT	APPR KDT	OP. APPR KDT	DATE 8/18/15
STANDARD BRANCH LOCATION FARMINGTON, N.M.			SC-DWG NUMBER 7133-SP00-030		REV. NO. 0

# Exhibit A-5

## Site Traffic Pattern



A Trihydro Corporation representative conducted a field inspection to verify construction, equipment, components, dimensions and existing conditions on February 28, 2001. Items inaccessible to visual observation were not field verified during inspection. Notes have been added to document results and/or observed modifications (as appropriate) during the February 28, 2001 inspection.



REVISIONS	
Date	By



**FIGURE 9**  
**TRAFFIC FLOW PATTERN**  
**4210A HAWKINS RD.**  
**FARMINGTON N.M.**

**SAFETY-KLEEN SYSTEMS, INC.**  
1301 Gevale Street, Suite 300, Columbia, South Carolina, 29201.  
Phone (803) 933-4200

# Exhibit A-6

## Regional Map



**Legend**

**SJC Road Status**

- CM
- CTY
- HWY
- LCM
- NRT
- OIL
- P

- City Roads
- BIA Roads
- Rivers
- Lakes
- Township and Range
- Sections
- National and State Parks
- Kirtland Town Limits
- SJC County Boundary

1 15,965



The San Juan County GIS Deptment provides no warranty, expressed or implied, as to the accuracy, reliability or completeness of furnished data. This map is not intended to be used as a survey.

# Exhibit A-7

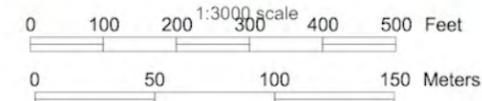
## Topographic Map



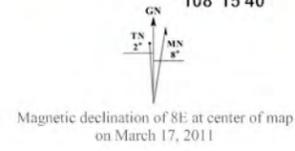
1000 FT. RADIUS

SAFETY-KLEEN SITE

Universal Transverse Mercator (UTM) Projection Zone 12  
 North American Datum of 1983  
 100 meter UTM / USNG / MGRS  
 Grid Zone Designation: 12S  
 100,000-m Squares: YF



SAFETY-KLEEN TOPOGRAPHIC MAP, 1000 FT. RADIUS  
 4210A HAWKINS RD. FARMINGTON, N.M. 87401  
 DWG# 7133-SP00-027



Magnetic declination of 8E at center of map  
 on March 17, 2011

# Exhibit A-8

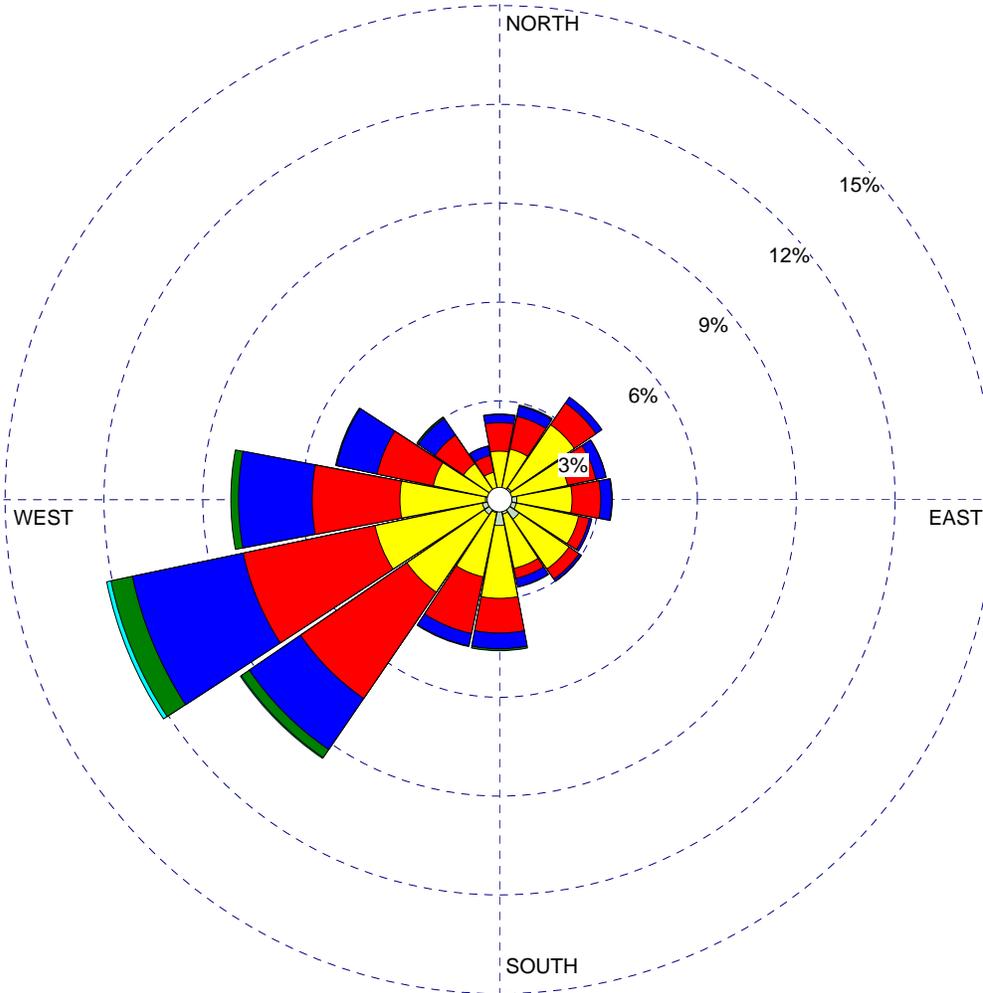
## Wind Rose

WIND ROSE PLOT:

**Station #23081 - GALLUP/FAA AIRPORT, NM**

DISPLAY:

**Wind Speed  
Direction (blowing from)**



WIND SPEED  
(m/s)

- >= 11.1
- 8.8 - 11.1
- 5.7 - 8.8
- 3.6 - 5.7
- 2.1 - 3.6
- 0.5 - 2.1

Calms: 26.78%

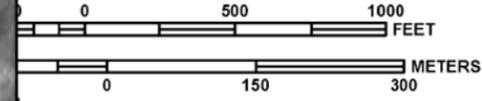
JEK DRAFTING & DESIGN	DATA PERIOD: <b>Start Date: 1/1/1992 - 00:00</b> <b>End Date: 12/31/1992 - 23:00</b>	COMPANY NAME: <b>SAFETY-KLEEN SYSTEMS, INC.</b>		
	CALM WINDS: <b>26.78%</b>	MODELER:JEK	TOTAL COUNT: <b>8784 hrs.</b>	
	AVG. WIND SPEED: <b>2.81 m/s</b>	DATE: <b>8/19/2015</b>	DWG. NO.:7133-SP00-049 <b>FARMINGTON, N.M.</b>	

# Exhibit A-9

FEMA Map



MAP SCALE 1" = 500'



NATIONAL FLOOD INSURANCE PROGRAM

**PANEL 0982F**

**FIRM**  
**FLOOD INSURANCE RATE MAP**  
**SAN JUAN COUNTY,**  
**NEW MEXICO**  
**AND INCORPORATED AREAS**

**PANEL 982 OF 2750**

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

**CONTAINS:**

COMMUNITY	NUMBER	PANEL	SUFFIX
FARMINGTON, CITY OF	350067	0982	F
SAN JUAN COUNTY	350064	0982	F

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.

**MAP NUMBER**  
35045C0982F

**EFFECTIVE DATE**  
AUGUST 5, 2010

Federal Emergency Management Agency

**LEGEND**

- SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD**
- The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.
- ZONE A:** No Base Flood Elevations determined.  
**ZONE AE:** Base Flood Elevations determined.  
**ZONE AH:** Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.  
**ZONE AO:** Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.  
**ZONE AR:** Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently identified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.  
**ZONE A99:** Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.  
**ZONE V:** Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.  
**ZONE VE:** Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.
- FLOODWAY AREAS IN ZONE AE**
- The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.
- OTHER FLOOD AREAS**
- ZONE X:** Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.
- OTHER AREAS**
- ZONE X:** Areas determined to be outside the 0.2% annual chance floodplain. Areas in which flood hazards are undetermined, but possible.
- COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS**
- OTHERWISE PROTECTED AREAS (OPAs)**
- CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.
- 1% annual chance floodplain boundary
  - 0.2% annual chance floodplain boundary
  - Floodway boundary
  - Zone D boundary
  - CBRS and OPA Boundary
  - Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
  - 513 Base Flood Elevation line and value; elevation in feet\* (ELEV 987)
  - Base Flood Elevation value where uniform within zone; elevation in feet\*
- \*Referenced to the North American Vertical Datum of 1988
- 23** Cross section line
- 23** Transsect line
- Geographic coordinates referenced to the North American Datum of 1983 (NAD 83), Western Hemisphere.  
 76° 07' 30", 32° 22' 30"  
 76° 07' 30" E  
 600000 FT  
 DK5510 X  
 M1.5 River Mile
- MAP REPOSITORIES**  
 Refer to Map Repositories list on Map Index.
- EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP PANEL**  
 AUGUST 5, 2010
- EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL**
- For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.
- To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

**GENERAL NOTES**

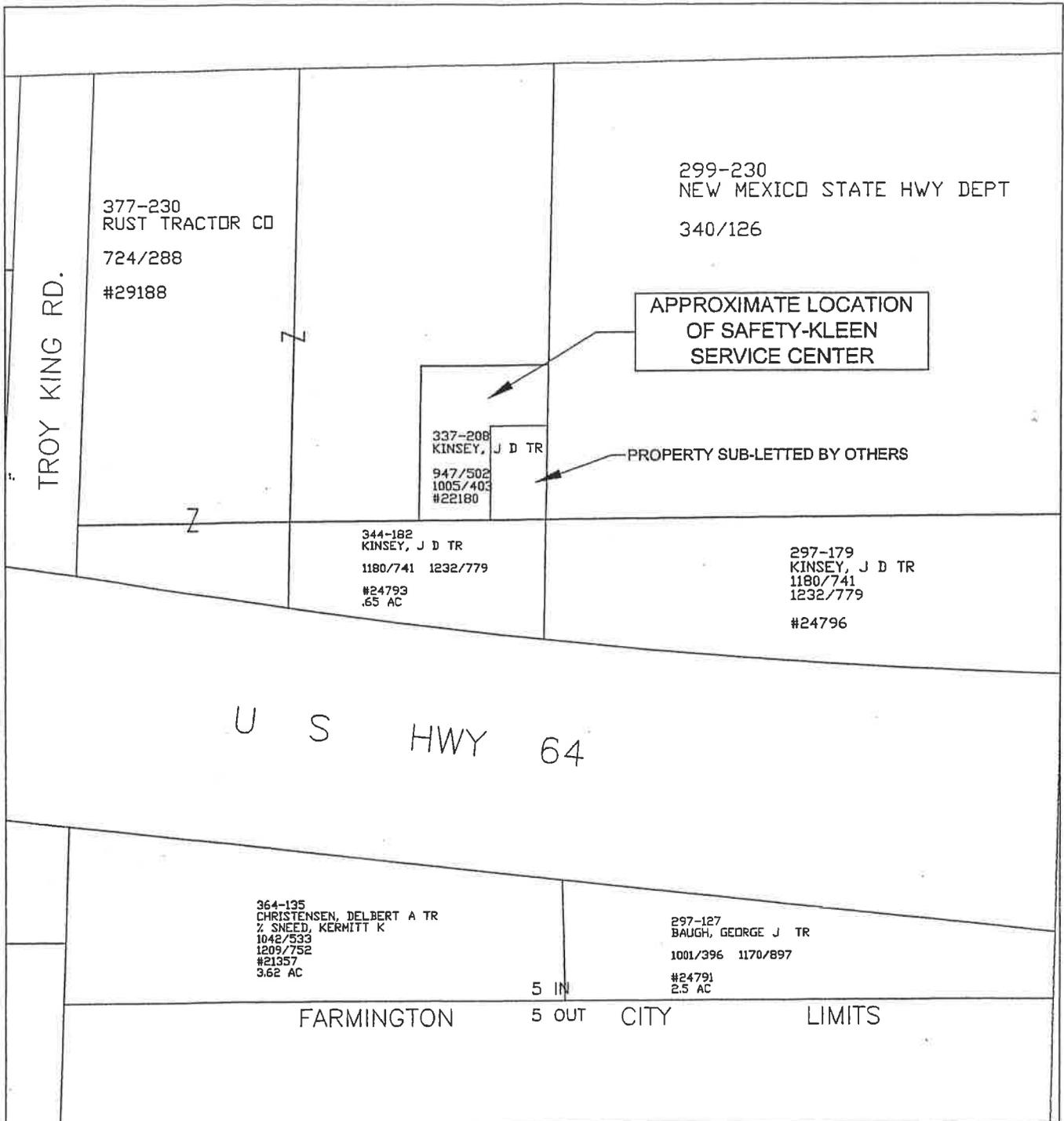
**PROPRIETARY STATEMENT**

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TITLE	FLOOD PLAIN MAP				
<b>SAFETY-KLEEN SYSTEMS, INC.</b> 2600 N. CENT. EXPRESSWAY STE 400 RICHARDSON, TX. 75080 PHONE: 800-669-5740					
0	ISSUED FOR PERMIT	JEK	KDT	KDT	081915
NO.	DESCRIPTION	BY	CHK	APPR	DATE
REVISIONS				SCALE	1/4" = 1'-0"
		BY	CHK	DZ	APPROVED
		OPERATIONS		DATE	8/19/15
		SERVICE CENTER LOCATION		SC-DWG NUMBER	REV. NO.
		FARMINGTON, N.M.		7133-SP00-025	0

# Exhibit A-10

## Plat Map



Legal Description: Section 12 T29W R14W Quad 2

San Juan County Assessors Office, (Feb. 17, 1979)

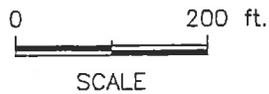
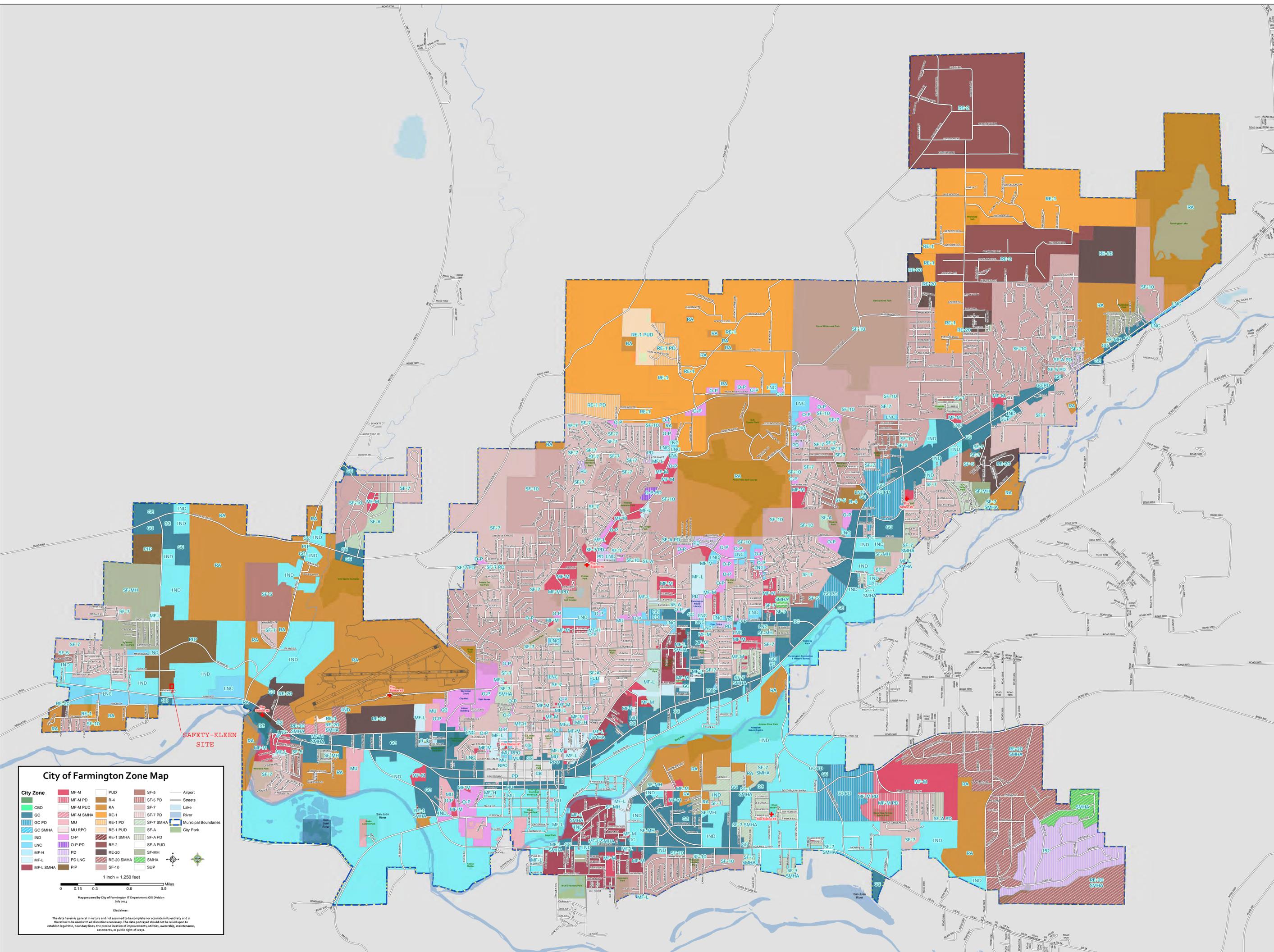


FIGURE 4 :ADJACENT PROPERTY PLAT MAP, SAFETY-KLEEN SYSTEMS, INC.  
SERVICE CENTER, 4210A HAWKINS RD., FARMINGTON, NEW MEXICO

# Exhibit A-11

## Zoning Map



### City of Farmington Zone Map

CBD	MF-M	PUD	SF-5	Airport
GC	MF-M PD	R-4	SF-5 PD	Streets
GC PD	MF-M SMHA	RA	SF-7	Lake
GC SMHA	MU	RE-1	SF-7 PD	River
IND	O-P	RE-1 PD	SF-A	Municipal Boundaries
LNC	O-P-PD	RE-1 SMHA	SF-A PD	City Park
MF-L	PD	RE-2	SF-MH	
MF-L SMHA	PD LNC	RE-20	SMHA	
	PIP	RE-20 SMHA	SUP	
		SF-10		

1 inch = 1,250 feet

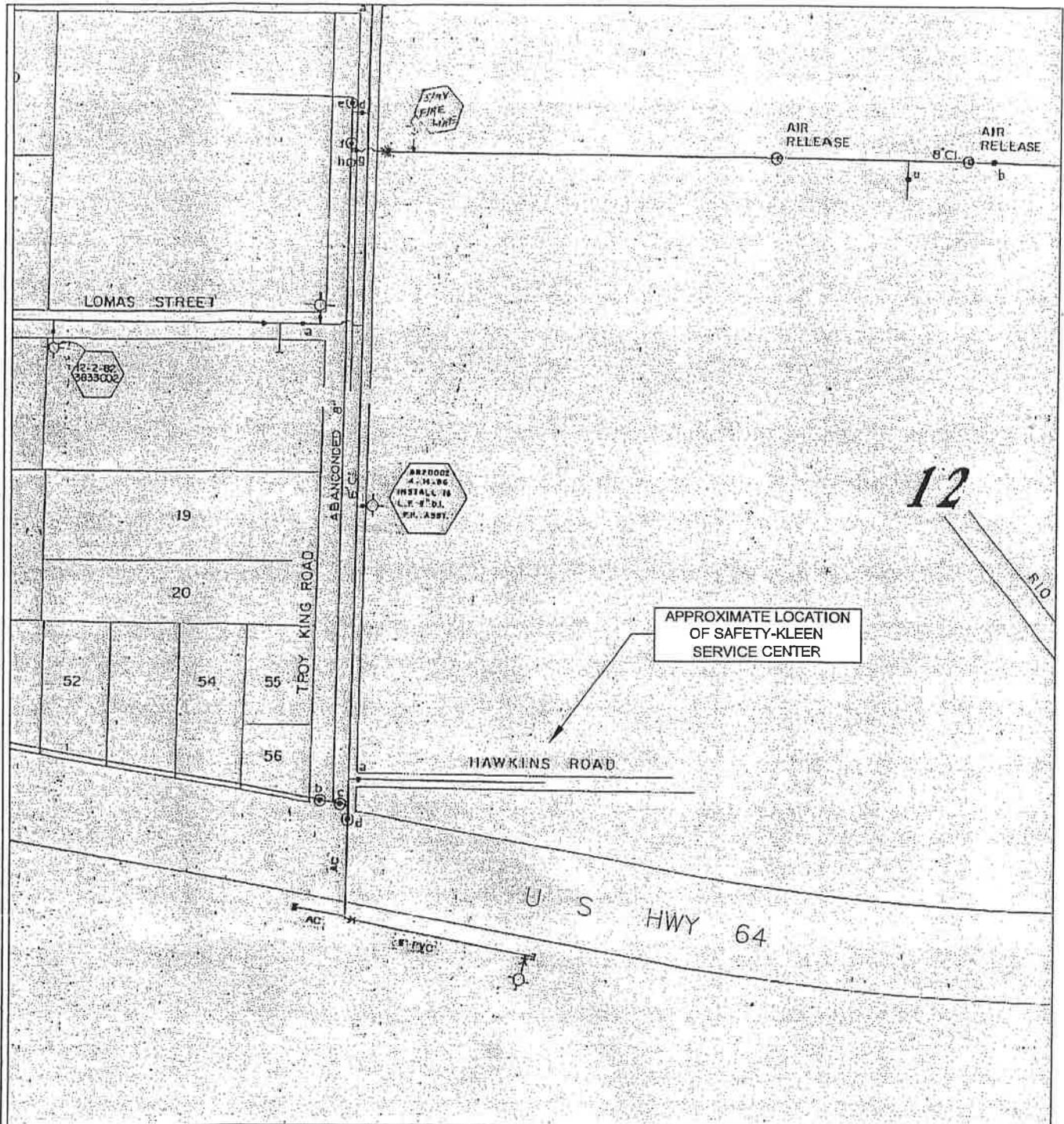
0 0.15 0.3 0.6 Miles

Map prepared by City of Farmington IT Department: GIS Division  
July 2014

Disclaimer:  
The data herein is general in nature and not assumed to be complete nor accurate in its entirety and is therefore to be used with all discretions necessary. The data portrayed should not be relied upon to establish legal title, boundary lines, the precise location of improvements, utilities, ownership, maintenance, easements, or public right-of-ways.

# Exhibit A-12

## Drinking Water Supply Map



City of Farmington, Public Works Dept. (Sept. 1980)

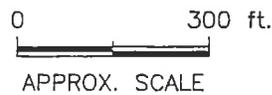
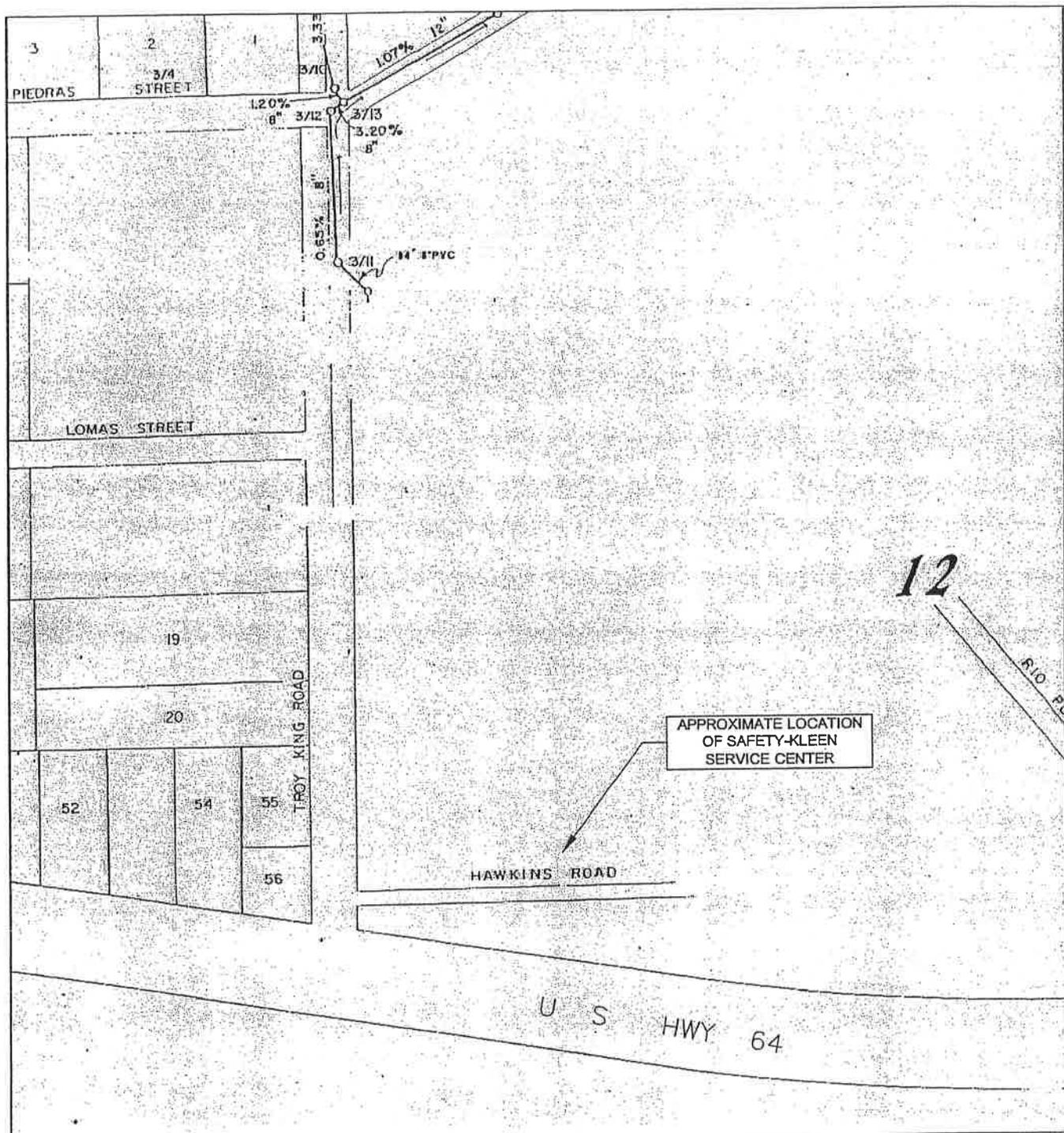


FIGURE 7 :DRINKING WATER SUPPLY MAP, SAFETY-KLEEN SYSTEMS, INC.  
SERVICE CENTER, 4210A HAWKINS RD., FARMINGTON, NEW MEXICO

# Exhibit A-13

## Sanitary Sewer Supply Map



City of Farmington, Public Works Dept. (Sept. 1980)



FIGURE 8 :SANITARY SEWER SUPPLY MAP, SAFETY-KLEEN SYSTEMS, INC. SERVICE CENTER, 4210A HAWKINS RD., FARMINGTON, NEW MEXICO

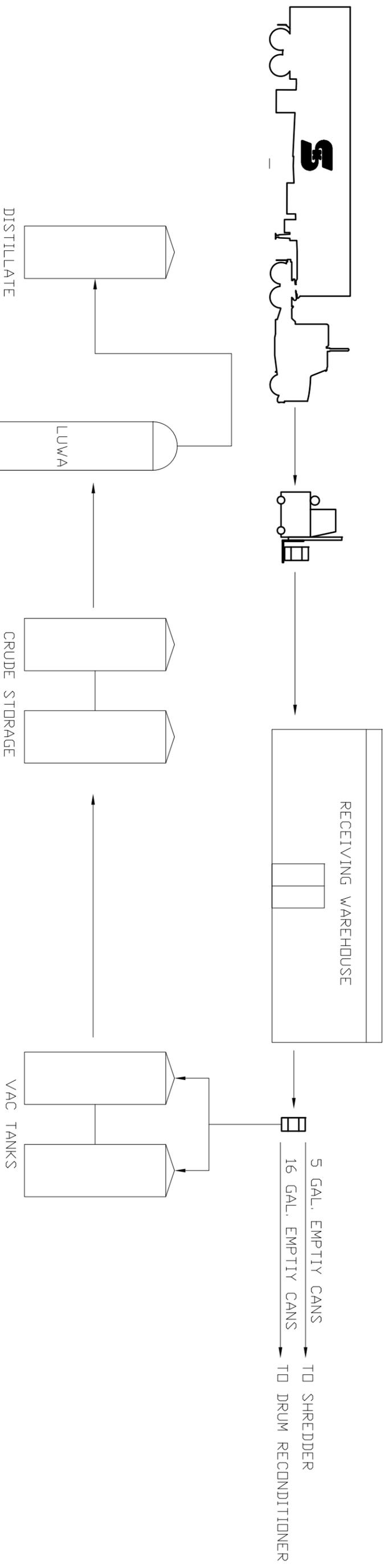
# Exhibit A-14

## Example Container Flow at Branch



## Exhibit A-15

### Example Paint Waste Process Flow at Recycle Center



**FIGURE B-12**

**GENERAL NOTES**

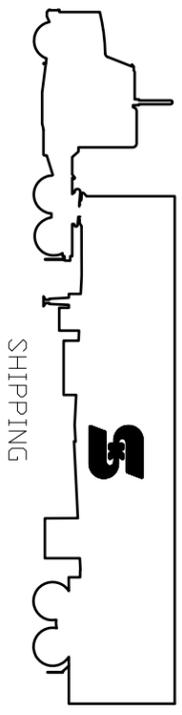
1. GUN CLEANER WASTE FLUIDS ARE REMOVED FROM 5 AND 16 GALLON CANS BY VACUUM. IT IS THEN STORED UNTIL A FIRST DISTILLATION IS PERFORMED. IN A LUVA, FOLLOWING REMOVAL OF WATER IN A MOLE SIEVE DRYER, THE MATERIAL IS DISTILLED. THE DISTILLATE IS STORED IN A DISTILLATE STORAGE TANK. THE MATERIAL IS THEN DISTILLED. DISTILLATION ARE FUEL BLENDED FOR THE CEMENT KILNS.

**PROPRIETARY STATEMENT**

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2005 West Broadway - Suite 210 - Columbia - MO 65205  
 Phone: (314) 443-7100 • Fax: (314) 443-7181

CEMENT KILN  
 TD FUELS  
 CLARKSVILLE, MD.  
 HOLLY HILL, S.C.



REVISIONS					
NO.	DESCRIPTION	BY	CHK	APPR	DATE
X	XX	XXX	XXX	XXX	XXXX

**SAFETY-KLEEN SYSTEMS, INC.**  
 2600 N. CENT. EXPRESSWAY SITE 400 RICHARDSON TX 75080  
 PHONE 800-869-5740

SCALE	BY	CHKD	PE. APPR	DP. APPR	DATE
1/8" = 1'-0"	JEK	GAS	GAS	GAS	2/7/14

BRANCH STANDARD      **3SD 109**

## Exhibit A-16

### Example Immersion Cleaner Process Flow at Recycle Center



## Exhibit A-17

### Example Dry Cleaner Process Flow at Recycle Center



## Exhibit A-18

Example Used Solvent Process Flow at  
Recycle Center



## Exhibit A-19

### Example Solvent Use and Regeneration Loop

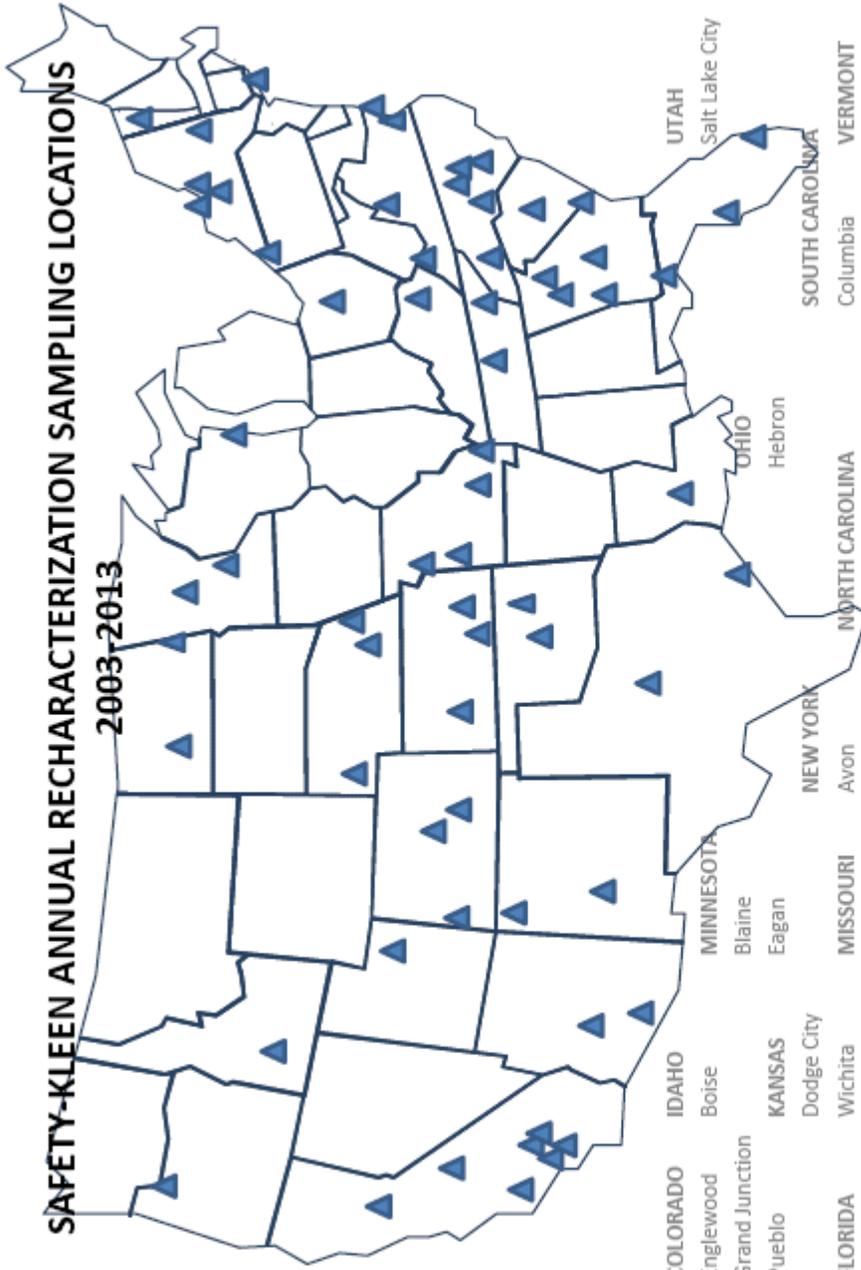


# Exhibit B-1

## Map of Annual Recharacterization Sampling Locations

# SAFETY-KLEEN ANNUAL RECHARACTERIZATION SAMPLING LOCATIONS

2003-2013



**ARIZONA**  
Chandler  
Tucson

**CALIFORNIA**  
El Monte  
Fresno  
Highland  
Los Angeles  
Oakland  
Rohnert Park  
Sacramento  
Sylmar

**COLORADO**  
Englewood  
Grand Junction  
Pueblo

**IDAHO**  
Boise

**KANSAS**  
Dodge City  
Wichita

**KENTUCKY**  
Lexington

**LOUISIANA**  
Pineville

**FLORIDA**  
Tallahassee  
Tampa

**GEORGIA**  
Columbus  
Garden City  
Macon  
Morrow  
Norcross

**MINNESOTA**  
Blaine  
Eagan

**MISSOURI**  
Cape Girardeau  
Columbus  
Independence  
Springfield

**NEBRASKA**  
Gering  
Grand Island  
Omaha

**NEW YORK**  
Avon  
Cohoes  
Lackawanna  
North Amityville  
Syracuse

**NEW MEXICO**  
Albuquerque  
Farmington

**NORTH CAROLINA**  
Archdale  
Charlotte  
High Point  
Raleigh  
St. Pauls

**NORTH DAKOTA**  
Bismarck  
Fargo

**OKLAHOMA**  
Tulsa  
Oklahoma City

**OREGON**  
Clackamas

**PENNSYLVANIA**  
Denton  
Erie

**SOUTH CAROLINA**  
Columbia

**TENNESSEE**  
Knoxville  
Nashville

**TEXAS**  
Corpus Christi

**UTAH**  
Salt Lake City

**VERMONT**  
Barre

**WISCONSIN**  
Kaukauna

**VIRGINIA**  
Chesapeake  
Chester  
Norfolk  
Vinton

## Exhibit B-2

# Annual Recharacterization 2014/2015 Waste Code Assignment

**2015 Final Annual Recharacterization Waste Code Assignments - National**

WASTE STREAMS			WASTE CODE CHANGES - NATIONAL		
2014 NATIONAL Profile/SKDOT	General Description	2014 National Waste Codes	2015 National Waste Codes	Changes from 2014 to 2015	2015 NATIONAL Profile/SKDOT
150100 / 626	Aqueous Brake Cleaner	None	None	No Change	150100 / 626
Refer to CH Outbound	Branch Contaminated Debris	F002, F003, F005, D001, 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	F002, F003, F005, D001, 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	No Change	Refer to CH Outbound
150629 / 950	Immersion Cleaner (IC 699)	D006, D008, D018, D027, D039, D040	D006, D008, D027, D039, D040	<b>Remove D018</b>	<b>155629 / 7545427</b>
150045 / 704 150085 / 801(RQ)	Parts Washer Solvent 105 Virgin	D001, D018, D039, D040	D001, D018, D039, D040	No Change	150045 / 704 150085 / 801(RQ)
Refer to CH Outbound	Parts Washer Solvents (Bulked) / Combination of 105 and 150 (Aqueous, where applicable)	D001, D018, D039, D040	D001, D018, D039, D040	No Change	Refer to CH Outbound
Refer to CH Outbound	Parts Washer Solvent Sludge/Dumpster Mud	D001, D018, D039, D040	D001, D018, D039, D040	No Change	Refer to CH Outbound
Refer to CH Outbound	Parts Washer Solvent Tank Bottoms (bulk)**	D001, D018, D039, D040	D001, D018, D039, D040	No Change	Refer to CH Outbound
150055 / 717	Parts Washer Solvent 150	D039	D039	No Change	150055 / 717
150055 / 717	PRF and PDF Mil Spec. Solvent	D039	D039	No Change	150055 / 717
157055 / 7534709	Parts Washer Solvent 150 DF Containers - no Special Permit	D039	D039	No Change	157055 / 7534709
150380 / 11658, 150425 / 12606(RQ)	Paint Gun Cleaner (SK)	F003, F005, D001, D018, D035, D039, D040	F003, F005, D001, D018, D035, D039, D040	No Change	150380 / 11658, 150425 / 12606(RQ)
150426 / 12607, 150427 / 12608(RQ)	Clear Choice Paint Gun Cleaner	F003, D001, D018, D035, D039, D040	F003, D001, D018, D035, D039, D040	No Change	150426 / 12607, 150427 / 12608(RQ)
150375 / 11653(ANY), 150376 / 11654(30), 150377 / 11655(55)	Paint Waste Other ***	F003, F005, D001, D018, D035, D039, D040	F003, F005, D001, D018, D035, D039, D040	No Change	150375 / 11653(ANY), 150376 / 11654(30), 150377 / 11655(55)
150589 / 7050108	Dry Cleaner (Perc) Bottoms	F002, D007, D039, D040	F002, D007, D039, D040	No Change	150589 / 7050108
150621 / 7050112	Dry Cleaner (Perc) Filters	F002, D007, D039, D040	F002, D007, D039, D040	No Change	150621 / 7050112
150591 / 7050118	Dry Cleaner (Perc) Separator Water	F002, D039, D040	F002, D039, D040	No Change	150591 / 7050118
150422 / 7051604	Dry Cleaning Naphtha Bottoms	D001, D007, D039, D040	D001, D007, D039, D040	No Change	150422 / 7051604
150424 / 12569	Dry Cleaning Naphtha Filters	D001, D007, D039, D040	D001, D007, D039, D040	No Change	150424 / 12569
150423 / 12566	Dry Cleaning Naphtha Separator Water	D001, D039, D040	D001, D039, D040	No Change	150423 / 12566
Refer to CH Outbound	Aqueous Parts Washer Tank Bottoms	D039, D040	NONE	<b>Remove D039, D040</b>	Refer to CH Outbound
Refer to CH Outbound	Aqueous Parts Washer Dumpster Sludge	NONE	NONE	No Change	Refer to CH Outbound
** Parts washer solvent tank bottoms are SK-generated wastes from the cleanout of solvent storage tanks. Safety-Kleen does not accept this waste stream from non-SK generators.					
*** SKDOT 11653 is acceptable to use for any size container of paint waste. For those states that require 30-gal paint waste to be listed separately, use SK DOT 11654; for states that require 55-gal paint waste to be listed separately, use SK DOT 11655.					

## Exhibit B-3

### Statistical Analysis of Annual Recharacterization Data

# Statistical Analysis of Annual Waste Characterization Data

Prepared by  
Robert D. Gibbons Ph.D.

for

Safety Kleen  
July 23, 1998

## 1 Introduction

Since 1990, Safety-Kleen has undertaken a major analytical study each year to document the contaminants in some of its most common waste streams to determine which TCLP waste codes should appear on the manifest for that waste. This Annual Waste Recharacterization Program is both expensive and extensive. Upon review, it appeared that regulatory agency instructions for how to interpret the data might not have been in line with current policy, as reflected in SW846. The general approach is based on development of an upper 90% confidence limit<sup>1</sup> for the true concentration of each constituent, which can in turn be directly compared to regulatory standards to determine if the waste code should or should not be added to a particular waste stream (e.g., Premium Gold Parts Washer Solvent 150). The regulatory basis for this type of comparison stems from U.S. EPA SW846 Chapter 9 (September 1986) guidance on determining if a waste stream is hazardous.<sup>2</sup> The primary complicating feature is the presence of large numbers of nondetects which raises serious question regarding the use of the parametric approach. In light of this concern, nonparametric methods are used throughout.<sup>3</sup> Specifically, following U.S. EPA SW846, we construct a nonparametric 90% upper confidence limit (UCL) for the 50<sup>th</sup> percentile of the distribution (i.e., median), which is equivalent to the 90% UCL for the mean in the case of a symmetric distribution such as the normal distribution.

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<sup>1</sup>"Consequently, the CI employed to evaluate solid wastes is, for all practical purposes, a 90% interval." U.S. EPA SW846 (1986) chapter 9 page 6.

<sup>2</sup>"The upper limit of the CI for  $\mu$  is compared with the applicable regulatory threshold (RT) to determine if a solid waste contains the variable (chemical contaminant) of concern at a hazardous level. The contaminant of concern is not considered to be present in the waste at a hazardous level if the upper limit of the CI is less than the applicable RT. Otherwise the opposite conclusion is reached." U.S. EPA SW846 (1986) chapter 9 page 3

<sup>3</sup>"If the data do not adequately follow the normal distribution even after logarithm transformation, a nonparametric confidence interval can be constructed. This interval is for the median concentration (which equals the mean if the distribution is symmetric)." U.S. EPA Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities, April 1989, page 6-8

## 2 Method

Following Chapter 9 of SW846, the 90% UCL for the mean concentration obtained from a series of  $n$  representative samples is to be compared to the appropriate regulatory standard to determine if the waste stream is hazardous. If the UCL exceeds the standard, the waste stream is considered hazardous. The applicant must compute the UCL that is appropriate for the specific distributional form of the data. Given the large number of nondetects for many of the constituents, it is difficult if not impossible to clearly identify the underlying distributional form of the data. In this case, the U.S. EPA guidance indicates that a nonparametric alternative should be used.<sup>4</sup>

Nonparametric confidence limits are derived as follows. Given an unknown  $P \times 100$ th percentile of interest (e.g. the 50th percentile or median),<sup>5</sup> where  $P$  is between 0 and 1, and  $n$  concentration measurements, the probability that any randomly selected concentration measurements being less than the  $P \times 100$ th percentile is simply  $P$  and the probability of exceeding the  $P \times 100$ th percentile is  $1 - P$ . In light of this, the number of sample values falling below the  $P \times 100$ th percentile out of a set of  $n$  measurements follows a Binomial distribution with parameters  $n$  and  $P$ .

The connection with the Binomial distribution can be used to determine an interval formed by a given pair of order statistics (i.e. ranked values) that will contain the percentile of interest, in this case the 50th percentile. Similarly, the Binomial distribution can also be used in constructing an upper limit (i.e. one-sided) for the percentile (e.g. a 90% upper confidence limit for the 50th percentile of the distribution). The computational formula for the cumulative binomial distribution  $B(x;n,p)$ , representing the probability of getting  $x$  or fewer successes in  $n$  trials with success probability  $p$  is given by

$$Bin(x;n,p) \equiv \sum_{i=0}^x \binom{n}{i} p^i (1-p)^{n-i}$$

To draw inference regarding the  $P = 50$ th percentile, we set  $p = .5$  in the previous equation. For a one-sided UCL we compute

$$1 - \alpha = 1 - Bin(U - 1; n, .5)$$

beginning from the sample median. We then increase  $U$  by one until in this case  $1 - \alpha$  is equal to at least .90. The smallest value of  $U$  that provides  $1 - \alpha \geq .9$  is then the order statistic (i.e., ranked value) that is the nonparametric 90% UCL for the 50th percentile of the distribution.

---

<sup>4</sup>“If the data do not adequately follow the normal distribution even after logarithm transformation, a nonparametric confidence interval can be constructed.” U.S. EPA, 1989

<sup>5</sup>“This interval is for the median concentration (which equals the mean if the distribution is symmetric).” U.S. EPA (1989), page 6-8

### 3 Illustration

Consider the following most recent 50 data values for PCE (D039) obtained from Premium Gold Parts Washer Solvent-150.

Table 1  
Premium Gold Parts Washer Solvent - 150  
50 most recent samples in order of increasing concentration  
in ppm

<50.000	<1.000	<0.100	<0.100	<0.100
<0.100	<0.100	<0.100	<0.100	<0.100
<0.100	0.110	0.200	0.200	0.220
0.230	0.260	0.510	0.870	0.880
1.000	1.300	1.500	1.800	2.000
2.700	2.700	3.300	5.400	7.000
<b>7.100</b>	12.000	12.300	17.200	19.700
20.000	20.000	21.200	23.600	32.300
51.100	52.500	136.000	211.000	286.000
508.000	635.000	771.000	940.000	2810.000

For  $n=50$ ,  $p=.5$  and  $1 - \alpha = .9$ , we find that  $U = 31$  is the smallest order statistic that provides 90% confidence or more ( $1 - \alpha = .941$ ). As such, we select the 31st largest value in Table 1 which is 7.1 ppm as our UCL. Since 7.1 ppm is larger than the standard of 0.7 ppm, then the D039 waste code is required for this waste stream.

### 4 Conclusion

The data in the following package have been interpreted using the methodology described. The waste codes for each stream were determined as those parameters for which the 90% UCL for the median concentration was above the regulatory limit, based on review of the last two years of samples or the most recent 50 samples, whichever yielded the larger number of samples to consider.

## Exhibit B-4

### Annual Recharacterization Sample Test Protocol

## Annual Re-Characterization Sample Testing Protocol

Spent Material	Test Parameters	Test Methods
Parts Washer Solvent	Flash Point by Pensky-Martens Closed Cup Tester	EPA SW846 1010
	pH	EPA SW846 9045
	Apparent Specific Gravity and Bulk Density of Waste	ASTM D5057
	TCLP Metals	EPA SW846 1311, 6010, 7470, 7471
	TCLP Semi-Volatiles	EPA SW846 1311, 8270
	TCLP Volatiles	EPA SW846 1311, 8260
Bottom Sediment from the Spent Parts Washer Solvent Tank and Return & Fill	Same As Above	
Immersion Cleaner	Same As Above	
Paint and Paint Gun Cleaner Waste	Same As Above	
Aqueous Brake Cleaner	Same As Above	
Dry Cleaner Waste	Same As Above	

Based on the process generating the waste streams outlined in the above table, 40 CFR 261.24 regulated herbicides and pesticides are not expected to be present; and are therefore, not included in the parameters tested under the Annual Re-Characterization Program.

Analysis is performed on a representative grab sample obtained from a single customer's waste container using a COLIWASA (Composite Liquid Waste Sampler) unless compositing is required by a facility-specific waste analysis plan.



## Exhibit B-5

### Annual Recharacterization Sampling Method / Protocol

# Annual Re-characterization Sampling Instructions

Good sampling practices are critical to the success of the Annual Re-characterization program. Please take your time when pulling samples, ensuring that all of the following requirements are fulfilled.

## Training Requirements and Supporting Documentation



- ✓ Personal Protective Equipment (PPE) – Follow requirements in attached PPE Matrix
- ✓ Prior to shipping samples by FedEx Air, you must complete the following:
  - IATA Dangerous Goods Regulations Training.
  - Sample shipping requirements are outlined in [BOG O310-005 \(US\)](#) and [OC310-005/OC310-005 FC \(Canada\)](#) and Clean Harbors [TC 8.0 Handling, Packaging, and Transporting Samples](#) policy

## Supply Checklist

**NOTE:** To minimize opportunity for contamination, all AR sampling supplies are to be stored in facility office building until needed for actual sampling.

- ✓ Disposable COLIWASA (SK P/N 8941)
- ✓ Disposable plastic scoop
- ✓ Disposable plastic bucket if composite required (e.g., 6 gallon SK P/N 706)
- ✓ Sample Kits
  - SK P/N 3419 – Required for all dry cleaning related materials
  - SK P/N 82260 – Required for all other samples
- ✓ Housekeeping Supplies
  - PIG® Universal Heavy-Weight Mat
  - PIG® Heavy-Duty Maintenance Wipes
  - Plastic garbage bags
- ✓ Non sparking tools
- ✓ Grounding and bonding equipment
- ✓ Paperwork and Packaging Supplies
  - Chain of Custody form
  - Pen and Sharpie Marker
  - Packaging Tape

## Pre-sampling Preparation

- ✓ Time – allow 15 minutes per sample
- ✓ **IMPORTANT** - Make arrangements with warehouse workers/material handlers to set aside containers from different customers. Each container sampled must be from a different customer.
- ✓ Place sample kit freezer packs in the freezer 24 hrs prior to sampling event.
- ✓ Purchase bags of ice to supplement the freezer packs if shipping samples in warmer weather
- ✓ Fill out Chain of Custody (COC) forms completely

## How to fill out the Chain of Custody (COC) Form

1. Complete all fields in the COLLECTION INFORMATION section
2. **IMPORTANT** - Both the Customer Name(s) and Customer Number(s) associated with the container(s) being sampled must be documented on the COC.

In the event the analytical report shows atypical waste codes, we'll be able to track the sample back to the generator to discuss their specific process and possible source for contamination. Decision will need to be made regarding whether or not the generator's waste should remain as CORE, or is better handled through CWS.

3. A unique identification number must be assigned to each sample using the format **AR2015\_PeopleSoft Plant ID\_sample type** (e.g., AR2015\_CAZ\_DC Perc Bottoms, AR2015\_CAZ\_Premium Solvent, etc.).
4. The same number must be written on the associated sample jar custody label so that the lab can match-up paperwork with samples upon receipt.
5. The sample collector must sign the RELINQUISHED BY section and enter the date and time of shipment.
6. Enter the air bill number on the COC form and make a copy of the form for your records.

## Sampling

The majority of facilities' WAPs require "grab samples". A select few, however, require composite samples. See section below on how to obtain a composite sample.

The following table summarizes how samples are typically taken. Keep in mind, the waste streams required for sampling are permit specific (i.e., not every facility will be required to sample every stream outlined in the below table).

- Sampling Methods/Practices to be used
  - ASTM D5495 - *Standard Practice for Sampling with a Composite Liquid Waste Sampler (COLIWASA)*
  - ASTM D5633 - *Standard Practice for Sampling with a Scoop*

Sample Type	Sampling Location	Sample Size/Kit	Homogenization Technique	Sampling Device
Aqueous Brake Cleaner	5 gallon poly carboy	1 quart TCLP kit	Grab sample using multiple COLIWASA pulls or pour contents into a new bucket  Stir/mix contents before sampling.	COLIWASA
Dry Cleaner Naphtha/PERC Bottoms/Filters	Drum	1 quart DOT SP-9168 Exemption Packaging	Grab sample  Stir/mix content of drum with COLIWASA before sampling	COLIWASA or Scoop
Immersion Cleaner	Drum	1 quart TCLP kit	Grab sample  Stir/mix content of drum with COLIWASA before sampling	COLIWASA
Paint Gun Cleaner Paint Waste	Drum	1 quart TCLP kit	Grab sample  Stir/mix content of drum with COLIWASA before sampling	COLIWASA
Parts Washer Solvent Bulk Tank	Tank	1 quart TCLP kit	Grab sample	Tank valve or from tanker using a COLIWASA during annual draw down
Dumpster Sludge (APW and PWS)	Return and Fill	1 quart TCLP kit	Grab sample  Stir/mix up Return and Fill bottoms with scoop before sampling	Scoop

Sample Type	Sampling Location	Sample Size/Kit	Homogenization Technique	Sampling Device
Tank Bottoms (APW and PWS)	Tank	1 quart TCLP kit	Grab sample during tank clean out Stir/mix up tank bottoms with scoop before sampling	Scoop
PWS 105	Drum	1 quart TCLP kit	Grab sample Stir/mix content of drum with COLIWASA before sampling	COLIWASA
PWS Premium	Drum	1 quart TCLP kit	Grab sample Stir/mix content of drum with COLIWASA before sampling	COLIWASA
APW	Drum	1 quart TCLP kit	Grab sample Stir/mix content of drum with COLIWASA before sampling	COLIWASA
Antifreeze	Drum	1 quart TCLP kit	Grab sample Stir/mix content of drum with COLIWASA before sampling	COLIWASA
Used Oil	Drum	1 quart TCLP kit	Grab sample Stir/mix content of drum with COLIWASA before sampling	COLIWASA

1. Bring all items in the *Equipment Checklist*, including frozen sample kit freezer packs/ice, with you to the sampling location.
2. Wear required PPE
3. Obtain a representative sample using a disposable plastic scoop or disposable COLIWASA

**IMPORTANT** – a new scoop or COLIWASA must be used for each sample pulled

4. Place all sampling debris in plastic garbage bag(s) and dispose of as Branch Generated Debris
5. Ensure the sample jar lid is tight. Seal the lid to the jar by wrapping with packaging tape.
6. Attach *Custody Seal* across the lid of the jar in such a way that the seal must be broken to open the jar. The *Custody Seal* must be signed by the sampler and contain the date, time the sample was pulled, and unique sample ID (ID must follow required format and match the ID written on the accompanying COC).
7. Place the sample jar(s) into a “Samples Only” refrigerator until ready to ship.
8. When ready to ship, place the quart sample jar into the TCLP kit with **frozen freezer packs**. Use additional bagged ice if shipping during warm temperatures. Close up the Styrofoam cooler and place the COC paperwork on top before sealing up the cardboard shipping box using shipping tape.

**IMPORTANT - Ship samples Monday thru Wednesday via *FedEx Priority Overnight* to ensure they arrive Thursday or Friday when lab personnel are available to unpack and place in a refrigerator.**

**TestAmerica Laboratory**  
**Attention: Debra Bowen (412.963.2445)**  
**301 Alpha Drive, RIDC Park**  
**Pittsburgh, PA 15238**

**CRITICAL – SAMPLE(S) MUST ARRIVE COLD AND LAB MUST ANALYZE WITHIN 14 CALENDAR DAYS FROM THE DATE YOU PULLED THE SAMPLE(S). IF SAMPLES ARRIVE WARM OR EXCEED 14 DAYS, YOU WILL NEED TO RESAMPLE.**

## **Sampling using a COLIWASA**

- Ensure the COLIWASA is functioning properly before use. Confirm that the stopper is securely attached to the plastic rod and provides a good seal when in the closed position.
- **OPEN** the COLIWASA and **SLOWLY** lower into the container until it touches the bottom. The COLIWASA must not be lowered with the stopper in the closed position. Opening the stopper after the tube is submerged will cause material to flow in from the bottom layer only, resulting in gross over-representation of that layer. If lowered too fast, a non-representative sample will result.
- When the COLIWASA touches the bottom of the container, pull up on the stopper mechanism to close the COLIWASA.
- Slowly withdraw the COLIWASA from the container while wiping the outside of the COLIWASA with a disposable wipe.
- Place the end of the COLIWASA into the 32-oz sample jar and discharge contents by slowly opening the stopper mechanism.

## **Obtaining a Composite Sample (Only those branches that require a composite per permit)**

- Use a new disposable plastic bucket
- Use a new COLIWASA for each customer container sampled
- For each customer container sampled, you'll actually need to pull the following two samples
  - Place one COLIWASA volume into the compositing bucket
  - Using the same COLIWASA, fill a new quart glass jar (SK P/N 8895). This sample jar needs to be labeled with the customer name and number associated with the container that is being sampled. This sample will serve as a retain in the event analytical on the composite shows atypical results and we need to analyze all associated customer samples. These retains need to be stored until analytical on the composite sample is reported.
- After sampling all customer containers, mix the contents of the bucket.
- Use a COLIWASA to pull a sample of the mixture from the bucket and submit this sample to TestAmerica following instructions above.

**Rick Haskins** Director Research and Development | Safety-Kleen | A Clean Harbors Company | Elgin, IL | [rick.haskins@safety-kleen.com](mailto:rick.haskins@safety-kleen.com)

847.468.6766 (o) | 630.347.1093 (c) | 847.468.6770 (f) | [safety-kleen.com](http://safety-kleen.com)



# Exhibit D-1

## Waste Minimization Plan

# **Safety-Kleen Systems, Inc.**

## **Waste Minimization Plan**

Reviewed/Revised February 2015

4210 A Hawkins Rd  
Farmington, NM 87401

EPA ID NMD980698849

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**Attachment A-1 Employee Involvement in Waste Minimization**  
Waste Minimization Suggestion Submittal Form

**Attachment A-2 Waste Minimization Certification**  
To be certified annually

**Attachment B Waste Streams Generated at the Farmington, NM Branch**

**Section 1.0**  
**Facility Information**

**1.1 Facility Identification:**

Safety-Kleen Systems, Inc., Farmington, NM Branch

**1.2 General Information:**

Generator: Safety-Kleen Systems, Inc., Farmington, NM Branch  
Contact Person: Nahid Toossi, Environmental, Health, and Safety Manger  
Contact Phone Number: 714-429-4355  
Facility Phone Number: 505-327-9070  
Mailing Address: 4210 A Hawkins Rd  
Farmington, NM 87401  
Site Address: Same as mailing address

Facility NAICS/SIC Code(s):

- 48422 - Specialized Freight (except Used Goods) Trucking, Local
- 48423 - Specialized Freight (except Used Goods) Trucking, Long-Distance
- 53249 - Other Commercial and Industrial Machinery and Equipment Rental and Leasing
- 56211 - Waste Collection

**1.3 Certification:**

I certify that the information contained in this form is true and correct to the best of my knowledge and belief.

Name of EHS Manager Nahid Toossi

Signature of EHS Manager \_\_\_\_\_

Date 2-17-2015

## Section 2.0 What is Waste Minimization?

Waste minimization is specifically required by the U.S. Congress in the 1984 “Hazardous and Solid Waste Amendments to the Resource and Conservation and Recovery Act (RCRA).” Waste minimization consists of source reduction and recycling. More specifically, waste minimization is the reduction of the generation and disposal of hazardous waste. It includes source reduction and recycling which results in either:

1. Reduction of the total volume or quantity of hazardous waste, or
2. Reduction of toxicity of hazardous waste.

### 2.1 Volume (Source) Reduction

Volume or source reduction is any activity that reduces or eliminates the generation of hazardous waste at the source. Controlling the sources of waste generation reduces the volume of waste that is produced at Safety-Kleen locations include, but are not limited to the following volume reduction activities.

**Substituting Materials** - Using materials which do not create waste, or which can be beneficially reused, recycled, or reclaimed.

Examples of Safety-Kleen's source reduction techniques are:

- Using spent mineral spirits instead of clean product for the drum washing activity.
- Using metal filters on the return and fill station equipment instead of the disposable cloth filters.

**Technology** - Changing processes, equipment, and operations to reduce the amount of waste generated.

Examples of technology changes at Safety-Kleen are:

- Eliminating the use of liner bags inside of parts washer drums thus reducing the amount of waste generated;
- Reducing the amount of spills by improving drum closure devices;
- Using a drum spritzer to polish rinse 150 solvent drums (the spritzer uses a small amount of clean solvent) that have been cleaned with spent solvent instead of using a larger amount of clean solvent that is swirled in the drum and dumped out to perform the rinse.

**Operating Practices** - Segregating waste streams, changing material handling procedures, and changing management practices.

Examples of Safety-Kleen's operating practices that result in waste reduction are:

- Reducing the amount of spills that occur by more careful material handling that is taught and emphasized with training courses.
- Reducing the amount of waste generated from the cleanup of a spill by providing secondary containment and/or paved areas where releases are more likely to occur.
- Segregating recyclable materials (i.e. sludge), burnable materials (i.e. labels, personal protective equipment), and non-burnable materials (i.e. metal pieces, glass, rocks) to reduce

the amount of waste to be disposed of as hazardous waste and/or to facilitate recovery of materials that may be recycled.

- Keeping secondary containment areas clean so that any accumulated rainwater does not become contaminated.

**Reclassification of Waste** - Wastes may be characterized based on generator's knowledge, analytical results or a combination of both. For waste streams that Safety-Kleen suspects could be hazardous, Safety-Kleen will only manage as non-hazardous if analytical results support that classification or the generator certifies in writing that they have knowledge that it is non-hazardous. Being conservative and classifying waste as hazardous, when it may not be, may unnecessarily increase the amount of hazardous waste generated.

See Section 4.0, Achieving Waste Minimization, for more information about volume reduction techniques.

## **2.2 Toxicity Reduction**

Toxicity reduction results in reduced volume and types of waste generated. In some instances, Safety-Kleen has changed a process to limit or exclude the contamination of waste with toxic components. An example of this is to segregate small amounts of wastes with listed codes from large quantities of wastes that are only characteristic wastes. Thus the toxicity of the larger hazardous waste stream is not increased in toxicity.

## **2.3 Recycling**

Recycling includes using, reusing, or reclaiming a material. Safety-Kleen provides machines that will recycle certain materials at the generator's site while other wastes are collected and sent to Safety-Kleen recycling centers to recover usable products. Additional details on recycling are provided in Section 4.0, Achieving Waste Minimization.

## **Section 3.0**

### **Safety-Kleen Systems, Inc. Overall Waste Minimization Program**

#### **3.1 Established Program**

Safety-Kleen is committed to minimizing the amount of waste generated at Safety-Kleen locations that is not related to health and safety or to managing customer waste. These two areas of waste generation are excluded because Safety-Kleen does not want to discourage the proper use of personal protective equipment and the company's business is to manage wastes generated by its customers. Safety-Kleen assists its customers in ensuring proper recycling or disposal of their wastes and while not a specific part of Safety-Kleen's site-specific waste minimization program, provides customers with technologies that can help them reduce the amount and toxicity of hazardous waste they produce.

#### **3.2 Objectives**

The objectives of the program are:

- To comply with a key element of the Safety-Kleen's Environmental Management System (EMS), i.e. regulatory and permit requirements.
- To educate Safety-Kleen personnel about waste minimization opportunities.
- Provide Safety-Kleen management with information regarding the Company's responsibility to minimize waste.

#### **3.3 Elements of Safety-Kleen Waste Minimization Program**

Safety-Kleen establishes a cost-effective waste minimization program at each of its facilities that includes the following elements:

- Management Commitment - The facility personnel understand why waste minimization is important. Management encourages employees to develop and implement ideas that will minimize hazardous waste generation. The Waste Minimization Suggestion Submittal Form included in Attachment A is provided to employees to receive input.
- Waste minimization assessment - Facility personnel evaluate ways to reduce and eliminate waste. This assessment analyzes what materials are used, what materials can be substituted, how mixing of waste can be avoided, and whether alternate technologies are available for reducing waste. Management certifies that personnel under his/her direction and supervision are undertaking specific steps in accordance with this program to minimize the amount and toxicity of hazardous wastes generated at each facility. The certification included in Attachment A is renewed annually.

#### **3.4 Phased-Approach to Waste Minimization Program**

The following summarizes Safety-Kleen's phased-approach to a Waste Minimization Program.

1. Educate employees about waste minimization (what it is and how to achieve it).

2. Train personnel to identify opportunities for waste minimization as it relates to Safety-Kleen facility operations.
3. Train personnel by communicating waste minimization alternatives as it relates to daily facility operations.
4. Provide written waste minimization information to management.

This document addresses the four phases of the Safety-Kleen program.

### 3.5 Waste Stream name and description

Typical waste streams that are routinely generated at the Safety-Kleen Service Centers include the following.

1. Mineral spirits used for cleaning drums in the drum washer and the drum spritzer.
2. Filters used on the return and fill equipment.
3. Mineral spirits or aqueous sludge generated from cleaning the return and fill station.
4. Storage tank cleanouts.
5. Sampling equipment and personal protective equipment.
6. Used oil samples and sample jars.
7. Used oil rags, sludge, oil from drip pans and buckets, etc.
8. Scrap Metal.
9. Rags / absorbent pads used in the process of servicing customer equipment / Branch facilities
10. Labels, paperwork, and other paper / plastic items that may have become contaminated with hazardous wastes.
11. Aerosol Cans.

### 3.6 Waste Reduction Measures

Safety-Kleen considers the following waste reduction measures through out the company:

1. **Mineral spirits used for cleaning drums in the drum washer** - Safety-Kleen will continue utilizing used solvent to wash drums instead of using new product. This process will continue to provide an annual source reduction of approximately 2 million pounds.
2. **Filters used on the return and fill equipment** - Safety-Kleen will continue utilizing metal filters that can be cleaned and reused instead of using new disposal fabric filters. This process will continue to provide an annual source reduction of approximately 1000 pounds. If metal filter have to be replaced, the replaced filter may be cleaned and managed as scrap metal.
3. **Operating Practices** - Safety-Kleen will continue its operating Practices - Segregating waste streams, changing material handling procedures, and monitoring waste management practices to minimize the generation of hazardous waste. This process cannot be quantified.

4. **Mineral spirits sludge generated from cleaning of the Return and Fill station-** This waste stream is originally generated by Safety-Kleen customers. The more solvent Safety-Kleen picks up from its customers, the more sludge is generated. It is not feasible to reduce this waste stream. However, Safety-Kleen will look into options that may reduce the ratio of sludge generated per volume of solvent.
5. **Storage tank cleanouts** – Same as Item 5 above.
6. **Sampling equipment and personal protective equipment** - Same as item 5 above. However, Safety-Kleen segregates these wastes from recyclable materials (i.e. sludge), and non-burnable materials (i.e. metal pieces, glass, rocks) to increase the amount of material that can be economically recycled and potentially reduce the toxicity of the larger quantity waste streams.
7. **Used oil sample jars.** This waste is generated from the sampling of used oil generated by Safety-Kleen's customers. Reduction of this waste is not feasible.
8. **Used Oil Rags, filter sludge, etc.** These are accumulated in containers designated to be used only for these materials. Not commingling these with hazardous waste streams reduces the quantity of hazardous waste generated.
9. **Rags, paper, plastic, etc.** These wastes streams are managed in a variety of ways to minimize generation of additional amounts of hazardous waste. Some sites use shop rags that may be laundered and reused while servicing their customers. Others use absorbent wipes that are reused throughout the day and only discarded at the end of the day if they won't be serviceable for the entire next day's operations. These are placed in containers used only for these wastes and sampling equipment and PPE thus reducing the toxicity and quantity of dumpster sludge generated at a branch.

As described above, the wastes that appear on shipping documents as if they have been generated by Safety-Kleen are actually generated by customers of Safety-Kleen. These wastes are stored in tanks and/or in containers and subsequently shipped off site to other facilities. Safety-Kleen relies mostly on source reduction for on-site processes that may generate waste, such as washing the parts washer drums returning from customers, the use of re-usable metal filters rather than disposable, and segregation of more toxic wastes from less toxic wastes to reduce the toxicity of larger quantity waste streams.

## **Section 4.0**

### **Achieving Waste Minimization**

Safety-Kleen achieves waste minimization in several ways. The following briefly discusses options that Safety-Kleen practices at its facilities.

#### **4.1 Source Reduction through Good Operating Practices**

Safety-Kleen operating practices facilitate reduction of waste at the source as follows:

**Waste Segregation** - Encouraging employees to use specific waste receptacles for different wastes generated at the branch as discussed earlier. This minimizes the quantities of wastes that require special handling when generated.

**Material Handling and Inventory Practices** - Safety-Kleen management ensures that hazardous materials are properly stored to avoid spillage or damage and the resulting cleanup of waste material. Proper inventory management ensures that materials are not discarded due to age. Similarly, hazardous materials are ordered in quantities sufficient for operation. Larger quantities are not stored that could result in improper storage, exceeding of shelf life, and spills or accidents involving crowded storage areas.

**Loss Prevention** - Materials can become wastes when equipment leaks or spills occur. In addition, using too much of a material results in waste generation (for example, using too much solvent creates more waste). Safety-Kleen management reminds employees to properly maintain equipment and to avoid mishaps such as spills of solvents.

**Cost Accounting Procedures** - For Safety-Kleen facilities, cost accounting of waste disposal encourages significant waste minimization. When specific departments are held accountable for their own waste disposal cost, they are more waste conscientious. Management periodically reviews each facility's performance in waste generation and management.

**Production Schedules** - The product Distribution Centers schedule their trips to service centers to reduce the need for frequent equipment cleaning, which could result in waste generation.

#### **4.2 Source Reduction through Process Modifications**

Safety-Kleen management considers the following options to reduce waste using process modifications:

- Changes in production methods
- Changes in equipment
- Changes in operating conditions, such as flow rates, temperature, pressure, residence time

#### **4.3 Source Reduction through Product Changes**

Safety-Kleen considers opportunities to minimize waste by changing products. Changes include:

- Substituting products - Safety-Kleen replaced its old formula Immersion Cleaner 609 with a less toxic non-halogenated formula (Immersion Cleaner 699)
- Conserving products
- Changing the composition of the product
- Providing options to customers to use aqueous cleaners versus petroleum solvents.

#### **4.4 Waste Minimization through Material Recycling and Recovery**

##### **Recycling: Use or Reuse**

Recycling may be achieved through use or reuse of a waste material. Essentially the waste material is returned to a process to replace a certain amount of new material. The process may be the same process from which the waste came, or an entirely new process.

Examples of Safety-Kleen's recycling practices include:

- Reusing old paints in a painting process that does not require a specific color
- Using sludge as fuel.

##### **Recovery: Reclamation**

Reclamation involves recovering a valuable material from hazardous wastes and non-hazardous wastes. Generally, a reclaimed material is not used at the same facility where it was generated.

Examples of Safety-Kleen's reclamation practices are:

- Reclaiming clean parts washer solvent from dirty parts washer solvent
- Recovering silver from film processing wastewater equipment.

##### **Safety-Kleen Recycling and Recovery Services**

Safety-Kleen provides many services to its customers that can help them meet waste minimization responsibilities through recycling and recovery. Examples of Safety-Kleen's services are:

- Safety-Kleen collects spent antifreeze, waste oil, and organic solvents and distills these to remove solids and contaminants. The waste material then becomes reusable for Safety-Kleen customers.
- Safety-Kleen also fuel blends cleanup materials from hazardous waste spills and organic-based absorbent material and sludge from storage tank maintenance. Fuel blenders who operate permitted facilities mix these wastes with fuel for energy generation.

## **Section 5.0**

### **Identifying Waste Minimization Opportunities**

Safety-Kleen management encourages evaluation of the following opportunities to establish a successful waste minimization program.

#### **5.1 Understanding the Facility Processes**

Safety-Kleen management assesses where hazardous waste is generated at a facility, what kinds of wastes are generated, and analyzes the processes associated with products or services. Management then determines which kinds of waste minimization techniques are feasible.

#### **5.2 Knowing the Materials Used**

Knowing what is used in a facility process is important in determining waste minimization options. Management considers whether:

- A substitute to the material can be used.
- The material quantity can be reduced.
- Wastes can be introduced back into the process to reduce the amount of new materials used.

#### **5.3 Training Employees and Education**

Once management establishes a plan for waste minimization, employees must be trained in implementing it.

Training includes:

- Explaining that waste minimization is important because it:
  - Protects the health of workers
  - Protects the environment
  - Meets regulatory requirements
  - Saves the Company money
- Explaining the requirements of the work plan:
  - Who is responsible for the different parts of the plan
  - How facility processes will change
  - How the program will be monitored
- Emphasizing management commitment to waste minimization:
  - Checking with staff on the progress of the waste minimization program
  - Rewarding employees for waste minimization

## **Section 6.0**

### **Understanding the Costs/Benefits of Waste Minimization**

Safety-Kleen managers understand that waste minimization is required and that there are costs associated with waste minimization. However, there are also very significant benefits.

#### **6.1 Cost to Facilities**

The facility personnel who implement waste minimization evaluate their business and the alternatives available to them. The time spent for performing this evaluation has a cost. In addition, if the facility substitutes materials or uses additional recycling services, there may be some cost associated with this.

#### **6.2 Benefits of Waste Minimization**

Waste minimization has many benefits. Safety-Kleen management emphasizes these benefits, as discussed below.

##### **Economic Benefits**

- Disposal Cost Reduction - The costs of landfilling and incinerating hazardous waste is increasing. Disposal options will become more costly and limited over time.
- Costly Alternative Treatments - Certain waste streams will become more and more difficult to treat as disposal options become limited. Alternate technology to treat waste is expensive.
- Savings in Materials Cost - When a facility practices waste minimization, it uses fewer materials. This reduces the cost of operating the business.

##### **Regulatory Benefits**

- Specific Requirements - All generators of hazardous waste are required to minimize the waste they generate. Generators must demonstrate waste minimization when they sign a waste manifest, when they submit a biennial report under RCRA, or when applying for facility permits.
- Land Ban - Since some waste is banned from land disposal, waste minimization avoids this regulatory limitation.

##### **Liability Benefits**

- Generator Liability - RCRA established cradle-to-grave liability. Therefore, Safety-Kleen is responsible for managing wastes stored at facilities, in transit, and when disposed of. Waste needs to be disposed of properly to avoid becoming a potentially responsible party for the cleanup of the contamination. Safety-Kleen must encourage employees to avoid liability by minimizing waste generation.
- Potential Worker Safety - The U.S. Environmental Protection Agency (U.S. EPA) and the Occupational Safety and Health Administration (OSHA) evaluate whether facilities are properly protecting their employees from hazardous materials and wastes found in the workplace. Safety-Kleen management minimizes potential employee exposure to hazardous waste by encouraging waste minimization.
- Public Image Benefits - Safety-Kleen's ability to operate responsibly helps the Company obtain its customers' confidence. This is especially important when Safety-Kleen demonstrates to community members that its business is a safe and productive addition to the community.

## **Section 7.0**

### **Programs to Assist Generators in Waste Minimization (U.S. EPA)**

Safety-Kleen strives to be the leader in providing services, which are user safe and environmentally friendly in the workplace. Safety-Kleen continues to work on new technologies designed to assist generators in meeting the waste minimization goals of the U.S. EPA, as well as state-specific requirements.

#### **7.1 Premium Solvent Parts Washing Service (mid 1993)**

The purpose of the Premium Solvent program is to provide customers with a Waste Minimization Program alternative to parts cleaning customers who currently utilize hazardous materials to accomplish this task. Often customers who use the Premium Solvent may show by analytical methods that their used solvent is not a hazardous waste. Safety-Kleen has switched all customers to Premium Solvent or Aqueous Parts Washer. Premium Solvent is now the only solvent offered to customers.

#### **7.2 Aqueous Parts Washer Service**

The purpose of the Aqueous Parts Washer service is to provide an alternative to organic-based solvents for generators. Safety-Kleen provides generators with aqueous parts washer solvent options to achieve waste minimization objectives.

#### **7.3 Model 250 Parts Washer Service**

Safety-Kleen has a SK Model 250 recycling parts washer. The Model 250 is designed to provide customers another option to meet their parts cleaning needs while at the same time address concerns for reducing hazardous waste output. Model 250's provide on-site recycling of 150 Premium Gold Solvent producing a used oil by-product that can be managed as used oil in most cases. The Model 250 contains a distillation unit within that will return dirty solvent back as usable product. The solvent that is returned to the reservoir maintains virtually all of its original form and cleaning capabilities.

## **Section 8.0**

### **Identifying Other Informational Sources (USEPA)**

Safety-Kleen management informs employees about other sources of waste management information.

#### **8.1 Federal Government**

The U.S. EPA Region 6 - provides guidance for the Safety-Kleen Farmington, NM Branch.

The U.S. EPA provides businesses with assistance in waste minimization. Safety-Kleen and its customers can call the U.S. EPA RCRA/Superfund Hotline at (800) 424-9346 or U.S. EPA Region 6.

In addition, the U.S. EPA publishes a number of guidance documents for pollution prevention (PP) and waste minimization. Safety-Kleen and its customers can obtain these guides through the U.S.EPA or the U.S. Government Printing Office (202) 783-3238.

#### **8.2 State and Local Assistance**

In addition to the federal agencies above, state and local agencies may have information. In general, Safety-Kleen and its customers can contact environmental agencies or health departments for reference to local agencies that deal with hazardous waste issues.

**Section 9.0**  
**Site-Specific Waste Minimization Program**  
**Farmington, NM Branch**

**9.1 Waste Minimization Program at the Safety-Kleen Farmington NM Branch**

Typical waste streams that are routinely generated at the Safety-Kleen Branches are included in Section 3.5 above. Safety-Kleen will continue to implement the selected waste reduction measures identified in Section 3.6. Additional waste streams will be evaluated for source reduction/waste minimization opportunities.

**9.2 Selected Measures**

Attachment B identifies quantities of branch-generated waste streams from October 1, 2010 to September 30, 2011. Current management methods and proposed management methods that are selected as waste reducing alternatives are identified as follows:

1. **Branch-contaminated debris** – The Farmington branch encourages employees to segregate non-hazardous wastes from the hazardous waste debris. This will result in reducing volume of hazardous waste.
2. **Dumpster mud sludge**- The Farmington branch continues to segregate sludge and contaminated debris. This will keep the recyclable waste (sludge) separate from the burnable material (debris) and ensures that sludge is recycled to the maximum quantity. It also reduces the volume of the branch hazardous debris which is a more toxic waste stream. The segregation also eliminates operational problems in the distillation columns.
3. **Non-hazardous water**- The Farmington branch only pumps contaminated water from tank farms and return and fill secondary containment into used Mineral Spirit storage tanks. This eliminates unnecessary increases in the volume of hazardous waste solvents.
4. **Universal wastes**- The Farmington branch ensures that universal waste streams are handled properly per state-specific regulations. This eliminates unnecessary increase in the volume of hazardous waste.
5. **Empty aerosol cans**- The Farmington branch follows Safety-Kleen’s aerosol can management BOG.
6. **Removal of solvents from Safety-Kleen machines at customer sites** – Safety-Kleen has trained the service representatives to empty solvents from machines to be removed out of service at customer sites. This is necessary to comply with transportation requirements of hazardous waste. In addition, this method reduces the volume of waste that would be generated at the branch.

7. **Metal** – Metal parts and pieces from cleaning dumpster screens, metal solvent filters that have to be replaced, nuts, bolts, etc., empty, punctured aerosol cans, may be sent for scrap metal recovery.

### 9.3 Measures Identified for further evaluation

The following waste streams have been identified for further evaluation.

1. **Recycling of aqueous parts washer (APW) at customer site** – Safety-Kleen could evaluate possibility of use of a portable recycling unit at customer sites for APW. This would reduce the volume of this non-recyclable material that is currently discharged subsequent to treatment.
2. **Processing Aerosol Cans for Scrap Metal** - Safety-Kleen could evaluate the economics of setting up a puncturing system to deactivate and empty aerosol cans and putting the processed aerosol cans into a scrap metal container vs. disposal as Hazardous Waste.

### 9.4 Goal

Safety-Kleen goal is to continue to minimize the volume of hazardous wastes generated (relative to production rate) at this location.

### 9.5 Annual Review

This plan will be reviewed on an annual basis to monitor effectiveness of selected measures and to identify additional potential waste stream that may be reduced.

1. No capital dollars have been expended in the last year to increase source reduction of hazardous waste in the last year. The hazardous wastes generated by the Farmington branch are exclusively related to the success of Safety-Kleen's business at this branch. The better the business, the more hazardous waste will be generated. However, as shown in Attachment B, 98% of the hazardous wastes generated by the branch are sent for recycling. The branch did achieve a 57% reduction in Hazardous waste from 2012. The branch saw a decrease in all lines of business, thus resulting in a decrease in hazardous waste generation.
2. Safety-Kleen provides services to its customers to help them reduce the amount of hazardous waste they generate and provides services for its customers for them to recycle their hazardous wastes. Given the nature of Safety-Kleen's business, contacting other agencies for ideas on source reduction would not be fruitful.
3. Some additional potential waste minimization activities are identified in Section 9.3, however the amount of waste reduction that would be achieved by these would be miniscule.
4. Safety-Kleen has reviewed the following waste minimization techniques:
  - a. The Farmington Branch does not remove coatings from parts before applying new coats – thus all of the potential waste minimization techniques identified in the permit are not applicable to this location.
  - b. When using solvents (spent solvent wastes) for parts cleaning operations:

- i. The use of water-soluble cutting fluids instead of oil-based fluids. This does not apply to the Farmington branch processes. The solvents returned by Safety-Kleen's customers are used to wash drums. Utilizing another product would increase the amount of waste produced and not reduce it.
- ii. The use of bead-blasting for paint-stripping. While Safety-Kleen has products to supply to customers to accomplish this activity, it is not an activity performed by Safety-Kleen and thus this is not applicable.
- iii. The prevention of cross-contamination. Safety clean has procedures and trains its employees to be cognizant of the potential to cross-contaminate its non-hazardous wastes with hazardous wastes. Safety-Kleen has a mineral spirits solvent that has no RCRA hazardous waste properties unless contaminated by the customer during its use.
- iv. The use of peel coatings in place of protective oils. Safety-Kleen is not a manufacturer of parts that are coated with protective oils and thus this is not applicable.
- v. Reduce the number of different solvents. Reducing the number of solvents provided by Safety-Kleen to its customers and thus the number of spent solvents returned to the branch does not change the amount of hazardous waste produced by Safety-Kleen.

The only way Safety-Kleen could reduce the hazardous waste it generates by 50% the milestone date of November 2001 is to lose customers and perhaps go out of business. As stated earlier, the hazardous waste generation rate at the Farmington branch is dependent upon the number of customers that the branch services. Having a goal to reduce its hazardous waste generation would be to have a goal to go out of business. That being said and as has been said before, Safety-Kleen provides many potential services to its customers that will assist them to recycle and/or reduce the amount of hazardous waste they generate.

**Attachment A**  
**Employee Involvement in Waste Minimization**

The form in Example A-1 is used for employee suggestions for waste minimization at Safety-Kleen facilities. This form is signed by the employee and reviewed by his manager before being submitted to the Regional Environmental Manager. A copy of the form is filed in EHS file 2010 - Waste Minimization.

Wherever possible, the employee includes cost justification savings that would result from implementation of the idea.

Regional Environmental personnel review ideas and refer them to upper management for possible implementation.

**Attachment A-1**  
**Waste Minimization Suggestion Submittal Form**

Description of the procedure or process change suggested (attach additional pages and diagrams if needed):

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Estimated capital cost of the change:                      \$ \_\_\_\_\_

Estimated annual expenses from the change:                      \$ \_\_\_\_\_

Estimated annual savings from the change:                      \$ \_\_\_\_\_

\_\_\_\_\_  
Employee Name

\_\_\_\_\_  
Manager Name

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Title

\_\_\_\_\_  
Title

\_\_\_\_/\_\_\_\_/\_\_\_\_  
Date

\_\_\_\_/\_\_\_\_/\_\_\_\_  
Date

Plant 7179  
File: EHS 2010

**Attachment A-2**

**Waste Minimization Certification  
2010**

Safety-Kleen Systems, Inc.  
Farmington, NM Branch

EPA ID No. NMD000804294

I hereby certify under penalty of law that personnel under my direction and supervision at this facility are undertaking specific steps in accordance with a program in place to minimize the amount and toxicity of hazardous wastes generated at this facility to a degree economically practicable and that the method utilized for the treatment, storage, or disposal of hazardous wastes is the practicable method currently available to this facility which minimizes the present and future threat to human health and the environment. I am aware that there are significant penalties for false certification, including the possibility of fine and imprisonment.

---

Signature

Randall Wood

---

Name

Branch Manager

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Title

2-17-2015

---

Date

**Attachment B**

**Branch-Generated Waste Streams  
(January 1, 2014- December 31, 2014)**

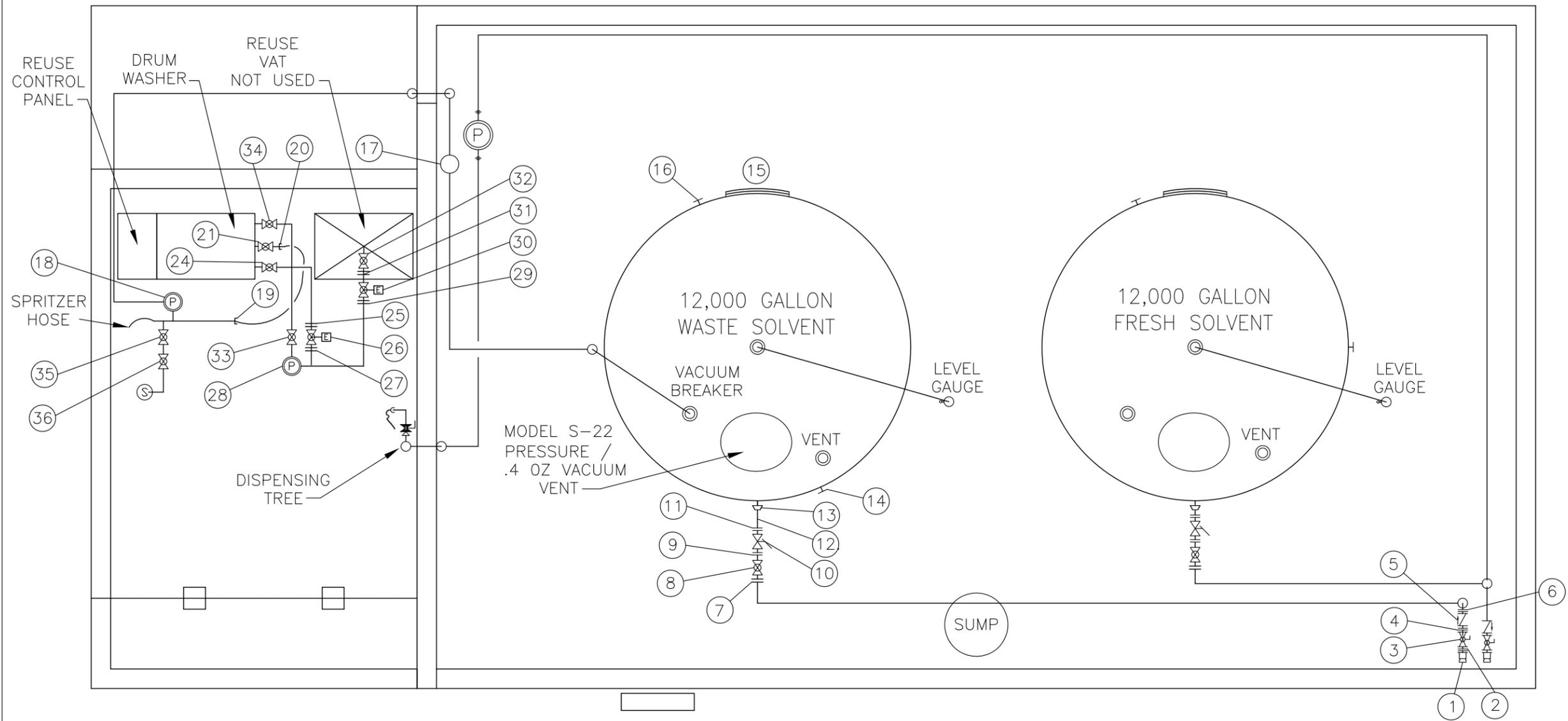
**Farmington NM Branch**

**Hazardous Waste Generation Matrix**

<u>LOCATION</u>	<u>DESCRIPTION OF WASTE</u>	<u>POUNDS GENERATED</u>
Return and Fill Station	Hazardous Debris and Sludge	3,100
Warehouse	Used oil retain samples*	2,000
TOTAL HAZARDOUS WASTE		5,100

# Exhibit E-1

## Subpart BB Fitting Inventory and Schematic



SYMBOL LIST	
☐	CAMLOC COUPLING
⊘	BALL VALVE
⊘	INTERNAL EMERGENCY VALVE
∇	CHECK VALVE
○	STRAINER
⊙	PUMP
▽	REDUCER
⊕	FLANGE
⊘	AUTOMATIC (ELECTRONIC) BALL VALVE

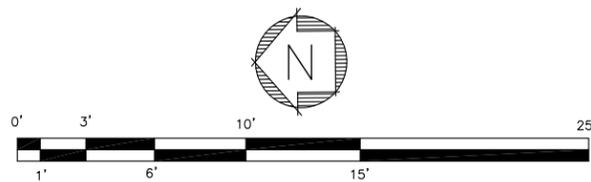
**GENERAL NOTES**

1. PIPING AND TAGGING FIELD VERIFIED ON 12-16-09 BY S-K.

**PROPRIETARY STATEMENT**

THIS DRAWING IS THE EXCLUSIVE PROPERTY OF SAFETY-KLEEN SYSTEMS, INC. AND IS PROPRIETARY AND CONFIDENTIAL INFORMATION. THIS DRAWING AND THE INFORMATION CONTAINED THEREIN MUST NOT BE DUPLICATED, USED, DIVULGED, REPRODUCED, COPIED, DISCLOSED OR APPROPRIATED IN WHOLE OR IN PART FOR ANY PURPOSE OTHER THAN AS EXPRESSLY AUTHORIZED BY SAFETY-KLEEN SYSTEMS, INC. THIS DRAWING MUST BE RETURNED PROMPTLY UPON REQUEST.

FITTING SCHEDULE			
1	CAMLOCK CAP	19	CAMLOCK FITTING DISCH. PUMP SUCTION
2	FLANGE	20	CAMLOCK FITTING
3	BALL VALVE	21	BALL VALVE D. W. TO DISCHARGE PUMP
4	FLANGE	22	NOT USED
5	CHECK VALVE	23	NOT USED
6	FLANGE	24	BALL VALVE D. W. TO RECIRC. PUMP
7	FLANGE	25	FLANGE
8	BALL VALVE	26	AUTOMATIC VALVE D. W. TO RECIRC. PUMP
9	FLANGE	27	FLANGE
10	EMERGENCY FIRE VALVE	28	RECIRCULATION PUMP
11	FLANGE	29	FLANGE- EXIT AUTO VALVE FROM REUSE VAT
12	PIPE NIPPLE	30	AUTOMATIC VALVE FROM REUSE VAT
13	PIPE BELL REDUCER	31	FLANGE INLET AUTO VALVE TO REUSE VAT
14	THREADED PLUG IN TANK WALL	32	BALL VALVE REUSE VAT DRAIN
15	SIDE MANWAY	33	BALL VALVE RECIRC. PUMP DISCHARGE
16	THREADED PLUG IN TANK WALL	34	BALL VALVE RECIRC. PUMP TO DRUM WASHER
17	IN LINE STRAINER	35	BALL VALVE R/F SUMP SUCTION LINE
18	DIRTY SOLVENT DISCHARGE PUMP	36	BALL VALVE R/F SUMP SUCTION LINE



NO.	DESCRIPTION	BY	CHK	APPR	DATE
A	REVISED PER COMMENTS	JEK	RS	RS	122109
D	ISSUED FOR REVIEW	JEK	RS	RS	121709
REVISIONS					

TITLE TANK FARM - R/F PART BB TAGGING PLAN

**SAFETY-KLEEN SYSTEMS, INC.**  
 5400 LEGACY DR. CLUSTER III, BLDG.3 PLANO, TX 75024  
 PHONE: 800-669-5740

SCALE 1/2"=1'	BY JEK	CHKD RS	APPROVED RS	OPERATIONS RS	DATE 12/17/09
SERVICE CENTER LOCATION FARMINGTON, N.M.			SC-DWG NUMBER 7133-4100-350	REV. NO. A	

# Exhibit H-1

## Example Weekly Safety / Security Inspection (Paper Form)

SAFETY-KLEEN ALBUQUERQUE  
INSPECTION LOG SHEET FOR:  
Weekly Inspection of **SAFETY AND EMERGENCY EQUIPMENT, SECURITY DEVICES  
AND MISCELLANEOUS EQUIPMENT**

**INSPECTOR'S NAME / INITIALS / TITLE** \_\_\_\_\_

**DATE (M/D/Y):** \_\_\_\_\_ **TIME:** \_\_\_\_\_

---

**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 or 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 gloves, glasses, other: \_\_\_\_\_

Communication Devices: A   N  
If 'N', circle appropriate problem: inadequate supply of telephones, malfunctioning telephones, malfunctioning intercom, emergency alarm does not work, telephones are not located where needed, 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, warning signs – faded or missing, barbed wire – missing or damaged, other: \_\_\_\_\_

---

OBSERVATIONS, COMMENTS, DATE AND NATURE OF ANY REPAIRS OF ANY ITEMS INDICATED AS "NOT ACCEPTABLE": \_\_\_\_\_

\* Fill in the Waste Type (e.g. Mineral Spirits)

\*\*A = Acceptable   N = Not Acceptable

(IF AN ITEM IS NOT APPLICABLE ENTER 'N/A' AFTER IT AND DRAW A LINE THROUGH THE 'ACCEPTABLE/ NOT ACCEPTABLE' ROW)

## Exhibit H-2

Example Weekly Safety / Security Inspection  
(Electronic Producible Form)

**Compliance Header**

Inspector Name

Inspection Date

Area of Inspection

**CO Safety Security Inspection Instructions**

Note condition of inspection items. If item does not apply to an area, mark N/A. All unsatisfactory findings must be explained below. Include any repairs, changes or other remedial actions required or performed.

**CO Safety Security Inspection Items**

Perimeter Fences - Check for evidence of failure (e.g., broken ties, corrosion, holes, distortion, other).

Gates - Check for evidence of failure (e.g., locking mechanism, broken ties, corrosion, holes, distortion, other).

Warning Signs - Check for evidence of failure (e.g., missing, faded, other).

Exit Signs - Check for evidence of failure (e.g., missing sign, illumination, lamp bulbs, battery backup, other).

Exits/ Firelanes/ Evacuation Routes - Check that all routes are clear or unobstructed.

Lighting System - Check for evidence of failure (e.g. expired lamps, effectiveness, location, other).

Emergency Lighting System - Check for evidence of failure (e.g., expired lamps, battery backup, effectiveness, other).

Accessibility of Safety Equipment/ Protective Gear - Check for evidence of availability (e.g., hardhats, faceshields, goggles, safety glasses, boots, gloves, clothing, duct tape, absorbents, other).

First Aid Kits - Check for evidence of availability (e.g., adequate inventory, other).	
Emergency Eyewashes - Check for evidence of failure (e.g., disconnected or malfunctioning valves, inadequate pressure, inaccessible, malfunctioning drain, leaking, other).	
Emergency Showers - Check for evidence of failure (e.g., disconnected or malfunctioning valves, inadequate pressure, inaccessible, leaking, other).	
Internal/ External Communication - Check for evidence of failure (e.g., inadequate supply of phones or radios, malfunctioning intercom, emergency alarm does not work, phone moved from proper location, other).	
Fire Extinguishers - Check for evidence of failure (e.g., overdue inspection, not charged, inaccessible, other).	
Absorbent Supply - Check for evidence of availability (e.g., adequate inventory, other).	
Fire Suppression System Accessibility - Check for evidence of failure (e.g., monitors, pull stations, alarms, other).	
Fire Suppression System Operable - Check for evidence of failure (e.g., test, other).	
Hearing Protection Available - Check for evidence of availability (e.g., type appropriate per location, other).	
Housekeeping - Check for evidence of failure (e.g., blocked egress, proper storage, procedure followed, other).	
Dumpster/ Outside Containers - Check for evidence of failure (e.g., housekeeping, condition, appropriate use and storage, other)	
<b>Compliance Footer</b>	
Inspector Signature	
Attach Photo	
On Demand Work Ticket	

## Exhibit H-3

Example Daily Container Storage Area  
Inspection (Paper Form)

## Inspection Log Sheet

### Container Storage Area Permitted Volume 3,820 Gals.

Inspector's Name/Title: \_\_\_\_\_  
 (Print Inspector's Name and Job Title Above)

	<b>Monday</b>	<b>Tuesday</b>	<b>Wednesday</b>	<b>Thursday</b>	<b>Friday</b>
Inspector's Signature Box					

Date \_\_\_\_\_  
                     mm/dd/yy                      mm/dd/yy                      mm/dd/yy                      mm/dd/yy                      mm/dd/yy

Time \_\_\_\_\_ am / pm    \_\_\_\_\_ am / pm    \_\_\_\_\_ am / pm    \_\_\_\_\_ am / pm    \_\_\_\_\_ am / pm

**CONTAINERS – When calculating volume use outer capacity of container. \*If other waste, list name**

Type of Waste	<b>Monday</b>	<b>Tuesday</b>	<b>Wednesday</b>	<b>Thursday</b>	<b>Friday</b>
Total Volume of					
Total Volume of					
Total Volume of					
Total Volume of					
Total Volume of					
Total Volume of					
Total Volume of					
Total Volume of					
Total Gallons					

**Total Volume**    A    N            A    N            A    N            A    N            A    N

If 'N' circle appropriate problem: total volume exceeds permitted amount, other: \_\_\_\_\_

**Container Condition**    A    N            A    N            A    N            A    N            A    N

If 'N' circle appropriate problem: missing or loose lids, incorrect or incomplete labels, rust, leaks, distortion, other: \_\_\_\_\_

**Stack/Placement, Aisle Space**    A    N            A    N            A    N            A    N            A    N

If 'N' circle appropriate problem: different from Part B Floor Plan, unstable stacks, broken or damaged pallets, containers not on pallets, other: \_\_\_\_\_

**Containment, Curbing, Floors, Sumps**    A    N            A    N            A    N            A    N            A    N

If 'N' circle appropriate problem: ponding/ wet spots, deterioration (cracks, gaps, etc) displacement, leaks, inadequate sealant, 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: \_\_\_\_\_

(Any material which spills, leaks or accumulates in the secondary containment must be completely removed immediately upon detection)

Observations, comments, date and nature of repairs of any items indicated as Not Acceptable \_\_\_\_\_

**A = Acceptable    N = Not Acceptable**

**IF AN ITEM IS NOT APPLICABLE, ENTER "N/A" AFTER IT AND DRAW A LINE THROUGH THE 'ACCEPTABLE/NOT ACCEPTABLE' ROW**

## Exhibit H-4

Example Daily Container Storage Area  
Inspection (Electronic Producible Form)

**Compliance Header**

Inspector Name

Inspection Date

Area of Inspection

**CO CSA Inspection Instructions**

Note condition of inspection items. If item does not apply to an area, mark N/A. All unsatisfactory findings must be explained below. Include any repairs, changes or other remedial actions required or performed.

**CO CSA Inspection Items**

Sealing of Containers - Check for evidence of failure (e.g., containers not closed or sealed, open).

Labeling of Containers - Check for evidence of failure (e.g., no label, improper label, content, other).

Container Integrity - Check for evidence of failure (e.g., condition, bulging, leaks, other).

Pallets - Check for evidence of failure (e.g., broken, loose, condition).

Doors - Check for evidence of failure (e.g., indoor area, broken or not working as intended).

Base/ Foundation/ Roof - Check for evidence of failure (e.g., cracked, gaps, other).

Berms/ Racks - Check for evidence of failure (e.g., cracks, gaps, broken, other).

Aisle Space - Check for evidence of failure (e.g., minimum 2 ft required, other).

Containment Area - Check for evidence of failure (e.g., secondary containment, curbing, floor, cracks, deterioration, other).	
Sumps - Check for evidence of failure (e.g., cracks, ponding or wet spots, pitting or deterioration, other).	
Loading/ Unloading Areas - Check condition of area (e.g., available equipment, spill response, containment, pad condition, other).	
Storage Capacity - Check for acceptable limit (e.g., area or permit restrictions, type restriction, volumn limit, other).	
Inventory Age - Check for acceptable limit (e.g., within area limits, permit restrictions, other).	
<b>Compliance Footer</b>	
Inspector Signature	
Attach Photo	
On Demand Work Ticket	

## Exhibit H-5

Example Daily Tank Storage System  
Inspection (Paper Form)

## INSPECTION LOG SHEET FOR DAILY INSPECTION OF STORAGE TANK SYSTEM

**Inspector's Name/Title:** \_\_\_\_\_  
(Print Inspector's Name and Job Title Above)

	Monday	Tuesday	Wednesday	Thursday	Friday
Inspector's Signature Box					

Date \_\_\_\_\_ mm/dd/yy      \_\_\_\_\_ mm/dd/yy      \_\_\_\_\_ mm/dd/yy      \_\_\_\_\_ mm/dd/yy      \_\_\_\_\_ mm/dd/yy

Time \_\_\_\_\_ am / pm      \_\_\_\_\_ am / pm      \_\_\_\_\_ am / pm      \_\_\_\_\_ am / pm      \_\_\_\_\_ am / pm

Volume in Tank/Spent Solvent (in/gal)	/	/	/	/	/
Volume in Tank 150 Product (in/gal)	/	/	/	/	/

**Tank Volume**      A      N      A      N      A      N      A      N      A      N

**Tank Exterior**      A      N      A      N      A      N      A      N      A      N

If 'N' circle appropriate problem: rusty or loose anchoring, grounding, wet spots, discoloration, leaks, paint, 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 Farm)**

Any material spilled, leaked, or otherwise accumulated in the dike, including rainwater, must be completely removed within 24 hours of detection.

**Bottom & 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: \_\_\_\_\_

**Rigid Piping / 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 repairs of any items indicated as Not Acceptable \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**A = Acceptable    N = Not Acceptable**

IF AN ITEM IS NOT APPLICABLE, ENTER "N/A" AFTER IT AND DRAW A LINE THROUGH THE 'ACCEPTABLE/NOT ACCEPTABLE' ROW

## INSPECTION LOG SHEET FOR DAILY INSPECTION OF STORAGE TANK SYSTEM

**Inspector's Name/Title:** \_\_\_\_\_  
(Print Inspector's Name and Job Title Above)

	<b>Monday</b>	<b>Tuesday</b>	<b>Wednesday</b>	<b>Thursday</b>	<b>Friday</b>
Inspector's Signature Box					

Date                      \_\_\_\_\_                      \_\_\_\_\_                      \_\_\_\_\_                      \_\_\_\_\_                      \_\_\_\_\_  
                                  mm/dd/yy                      mm/dd/yy                      mm/dd/yy                      mm/dd/yy                      mm/dd/yy

Time                      \_\_\_\_\_ am / pm                      \_\_\_\_\_ am / pm                      \_\_\_\_\_ am / pm                      \_\_\_\_\_ am / pm                      \_\_\_\_\_ am / pm

**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, other: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Observations, comments, date and nature of repairs of any items indicated as Not Acceptable:  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**A = Acceptable    N = Not Acceptable**  
 IF AN ITEM IS NOT APPLICABLE, ENTER "N/A" AFTER IT AND DRAW A LINE THROUGH THE 'ACCEPTABLE/NOT ACCEPTABLE' ROW

## INSPECTION LOG SHEET FOR DAILY INSPECTION OF RETURN AND FILL

**Inspector's Name/Title:** \_\_\_\_\_

(Print Inspector's Name and Job Title Above)

	Monday	Tuesday	Wednesday	Thursday	Friday
Inspector's Signature Box					

Date                      \_\_\_\_\_                      \_\_\_\_\_                      \_\_\_\_\_                      \_\_\_\_\_                      \_\_\_\_\_  
                                  mm/dd/yy                      mm/dd/yy                      mm/dd/yy                      mm/dd/yy                      mm/dd/yy

Time                      \_\_\_\_\_ am / pm                      \_\_\_\_\_ am / pm                      \_\_\_\_\_ am / pm                      \_\_\_\_\_ am / pm                      \_\_\_\_\_ am / pm

**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 Fittings and Connections**    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: \_\_\_\_\_

**Fusible Link**        A      N            A      N            A      N            A      N            A      N

If 'N' circle appropriate problem: broken, other: \_\_\_\_\_

**Wet Dumpster**        A      N            A      N            A      N            A      N            A      N

If 'N' circle appropriate problem: excess sediment buildup, leaks, rust, spilt seams, distortion, deterioration, debris, other: \_\_\_\_\_

**Secondary Containment**    A      N            A      N            A      N            A      N            A      N

If 'N' circle appropriate problem: excess sediment/liquids, leans, 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: \_\_\_\_\_

(Any material which spills, leaks or accumulates in the secondary containment must be completely removed immediately upon detection)

Observations, comments, date and nature of repairs of any items indicated as Not Acceptable \_\_\_\_\_

**A = Acceptable    N = Not Acceptable**

IF AN ITEM IS NOT APPLICABLE, ENTER "N/A" AFTER IT AND DRAW A LINE THROUGH THE 'ACCEPTABLE/NOT ACCEPTABLE' ROW

## Exhibit H-6

Example Daily Tank Storage System  
Inspection (Electronic Producible Form)

<b>Compliance Header</b>	
Inspector Name	
Inspection Date	
Area of Inspection	
<b>CO Tank Systems Inspection Instructions</b>	
Note condition of inspection items. If item does not apply to an area, mark N/A. All unsatisfactory findings must be explained below. Include any repairs, changes or other remedial actions required or performed.	
<b>CO Tank Systems Inspection Items</b>	
Tanks - Check for evidence of failure (e.g., rusty or loose anchoring, distortion, paint failure, other).	
Pipes - Check for evidence of failure (e.g., distortion, corrosion, paint failure, other).	
Valves - Check for evidence of failure (e.g., disconnected, corrosion, other).	
Fittings - Check for evidence of failure (e.g., loose, disconnected, corrosion, other).	
Liquid Level - Check for acceptable level. (e.g., high level max, permitted volume, other).	
Monitoring Equipment - Check for evidence of failure (e.g., pressure and temperature gauges, level indicators, other).	
Loading/ Unloading Areas - Check condition of area (e.g., available equipment, spill response, containment, pad condition, other).	
<b>Compliance Footer</b>	
Inspector Signature	
Attach Photo	
On Demand Work Ticket	

# Exhibit I-1

Example Training Plan Outline  
(RCRA/SPARK-includes OSHA Hazwoper 24-  
Hour Training)

# TRAINING OUTLINE

## RCRA TRAINING AT FACILITY

- I. INTRODUCTION: Major plans to be discussed
  - A. RCRA Contingency Plan and Preparedness and Prevention Plan
  - B. Spill Plan Control and Countermeasures Plan
  - C. Storm Water Pollution Prevention Plan
  
- II. What we do to keep from sounding the alarm
  - A. Storage and release prevention measures
    - i. Best Management Practices
      - 1. Housekeeping
      - 2. Drum storage drum areas clean and clear
      - 3. Debris picked up
      - 4. Aisle space
      - 5. Container security – lids and secured
      - 6. Waste not stacked over 2 tiers high
    - ii. Preventative maintenance
      - 1. Daily/weekly inspections
      - 2. Keeping containers closed-check container integrity at all times
      - 3. Spill Equipment
      - 4. Fire extinguishers
      - 5. PPE
      - 6. First aid kits
      - 7. Eye wash
    - iii. Security
      - 1. Keep unauthorized / untrained people out of the area
      - 2. Use the facility sign-in log
      - 3. Keep doors closed and locked
      - 4. Enforce the above
  
- III. What are the procedures if the above practices don't work and a spill occurs
  - A. Activation of the site Contingency Plan
    - i. Emergency response list
    - ii. Emergency coordinators role
    - iii. Response preparation
    - iv. Response actions
      - 1. Emergency shut-off switches
      - 2. Major/minor spills
      - 3. Fires
      - 4. Earthquakes
      - 5. Evacuation procedures
    - v. Notification requirements
  - B. Transportation Contingency Plan
    - i. Emergency response list
    - ii. Response preparation
    - iii. Response actions
    - iv. Notification requirements
  
- IV. Past Spills
- V. Potential Spills

# SPARK

Safety, Products, and Regulatory Knowledge

## Course Agenda

Week 1	Week 2
<p><b>Monday</b></p> <ul style="list-style-type: none"> <li>▪ Welcome &amp; Orientation</li> <li>▪ Human resources</li> <li>▪ Customer Service/Value Overview</li> <li>▪ Health &amp; Safety:                             <ul style="list-style-type: none"> <li><i>Compliance Intro, OSHA Overview, Hazard Recognition, Ergonomics, Container Handling</i></li> </ul> </li> </ul>	<p>▪ <b>Monday</b></p> <ul style="list-style-type: none"> <li>▪ Oil &amp; Vacuum Service Overview</li> <li>▪ Day in the Life Scenario – Oil &amp; Vac</li> <li>▪ Spill Response</li> </ul>
<p><b>Tuesday</b></p> <ul style="list-style-type: none"> <li>▪ Health &amp; Safety Continued                             <ul style="list-style-type: none"> <li><i>Walking &amp; Working Surfaces, Lockout/Tagout, Electrical Safety, Fire Prevention/Protection, Toxicology, Hazard Communications, PPE, Decontamination, Respiratory Protection, Hearing Protection, Medical Surveillance</i></li> </ul> </li> </ul>	<p>▪ <b>Tuesday</b></p> <ul style="list-style-type: none"> <li>▪ Bringing It All Together:</li> <li>▪ Hands-On Parts Washers &amp; Allied Products</li> <li>▪ Demonstrations, Q&amp;A</li> </ul>
<p><b>Wednesday</b></p> <ul style="list-style-type: none"> <li>▪ Transportation                             <ul style="list-style-type: none"> <li><i>Regulatory Requirements – DOT, Driver Qualification, Driver Wellness, Daily Log/Hours of Service, Load Securement, Pre &amp; Post Trip Inspections, Vehicle Cone Program, Hazmat Definitions &amp; Requirements, Hazard Classes, Hazmat Table, Shipping Papers, Markings and Labels, Packaging, Drum Inspection and Closure, Transportation Review</i></li> </ul> </li> </ul>	<p>▪ <b>Wednesday</b></p> <ul style="list-style-type: none"> <li>▪ <u>Service Representatives</u> Selling Skills Training</li> <li>▪ <u>Sales Representatives</u> Smith Systems® 5Keys Driver Training® Part 2: Road Training</li> </ul>
<p><b>Thursday</b></p> <ul style="list-style-type: none"> <li>▪ Transportation Continued:                             <ul style="list-style-type: none"> <li>Smith Systems® 5Keys Driver Training® Part 1: Classroom Training</li> </ul> </li> <li>▪ Parts Washers/Allied Products Overview</li> </ul>	<p>▪ <b>Thursday</b></p> <ul style="list-style-type: none"> <li>▪ <u>Service Representatives</u> Smith Systems® 5Keys Driver Training® Part 2: Road Training</li> <li>▪ <u>Sales Representatives</u> Branch Technical Training (BTT)</li> </ul>
<p><b>Friday</b></p> <ul style="list-style-type: none"> <li>▪ Day in the Life Scenario: Parts Washers</li> <li>▪ Containerized Waste Services (CWS) Overview</li> </ul>	<p>▪ <b>Friday</b></p> <ul style="list-style-type: none"> <li>▪ Wrap-up, Review and Testing</li> <li>▪ Awards</li> <li>▪ Departure</li> </ul>
<p><b>Saturday</b></p> <ul style="list-style-type: none"> <li>▪ Day in the Life Scenario: CWS &amp; Salvage Pack</li> </ul>	

## Exhibit I-2

### Example Employee Job Descriptions

### **BRANCH GENERAL MANAGER/SERVICE CENTER MANAGER**

The Branch Manager has overall responsibility for the facility operations and maintenance, and directs sales activities within a defined geographic area. He or she is responsible for the proper operations and profitability of the Service Center. The Branch Manager typically also functions as the emergency coordinator.

#### **Responsibilities:**

- Collaborate with Sales Managers to enhance branch sales performance.
- Lead the facility employees to maximize revenues and client satisfaction.
- Manage administrative and warehouse team.
- Maximize branch profitability through sales volume, margin attainment, and cost controls.
- Branch adherence to operational guidelines.
- Conduct weekly branch meetings with Route Sales and Service professionals to drive branch performance and promote teamwork.
- Protect branch business through excellent customer service.
- Manage customer service and response time through Customer Retention Management system.
- Meet with customers to validate customer expectations are being met.
- Hire, train and develop all branch employees.
- Ensure branch Environmental, Health and Safety (EHS) Compliance.
- Ensure all training and compliance documentation is maintained.

#### **Requirements:**

- Required attendance to a continuous (2) two week long on-boarding and regulatory training course that will be held out of town. Expenses (Lodging, Food, Travel) to be paid by Safety-Kleen.
- High School diploma or GED required.
- Degree preferred.
- 7+ years of sales and operations management experience.
- Profit and Loss responsibility.
- Strong understanding of sales process.
- Lean/Six Sigma training and experience preferred.
- Working knowledge of DOT and fleet compliance.
- Experience in interviewing, hiring and effectively managing others.
- High level of computer proficiency.
- Issue resolution, negotiating and problem solving skills.
- Integrity, judgment and decision-making skills.
- Good written and oral communication skills.
- Time management, organization, and attention to detail.
- Valid Driver's License.
- Applicant must be able to successfully pass comprehensive security background screenings so as to service all SK customers who are federally regulated by TSA, DOD, DOJ, DHS, etc.

#### **TYPICAL HAZARDOUS WASTE MANAGEMENT DUTIES**

- Assures the proper completion and administration hazardous waste manifests and associated paperwork (i.e. land disposal restriction notices, operating log, waste analysis, and spill reporting)
- Assures the proper management, preparation and shipment of hazardous waste (including packaging, labeling, placarding of vehicles, and transfer and storage procedures)
- Maintains a current Emergency Response and Evacuation Plan
- Conducts safety training and maintains records of such training
- Implements and maintains branch environmental, health, and safety awareness
- Keeps environmental, health, and safety training records current
- Complies with Company and governmental regulations related to fleet operations
- Maintains facility cleanliness, organization, and appearance

## **BRANCH ADMINISTRATOR**

A Branch Administrator is responsible for providing excellent customer service to internal and external customers, maintaining detailed and accurate company, branch, and customer files.

### **Responsibilities:**

- Create proper shipping and billing documents daily, including manifests.
- Enter data into Safety-Kleen systems.
- Contact customers delinquent in payment and coordinate pick up of payments.
- Respond to customer inquiries and/or complaints.
- Enter sales leads into the Hand-Off Tool on a daily basis.
- Enter time of service Containerized Waste Service profiles into the Waste Approval Wizard software.
- Print and restock time of service in Sales and Service Representative's folders.
- Respond to customer call-ins and direct potential pulls and complaints to appropriate account owner.
- Other related support functions as directed by management.

### **Requirements:**

- High school diploma or equivalent required
- 1+ years of work experience
- Strong computer skills
- Good organizational skills
- Customer service attitude
- Product knowledge
- Attention to detail
- Safety mindset
- Time management skills
- Sense of direction
- Integrity
- Reliable
- Problem solving abilities

### **TYPICAL HAZARDOUS WASTE MANAGEMENT DUTIES**

- Manifest and associated paperwork preparation
- Waste Label preparation
- Maintenance of waste tracking (may be electronic or paper)
- May check container labels on hazardous waste containers stored in the facility's permitted storage areas or conduct or verify the facility inspection
- May be designated as an emergency response coordinator or alternate

### **BRANCH MATERIAL HANDLER/WAREHOUSE WORKER**

A Material Handler is responsible for completing all assigned warehouse duties in a safe and responsible manner. You will work with all local, state, and federal rules and regulations; and follow all Safety-Kleen policies and procedures.

#### **Responsibilities:**

- Unload route truck containerized waste in evening and reconcile waste.
- Reload route trucks with supplies and equipment for next day's runs.
- Stock warehouse with materials after Distribution Center truck arrival.
- Prepare waste loads for shipment to Recycle Center/Distribution Center.
- Daily facility inspection.
- Empty and fill drums of solvent mineral spirits.
- Perform minor repairs on parts washers at warehouse.
- Assign job duties to Material Handlers and assure completion of the duties.
- Supervise third party bulk liquid transfers.
- Inventory count at warehouse.
- Manage inventory order and receiving process.

#### **Requirements:**

- Required attendance at on-boarding and regulatory training courses
- High school diploma or GED required
- 3+ years work experience required
- Attention to detail needed
- Ability to follow specific instructions
- Ability to work with minimal supervision at times
- Computer skills
- Forklift driving skills
- Basic math skills
- Pride in position – owns the warehouse and recognizes the importance of this role

#### **TYPICAL HAZARDOUS WASTE MANAGEMENT DUTIES**

- Prepares hazardous waste for shipment offsite
- Performs housekeeping and routine facility maintenance
- Prepares paperwork including manifests and land disposal restrictions
- May conduct and document facility inspections
- Cleanup of minor spills and report major spills of hazardous waste
- May be designated as an emergency response coordinator or alternate

### **BRANCH SALES AND SERVICE REPRESENTATIVES**

A Sales and Service Driver is responsible for safely completing all assigned customer services, meeting customer needs and selling additional services in a defined route while complying with all local, state, and federal rules and regulations, in addition to all Safety-Kleen policies and procedures.

#### **Responsibilities:**

- Complete daily scheduled services, deliveries, and pickups in a timely manner.
- Complete all required documentation and labeling.
- Generate / collect leads from customers for new products and services.
- Sell additional products and services into existing accounts.
- Actively prospect for new accounts in assigned route.
- Primary account ownership in assigned route.
- Ensure customer satisfaction at time of service.
- Follow all local, state (provincial) and federal compliance regulations and rules.
- Safely operate vehicles in accordance with U.S. DOT, local, state (provincial) and federal requirements.
- Safely observe all corporate operating guidelines and procedures.
- Observe all company environmental health and safety operating guidelines.

#### **Requirements:**

- Required attendance at on-boarding and regulatory training courses
- High school diploma or equivalent required
- Ability to obtain and retain a CDL with HAZMAT endorsement
- Demonstrate a commitment to environmental compliance and safe work practices
- Sales aptitude
- Ability to develop customer loyalty
- Record of good judgment/ decision-making
- Good written and oral communication skills
- Ability to perform physical functions per job requirements
- Ability to work independently while managing time and productivity
- Integrity and reliability
- Attention to detail
- Basic computer literacy and math skills
- Problem solving abilities
- Applicant must be able to successfully pass comprehensive security background screenings so as to service all SK customers who are federally regulated by TSA, DOD, DOJ, DHS, etc.
- Applicants for employment in the U.S. must possess work authorization which does not require sponsorship by the employer for a visa

### **TYPICAL HAZARDOUS WASTE MANAGEMENT DUTIES**

- Services machines containing hazardous waste at customer locations
- Remove, prepare for transportation, and transport hazardous waste to the facility
- Prepares paperwork including manifests and land disposal restrictions
- May conduct and document facility inspections
- Cleanup of minor spills and report major spills of hazardous waste
- May assist in the unloading of hazardous waste and the transfer of spent solvent into the bulk storage tank

**BRANCH SALES PERSONNEL (MARKET SALES SPECIALISTS, TERRITORY ACCOUNT MANAGER)**

The Outside Sales Representative is expected to meet or exceed sales objectives within an assigned geographic territory through prescribed sales techniques; develop existing customer relationships and cultivate new account opportunities. This position is known internally as a Market Sales Specialist.

**Responsibilities:**

- Identify profitable new opportunities from leads provided by branches/facilities, current customers, trade publications, state associations, internet/newspaper/journal articles, or cold-calling.
- Develop customer solutions and sell all applicable Safety-Kleen products and services according to the defined sales strategy/pricing tools.
- Prepare sales plans and forecasts; monitor and track sales plan to ensure sales quota is met or exceeded.
- Prepare and deliver customer quotes and identify new solutions for customers; provide technical and sales assistance to customers.
- Serve as interface between customers and company to ensure that customer needs are met and issues are promptly resolved.
- Keep abreast of products, market conditions and competitive activities.
- Maintain current database through the use of CRM tool while providing accurate sales reporting, as required.
- Ensures that all sales actions comply with all regulations and Safety-Kleen corporate policies/processes.
- Daily local travel is required. Limited overnight travel may be required (<15%) for customer visits, vendor visits, training.

**Requirements:**

- 3+ years of business-to-business (B2B) sales experience, preferably in the industrial, commercial, automotive, or environmental services markets
- Proven ability to prospect, negotiate and close deals
- Bachelor's Degree in Business Management or related field preferred, or equivalent additional experience required
- Prior experience using CRM software tools and reporting
- Strong time management and organizational skills to ensure focus on value-added sales activities
- Strong customer-orientation; prompt issue resolution/follow-through
- Strong computer skills (MS Applications: Word, Excel, PowerPoint)
- Required attendance at on-boarding and regulatory training courses
- Strong communication (written and oral) skills
- Valid driver's license is required

**TYPICAL/OPTIONAL HAZARDOUS WASTE MANAGEMENT DUTIES**

- Prepares hazardous waste for shipment offsite
- Performs housekeeping and routine facility maintenance
- Prepares paperwork including manifests and land disposal restrictions
- May conduct and document facility inspections
- Cleanup of minor spills and report major spills of hazardous waste
- May be designated as an emergency response coordinator or alternate

# Exhibit J-1

## Tank Installation Assessment



# TERA, inc.

6440 Hillcroft, Suite 200  
P.O. Box 740038, Houston, Texas 77274, Tel. 713/772-0876, Fax: 713/981-7713

90-150

## TANK SYSTEM CERTIFICATION

I have conducted the design and integrity assessment dated July 5, 1990, of the used solvent storage tank system at the Safety-Kleen Corp. facility in Farmington, New Mexico. The EPA ID Number for this facility is: NMD 000804294.

With regard to this duty, I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all related attachments and that, based on my observations and my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

John W. Cox

Registered Professional Engineer

New Mexico No. 10317

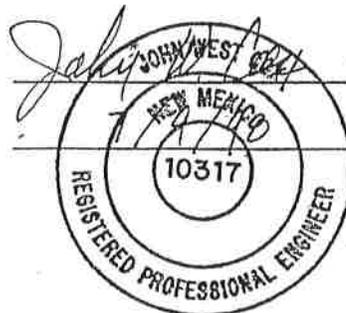
TERA, Inc.

P. O. Box 740038

Houston, Texas 77274

Signed: \_\_\_\_\_

Date: \_\_\_\_\_





# TERA, inc.

6440 Hillcroft, Suite 200  
P.O. Box 740038, Houston, Texas 77274, Tel. 713/772-0876, Fax: 713/981-7713

July 5, 1990  
90-150

SAFETY-KLEEN CORP.  
777 Big Timber Road  
Elgin, Illinois 60123

Attention: Mr. Rob Omiecinski

Subject: Design and Integrity Assessment  
Used Solvent System  
Farmington Branch

Gentlemen:

Submitted here is our assessment report for the used solvent storage tank system at your Farmington facility. The main report body summarizes assessment results in a format corresponding to the rules being addressed. Appendices are used for presenting detailed information.

We have enjoyed working with you on this interesting project and look forward to another opportunity to be of service to Safety-Kleen. Please contact us at 713/772-0876 if you have any questions.

Very truly yours,

TERA, Inc.

John W. Cox, Ph.D., P.E.  
Vice President

JWC/sv

Enclosures: Five (5) copies

Copy to Mr. Wayne Olson w/Enclosure



DESIGN AND INTEGRITY ASSESSMENT  
USED SOLVENT STORAGE TANK SYSTEM  
FARMINGTON, NEW MEXICO, BRANCH

\* \* \*

To

SAFETY-KLEEN CORPORATION

\* \* \*

By

TERA, Inc.  
Houston, Texas

July 1990

TABLE OF CONTENTS

<u>Title</u>	<u>Page No.</u>
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CONSIDERATIONS OF DESIGN ASSESSMENT.....	2
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2. Hazardous Characteristics of the Waste.....	3
3. Corrosion Protection.....	4
4. Documented Age of System.....	4
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## ILLUSTRATION

<u>Title</u>	<u>Plate No.</u>
System Schematic.....	1

## APPENDICES

- A. Design Documentation
- B. Design Review
- C. Description of Waste
- D. Inspection Records

This report documents the design and integrity assessment for a used solvent storage tank system at the Safety-Kleen facility in Farmington, New Mexico. The assessments described here are written to address the requirements of 40 CFR 264.191 and 40 CFR 264.193. These sections have been adopted entirely in Part VI of the Hazardous Waste Management Regulations of the New Mexico Environmental Improvement Board (EIB/HWMMR-5).

#### SYSTEM DESCRIPTION

Used mineral spirits solvent is poured from containers into an open-top aboveground steel solvent return receptacle (wet dumpster). The used solvent is pumped from the dumpster through aboveground piping to a nearby 12,000-gallon capacity steel storage tank. Accumulated used solvent and sludge are periodically removed from this "used solvent storage tank" for offsite recycling. Solvent removal is performed by a tank truck through a 3-inch pipe. Sludge and solids are removed through a manway.

The storage tank is a vertical cylinder with a shallow cone roof and a flat bottom. The tank is supported on a skid of galvanized steel rectangular tubes. The dumpsters and pump are located within a curbed concrete containment area in an adjacent "dump and fill" dock. The used solvent storage tank is vented to the atmosphere. Liquid level is monitored daily by reading a level indicator. A schematic drawing of the used solvent storage system is shown on Plate 1.

CONSIDERATIONS OF DESIGN ASSESSMENT

## 1. Design Standards (40 CFR 264.191(b)(1))

Design standards and materials of construction were determined from construction drawings for the system. Information made available for this purpose is listed in Appendix A.

The tank system design has been reviewed for compliance with the following applicable codes:

- National Fire Protection Association, NFPA 30, Flammable and Combustible Liquids Code, 1987 Ed. (tank and piping)
- American Petroleum Institute, API 12F, Specification for Shop Welded Tanks for Storage of Production Liquids (tank)
- Hydraulics Institute Standards (pump)
- American Concrete Institute, ACI 318-89, Building Code Requirements for Reinforced Concrete (containment slab floor)
- American Concrete Institute/American Society of Civil Engineers, Building Code Requirements for Masonry Structures, ACI 530-88/ASCE 5-88 (containment walls)
- American Petroleum Institute, API 650, Appendix E (tank seismic response analysis)
- American National Standards Institute, ANSI A58.1-1982 (tank wind response analysis)

The dumpster design has been developed by Safety-Kleen's engineering staff and incorporates the experience of over 15 years of operating service. Standards are internal to the Company and are expressed mainly by their fabrication drawings. Appendix A contains a copy of the dumpster assembly drawing and a letter from Safety-Kleen's engineering manager giving the service history of this equipment.

CONSIDERATIONS OF DESIGN ASSESSMENT (Continued)

## 1. Design Standards (40 CFR 264.191(b)(1)) (Continued)

Calculations, discussion and checklists which evaluate compliance with these codes are given in Appendices B and D. The design review shows that:

- The design substantially conforms to the standards referenced above;
- The design standards are appropriate for this application.

Descriptions of typical coating materials and application procedures used by Safety-Kleen are referenced in Appendix A. This information indicates that the materials should be satisfactory for the intended service, provided recommended procedures are followed by the applicator.

The conclusion upon review of the documents is that the design of the used solvent storage tank system is appropriate for the intended service.

## 2. Hazardous Characteristics of the Waste (40 CFR 264.191(b)(2))

The waste stored in this system is a used mineral spirits (petroleum distillate) solvent from a variety of cleaning and degreasing operations. A description of the expected waste materials is attached in Appendix C.

The material will be two-phase (liquid and sludge) at ambient temperatures. Its primary hazardous characteristic is ignitability, EPA hazard code I. Materials such as heavy metals from cleaning operations may also cause the used solvent and/or sludge to exhibit the characteristic of EP toxicity, EPA hazard code E.

3. Corrosion Protection (40 CFR 264.191(b)(3))

The exterior of the dumpster is protected from corrosion by paint. Pipes outside the dump and fill shelter are galvanized and painted for protection from weather. Inside piping is either galvanized or left with its mill finish. Both have proven to be adequate corrosion protection under roof. The exterior of the steel tank is protected by a paint coating. As described by the inspection record and photographs of Appendix D the tank paint was found to be in a satisfactory condition.

System components are not provided with any specific internal corrosion protection measures. Review of the chemical composition of the waste material shows it to be compatible with and not corrosive to the dumpster, piping, and tank materials. A possible exception is water which tends to form a layer at the bottom of the tank. However, corrosion at the tank wall/water interface is inhibited because of limited free oxygen in the waste, together with waste removal procedures by Safety-Kleen which result in little if any exposure of this interface to air. Additionally, prior experience at other Safety-Kleen installations indicates that the waste material is compatible with the system materials of construction.

It is therefore concluded that the waste materials are sufficiently compatible with the system materials of construction not to require additional corrosion protection.

No external metal component will be in contact with soil or water. Therefore, the tank system does not require cathodic protection.

4. Documented System Age (40 CFR 264.191(b)(4))

The fabricator's nameplate on the tank shows the tank was fabricated in 1981. Safety-Kleen personnel recall that the tank system

4. Documented System Age (40 CFR 264.191(b)(4)) (Continued)

was also installed in 1981. Based on this information the system age is taken to be nine (9) years at the time of this assessment.

5. Additional Design Considerations

No underground components are used in this system, and no adverse effects from vehicular traffic have been identified. The dumpsters are separated from vehicles by concrete filled steel pipes embedded in reinforced concrete. The storage tank is located within the walls of the secondary containment system. Piping not within secondary containment has welded joints.

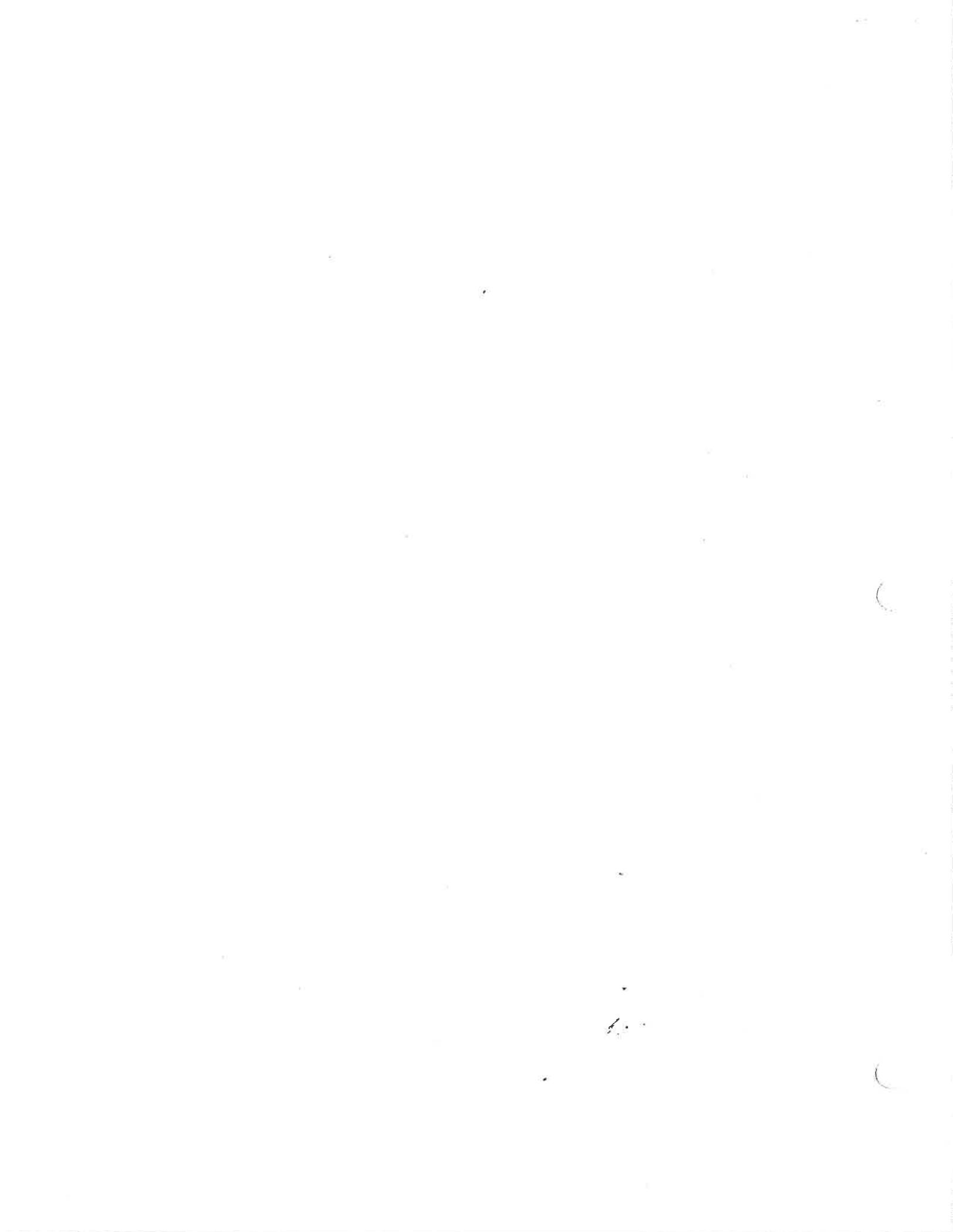
The tank foundation appears to be adequately designed to support the load of a full tank, and there was no sign of distress due to frost heave. Anchorage is not required to resist anticipated seismic or wind loads. The tank system is not located in a saturated zone.

INTEGRITY ASSESSMENT (40 CFR 264.191(b)(5))

Visual inspection of system components was made on June 13, 1990. The purpose of this inspection was to confirm compliance with plans and to identify leaks, defects or damage. Inspection records are presented in Appendix D and show that the only corrective actions needed are to ground the tank and remove the padlock from the emergency vent cover. Ancillary equipment was found to be adequately supported and protected from damage.

SECONDARY CONTAINMENT ASSESSMENT

The following paragraphs give a comparison of the containment system features to current requirements. For brevity, "secondary containment" as used here means features that meet the requirements of 40 CFR 264.193.



SECONDARY CONTAINMENT ASSESSMENT (Continued)

## 1. Required Date (40 CFR 264.193(a))

This system was placed in service in 1981. Secondary containment is required by regulations in 1996.

## 2. Materials Compatibility (40 CFR 264.193(c)(1))

The waste material collected and stored by the system is a used mineral spirits solvent which consists primarily of mineral spirits plus water, solids, oil, and grease picked up in various cleaning and degreasing operations. The primary hazardous characteristic of the waste is ignitability. Based both on literature and on Safety-Kleen's past experience, this material is compatible with and not corrosive to the materials of construction. These are primarily concrete, carbon steel, and polyurethane and epoxy coatings.

## 3. Strength (40 CFR 264.193(c)(1))

The most critical strength requirement for the floor slab of the tank containment structure is to provide foundation support for the clean and used solvent tanks when full. As shown by the calculations in Appendix B, and by satisfactory service, the strength of the floor slab appears to be adequate.

The most critical strength requirement for the containment walls is to resist hydrostatic pressure from containment of 12,000 gallons of spilled waste plus a 25-year, 24-hour rainfall. As shown in Appendix B, the concrete masonry unit wall construction appears to be adequate for this purpose.

3. Strength (40 CFR 264.193(c)(1)) (Continued)

The pressure containment capacity of the pump, piping and other ancillary equipment items was reviewed and found to be adequate for the intended service, as discussed in Appendix B.

4. Foundation (40 CFR 264.193(c)(2))

As shown in Appendix B, the foundation support provided by the floor slab appears to be sufficient to avoid failure of the containment structure due to settlement, compression, uplift and pressure gradients. This conclusion is supported by satisfactory service of the foundation to date.

5. Leak Detection (40 CFR 264.193(c)(3))

All components of this system are aboveground and accessible for visual inspection. Leak detection is provided by daily visual inspection of the containment system for prompt detection of leaks and removal of liquids if required.

6. Liquid Removal (40 CFR 264.193(c)(4))

A blind sump is located at mid-length of the south wall of the containment vault. The vault floor is sloped to promote drainage to this point. Liquid removal is accomplished by hand pump or vacuum truck.

7. Requirements for Vault System (40 CFR 264.193(d) and (e)(2))

As shown on page B-1 of Appendix B, the containment vault for the tank has a design capacity sufficient to hold 100 percent of the tank capacity plus precipitation from a 6.8 inch rainfall. According to Weather Bureau Technical Paper No. 40, the 25-year, 24-hour design

7. Requirements for Vault System (40 CFR 264.193(d) and (e)(2))

(Continued)

rainfall at this site is 2-1/2 to 3 inches. Thus, containment capacity is more than required by 264.193(e)(2)(ii).

Interior concrete surfaces have been coated with a polyurethane epoxy paint. Based on manufacturer's literature and previous experience at other Safety-Kleen facilities, the paint appears to be impermeable to and compatible with the waste to be stored.

Both containment areas (dump and fill curbed area and concrete tank vault) are well ventilated and open to the atmosphere. This feature, together with daily inspections minimize the opportunity for accumulation of explosive vapors.

The containment structures are not subject to external hydrostatic pressures. These could only come from beneath the concrete slabs, and surrounding topography makes this an unlikely event.

8. Ancillary Equipment (40 CFR 264.193(f))

As shown on page B-2 of Appendix B, the curbed containment area for the dump and fill dock has adequate capacity to contain the entire contents of a full dumpster.

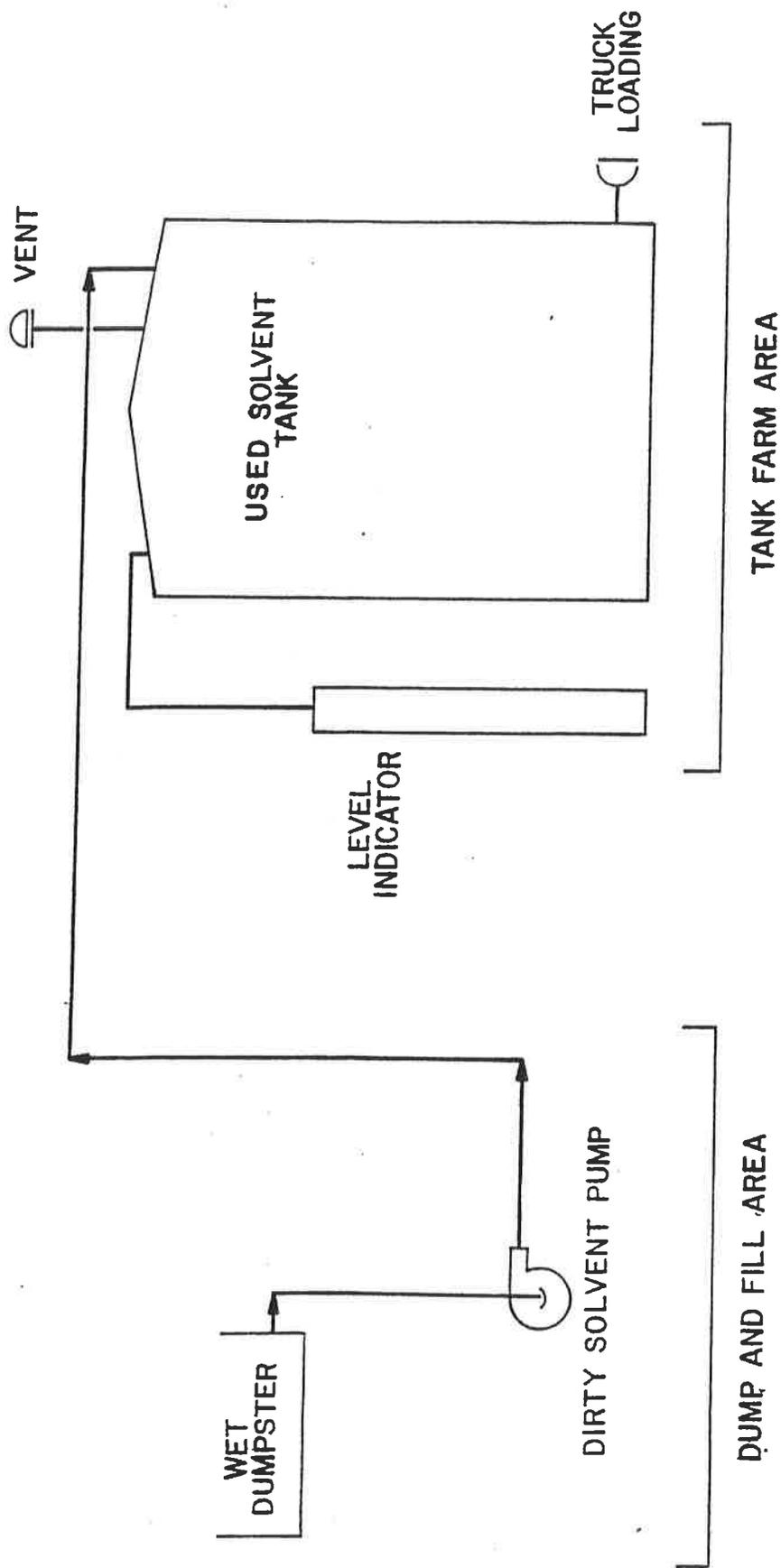
The piping and pump of this system are aboveground. The pump and all non-welded piping joints are located within (or above) the concrete containment structures. The pressure containment capacity, support and protection of ancillary equipment appears to be satisfactory.

CONCLUSIONS OF ASSESSMENTS

Based on the information presented in this report, the used solvent storage tank system at Safety-Kleen's facility in Farmington, New Mexico, appears to be designed to have adequate structural strength and compatibility with the wastes being handled. The system was found to be structurally sound; was not leaking or threatening to leak to the environment; and has adequate secondary containment for the tank and its ancillary equipment.

When the corrective actions named above are complete the tank system will be in compliance with 40 CFR 264.191 and 40 CFR 264.193, the governing rules for these assessments.

ILLUSTRATION



SYSTEM SCHEMATIC

APPENDIX A  
Design Documentation

## APPENDIX A

Design Documentation

The following drawings and other design data were provided by Safety-Kleen to describe the used solvent tank system design. These were used in the design and integrity assessment. Those marked \* are included in this appendix.

<u>Title</u>	<u>Plate No.</u>
* Site Plan, Farmington, NM Branch, D13712.....	A- 1
* Floorplan Showing Various Improvements to Building, Satellite Branch, Farmington, NM, D10239.....	A- 2
* Tank Farm Plan, Farmington, NM Branch, D13713.....	A- 3
* Typical Concrete Construction Details, D11322.....	A- 4
Tank Skid, D13146	
High Level Alarm System Details, D13102	
Used Solvent Storage Tank Installation Details, D11124	
* Solvent Pump Piping Installation Details, D11150.....	A- 5
* Dumpster Final Assembly Details, D10450.....	A- 6
* Safety-Kleen Letter re Standard Dumpster Design and Performance.....	A- 7
Dumpster Valve and Hose Assembly, D10452	
* Emergency & Gate Valve Installation Details, C11302.....	A- 8
Aboveground Vertical Tank Anchoring Assembly Details, C10262	
* Moorman Bros. Tank Gauge Installation, A10243.....	A- 9
* Coating Information Letter, 7/31/89.....	A-10
Carboline, Sikaflex, Federal International Chemicals, and DuPont Coating Product Data Sheets	

July 31, 1989

Wendell Vines  
Tera Testing  
POB 740038  
Houston, Texas 77274

Re: Coating of Dike areas and pipe information

Dear Wendell:

As per your request regarding coating of dike areas, and pipe information:

1. Dike is abrasive blasted with medium to heavy grade silica sand; grade used depends upon existing coating.
2. If concrete has any significant honeycombed areas, they are troweled out and filled with Carbolina 163-2 epoxy filler.
3. Any cracks in concrete are ground out 1/4" deep, beveled on 45 degree angle and filled with Sika Flex 1-A filler caulk.
4. A coating of Dupont 25-P epoxy shale gray is applied at approximately 5 mills D.F.T.
5. After sufficient drying time, a top coat of Dupont Imron shale gray is applied at approximately 2 mills D.F.T.
6. Any pipe or pipe fittings used are A-105 carbon steel.
7. Welding electrodes used are E-6010 and E-7018 Lincoln.

If you should have any additional questions, please do not hesitate to contact me.

Sincerely,

Willie Sellers

APPENDIX B  
Design Review

## APPENDIX B

Design Review

<u>Title</u>	<u>Page No.</u>
Containment Capacity Calculations.....	B- 1
Foundation Calculations.....	B- 3
Containment Wall Calculations.....	B- 4
Tank Venting Calculations.....	B- 5
Earthquake Calculations.....	B- 6
Wind Load Calculations.....	B- 7
Piping System Review.....	B- 8
NFPA-30 Compliance Checklist - Tank.....	B-13
NFPA-30 Compliance Checklist - Piping.....	B-15

SUBJECT: SAFETY-KLEEN CORP.  
FARMINGTON BRANCH  
BY: J.W.C. DATE: 7/7/90



JOB NO.: 90-150  
FILE: \_\_\_\_\_  
SHEET: 1 OF: 2

TANK CONTAINMENT CAPACITY

REF. PLATES A-3 & D-2

GROSS VOL. =  $(38'-2 - 1'-4)(23'-4 - 1'-4)(3'-0)$  = 2,431 ft<sup>3</sup>

(1) VOL. CLEAN SOLVENT TO TOP OF WALL  
 $\frac{\pi}{4}(12'-0)^2(3'-0 - 6") = 283 \text{ ft}^3$

(2) VOL. 2 TANK SKIDS. (REF D13146)  
 $(2)(12)(\frac{3}{12} \times \frac{6}{12})(12) = 36 \text{ ft}^3$

(3) VOL. PIPES, VALVES, PUMP, MISC.  
ASSUME 2% GROSS VOL. = 48 ft<sup>3</sup>

TOTAL (1), (2) & (3) = 367 ft<sup>3</sup>

MAX. VOL. USED SOLVENT =  $(12,000)/(7.481) = 1,604 \text{ ft}^3$

VOL. AVAIL. FOR RAINFALL =  $2,431 - (1,604 + 367) = 460 \text{ ft}^3$

MAX. RAINFALL ACCOMMODATED =  $(460)(12) / (36.83)(22.0) = 6.8"$

WEATHER BUREAU EST. OF 25 YR/24 HR RAIN: 2 1/2" - 3"

∴ TANK CONTAINMENT VOLUME IS ADEQUATE

SUBJECT: SAFETY-KLEEN CORP.

JOB NO.: 90-150

FARMINGTON BRANCH



FILE:

BY: JWC

DATE: 7/7/90

SHEET:

2

OF:

2

DUMPSTER CONTAINMENT CAPACITY REF. PLATES A-3&D-3

$$\text{GROSS VOL.} = (17'-6 - 1'-4)(11'-10 - 1'-4)(7/12) = 99 \text{ ft}^3$$

- (1) DUMPSTER SITS HIGHER THAN CURB  
ON 3 CMU'S.

$$\text{VOL. 3 CMU'S TO CURB HEIGHT} = (8-1)(8)(16)(3)/1728 = 2 \text{ ft}^2$$

- (2) VOL. PUMP, PIPES, GRATING SUPPORTS, MISC.

$$\text{ASSUME 2\% GROSS} = 2 \text{ ft}^2$$

$$\text{TOTAL (1) + (2)} = 4 \text{ ft}^3$$

$$\text{VOL. FOR CONTAINMENT OF USED SOLVENT} = 95 \text{ ft}^3$$

$$\text{VOL. DUMPSTER} = 375 \text{ gal, } 50 \text{ ft}^3 \text{ (SEE PLATE A-6)}$$

∴ DUMPSTER CONTAINMENT VOLUME IS ADEQUATE  
NO RAINFALL ALLOWANCE REQ'D.

NOTE: THIS ANALYSIS DOES NOT CONSIDER VOLUME  
OF THE SUMP WHICH ADDS  $\frac{1}{4}(2)^2(2) \approx 6 \text{ ft}^3$   
OF CONTAINMENT CAPACITY

SUBJECT: SAFETY-KLEEN CORP.

JOB NO.: 90-150

FARMINGTON BRANCH

TERA, inc.

FILE:

BY: J.W.C. DATE: 7/7/90

SHEET: 1 OF 2

CHECK CONTAINMENT FLOOR SLAB AS TANK FOUNDATION

ASSUME: 6" SLAB BASED ON SECTION C-1, DWG. D11322.  
SKID DETAILS BASED ON DWG. D13146

## ANALYSIS REF:

PORTLAND CEMENT ASSN.  
REPORT NO. IS195.01D, "SLAB  
THICKNESS DESIGN FOR IND-  
USTRIAL FLOORS ON GRADE", 1976

USE PROCEDURE ON PAGE 13  
FOR VARIABLE STORAGE LAYOUT.

$$w = 0.123 \frac{1}{h} \sqrt{hk}$$

WHERE  $w$  = ALLO. LOAD, PSF

$f_c$  = WORKING STRESS, PSI

$h$  = SLAB TH., IN.

$k$  = SUBGRADE MOD., PCF

TAKE  $f_c$  = MOD. OF RUPTURE  $\div 1.5$

$$MR = 9 \sqrt{f_c'} \quad (\text{PAGE 2, REF.})$$

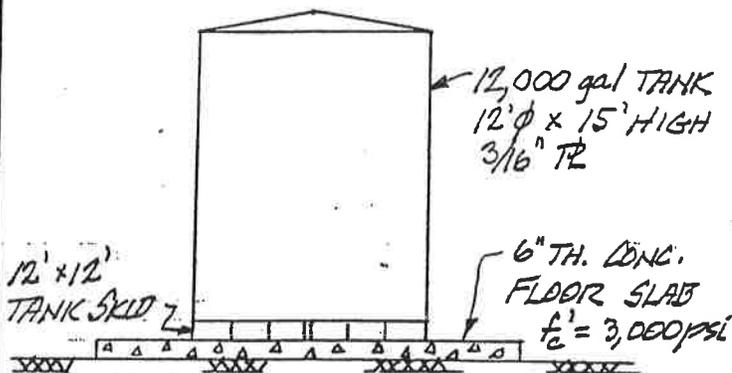
$$= 9 \sqrt{3,000} = 493 \text{ PSI}$$

$$f_c = 493 / 1.5 = 330 \text{ PSI}$$

$$w = .123 (330) (6 \times 100)^{1/2}$$

$$= 994 \text{ PSF NO WIND}$$

$$= (4/3) (994) = 1,325 \text{ PSF WIND}$$



## DISTRIBUTED LOAD UNDER TANK:

$$\begin{aligned} \text{TANK WT.} &= (2.21) (15) \left( \frac{.188}{12} \right) (490) \\ &+ \frac{\pi (12)^2 (.188 + .250)}{12} (490) \\ &+ 5\% \text{ FOR FITTINGS} \\ &= 6,680 \# \end{aligned}$$

$$\begin{aligned} \text{CONTENTS WT.} &= (12,000 / 7.481) (62.4 \times .8) \\ &= 80,080 \# \end{aligned}$$

$$\text{TOTAL WT.} = 86,760 \#$$

$$\begin{aligned} \text{DISTR. LOAD UNDER SKID} \\ &= 86,760 / (12)^2 \\ &= 603 \text{ psf} < w \quad \underline{\text{O.K.}} \end{aligned}$$

## MODEL IS CONSERVATIVE:

1. STRENGTH ADDED BY PERIMETER FOOTING IS NOT INCLUDED.
2. SLAB REINF. IS MORE THAN TEMP. STEEL.

SUBJECT: SAFETY-KLEEN CORP.

JOB NO.: 90-150

FARMINGTON BRANCH

TERA, inc.

FILE:

BY: J.W.C. DATE: 7/8/90

SHEET: 2 OF: 2

CHECK SOIL PRESSURE UNDER CONTAINMENT SLAB

REF.: "SUBGRADES AND SUBBASES FOR CONCRETE PAVEMENT",  
PUBLICATION NO. IS029.02P, 1986, PORTLAND CEMENT  
ASSOCIATION

THE REF. SHOWS THAT FOR THE COMPACT CONFIGURATION  
OF TANKS AND CONTAINMENT VAULT SOIL PRESSURE  
WITH MAX. TANK LOADS IS NEARLY UNIFORM.

(1) WT. 2 TANKS &amp; CONTENTS

$$2 \times 86,760 = 173,520^{\#} \quad (\text{SEE PAGE B-3A})$$

(2) WT. CONTAINMENT SLAB

$$(38'-2)(23'-4)\left(\frac{8''}{12}\right)(150^{\#}/ft^3) = 89,050^{\#}$$

USE 8" SLAB TO ALLOW  
FOR WT. OF PERIMETER  
FOOTING

(3) WT. CONTAINMENT WALLS

$$\text{UNIT WT. OF CMU'S} = \frac{38^{\#}/\text{CMU}}{\frac{(8 \times 8 \times 16)^{\#}}{1728^{\#}}/\text{CMU}} = 64^{\#}/ft^3$$

$$(2)(38'-2 + 23'-4)\left(\frac{8''}{12}\right)(3'-0)(64) = 15,750^{\#}$$

$$\text{TOTAL (1) + (2) + (3) = } 278,320^{\#}$$

$$\text{SOIL PRESSURE UNDER SLAB} \approx (278,320) / (38.167 \times 23.33)$$

$$\approx \underline{313 \text{ psf}} \quad \text{O.K.}$$

SUBJECT: SAFETY-KLEEN CORP.

JOB NO.: 90-150

FARMINGTON BRANCH

TERA, inc.

FILE:

BY: J.W.C. DATE: 7/7/90

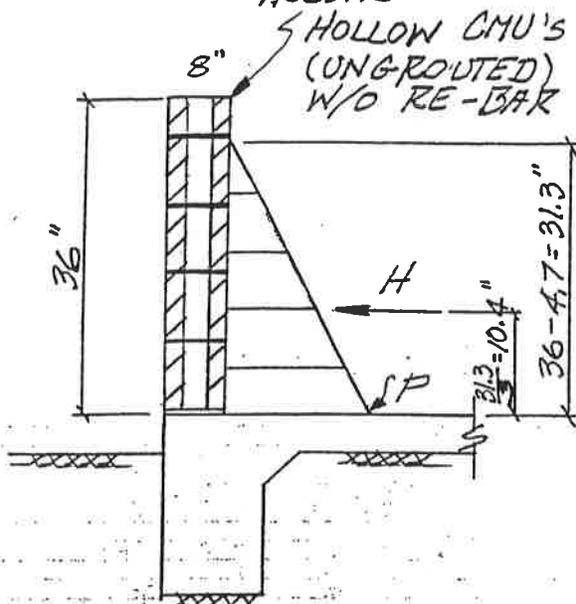
SHEET: 1

OF: 1

## CHECK CONTAINMENT WALL FOR HYDROSTATIC LOADING

NO CONSTR. DETAILS AVAIL., CROSS SECT. ASSUMED FROM INSPECTN.

ASSUME:



$$\begin{aligned} \text{HT. OF 12,000 GAL. OF TANK} \\ \text{CONTENTS PLUS 2.5 IN/24 HR} \\ \text{RAIN} &= \frac{(6.8 - 2.8)(36.87 \times 22)}{(36.87 \times 22 - \frac{\pi}{4} 12^2)} \\ &= 4.7'' \end{aligned}$$

$$P = (62.4 \times 8)(31.3/12) = 130 \text{ psf}$$

$$H = (1/2)(P)(31.3/12) = 170 \text{ \# / ft WALL}$$

$$\text{OTM} = (10.4/12)(170) = 147 \text{ \# / ft WALL}$$

$$\begin{aligned} \text{TENSION STRESS ON MORTAR} \\ \text{@ BOTTOM OF BOTTOM COURSE} \\ \text{(NEGLECTING RE-BAR IN WALL)} \\ = \frac{\text{OTM}}{S} = \frac{(147 \times 12)}{(12 \times 8^2/6)} = 14 \text{ psi} \end{aligned}$$

COMPARE WITH VALUES FROM TABLE 6.3.1.1, "BLDG. CODE REQMTS. FOR MASONRY STRUCTURES", ACI-ASCE 530-88, P. 24.

CONSIDER HOLLOW CONCRETE MASONRY UNITS. ALLOWABLE FLEXURAL TENSION RANGES FROM 9 PSI TO 25 PSI, DEPENDING ON TYPE OF MORTAR. SINCE COMPUTED TENSION STRESS IS WITHIN THIS RANGE, AND ASSUMING TABULATED ALLOWABLES ARE BASED ON LOWER LIMITS OF TEST SCATTER, THE WALL SECTION ABOVE IS CONSIDERED SATISFACTORY

SUBJECT: SAFETY-KLEEN CORP.

JOB NO.: 90-150

FARMINGTON BRANCH



FILE:

J.W.C. DATE: 7/7/90

SHEET: 1

OF: 6

TANK VENTING CALCULATIONS EMERGENCY ONLY.

NORMAL VENTING BY  
MORRISON IRDS. NO. 548 2"φ  
KNOWN TO BE SATISFACTORY  
BY PROVEN PERFORMANCE  
ON 12,000 GAL S-K TANKS.

FROM TABLE 2 OF API 2000:

$$\text{WETTED AREA} = \pi(2)(15) = 565 \text{ ft}^2$$

$$\begin{aligned} \text{EMERG'Y. VENT'G. REQ'D.} &= 354,000 + (65)(38,000) \\ &= 378,700 \text{ SCFH} \end{aligned}$$

EMERGENCY VENTING AVAILABLE:

FROM NORMAL VENT (SEE PAGE B-5C) 20,200 SCFM

FROM SENTINEL S-22 HATCH/VENT  
(SEE PAGES B-5D,E) 367,000

$$\text{TOTAL} = \underline{\underline{387,200 \text{ SCFM}}}$$

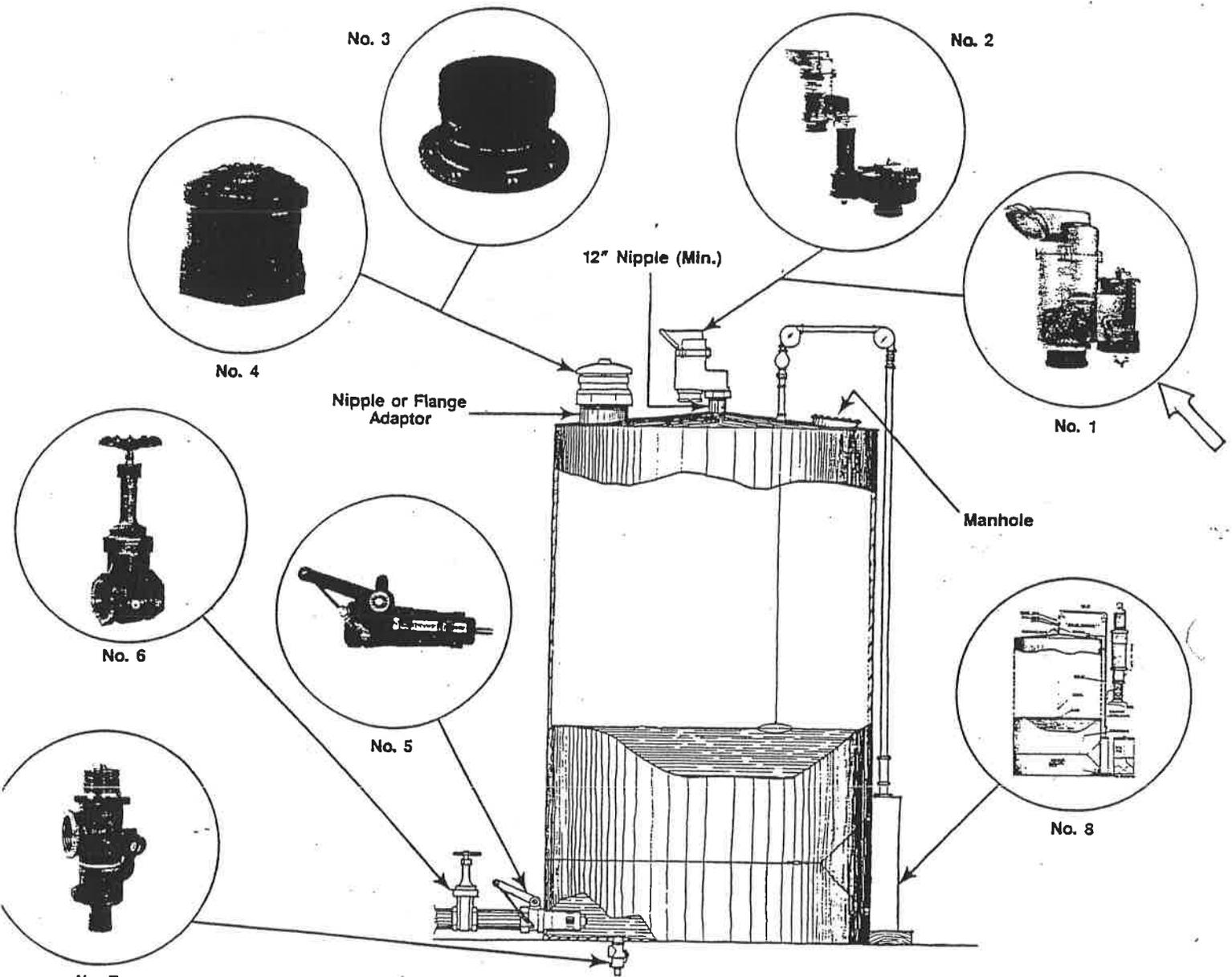
> 378,700 REQ'D.

O.K.

MAX. TANK PRESS. = 26 oz/in<sup>2</sup> FOR EMERGENCY VENTING  
≅ 24 oz/in<sup>2</sup> (1 1/2 psia) TEST PRESSURE

O.K.

## BULK STORAGE TANK EQUIPMENT



- No. 1 — Fig. 548 or 548A — Pressure-Vacuum Vent
- No. 2 — Fig. 748A — Pressure-Vacuum Vent with Flame Arrester
- No. 3 — Fig. 244F — 8" or 10" - Flanged Emergency Vent
- No. 4 — Fig. 244 — 4", 6", or 8" Threaded - Emergency Vent
- No. 5 — Fig. 272HO — Internal Emergency Valve
- No. 6 — Fig. 535 — Gate Valve
- No. 7 — Fig. 128 — 1" - Frost Proof Drain Valve
- No. 8 — Fig. 618 — 31', 40', or 50' - Tank Gauge

**MORRISON BROS. CO.**

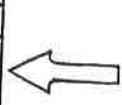
P.O. Box 238  
Dubuque, Iowa 52001



Distributed by:

Vent Capacity at 2.5 PSI Standard Air (Except Fig. 749)

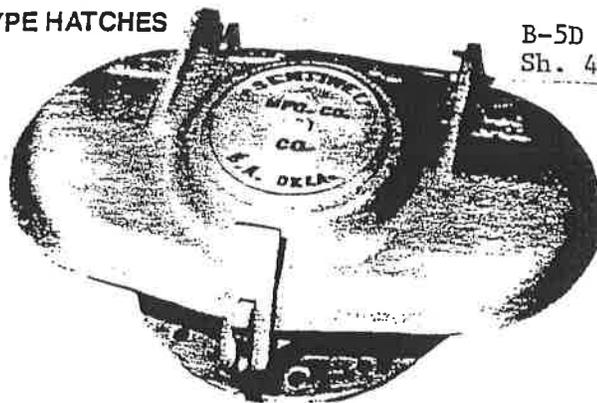
SIZE	FIG NO	DESCRIPTION	PRES oz/sq in	CAPACITY CFH	DATA SOURCE
2"	148ALT	Pressure Vacuum Vent	8	14,200	Tested at Iowa State Univ by P. Kavanagh, 1960
2"	148ALT	Pressure Vacuum Vent	16	10,500	Tested at Iowa State Univ by P. Kavanagh, 1960
2"	351S	Flame Arrester		22,000	Tested at Ohio State Univ by C.E. Buxton Jr, 1967
2"	351S/548-748	Flame Arrester/Vent	2	19,500	Approx. Calculated C.F.H.
2"	351S/548-748	Flame Arrester/Vent	4	19,500	Approx. Calculated C.F.H.
2"	351S/548-748	Flame Arrester/Vent	6	18,500	Approx. Calculated C.F.H.
2"	351S/548-748	Flame Arrester/Vent	8	18,500	Approx. Calculated C.F.H.
2"	351S/548-748	Flame Arrester/Vent	12	17,500	Approx. Calculated C.F.H.
2"	351S/548-748	Flame Arrester/Vent	16	17,000	Approx. Calculated C.F.H.
2"	354	Updraft Vent		27,650	Tested at Univ Wisconsin Platteville by L. Lee, 1988
2"	548 - 748	Pressure Vacuum Vent	2	20,200	Based on ISU Test of 2" 548 - 8oz by Kavanagh, 1960
2"	548 - 748	Pressure Vacuum Vent	4	20,200	Based on ISU Test of 2" 548 - 8oz by Kavanagh, 1960
2"	548 - 748	Pressure Vacuum Vent	6	20,200	Based on ISU Test of 2" 548 - 8oz by Kavanagh, 1960
2"	548 - 748	Pressure Vacuum Vent	8	20,200	Tested at Iowa State Univ by P. Kavanagh, 1960
2"	548 - 748	Pressure Vacuum Vent	12	18,600	Approx. Calculated C.F.H.
2"	548 - 748	Pressure Vacuum Vent	16	18,000	Tested at Iowa State Univ by P. Kavanagh, 1960
2"	749	Pressure Vacuum Vent	8	6,200	Tested at Univ Wisconsin Platteville by L. Lee, 1988
2"	749	Pressure Vacuum Vent	12	7,500	Tested at Univ Wisconsin Platteville by L. Lee, 1988
3"	355	Vapor Diffusing Vent		60,000	Tested at Iowa State Univ by P. Kavanagh, 1960
3"	548	Pressure Vacuum Vent	2	38,800	Based on ISU Test of 3" 548 - 8oz by Kavanagh, 1960
3"	548	Pressure Vacuum Vent	4	38,800	Based on ISU Test of 3" 548 - 8oz by Kavanagh, 1960
3"	548	Pressure Vacuum Vent	6	38,800	Based on ISU Test of 3" 548 - 8oz by Kavanagh, 1960
3"	548	Pressure Vacuum Vent	8	38,800	Tested at Iowa State Univ by P. Kavanagh, 1960
3"	548	Pressure Vacuum Vent	12	37,000	Approx. Calculated C.F.H.
3"	548	Pressure Vacuum Vent	16	36,000	Approx. Calculated C.F.H.
4"	244	Emergency Vent	8	74,700	Approx. Calculated C.F.H.
6"	143	Pressure Vacuum Vent	8	194,000	Based on OSU Test of 6" 143 - 16 oz by Buxton, 1967
6"	143	Pressure Vacuum Vent	10	194,000	Based on OSU Test of 6" 143 - 16 oz by Buxton, 1967
6"	143	Pressure Vacuum Vent	16	194,000	Tested at Ohio State Univ by O.E. Buxton Jr, 1967
6"	244	Emergency Vent	8	194,000	Based on OSU Test of 6" 143 - 16 oz by Buxton, 1967
6"	244	Emergency Vent	10	194,000	Based on OSU Test of 6" 143 - 16 oz by Buxton, 1967
6"	244	Emergency Vent	16	194,000	Based on OSU Test of 6" 143 - 16 oz by Buxton, 1967
8"	143	Pressure Vacuum Vent	8	465,000	Based on OSU Test of 8" 244F - 16 oz by Buxton, 1967
8"	143	Pressure Vacuum Vent	16	465,000	Based on OSU Test of 8" 244F - 16 oz by Buxton, 1967
8"	143A	Fldg Pressure Vacuum Vent	8	465,000	Based on OSU Test of 8" 244F - 16 oz by Buxton, 1967
8"	143A	Fldg Pressure Vacuum Vent	16	465,000	Based on OSU Test of 8" 244F - 16 oz by Buxton, 1967
8"	244	Emergency Vent	8	465,000	Based on OSU Test of 8" 244F - 16 oz by Buxton, 1967
8"	244	Emergency Vent	16	465,000	Tested at Ohio State Univ by O.E. Buxton Jr, 1967
8"	244F	Fldg Emergency Vent	8	465,000	Based on OSU Test of 8" 244F - 16 oz by Buxton, 1967
8"	244F	Fldg Emergency Vent	16	465,000	Tested at Ohio State Univ by O.E. Buxton Jr, 1967
10"	143A	Fldg Pressure Vacuum Vent	3	906,000	Based on OSU Test of 10" 244F - 2.5 oz by Buxton, 1967
10"	143A	Fldg Pressure Vacuum Vent	8	576,000	Approx. Calculated C.F.H.
10"	143A	Fldg Pressure Vacuum Vent	16	546,000	Based on OSU Test of 10" 244F - 16 oz by Buxton, 1967
10"	244F	Fldg Emergency Vent	3	906,000	Tested at Ohio State Univ by O.E. Buxton Jr, 1967
10"	244F	Fldg Emergency Vent	8	576,000	Approx. Calculated C.F.H.
10"	244F	Fldg Emergency Vent	16	546,000	Tested at Ohio State Univ by O.E. Buxton Jr, 1967



Source for Chart: Morrison Bros Co 1989



MODEL S-10



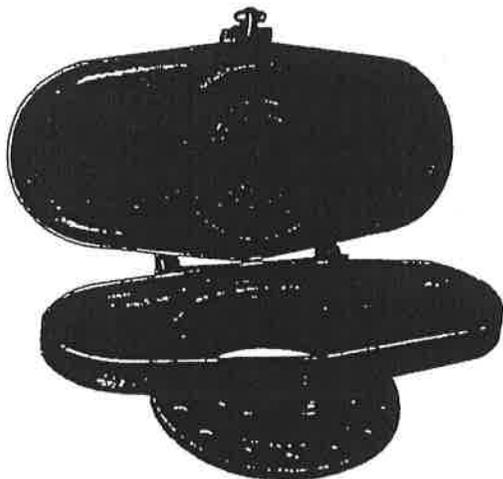
MODEL S-18  
(Available for sour services)

Pressure from 2 oz. to 16 oz. Shipping weight 17 lbs.  
Vacuum .4 oz.

Model S-10 is desired by many operators where "duck  
st" are provided on the tank decks. This valve is the  
same as the model S-22 and functions identically.

- 1 Base
- 2 Drain pan w/5 bolts
- 3 Lid (cover)
- \*4 Pressure valve casting
- \*5 Vacuum disc
- \*6 Back up plate
- \*7 Pressure gasket
- \*8 Vacuum gasket
- \*9 Screw (2 req'd)
- 10 Washer
- 11 Valve guide pin
- 12 Pressure spring
- 13 Vacuum spring (4 oz.)
- 14 Name plate w/screw
- 15 Hinge pin
- 16 Hair pin cotter
- 17 Hook
- 18 Handle
- 19 Roll pin (short)
- 20 Latch hinge pin (long)
- \*21 Pressure vacuum valve ass'y less spring  
(Parts No. 4, 5, 6, 8, 9, 10, 11, 13)
- \*22 Latch unit (Parts No. 17, 18, 19)

**Standard API Bolting Circle**



MODEL S-22

All aluminum spring type hatch  
8" round opening w/oblong drain pan  
Base & pan — one piece construction (low maintenance)  
Bolting pattern, standard A.P.I. (sixteen holes on 10<sup>3</sup>/<sub>8</sub>"  
bolt circle)  
4/10 oz. vacuum  
2, 4, 6, 8, 10 or 16 oz. pressure  
Lock type latch

**PARTS**

- 1 Base (aluminum)
- 2 Lid (aluminum)
- 3 Pressure valve casting
- 4 Vacuum disc (aluminum)
- 5 Back-up plate (aluminum)
- 6 Valve guide stem (aluminum)
- 7 Vacuum spring
- 8 Vacuum gasket
- 9 Screws (2) Regular (Plated or Stainless)
- 10 Pressure gasket (P.V.C. sponge)
- 11 Pressure spring Available in stainless steel on incanal

**MODEL S-22**



Pressure from 2 oz. to 16 oz. Shipping weight 20 lbs.  
Vacuum .4 oz.  
(Greater pressure on request only)

Model S-22 has circular base with full 8" opening, A.P.I.  
standard bolt circle and hillside flange. All other parts are  
non-ferrous metal, light in weight, yet rugged in construc-  
tion. All Gaskets are of neoprene and springs are plated to  
insure against corrosion from gases or acids. Cross sec-  
tion on opposite page is self explanatory.

**SIX POINTS OF DISTINCTION IN SENTINEL  
HATCHES**

HIGH GRADE NON-  
FERROUS ALLOYS —  
No pot metal. No spark  
producing steel.

BREAKAGE REDUCED  
TO A MINIMUM — but  
little to wear out.

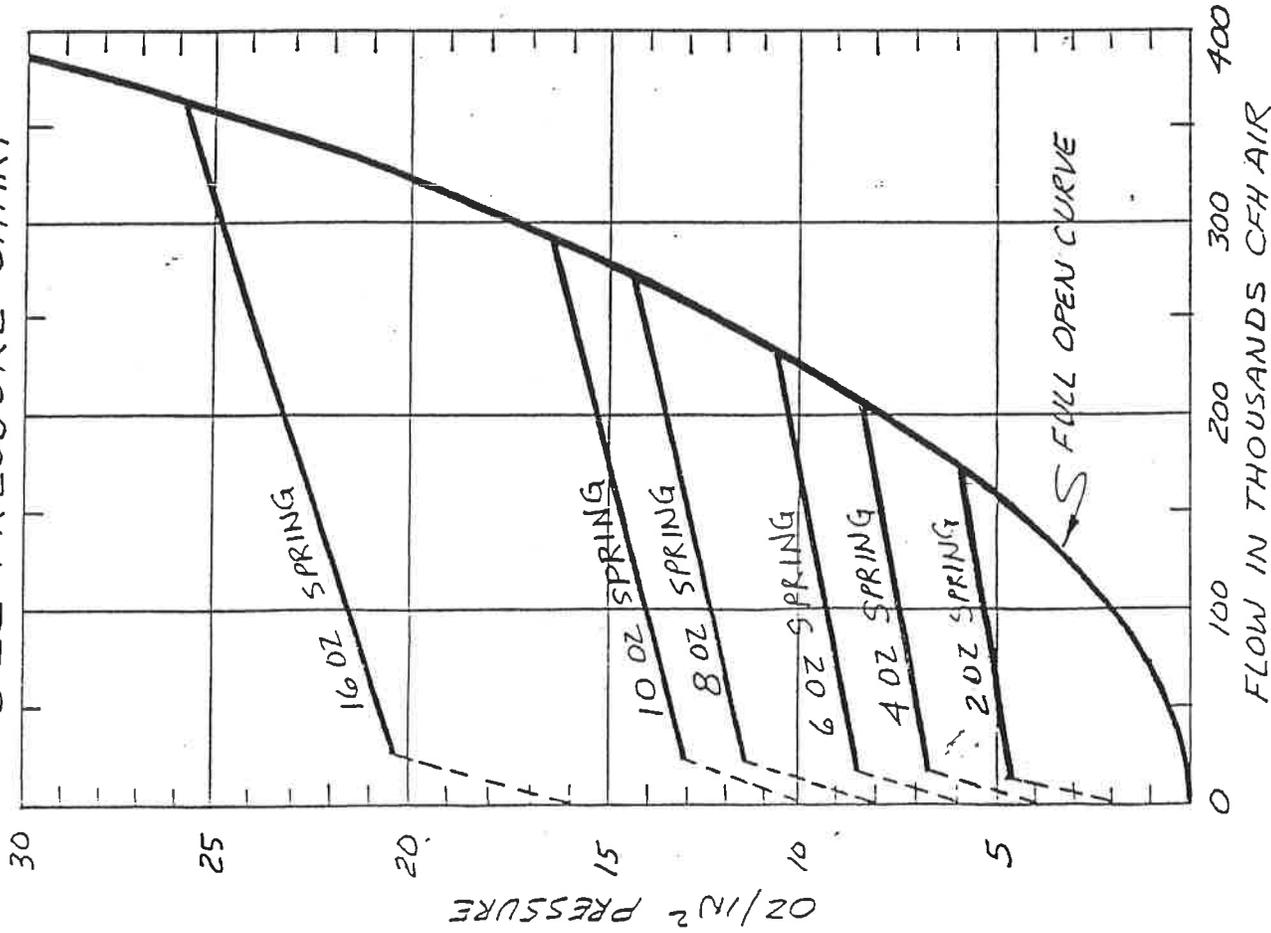
HINGE LUGS STURDY  
AND STRONG —  
moulded for endurance.

LATCH AND BLEEDER  
ARE tenzaloy.

GASKETS SECURELY  
HELD IN PLACE — no  
pulling out, no distortion,  
yet easily replaced.

GASKETS STAMPED  
FROM STANDARD  
SHEET STOCK — no  
moulded gaskets to  
become obsolete and  
impossible to replace.

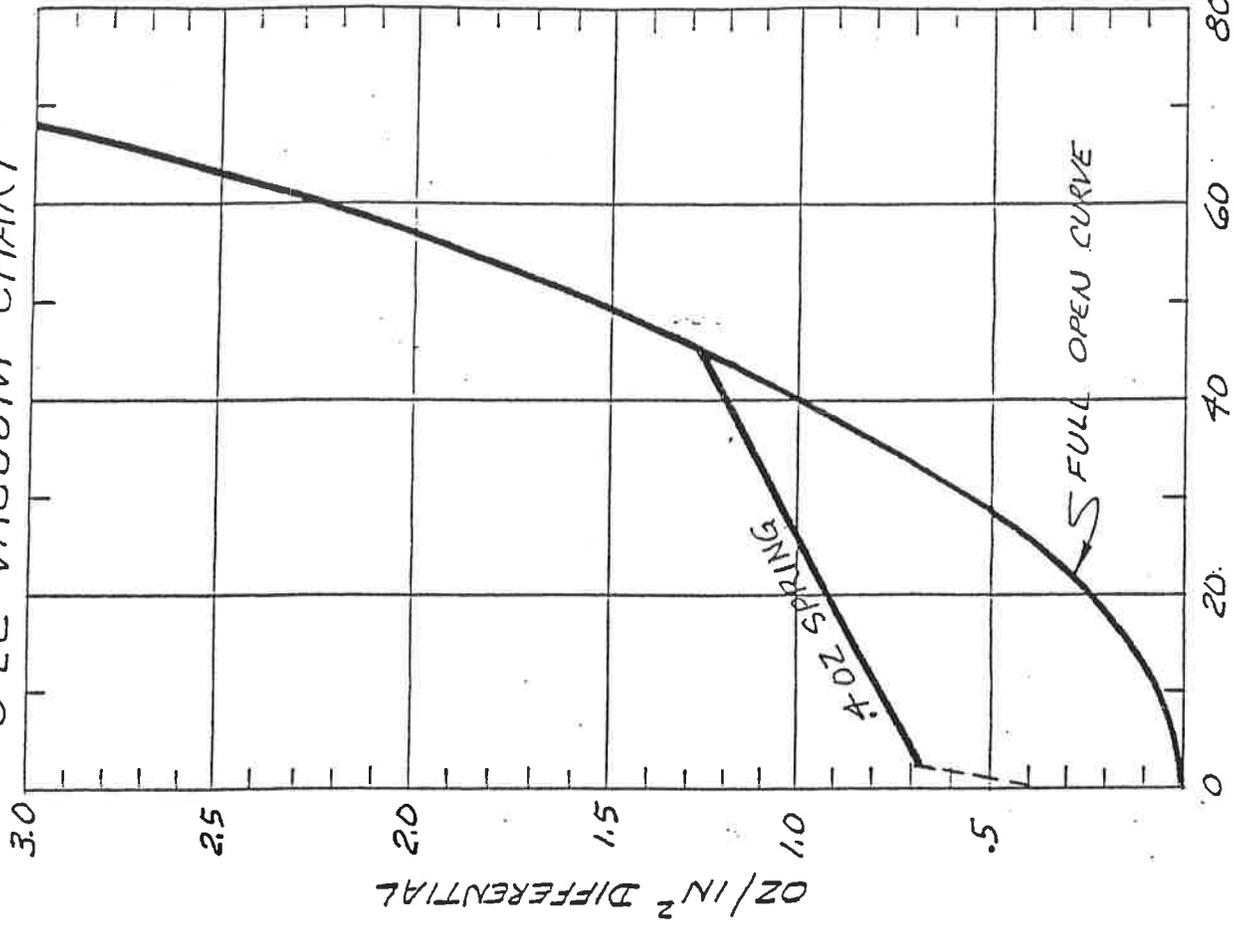
# S-22 PRESSURE CHART



S-22 HATCH PRESSURE FLOW CHART  
SENTINEL MFG

NOTE: CFH @ 60°F ± 14.7 PSIA

# S-22 VACUUM CHART



S-22 HATCH VACUUM FLOW CHART  
SENTINEL MFG

S-22 HATCHES

PRESSURE RELIEF FLOW

<u>SPRING SETTING</u> <u>OZ.</u>	<u>FULL OPEN PRESSURE</u> <u>OZ./IN<sup>2</sup></u>	<u>FLOW RATE</u> <u>CFH* @ FULL OPEN</u>
2	6.0	175,000
4	8.5	210,000
6	10.7	236,000
8	14.5	275,000
10	16.6	293,000
16	26.0 = $1\frac{5}{8}$ psig $\approx$ $1\frac{1}{2}$ psig	367,000

*Test Pressure* ←

VACUUM RELIEF FLOW

<u>SPRING SETTING</u> <u>OZ.</u>	<u>FULL OPEN VACUUM</u> <u>OZ./IN<sup>2</sup></u>	<u>FLOW RATE</u> <u>CFH* @ FULL OPEN</u>
.4	1.3	46,000

\*CFH AT 60° F & 14.7 PSIA

SUBJECT: SAFETY-KLEEN CORP.

JOB NO.: 90-150

FARMINGTON BRANCH TERA, inc.

FILE:

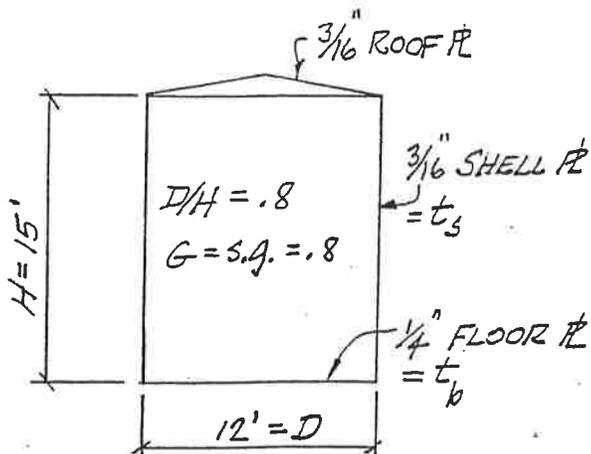
BY: J.W.G. DATE: 7/7/90

SHEET: 1

OF: 1

CHECK ZONE 2 EQ RESPONSE OF TANK

- REF.: 1. PLATES D-1 & D-4, TANK DETAILS  
2. API 650, APPENDIX E, SEISMIC DESIGN

OVERTURNING MOMENT (§E.3.1)

$$M = ZI(C_1 W_3 X_3 + C_1 W_r X_r + C_1 W_1 X_1 + C_2 W_2 X_2)$$

$$Z = .375 \text{ (ZONE 2, TABLE E-1)}$$

$$I = 1.0$$

$$C_1 = .24 \quad T = kD^{1/2} \quad k = .6 @ D/H = .8$$

$$= (.8)(12)^{1/2}$$

$$= 2.77 \text{ SEC}$$

$$C_2 = \frac{.35}{1.6} \quad S = 1.5, \text{ SOIL UNKNOWN}$$

$$W_3 = \pi(12) \left( \frac{.188}{12} \right) (15) (490) (1.05) = 4,560 \#$$

$$W_r = \frac{\pi}{4} (12)^2 \left( \frac{.188}{12} \right) (490) (1.05) = 910 \#$$

↑ FITTINGS FACTOR

$$W_T = \frac{\pi}{4} (12)^2 (15) (62.4 \times .8) = 84,700 \#$$

$$W_1/W_T = .85 @ D/H = .8 ; W_1 = 72,000 \#$$

$$W_2/W_T = .20 @ D/H = .8 ; W_2 = 16,900 \#$$

$$M = (.375)(1.0) [ .24(7.5)(4,560) + .24(15.0)(910) + .24(6.3)(84,700) + .16(11.3)(16,900) ]$$

$$= 64 \text{ k}$$

RESISTANCE TO OVERTURNING (§E.4)

$$W_L = 7.9 t_b \sqrt{FGH} = 1,185 \#/\text{ft CIRCUM.}$$

$$1.25 GHD = 180 \#/\text{ft CIRCUM. USE}$$

$$W_T = (4,560 + 910) / \pi(12)$$

$$= 145 \#/\text{ft CIRCUM}$$

$$M / [D^2 (W_T + W_L)] = 1.37 < 1.57$$

∴ TANK IS STABLE W/O ANCHORAGE

$$\frac{b + W_L}{W_T + W_L} = 4.5 \text{ (FIG. E-5)}$$

$$b = 1640 \#/\text{ft CIRCUM.}$$

$$b/12 t_s = 730 \text{ PSI SHELL COMP, O.K.}$$

SUBJECT: SAFETY-KLEEN CORPORATION

JOB NO.: 90-150

Farmington Branch



FILE:

BY: J.W.C. DATE: 7/8/90

SHEET: 1 OF: 1

Wind Response of 12,000 gal Used Solvent Storage Tank

Ref.: 1. ANSI A58.1 - 1982, Min. Design Loads for Bldg's.  
and Other Structures

h = 15'-0

D = 12'-0

h/D = 1.25

From Table 4, Ref. 3:  $F = q_z G_h C_f A_f$

$$q_z = .00256 K_z (IV)^2$$

$$= .00256 (.80) (.95 \times 70)^2$$

$$= 9.1 \text{ psf}$$

	z	$\frac{K_z}{z}$	z/h
	0-15'	0.80	x 1.00 = .80
Table 6 Exp. C	15-20'	0.87	x -
	20-25'	0.93	x -
	25-30'	0.98	x -

Wtd. avg  $K_z = .80$

$$A_f \approx D \times h = 180 \text{ ft}^2$$

I = .95 (Cat. IV, empty)

$$F = q_z G_h C_f A_f$$

V = 70 mph (Fig. 1) @ Farmington

$$F = 1.557 \text{ lbs}$$

	z	$\frac{G_h}{z}$	z/h
	0-15'	1.32	x 1.00 = 1.32
Table 8 Exp. C	15-20'	1.29	x -
	20-25'	1.27	x -
	25-30'	1.26	x -

Wtd. avg.  $G_h = 1.32$

$$C_f = \text{Rough } .7 + (.1 \times h / (6D)) = .72$$

(See Table 12)

Righting moment of weight of empty tank about a heel point on the bottom

$$\text{Tank wt.} = 6.7 \text{ K (See Page B-3A)}$$

$$M_r = (\text{wt.})(D/2) = 40' \text{ K} > M_w$$

$$F.S. = M_r / M_w = 3.44 \text{ against overturning}$$

∴ Wind anchorage is not required

### PIPING SYSTEM REVIEW

Safety-Kleen 105 Solvent (clean and used) is a Class II combustible liquid as defined by NFPA 30 "Flammable and Combustible Liquids Code". NFPA 30 is therefore an appropriate and applicable standard for the design of piping systems which handle those liquids.

NFPA 30 paragraph 3-2.1 generally requires that pipe, valve, fitting, and other pressure-containing components meet the material, pressure, and temperature limitations of ANSI B31.3 "Chemical Plant and Petroleum Refinery Piping" or ANSI B31.4 "Liquid Petroleum Transportation Piping Systems".

#### System Design Pressure and Temperature

The maximum clean solvent system operating pressure would occur downstream of the pump with the pump operating shut in with the solvent tank full. From ITT Marlow pump data the maximum differential head of the 20 EVP and 30 EV-A series pumps used by Safety-Kleen is less than 120 feet. Maximum suction head with the tank full will be less than 30 feet. Maximum clean solvent system operating pressure is therefore 150 ft or 55 psig (at .85 SG).

ITT Marlow pump data for the 1-1/2 HR49 series pumps used for the used solvent systems shows a maximum differential head at shut off of less than 60 feet. Maximum suction head is less than 5 feet for the used solvent system. Maximum used solvent system pressure is 65 feet or 24 psig (at .85 SG).

The system operates at ambient air temperatures. This falls under the ANSI materials specification temperature range of -20 to 200°F.

### Pumps

The ITT Marlow pumps used by Safety-Kleen (usually models 20EVP-A and 1-1/2 HR49RC) are intended for use in these types of systems. The pumps appear to meet the pressure design requirements of the Hydraulic Institute Standards and ANSI B31.3-1984 (paragraph 304.7.2).

### Pipe

NFPA 30 generally requires pipe to meet the material, pressure, and temperature specifications of ANSI B31.3 or B31.4. Carbon steel piping material specifications listed in B31.3 include ASTM A53, A106, A120, and A135. Many other carbon steel, alloy steel, stainless, and non-ferrous materials are also listed in B31.3. Non-listed materials may also be used after review of their suitability.

ANSI B31.3 limits the design pressure of systems using ASTM A53 Type F, A120, and some other carbon steel materials to 150 psig. This value exceeds the design pressure of the systems under review. The lowest allowable tensile stress specified in B31.3 for listed carbon steel pipe materials in the -20 to 200°F range is 9700 psi for ASTM A120. ANSI B31.3 paragraph 304.1.2 requires that pipe wall thickness satisfy  $t = \frac{pD}{2SE}$ ; where t is minimum wall thickness, p is design pressure, D is pipe outside diameter, and SE is the allowable tensile stress.

Pipe Size	Schedule	Nominal Wall	Minimum Wall	$t_{100}$ (A120)
3/4	80	.154	.135	.005
3/4	40	.113	.099	.005
1	80	.179	.157	.007
1	40	.133	.116	.007
1-1/4	80	.191	.167	.009
1-1/4	40	.140	.123	.009
1-1/2	80	.200	.175	.010

(Continued next page)

Pipe Size (Continued)	Schedule	Nominal Wall	Minimum Wall	$t_{100}$ (A120)
1-1/2	40	.145	.127	.010
2	40	.154	.135	.012
2-1/2	40	.203	.178	.015
3	40	.216	.189	.018
4	40	.237	.207	.023

In the chart above "Minimum Wall" is the nominal pipe wall thickness less the 12.5 percent allowable manufacturing tolerance. In all cases Schedule 40 or 80 pipe exceeds the wall thickness required by B31.3 for a system design pressure of 100 psig, shown as  $t_{100}$  above for ASTM A120 pipe.

ANSI B31.3 paragraph 314.2.1 requires that the wall thickness of threaded pipe meet ANSI B36.10 specifications for Schedule 80 in sizes 1-1/2" and smaller and Schedule 40 for sizes 2" and larger.

The rubber hose used to connect the dumpsters to the used solvent pump suction piping is compatible with the material handles and suitable for the pressure level of the service. The hose joint system used is mechanical and does not rely on the resiliency or friction characteristics of the hose material.

### Valves

Morrison Brothers rate the valve types used by Safety-Kleen at a normal pressure limit of 125 psi and a cold non-shock limit of 200 psi. This exceeds the system design and operating pressures. The Morrison Brothers valves appear to meet ANSI B31.3 design requirements for the service. Other 125 lb. or 150 lb. class valves meeting the ANSI, API, AWWA, OR MSS specifications listed in ANSI B31.3 would also be acceptable. Non-listed valves would be acceptable if they meet B31.3 criteria for the service.

### Fittings, Flanges, and Other Components

Fittings, flanges, and other components produced to ANSI 125 lb. class (or better) specifications are suitable for use at maximum non-shock hydraulic working pressures to 175 psig at ambient temperatures (per ANSI B16.1). Fittings, flanges, and other components produced to ANSI 150 lb. class (or better) specifications are suitable for use at design pressures up to 260 psig for temperatures below 200<sup>o</sup>F (per ANSI B16.5 (A105 flanges)). Since those pressures exceed the design and operating pressures of the systems under review, components meeting 125 or 150 lb. class requirements are suitable for use in this system. Unlisted components and piping elements whose pressure rating and materials are suitable for the service and which have extensive successful service experience under comparable design conditions are acceptable for use under B31.3 paragraph 304.7.2.

### Low Melting Point and Non-Ductile Materials

NFPA 30, paragraph 3-2.4, places restrictions on the use of valves and piping components made of low melting point and non-ductile materials. When used within buildings or aboveground outdoors those materials must be either: a) suitably protected against fire exposure; or b) so located that any leakage resulting from failure would not unduly expose persons, important buildings, or structures; or c) located where leakage can readily be controlled by operation of an accessible, remotely located valve(s).

Safety-Kleen systems which are provided with tank shut-off valves and secondary containment meeting 40 CFR 264.193 requirements comply with options b) and/or c) above.

### Tank Connections

NFPA 30 requires that each connection to an aboveground tank through which liquid can normally flow be provided with an internal or external valve located as close as practical to the shell of the tank. External valves must be of steel or nodular iron. Internal valves (as used by Safety-Kleen) may be constructed of other materials. Other tank connections below the liquid level through which liquid does not normally flow must be provided with a liquid-tight closure.

### Tank Fill and Emptying Connections

NFPA 30 lists several requirements for tank fill and emptying connections. Normal Safety-Kleen design and installation practice is in conformance with these requirements.

### Testing

NFPA 30 requires that before being placed in service all piping must be hydrostatically tested to 150 percent of the maximum anticipated pressure of the system or pneumatically tested to 110 percent of the maximum anticipated pressure with a 5 psig minimum. Test duration is required to be sufficient to visually inspect all joints and connections, with a 10 minute minimum. ANSI B31.3 specifies a 25 psi preliminary check for pneumatic tests as a safety precaution.

### Summary

Safety-Kleen solvent piping systems which comply with the items on the attached checklist will be in compliance with the applicable requirements of NFPA 30-1987.

TANKS

NFPA 30 - 1987 Compliance Checklist

for Safety-Kleen Corp. Aboveground Tank Systems

Branch Location: Farmington, NM Review By: J.W. Cox Date: 7/6/90

- Yes 1. Tanks are labeled indicating compliance with API 12F.
- Yes 2. Tanks with a capacity of 12,000 gallons or less are located at least 15 feet from the nearest property line. Tanks with a capacity over 12,000 gallons are located at least 20 feet from the nearest property line.
- Yes 3. Tanks are located at least 5 feet from the nearest building or public way.
- No 4. 9'-0" and smaller diameter tanks are located at least 3 feet apart. Tanks larger than 9 feet in diameter are separated by a distance at least equal to 1/6 the sum of the adjacent tank diameters (e.g. 12 foot tanks:  $(12+12) \div 6 = 4$  feet). Tanks are 3'-0 apart.
5. Tanks are provided with spillage containment meeting the following requirements:
- Yes a) Any discharged liquid is prevented from endangering important facilities, adjoining property, or reaching waterways.
- N/A b) A slope of not less than 1 percent is provided away from the tank to the base of the containment dike.
- Yes c) The net volumetric capacity of the diked area shall not be less than the capacity of the largest tank within the dike.
- Yes d) The outside of the dike at ground level is at least 10 feet from any property line.
- UNK e) Walls shall be designed to be liquid-tight and to withstand a full hydrostatic head.
- Yes f) When provision is made for draining water from diked areas, such drains are provided with a normally closed valve outside the dike wall. (Blind sump)
- Yes g) Storage of combustible materials, empty or full drums, or barrels within the diked area is prohibited.

TANKS

NFPA 30 - 1987 Compliance Checklist

for Safety-Kleen Corp. Aboveground Tank Systems  
(Continued)

Branch Location: Farmington, NM Review By: J.W. Cox Date: 7/6/90

- Yes 6. Tanks are provided with a normal vent of at least 2-inch nominal diameter.
- No 7. Tanks are provided with emergency venting provisions in the form of Sentinel model S-22 covered hatch
- Yes 8. Tank openings comply with Items 8 and 9 of TERA Piping Checklist requirements.
- Yes 9. Tank fill and emptying connections comply with Items 11-15 of TERA Piping Checklist items.
- Yes 10. Tank foundation has been reviewed for adequacy to support anticipated loads.
- N/A 11. Steel tank supports or skirts over 12" high are provided with insulation to provide a fire resistance rating of 2 hours or more.
- Yes 12. At least the top 30% of the tank shells are above the anticipated flood level, a water supply is available to fill tanks in case of flood, and tanks are anchored to prevent floating.
- Yes 13. Tanks are shop tested in accordance with API 12F. (API nameplate on tank is acceptable proof of this test.)
- UNK 14. Tanks and connections are tightness tested at site at operating pressure using air or water prior to being placed in service.
- No 15. Exceptions to the above items have been reviewed and found to be in compliance with NFPA 30 and/or UL 142 requirements.

Safety-Kleen aboveground tanks in compliance with the above items will meet the requirements of NFPA 30 - 1987. Systems should also be checked for compliance with local fire code requirements, which may be more stringent than those of NFPA 30.

PIPING, VALVES, AND FITTINGS

NFPA 30-1987 Compliance Checklist

for Safety-Kleen Corp. Aboveground Tank Systems

Branch Location: Farmington, NM Review By: J.W. Cox Date: 7/6/90

- Yes 1. Pumps are ITT Marlow 20EVP-A, 30 EV-A, or 1-1/2 HR49EC series pumps.
- Yes 2. Steel piping meets ASTM A53, A106, A120, or A135 specifications.
- Yes 3. Wall thickness of threaded pipe meets ANSI B16.10 specifications for Schedule 80 for sizes 1-1/2" and smaller and Schedule 40 for sizes 2" and larger. Wall thickness of welded pipe of all sizes meets Schedule 40 requirements as a minimum. Based on UT readings
- NONE 4. Dumpster hose assembly is S-K Part No. 5237 (per Safety-Kleen drawing D10452). Dumpster connected to pump by pipe.
- Yes 5. Valves are Morrison Brothers (S-K standard items) or meet ANSI 125 or 150 lb. class requirements.
- Yes 6. Flanges and fittings meet ANSI B16 125 lb. (for cast iron and non-ferrous materials) or 150 lb. class (for steel and malleable iron) requirements.
- N/A 7. Valves and piping components of low melting point or non-ductile materials (ie. brass, bronze, aluminum, plastic, rubber, and cast iron) are located within containment areas meeting 40 CFR 264.193 requirements.
- Yes 8. Tank connections below the liquid level through which liquid can normally flow are provided with an internal emergency shut-off valve (with fusible link) and a manual valve close to the tank.
- Yes 9. Tank connections below the liquid level through which liquid does not normally flow are provided with a liquid-tight plug or blind.
- Yes 10. Used solvent tank fill line drop-tube is provided with vacuum breaker in line external to tank and/or hole in top of drop-tube inside of tank to prevent siphoning of liquid from tank.

PIPING, VALVES, AND FITTINGS

NFPA 30-1987 Compliance Checklist

for Safety-Kleen Corp. Aboveground Tank Systems

(Continued)

Branch Location: Farmington, NM Review By: J.W. Cox Date: 7/6/90

Tank fill and emptying connections (ie. tank truck connections) are:

- Yes 11. outside of buildings in a location free of ignition sources;
- Yes 12. not less than five feet from any building opening;
- Yes 13. furnished with provisions for liquid-tight closure when not in use (ie. valve and hose connection cap);
- Yes 14. properly identified by color coding;
- Yes 15. provided with check valves.
- UNK 16. Prior to being placed in service all piping will be hydrostatically tested at 115 psig or pneumatically tested at 85 psig for a minimum of 20 minutes. Pneumatic tests shall include a preliminary check at not more than 25 psig. All piping joints and components shall be examined for leakage during the test.
- None 17. Exceptions to the above items have been reviewed and found to be in compliance with NFPA 30 and/or ANSI B31.3 specifications.

APPENDIX C  
Description of Waste

APPENDIX D  
Inspection Records

APPENDIX D

Inspection Records

<u>Title</u>	<u>Plate No.</u>
Tank Inspection Record.....	D-1
Tank Containment Inspection Record.....	D-2
Dumpster Containment Inspection Record.....	D-3
Photographs.....	D-4

TERA, INC.

TANK INSPECTION RECORD

Sheet: 1 of 1  
CLIENT: Safety-Kleen Corporation Job No. 90-150  
PLANT LOCATION: Farmington, New Mexico Date: 6/13/90  
TYPE INSPECTION: Exterior By: J.W.C.  
ITEM NO: CODE: API 12F YEAR BUILT: 1981  
SERVICE: Store used mineral spirit solvent  
CAPACITY: 12,000 gal TANK/DRUM TYPE: Cyl shell/flat bot/cone roof

	<u>ROOF</u>	<u>SHELL</u>	<u>BOTTOM</u>
MATLS:	Mild steel all		
ROOF CONDITION:	Satisfactory		
SHELL CONDITION:	Satisfactory		
BOTTOM CONDITION:	Satisfactory		
SUPPORT TYPE:	Standard S-K Tank Skid (Dwg. D13146)		
FOUNDATION CONDITION:	Flat R/C slab on grade. Satisfactory		
INTERNAL STRUCTURE CONDITION:	None		
WELDED/FLANGED JOINT CONDITION:	Satisfactory		
NOZZLE CONDITION:	Satisfactory		
COATING CONDITION:	Tight all around		
INSULATION CONDITION:	None		
SAFETY VALVE CONDITION:	Satisfactory. Breather vent Morrison Bros. #548 Emergency Vent Sentinel No. S-22		
SIGNS OF CRACKS:	None		
SIGNS OF LEAKAGE:	None		
SIGNS OF CORROSION:	None		
SIGNS OF EROSION:	None		

TEST? Yes TYPE: UT Spots RESULTS: As tabulated below

OPERATING CONDITIONS: MAX TEMP: Amb. MAX PRESS: 1 psi VAC: 2"H<sub>2</sub>O

REFERENCE INSPECTION RECORDS: None

COMMENTS: 1. Random UT spot readings through paint: Tank shell 0.204" to 0.209"; 3" pipe 0.207" to 0.225"; 2" pipe 0.151" to 0.157".  
2. Tank API nameplate by American Tank & Steel Corp., Farmington, API 12F, 12'x15' high, 1/4" bot., 3/16" shell and deck, 300bbl (42 gal), 1981, mfg. serial #8306.  
3. Tank is not grounded.  
4. Cover of emergency pressure vent is secured with a padlock.

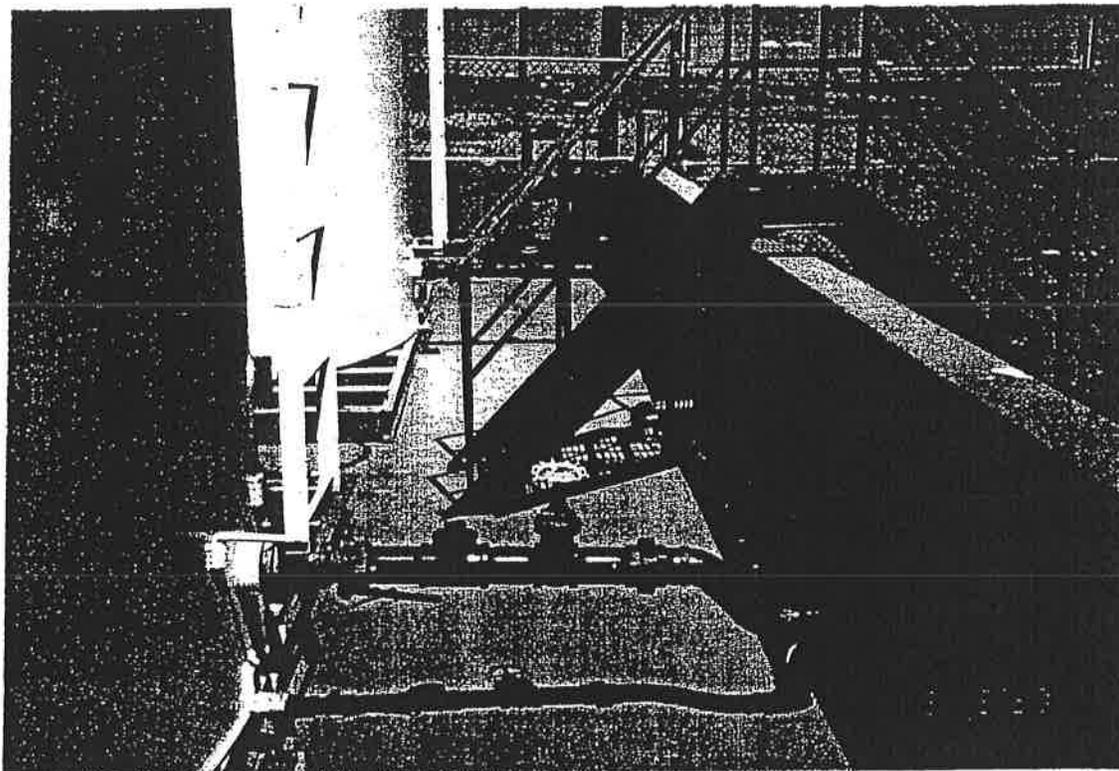
TERA, INC.

CONTAINMENT INSPECTION RECORD

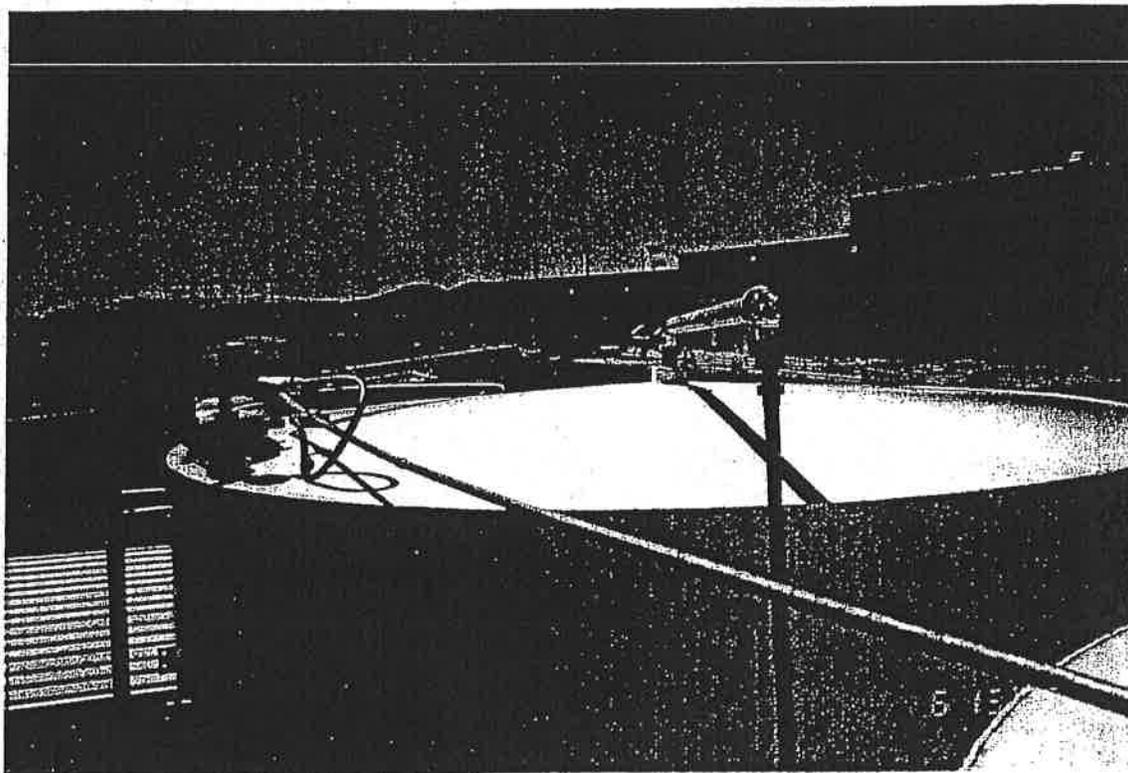
Sheet: 1 of 1  
Job No. 90-150  
Date: 6/13/90  
By: J.W.C.  
YEAR BUILT: 1981

CLIENT: Safety-Kleen Corporation  
PLANT LOCATION: Farmington, New Mexico  
TYPE: Vault  
LEAK DETECTION TYPE: Visual  
SERVICE: Contain 12,000 gal used and fresh solvent tanks  
OUTSIDE DIMENSIONS: LENGTH 38'-2 WIDTH 23'-4  
INSIDE HEIGHT 3' @ corners; 3'-1 @ sump WALL TH. 8"  
CAPACITY: 18,200 gal LARGEST TANK CAPACITY 12,000 gal

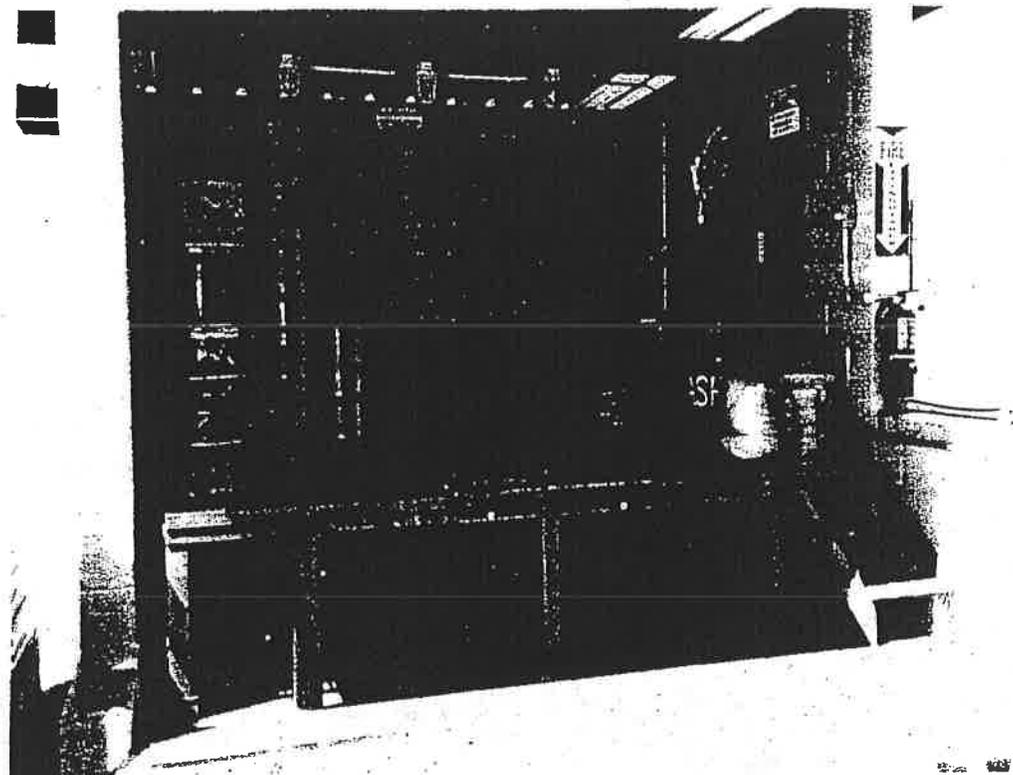
	<u>ROOF/TOP</u>	<u>WALL</u>	<u>BOTTOM</u>
CONSTRUCTION MATLS:	CMU (masonry) perimeter wall, R/C floor slab		
LININGS: INTERIOR SC	Polyurethane paint	EXTERIOR PRIMARY	Paint
JOINT TREATMENTS:	Sealed with interior lining paint		
ROOF/TOP CONDITION:	None		
WALL CONDITION:	Satisfactory		
BOTTOM CONDITION:	Satisfactory		
SUPPORT TYPE:	Slab on grade		
FOUNDATION CONDITION:	Satisfactory. Shrinkage cracks are sealed		
INTERNAL STRUCTURE CONDITION:	None		
JOINT CONDITION:	Satisfactory. All sealed w/epoxy and painted over		
LINING/COATING CONDITION:	Satisfactory. No shrinkage evident at crack repairs.		
LIQUID REMOVAL METHOD:	Hand pump and vacuum truck		
SIGNS OF CRACKS:	Normal shrinkage cracks, all sealed		
SIGNS OF LEAKAGE:	None		
SIGNS OF CORROSION:	None		
SIGNS OF EROSION:	None		
OPERATING CONDITIONS:	Open to atmosphere		
REFERENCE INSPECTION RECORDS:	None		
COMMENTS:	Containment structure appears to be in excellent condition. Masonry wall shows no cracking or other signs of settlement.		



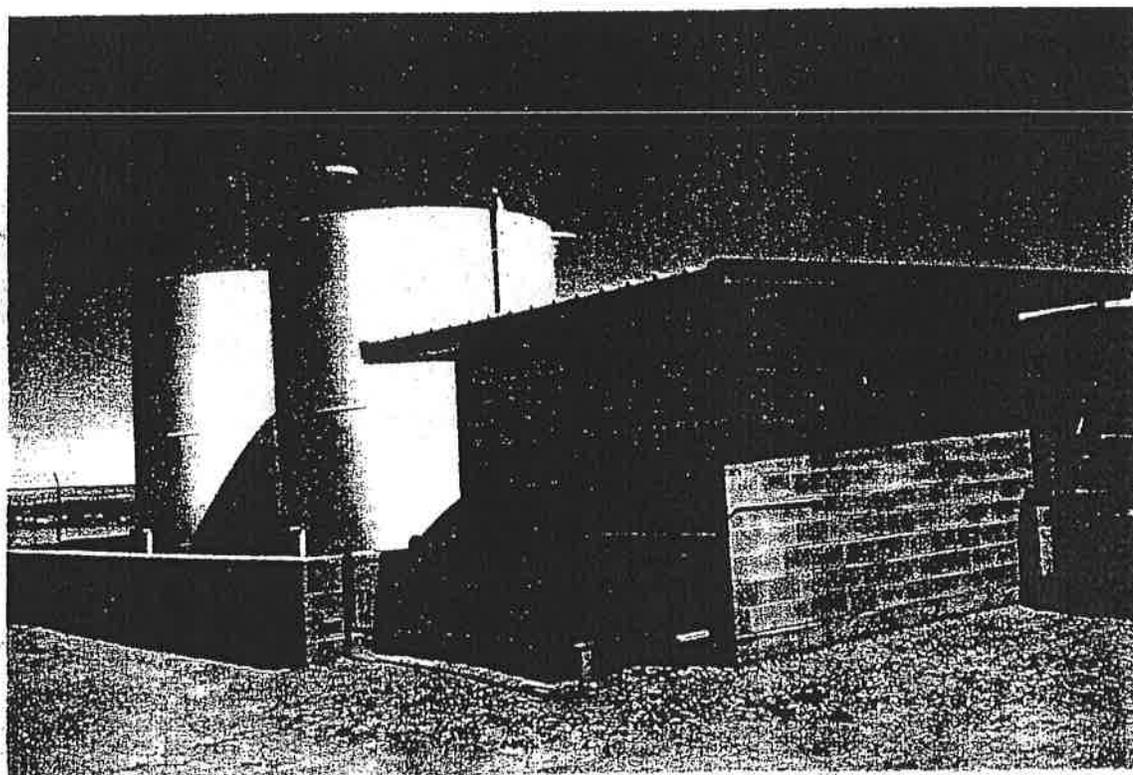
DETAILS OF PIPING TO TRUCK CONNECTIONS



ROOF AND FITTINGS ON USED SOLVENT TANK



DETAILS OF DUMP AND FILL DOCK



ALL PIPE JOINTS OUTSIDE CONTAINMENT ARE WELDED

TERA, INC.

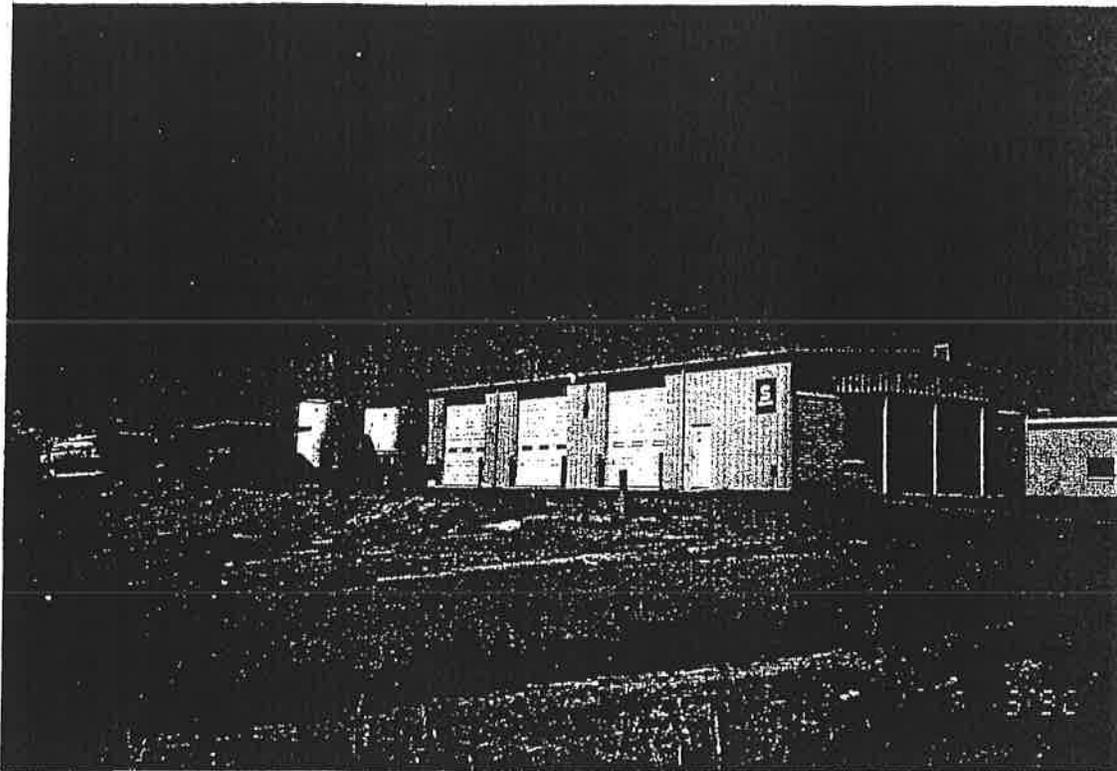
CONTAINMENT INSPECTION RECORD

Sheet: 1 of 1  
Job No. 90-150  
Date: 6/13/90  
By: J.W.C.  
YEAR BUILT: 1981

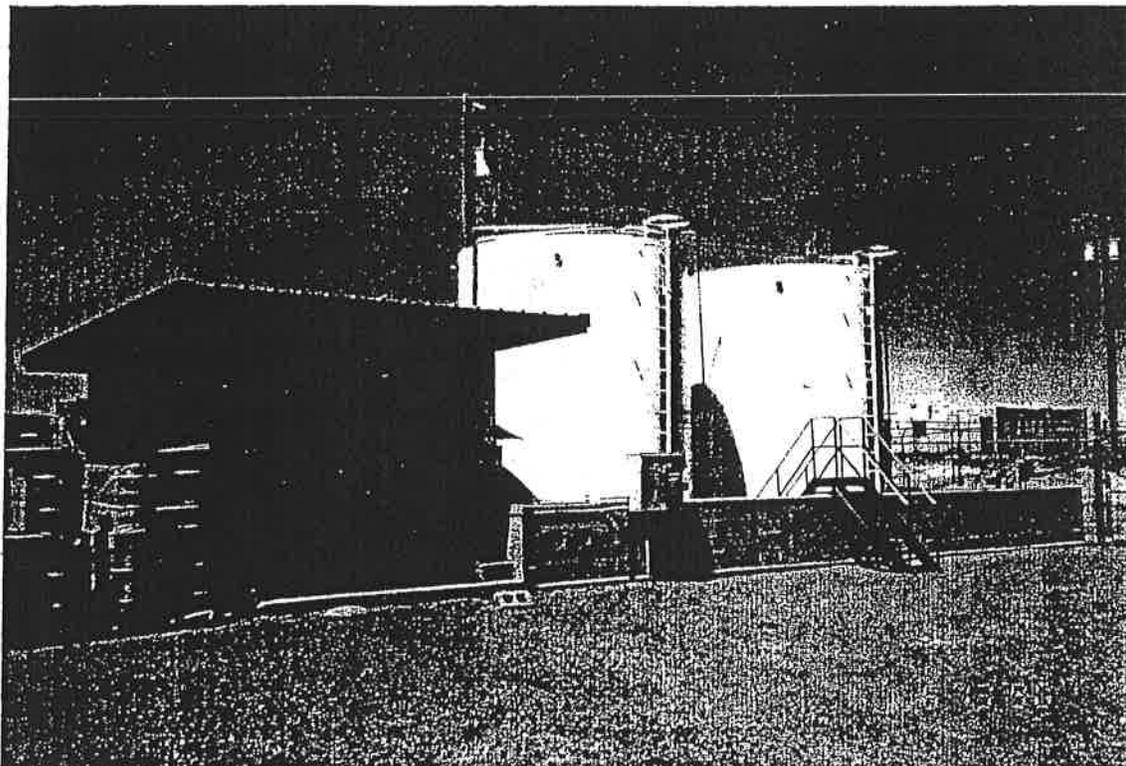
CLIENT: Safety-Kleen Corporation  
PLANT LOCATION: Farmington, New Mexico  
TYPE: Vault  
LEAK DETECTION TYPE: Visual  
SERVICE: Contain dumpster and other ancillary equipment at  
dump & fill dock

OUTSIDE DIMENSIONS: LENGTH 17'-6 WIDTH 11'-10  
INSIDE HEIGHT 7" curb all around, 8" wide  
CAPACITY: 740 gal LARGEST TANK CAPACITY 365 gal  
CONSTRUCTION MATLS: R/C all. Integral curb and floor slab  
LININGS: INTERIOR SC Polyurethane, paint EXTERIOR ANCILLARIES Paint  
JOINT TREATMENTS: None  
ROOF/TOP CONDITION: Satisfactory. Roof of dump & fill dock  
is roof for containment  
CURB CONDITION: Satisfactory  
BOTTOM CONDITION: Satisfactory  
SUPPORT TYPE: Slab on grade  
FOUNDATION CONDITION: Satisfactory. Shrinkage cracks are sealed  
INTERNAL STRUCTURE CONDITION: Satisfactory  
JOINT CONDITION: None  
LINING/COATING CONDITION: Satisfactory  
LIQUID REMOVAL METHOD: Hand pump, vacuum truck, hand dip from  
sump  
SIGNS OF CRACKS: Normal shrinkage cracks, all sealed  
SIGNS OF LEAKAGE: None  
SIGNS OF CORROSION: None  
SIGNS OF EROSION: None  
OPERATING CONDITIONS: Open to atmosphere  
REFERENCE INSPECTION RECORDS: None

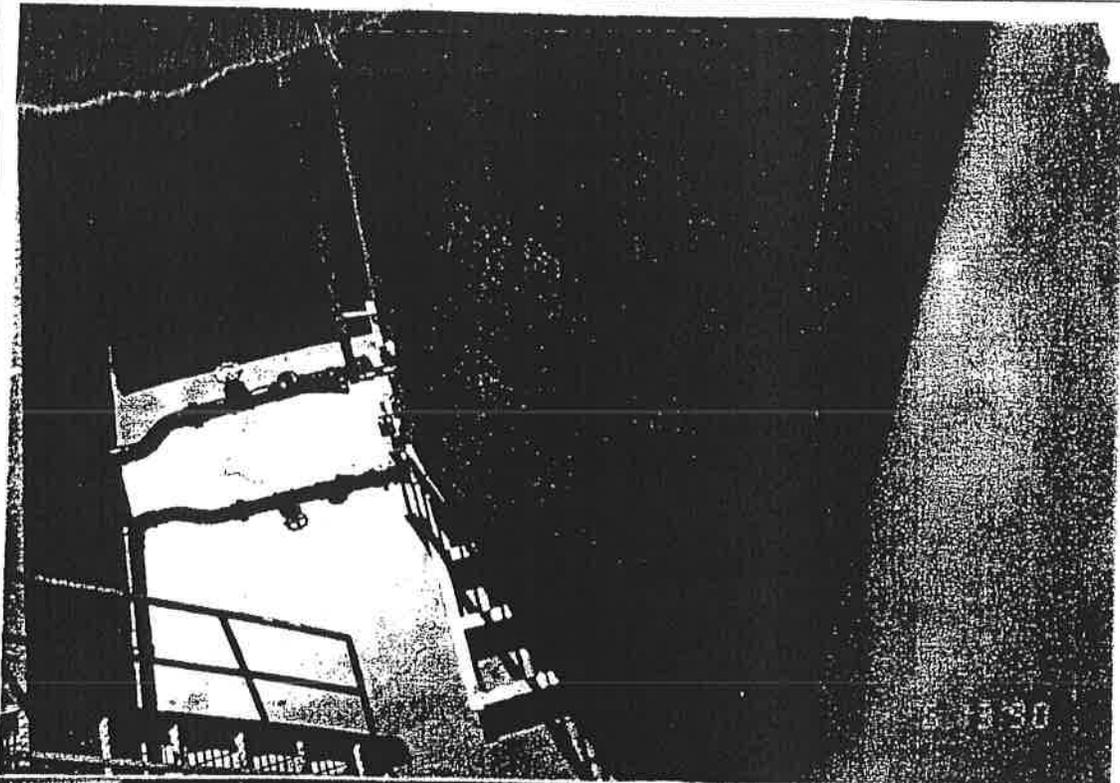
COMMENTS: 1. Containment structure appears to be in excellent condition.  
Masonry walls supported on perimeter curb of containment show  
no cracking or other signs of settlement.  
2. Dumpster sits above containment floor on three 8"x8"x16"  
concrete masonry units.



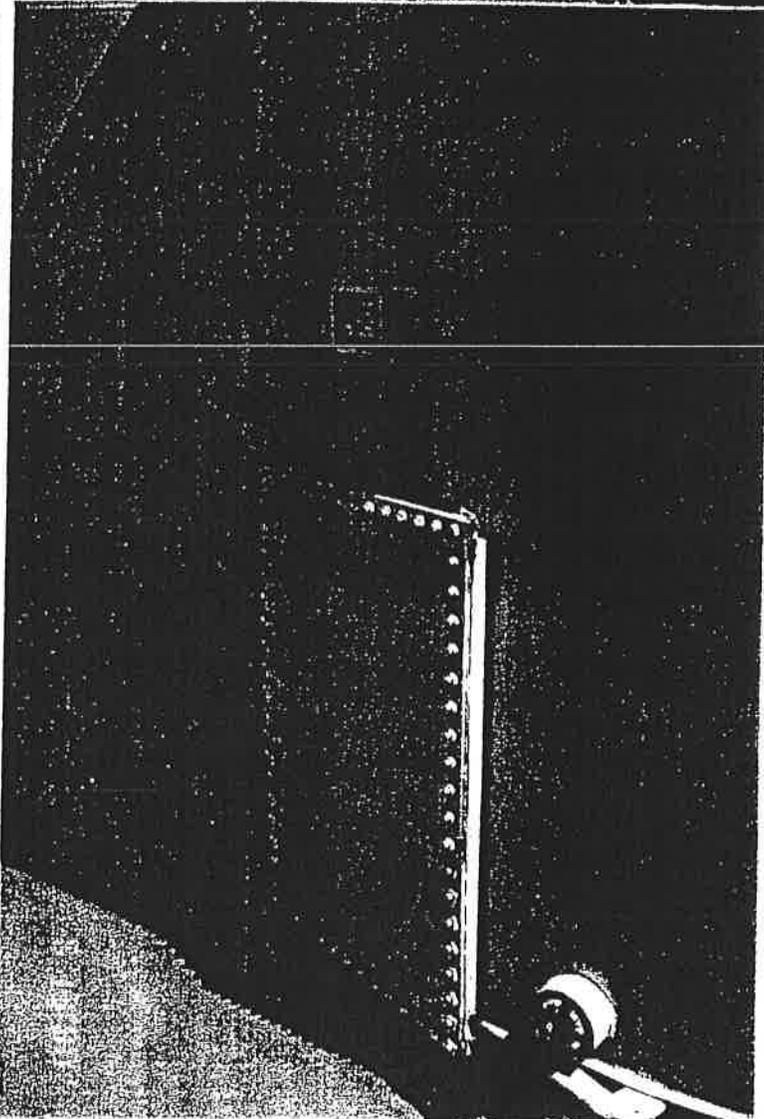
SAFETY-KLEEN SATELLITE BRANCH IN FARMINGTON



TANK FARM AND DUMP AND FILL DOCK

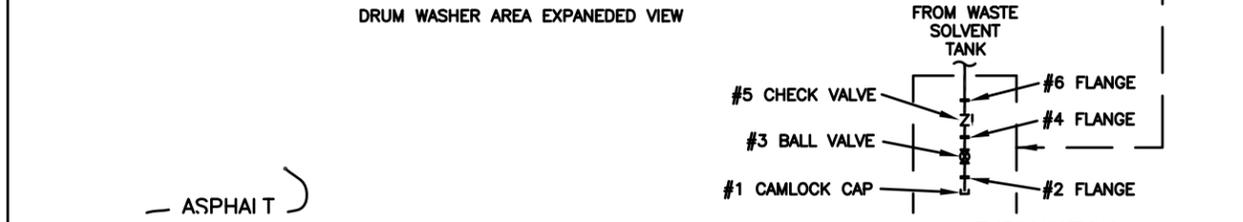
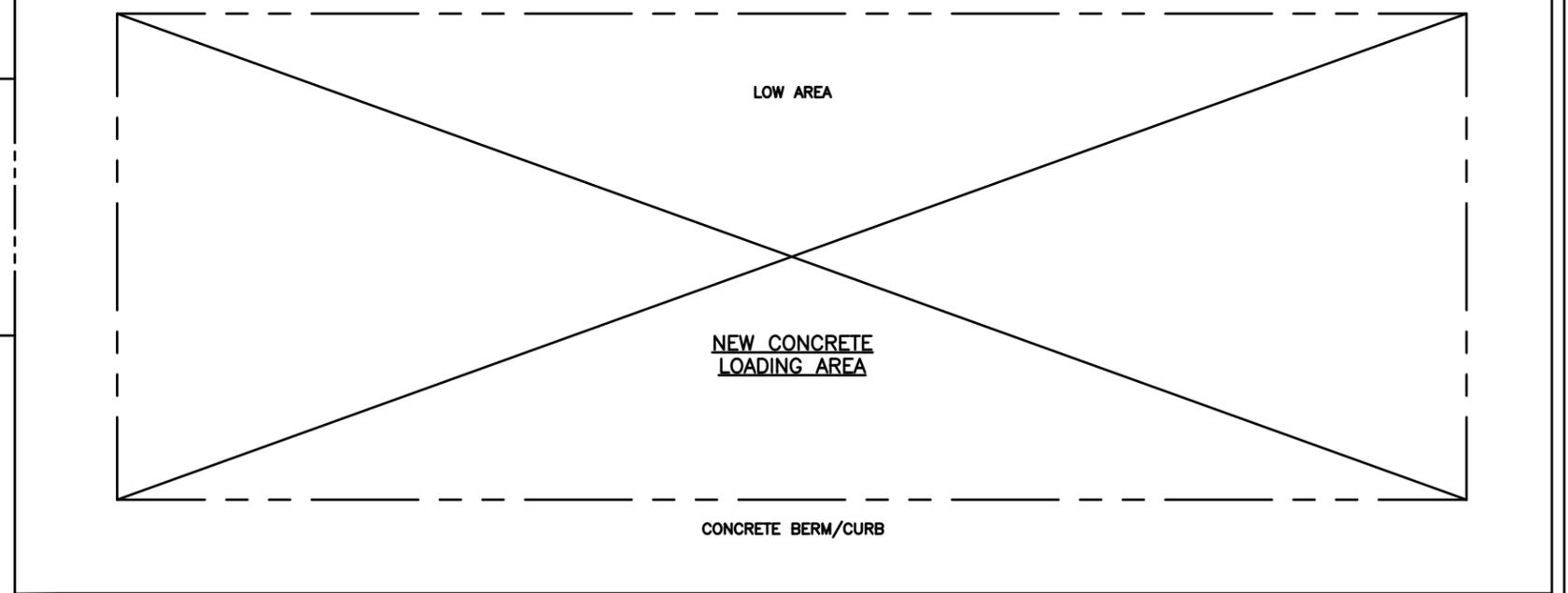
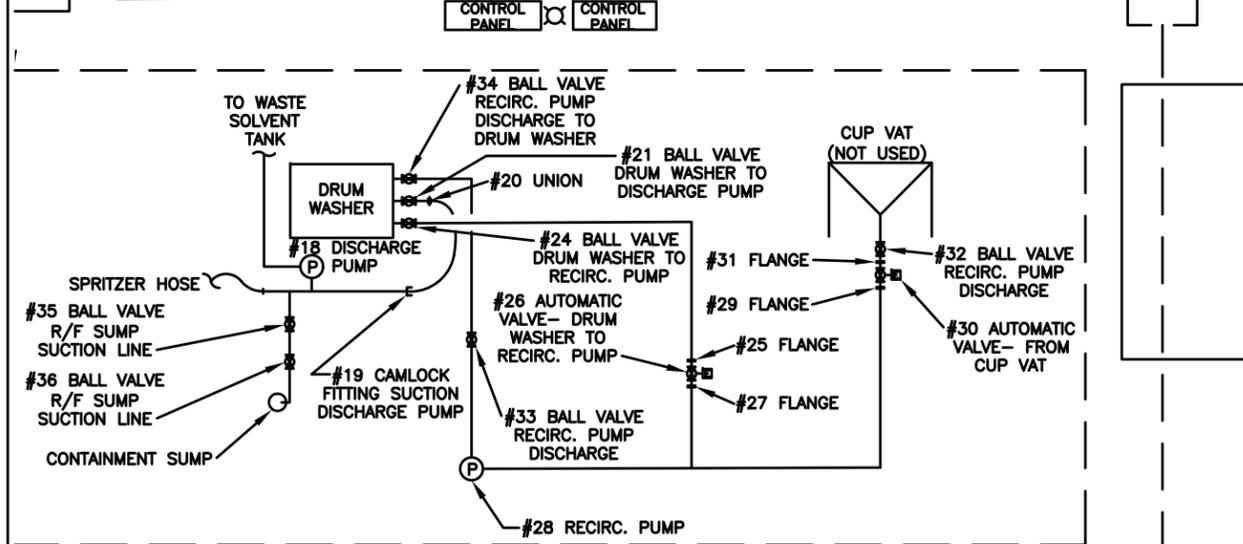
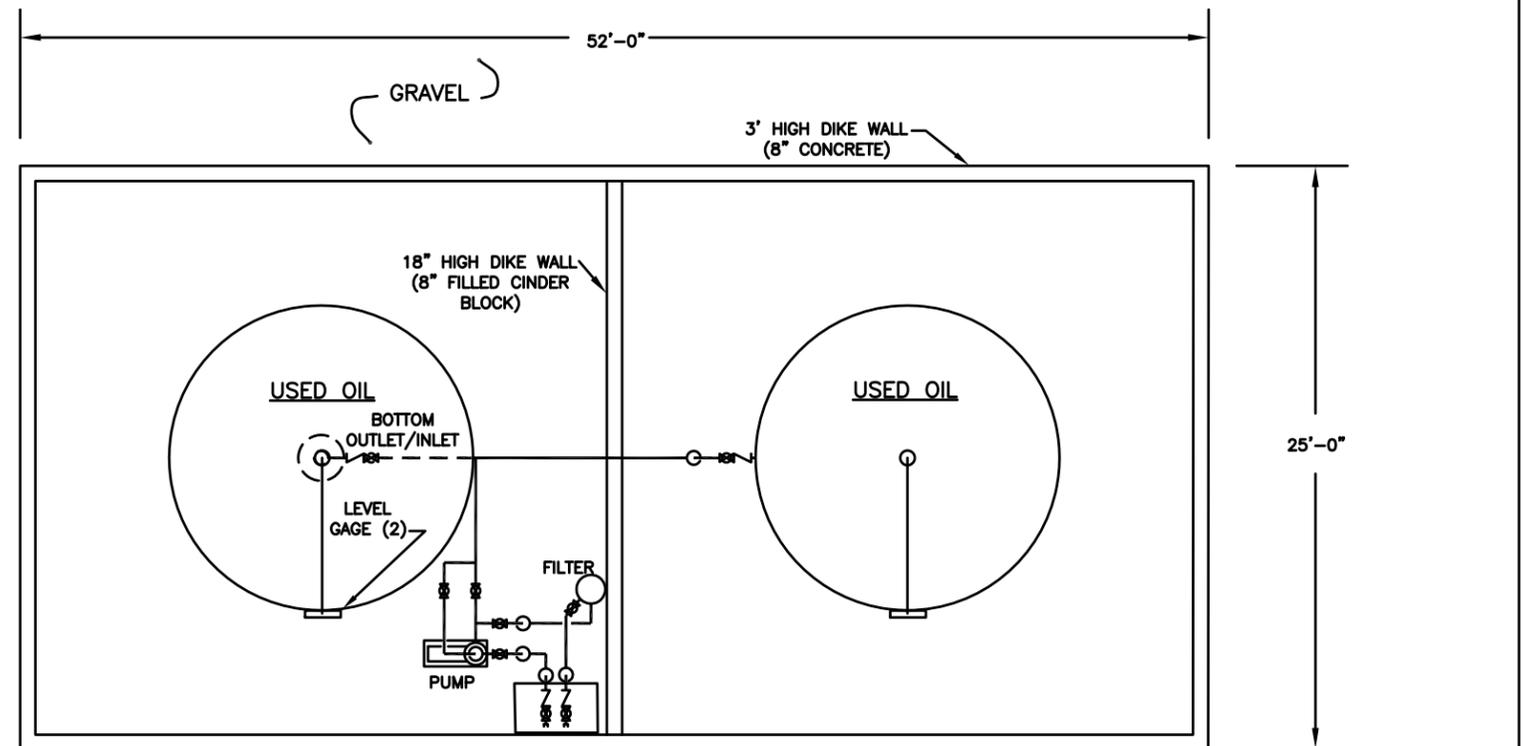
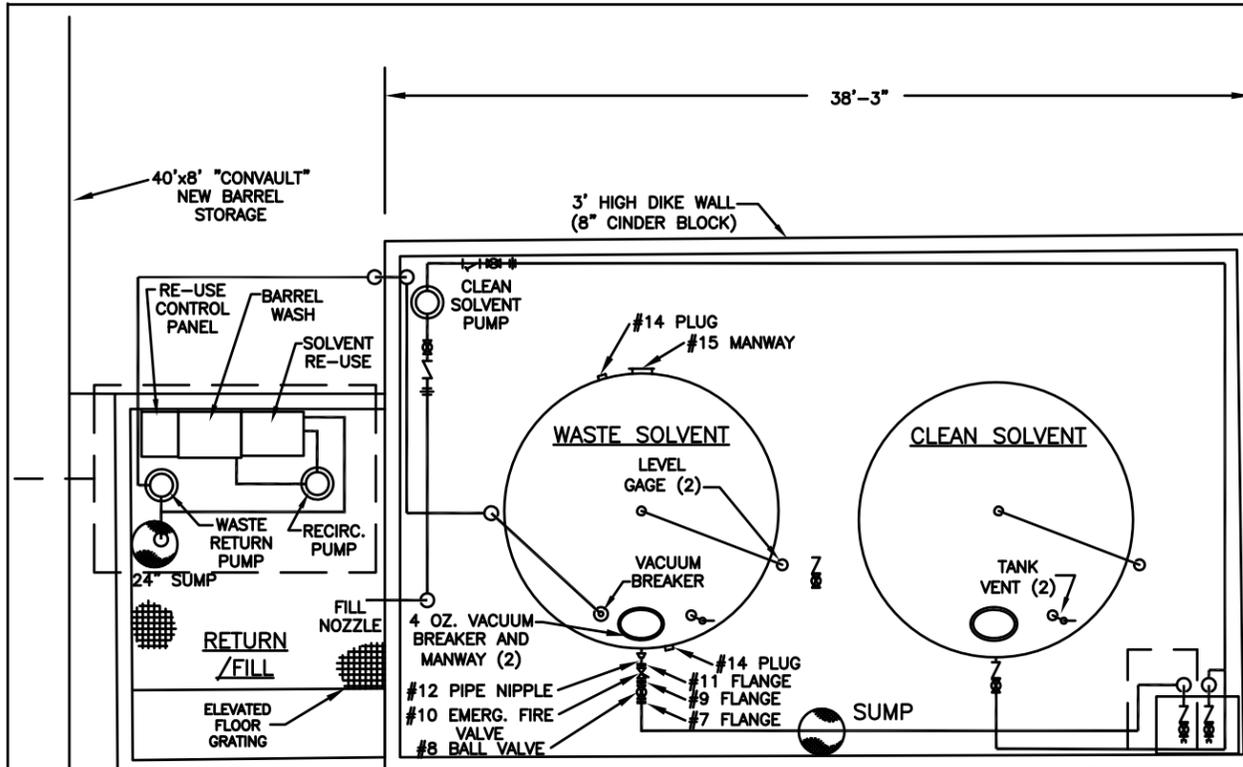


TYPICAL CONDITION OF TANK SHELL. NAME PLATE CARRIES API LOGO AND VERIFIES 12F CONSTRUCTION. CRACK IN FLOOR IS TIGHT AND SEALED WITH COATING



## Exhibit J-2

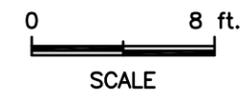
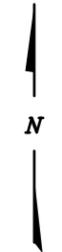
### Tank Farm and Piping Schematic



**EXPLANATION**

- ⊠ BALL VALVE
- || THREADED UNION
- ⊔ BASKET STRAINER
- ⊔ SAFETY/CHECK VALVE

A Trihydro Corporation representative conducted a field inspection to verify construction, equipment, components, dimensions and existing conditions on February 28, 2001. Items inaccessible to visual observation were not field verified during inspection. Notes have been added to document results and/or observed modifications (as appropriate) during the February 28, 2001 inspection.



REVISIONS	
Date	By
12/17/09	JEK/PS



TANK FARM AND PIPING SCHEMATIC  
4210A HAWKINS RD.  
FARMINGTON N.M.

**SAFETY-KLEEN SYSTEMS, INC.**  
2600 N. CENT. EXPRESSWAY STE 400 RICHARDSON, TX. 75080  
PHONE 800-669-5740

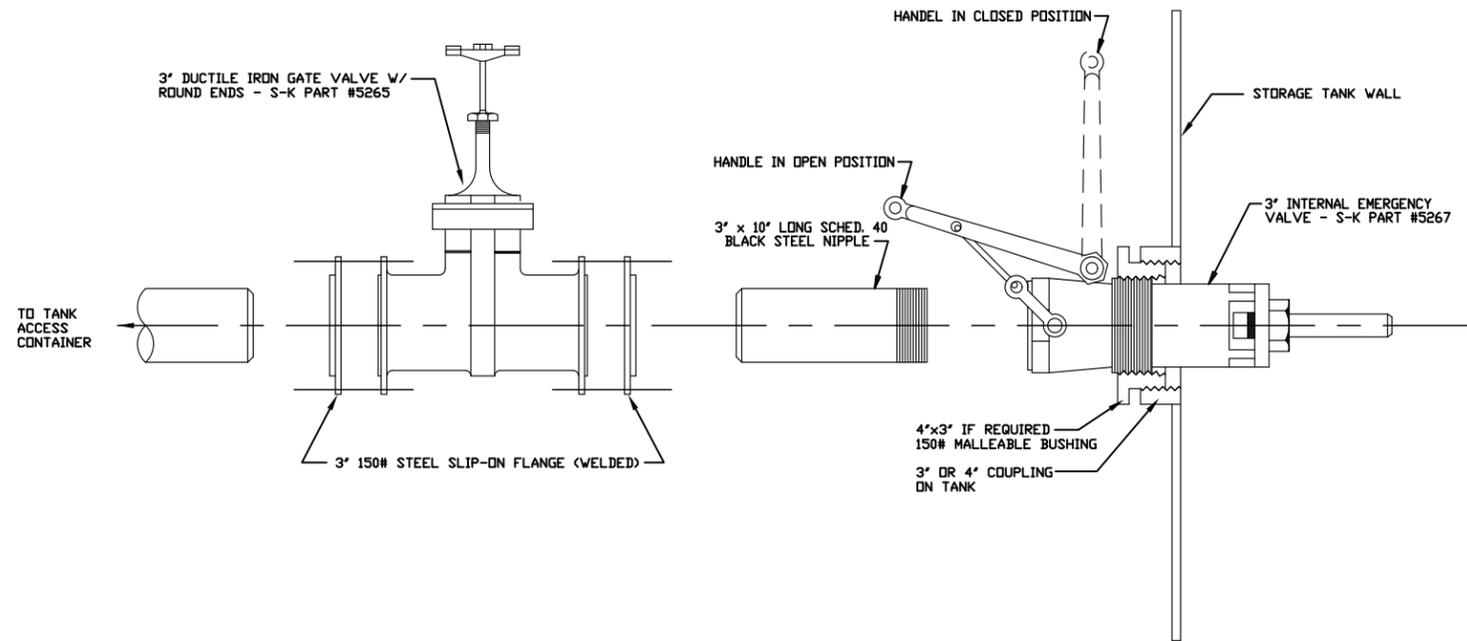
## Exhibit J-3

### Tank Farm Slab and Dike Wall Construction Detail



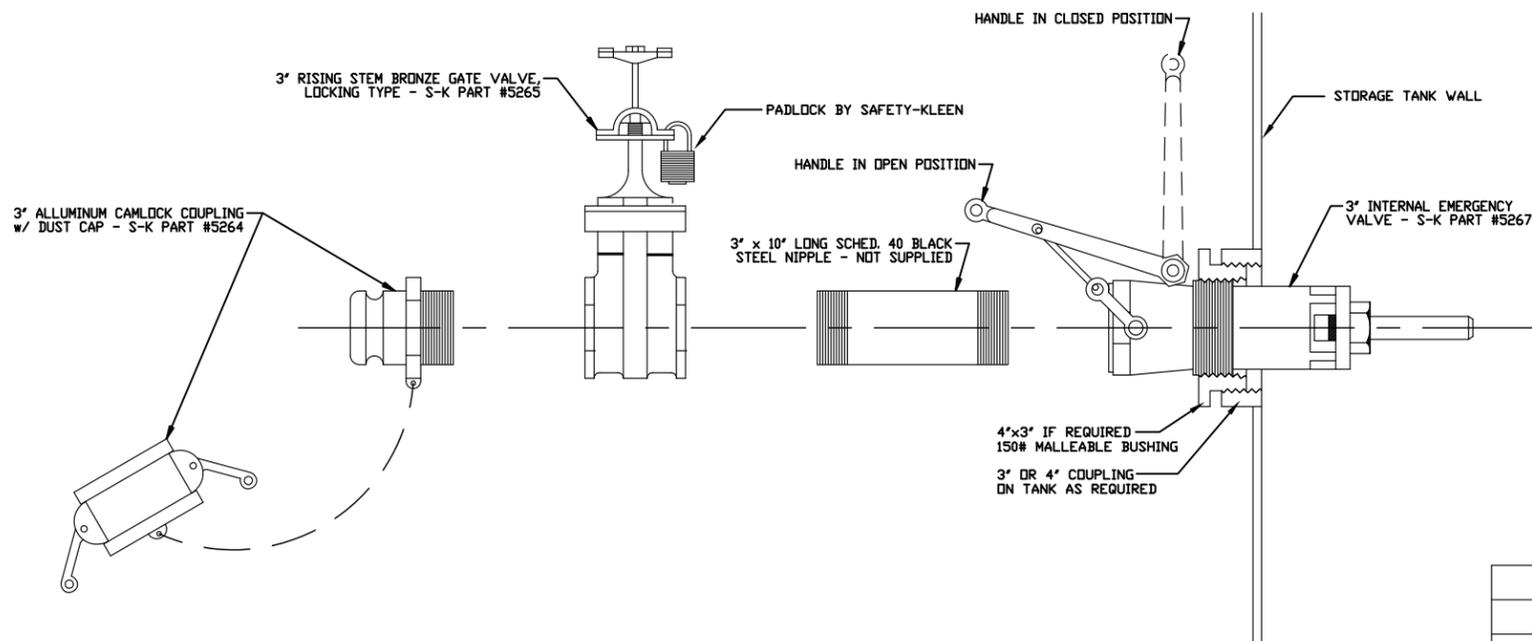
## Exhibit J-4

### Emergency & Gate Valve Installation Details



STANDARD STORAGE TANK PIPING DETAIL

SCALE: NONE



ADDITIONAL STORAGE PIPING DETAIL FOR LOW TEMPERATURE TANK LOCATIONS

SCALE: NONE

GENERAL NOTES

THIS DRAWING CONTAINS INFORMATION PROPRIETARY TO SAFETY-KLEEN CORP. ANY REPRODUCTION, DISCLOSURE OR USE OF THIS DRAWING IS EXPRESSLY PROHIBITED EXCEPT BY SAFETY-KLEEN OR AS SAFETY-KLEEN MAY AGREE IN WRITING.

- ALL ITEMS SUPPLIED TO CONTRACTOR WILL HAVE S-K PART # NOTATIONS. EVERYTHING ELSE TO BE SUPPLIED BY CONTRACTOR.

SEE USED SOLVENT AND OIL RECOVERY TANK PIPING DETAIL DRAWINGS AS APPROPRIATE.

TITLE  
EMERGENCY AND GATE VALVE  
INSTALLATION DETAILS

**SAFETY-KLEEN SYSTEMS, INC.**  
2600 N. CENT. EXPRESSWAY STE 400 RICHARDSON, TX. 75080  
PHONE 800-669-5740

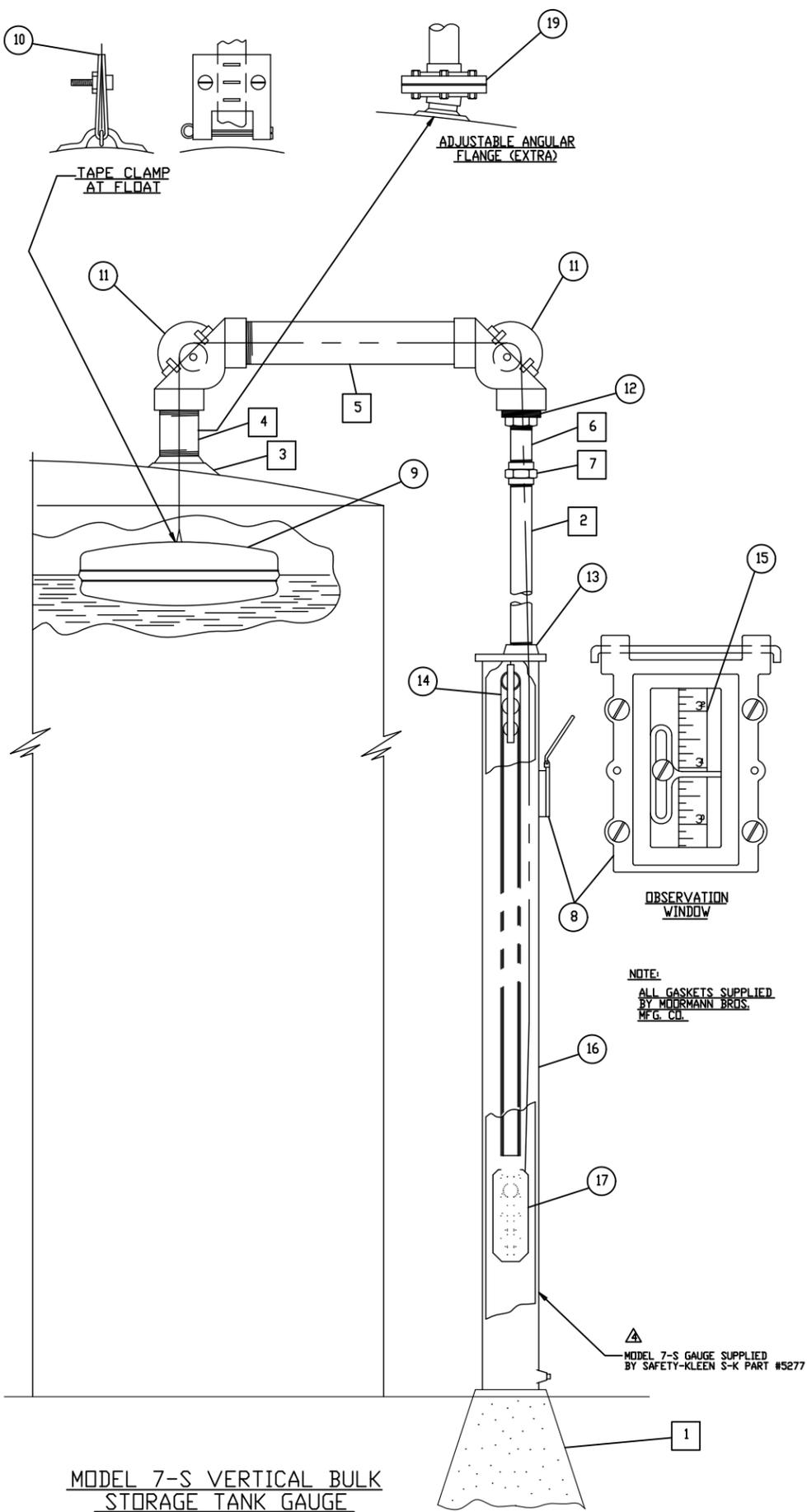
SCALE AS SHOWN	BY QuesTec	CHKD -	P.E. APPR -	OP. APPR -	DATE 11-30-90
SERVICE CENTER STD.			SC-DWG-REV NO.		SHEET NO.
PIPING			C11302		

NO.	DESCRIPTION	BY	CHK	APPR	DATE
REVISIONS					

## Exhibit J-5

Moorman Bros. Tank Gauge Installation

# 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, 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-A-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.
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

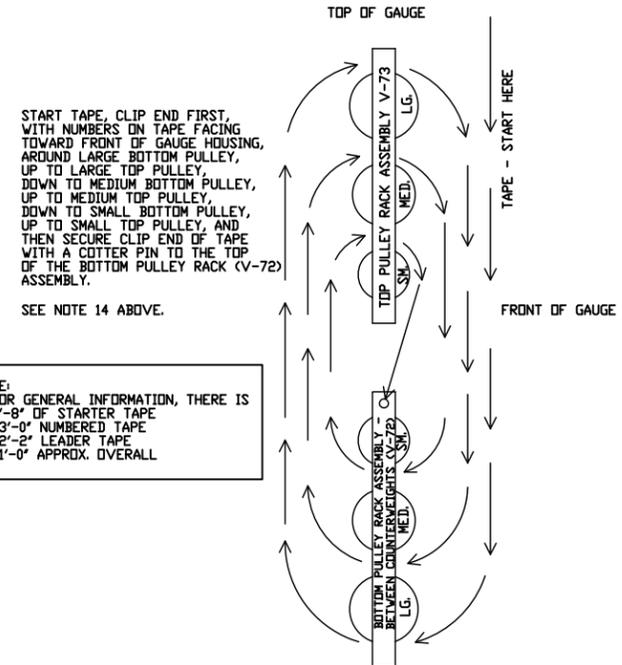
1. GAUGE HOUSING BASE SUPPORT.
2. 1" GALVANIZED PIPE (CUT TO LENGTH).
3. TANK ROOF FLANGE.
4. 2" TANK OPENING PIPE.
5. 2" GALVANIZED PIPE (CUT TO LENGTH).
6. 1" GALVANIZED NIPPLE (ANY LENGTH).
7. 1" GALVANIZED UNION.

○ MATERIAL SUPPLIED BY MOORMANN BROS. (SAFETY-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

## 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



START TAPE, CLIP END FIRST, WITH NUMBERS ON TAPE FACING TOWARD FRONT OF GAUGE HOUSING, AROUND LARGE BOTTOM PULLEY, UP TO LARGE TOP PULLEY, DOWN TO MEDIUM BOTTOM PULLEY, UP TO MEDIUM TOP PULLEY, DOWN TO SMALL BOTTOM PULLEY, UP TO SMALL TOP PULLEY, AND THEN SECURE CLIP END OF TAPE WITH A CUTTER PIN TO THE TOP OF THE BOTTOM PULLEY RACK (V-72) ASSEMBLY.

SEE NOTE 14 ABOVE.

NOTE: FOR GENERAL INFORMATION, THERE IS 5'-8" OF STARTER TAPE 43'-0" NUMBERED TAPE 42'-2" LEADER TAPE 91'-0" APPROX. OVERALL

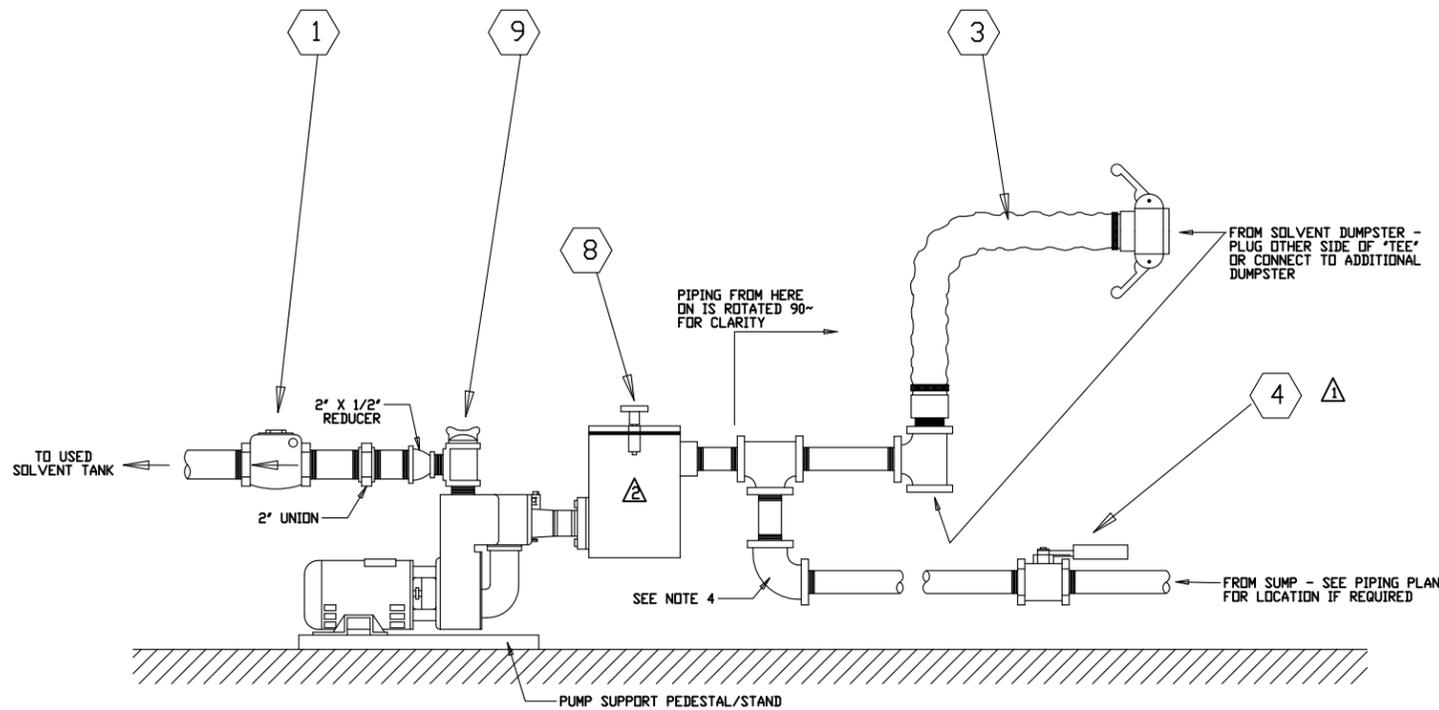
ENLARGED DETAIL SHOWING HOW TAPE IS WOUND ON PULLEY RACK ASSEMBLIES OF MOORMANN MODEL #7-S. CUT OFF EXCESS TAPE AT FLOAT.

REVISIONS					
NO.	DESCRIPTION	BY	CHKD	APPR	DATE
A	DGR. # WAS 014298; ADDED EMPTY AND NON-EMPTY CALIBRATION NOTES	RD			2/12/90
TITLE					
MOORMANN BROS. TANK GAUGE INSTALLATION (FLAT BOTTOM TANKS ONLY)					
SAFETY-KLEEN SYSTEMS, INC.					
2600 N. CENT. EXPRESSWAY STE 400 RICHARDSON, TX. 75080					
PHONE: 800-669-5749					
PRG. ENGR. APPR.	OPERATIONS APPR.	SCALE	DRAWN	DATE	
		NONE	RD	1/26/90	
SERVICE CENTER STD.		DRAWING NO.		REV.	
MECHANICAL		BSD 308		A	

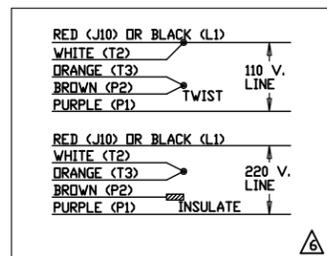
MODEL 7-S VERTICAL BULK STORAGE TANK GAUGE

# Exhibit J-6

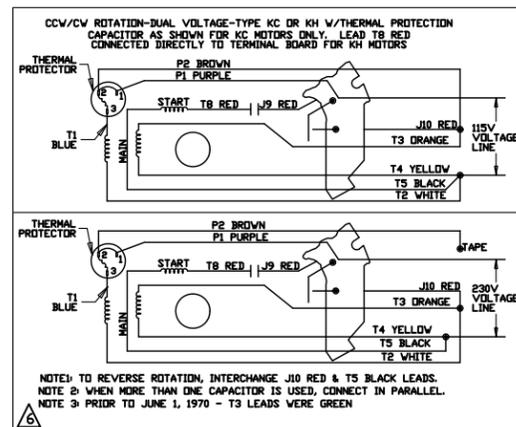
## Solvent Pump Details



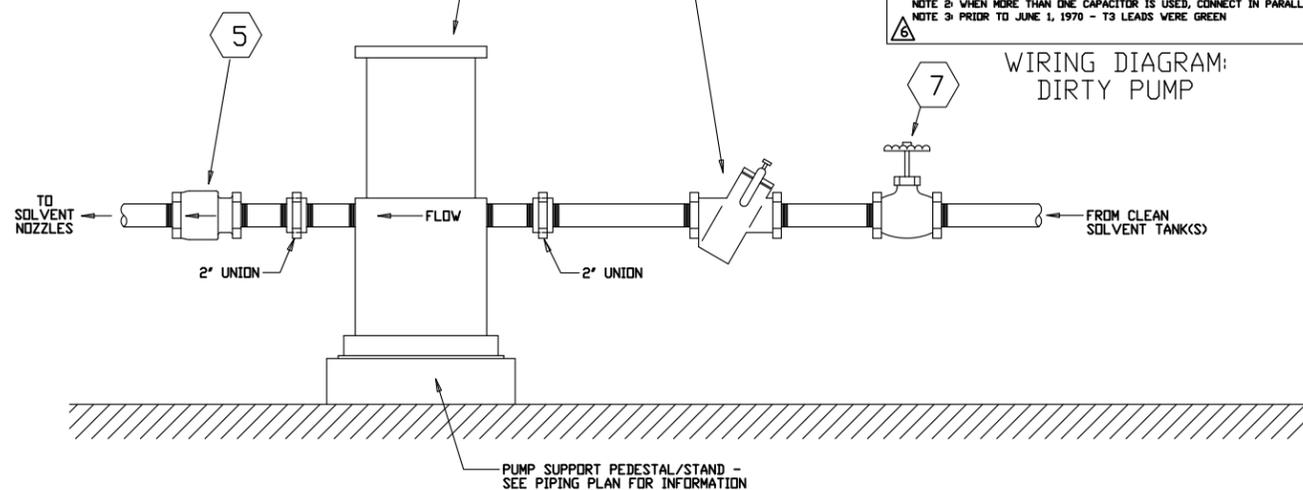
USED SOLVENT PUMP INSTALLATION



WIRING DIAGRAM: CLEAN PUMP



WIRING DIAGRAM: DIRTY PUMP



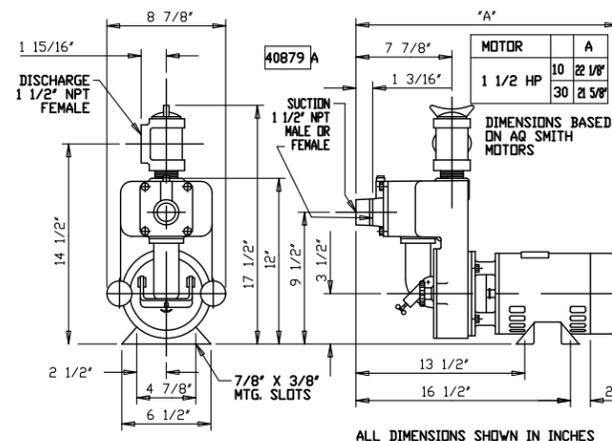
CLEAN SOLVENT PUMP INSTALLATION

EQUIPMENT / FIXTURE SCHEDULE

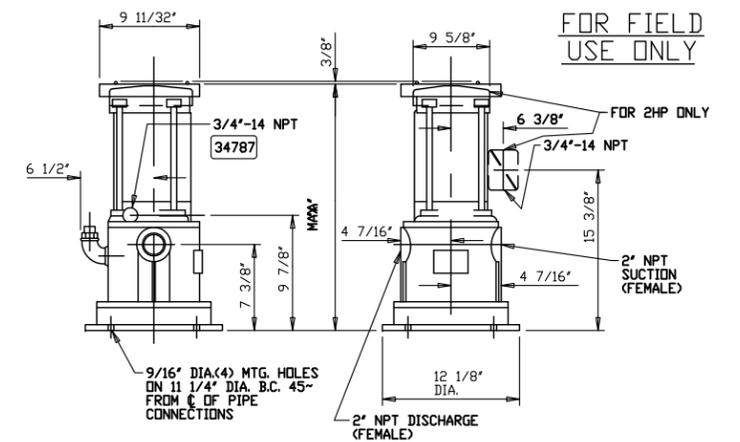
MARK	SIZE	DESCRIPTION	SK PART NO.	REMARKS
1	2"	2" BRONZE CHECK VALVE - MORRISON BROS. FIG. 246-A	5288	
2	2"	2" MARLOW PUMP - 20 EVP 10A 1 HP EXPLOSION PROOF MOTOR W/JUNCTION BOX - VITON FITTED	5240	SEE SPECIFICATION DETAILS ON SAFETY-KLEEN DWG. A1118 BELOW
3	2"	2" DUMPSTER HOSE ASSEMBLY	5234	SEE SAFETY-KLEEN DWG. D10452 FOR DETAILED INFORMATION
4	2"	2" APOLLO BALL VALVE, BRONZE BODY W/STAINLESS STEEL BALL & TRIM, 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	
8	2"	2" MARLOW SUCTION STRAINER ASSEMBLY MODEL 2B10X W/STAINLESS STEEL BASKET W/ 1/4" 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

- 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.
- 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

GENERAL NOTES

- THIS DRAWING SUPERCEDES SAFETY-KLEEN CORP. DRAWING A1118
- SEE INDIVIDUAL SERVICE CENTER SITE & PIPING PLANS FOR LOCATIONS & ARRANGEMENT OF THESE DETAILS.
- FOR UNDERGROUND TANK INSTALLATIONS, A 90° CHECK VALVE MORRISON BROS. FIG. 137 OR APPROVED EQUAL SHOULD BE INSTALLED AT TOP OF TANK ON CLEAN PUMP SUCTION LINE (CLEAN TANKS ONLY).
- ALL PIPING TO BE 2" SCHEDULE 40 GALVANIZED UNLESS OTHERWISE SPECIFIED. ALL CHANGES OF DIRECTION IN DIRTY SOLVENT PIPING TO BE ACCOMPLISHED USING EITHER (2)-45° ELBOWS OR (1)-LONG RADIUS 90° ELBOW.
- THIS DRAWING CONTAINS INFORMATION PROPRIETARY TO SAFETY-KLEEN CORP. ANY REPRODUCTION, DISCLOSURE OR USE OF THIS DRAWING IS EXPRESSLY PROHIBITED EXCEPT BY SAFETY-KLEEN OR AS SAFETY-KLEEN MAY AGREE IN WRITING.
- ALL ITEMS WITH SAFETY-KLEEN PART NO. REFERENCES WILL BE SUPPLIED TO CONTRACTOR.

NO.	DESCRIPTION	BY	CHKD	APPR	DATE
1	CHANGED STRAINER PERFORATIONS TO 1/4" FROM #10	RD	K.J.H.	DDD	04/22/94
2	ADDED W.D.'S FOR CLEAN & USED PUMPS	RD			9/6/88
3	ADDED NEW PUMP FOR DIRTY SOLVENT TO VIEW & TABLE; ADDED PUMP SPEC'S	RD			4/18/86
4	ADDED NOTE 6	W.L.J.			10/23/84
5	ADDED PUMP SPEC'S - DWG A1118	W.L.J.			5/3/84
6	ADDED ITEM 6 & ADDED TO NOTE 4	W.L.J.			2/21/84
7	CHANGED ITEM 4 TO NEW TYPE VALVE	W.L.J.			12/19/83

TITLE  
SOLVENT PUMP PIPING  
INSTALLATION DETAILS

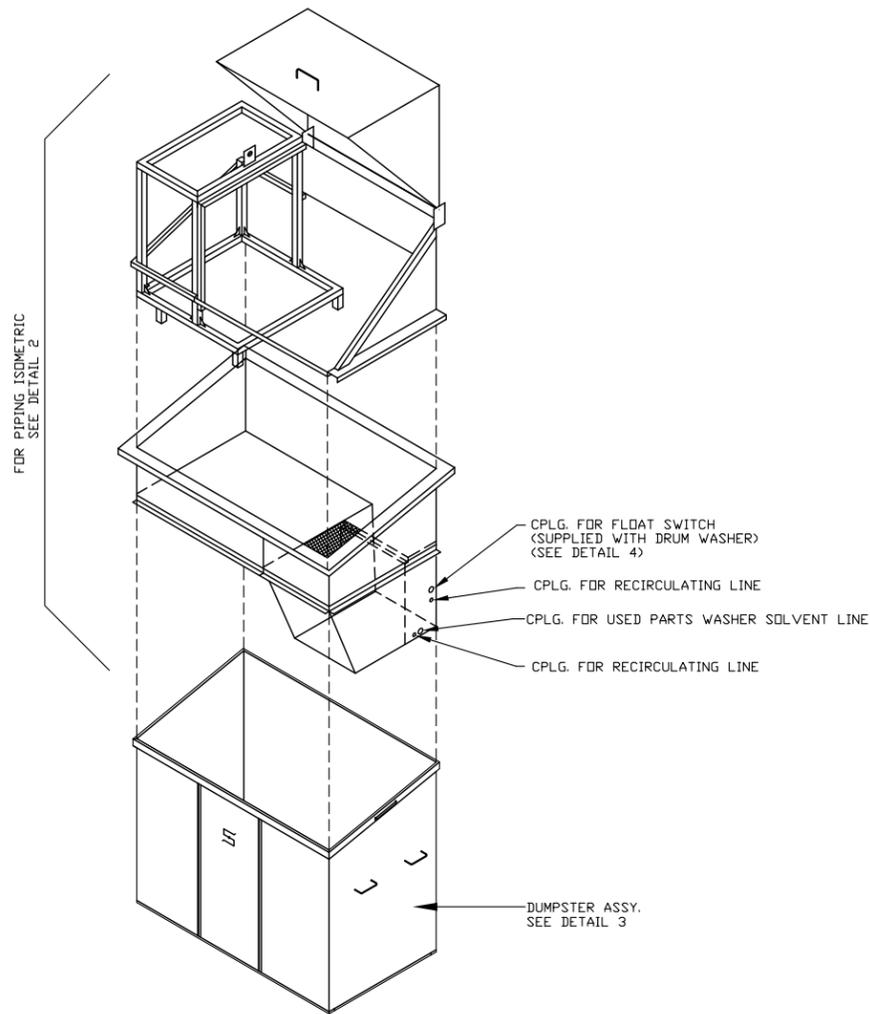
**SAFETY-KLEEN SYSTEMS, INC.**  
2600 N. CENT. EXPRESSWAY STE 400 RICHARDSON, TX. 75080  
PHONE 800-669-5740

PROJ. ENG. APPR.	OPERATIONS APPR.	SCALE	DRAWN	DATE
		NO SCALE	JS	2/24/89
BRANCH FOR BRANCH SERVICE CENTER		DRAWING NO.	REV.	
		D11150	G	

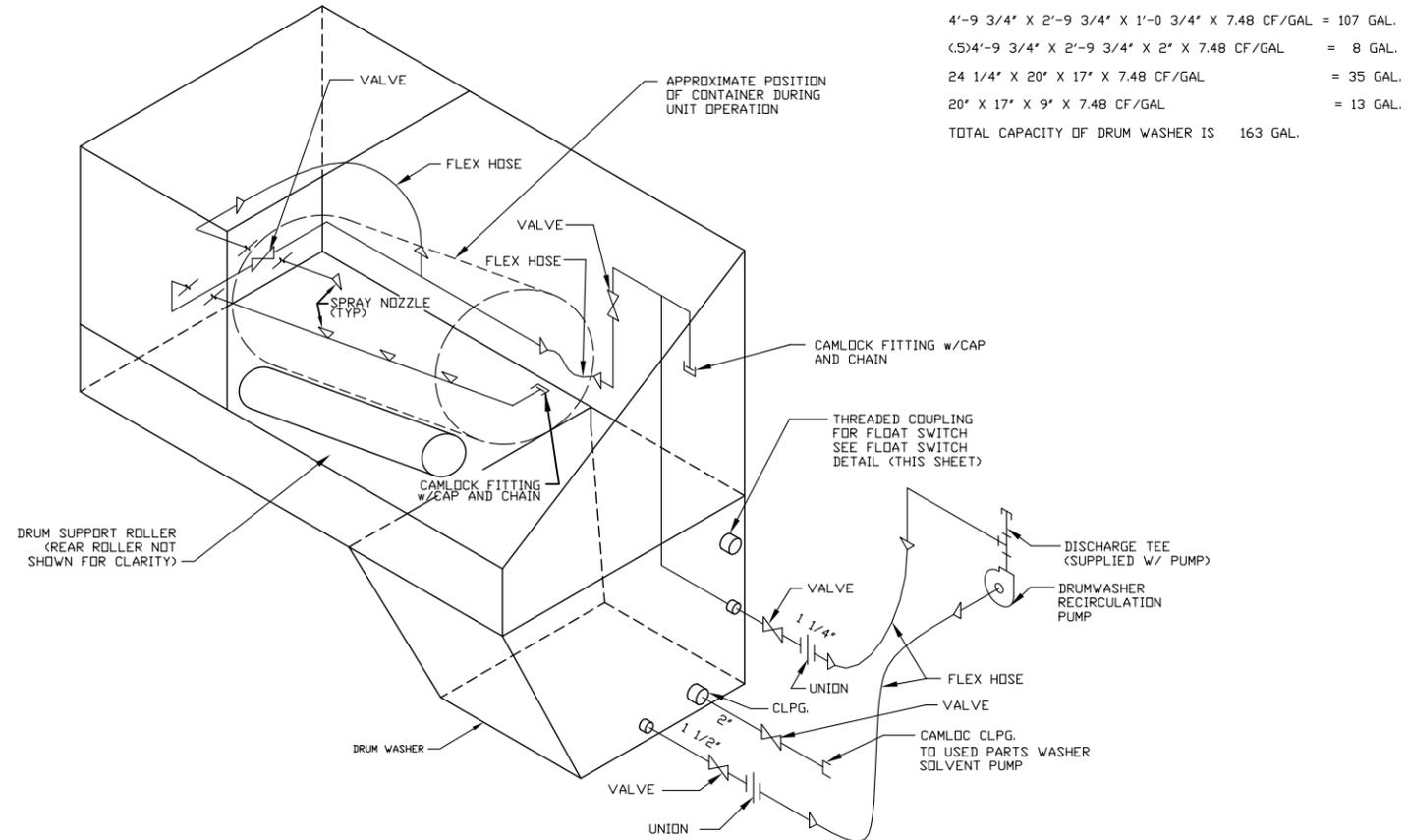
# Exhibit J-7

## Drum Washer Isometric Diagram

DUMPSTER/BARREL WASHER ASSY – DETAIL 1



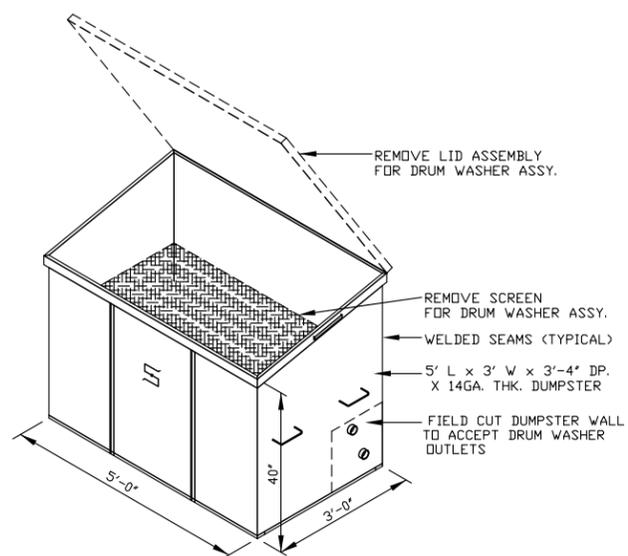
BARREL WASHER PIPING ISOMETRIC – DETAIL 2



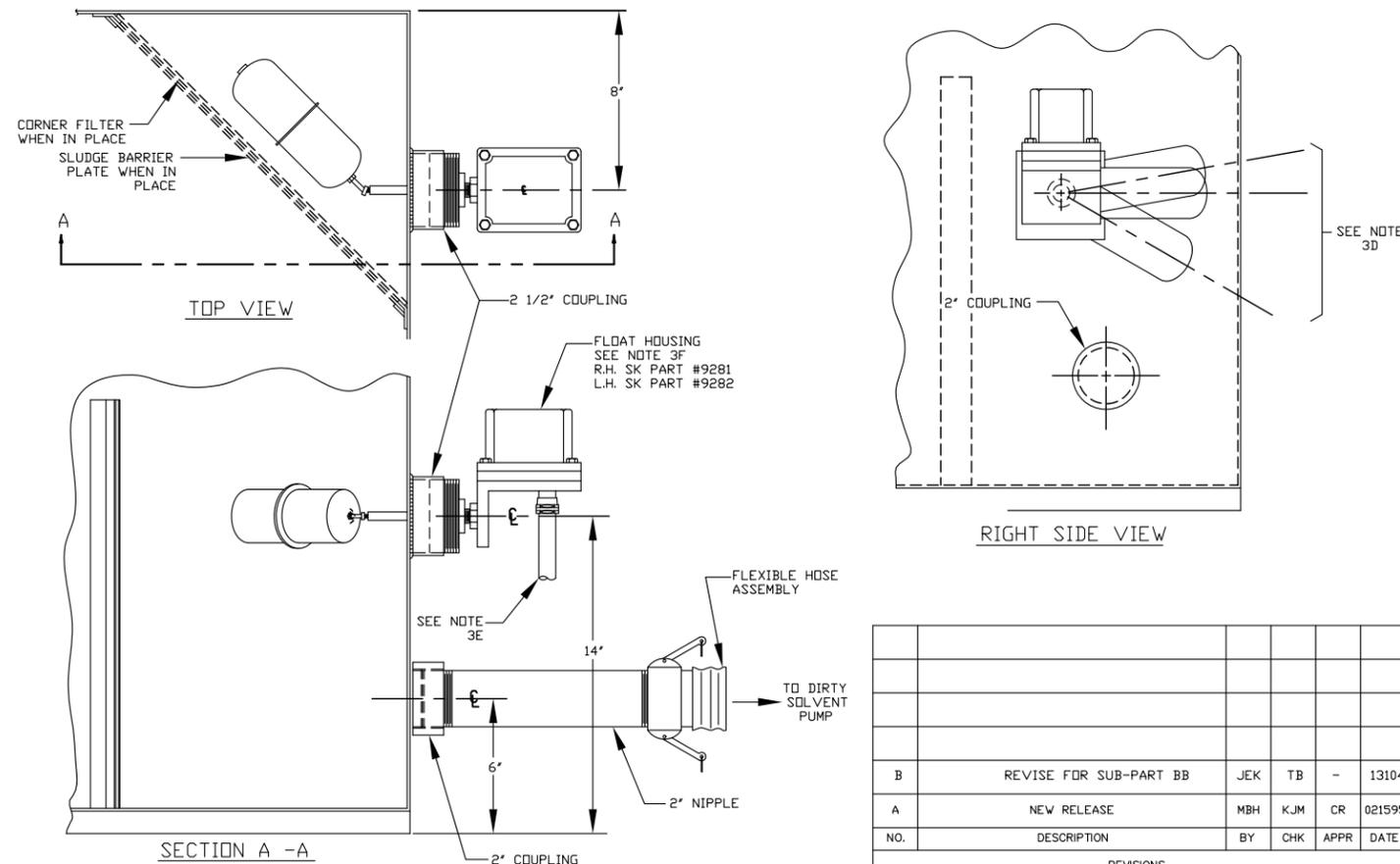
GENERAL NOTES

1. THE BARREL WASHER UNIT AND DUMPSTER ARE SUPPLIED BY SAFETY-KLEEN CORP. AND COMBINED BY CONTRACTOR. RECIRCULATING PUMP, AND VALVES FOR DRUM WASHER ARE SUPPLIED BY SAFETY-KLEEN CORP. AND INSTALLED WITH CONTRACTOR SUPPLIED PIPE UNIONS AND HOSES.
2. ALL ITEMS WITH SAFETY-KLEEN PART NO. REFERENCES WILL BE SUPPLIED TO CONTRACTOR.
3. FLOAT SWITCH INSTALLATION INSTRUCTIONS
  - A. TAKE FLOAT SWITCH AND WRAP CLOCKWISE WITH 2 TEFLON WINDS OF TAPE AND INSTALL INTO 2 1/2" COUPLING ON OUTSIDE OF DUMPSTER
  - B. TAKE FLOAT AND THREAD IT INTO THE FLOAT SWITCH FROM THE INSIDE SHAFT OF THE DUMPSTER AND TIGHTEN SECURELY.
  - C. RELEASE SHIPPING BRACKET BY REMOVING SCREW AND DISCARDING BRACKET.
  - D. FLOAT TRAVEL SETTING ADJUSTMENTS CAN BE ACCOMPLISHED BY LOOSENING ADJUSTMENT SCREWS. THE FLOAT TRAVEL ARC SHOULD BE SET AT 10" TRAVEL UP AND 30" TRAVEL DOWN. (SEE CALIBRATION ON DIAL). SEE RIGHT SIDE VIEW.
  - E. FLOAT SWITCH SHOULD BE WIRED UP ACCORDING TO MFGRS. SPECS AND IN COMPLIANCE WITH ANY LOCAL CODES. (USE RIGID CONDUIT THROUGHOUT).
  - F. FLOAT SWITCH TO BE INSTALLED ON SAME SIDE OF DUMPSTER AS DRAIN LINE. INSTALLATION SHOWN IS FOR RIGHT HAND SIDE OF DUMPSTER. FLOAT SWITCH IS SQUARE D CLASS 9037 HR - 3 (RIGHT HAND) OR HR - 4 (LEFT HAND).
  - G. RE-ADJUST FLOAT STOPS TO THOSE SHOWN ON RIGHT SIDE VIEW.
  - H. WHEN DUMPSTER DOES NOT HAVE A 2 1/2" COUPLING, ONE SHOULD BE ON (LIQUID TIGHT) TO DIMENSIONS SHOWN.

DUMPSTER ASSY. – DETAIL 3



FLOAT SWITCH INSTALLATION – DETAIL 4



PROPRIETARY STATEMENT

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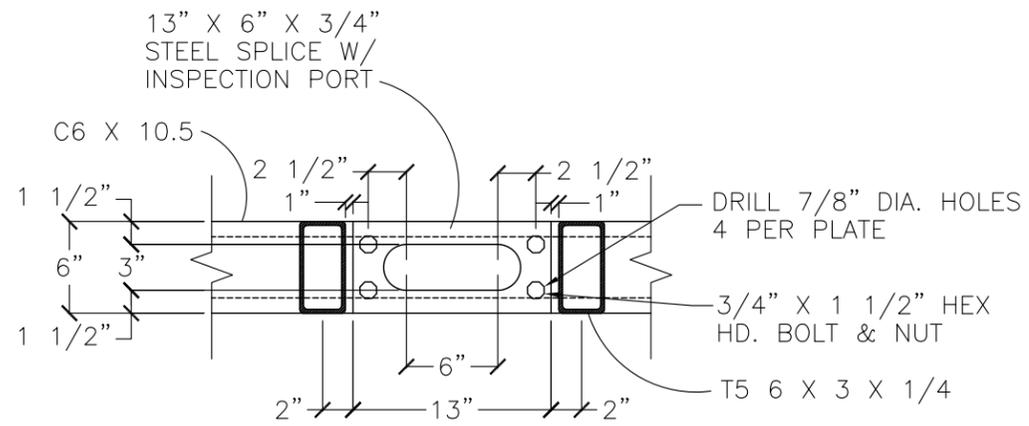
TITLE  
DRUM WASHER/DUMPSTER ISOMETRIC

**SAFETY-KLEEN SYSTEMS, INC.**  
2600 N. CENT. EXPRESSWAY STE 400 RICHARDSON, TX. 75080  
PHONE 800-669-5740

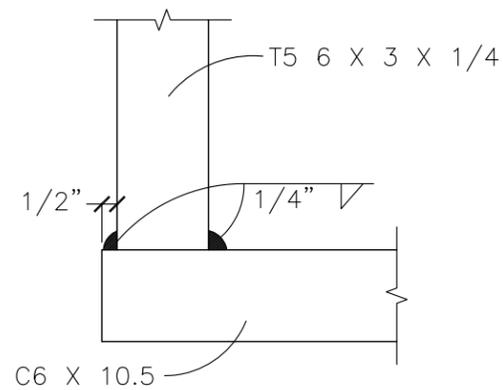
B	REVISE FOR SUB-PART BB	JEK	TB	-	13104
A	NEW RELEASE	MBH	KJM	CR	021595
NO.	DESCRIPTION	BY	CHK	APPR	DATE
REVISIONS					
SERVICE CENTER LOCATION		SC-DWG NUMBER		REV. NO.	
FARMINGTON, N.M.		7133-5600-299		B	

# Exhibit J-8

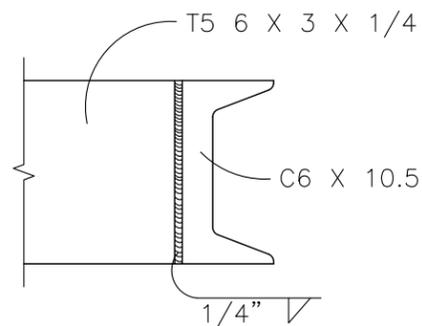
## Tank Pallet / Skid Detail



2 DETAIL NTS

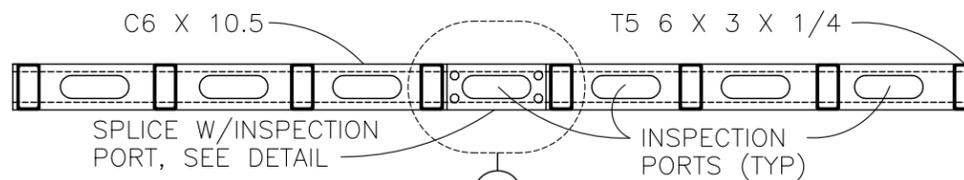


3 DETAIL NTS

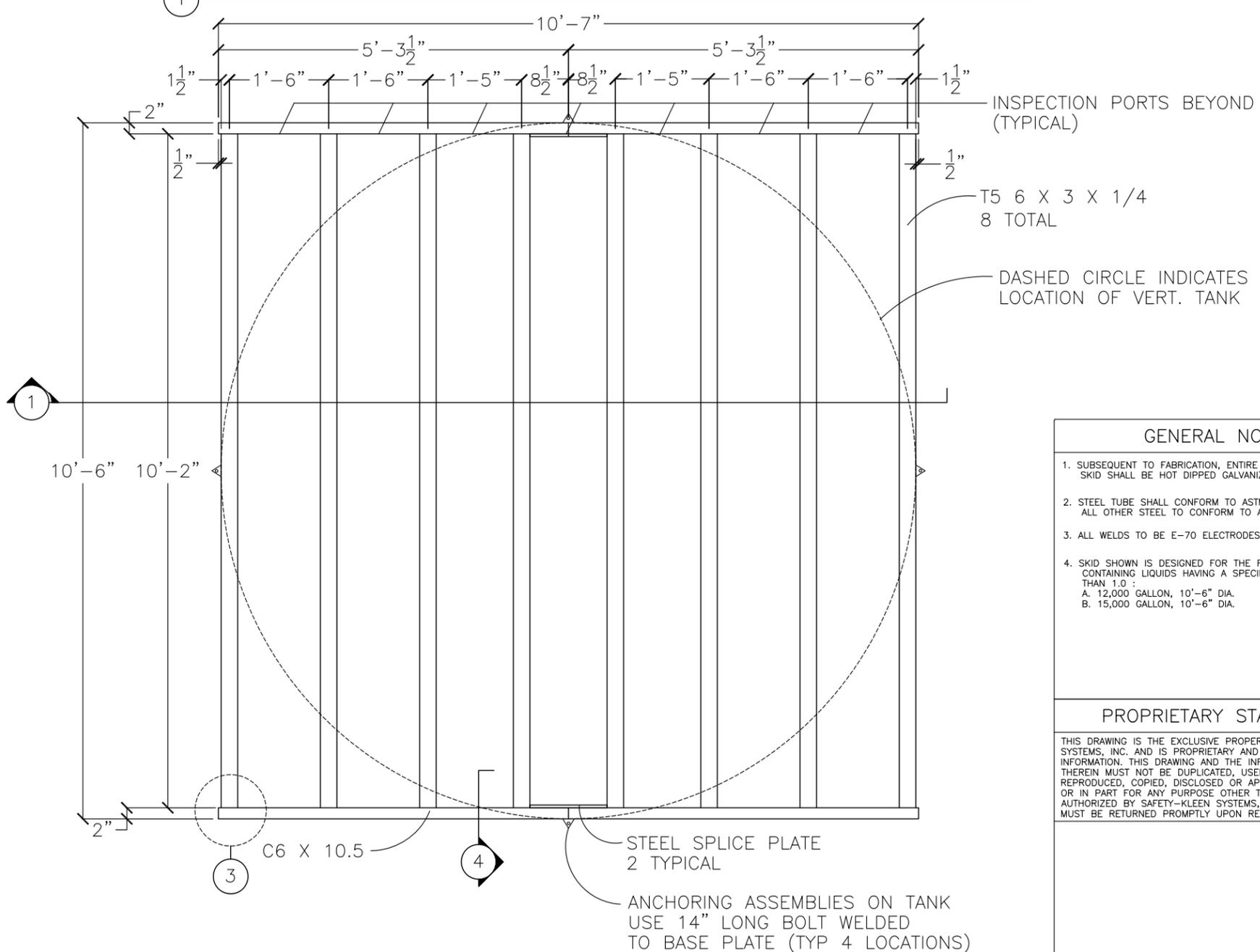


4 DETAIL NTS

NOTE:  
THIS SKID MUST BE SUPPORTED CONTINUOUSLY ON A FLAT CONCRETE SURFACE. IF CONCRETE SURFACE IS NOT FLAT, LOW SPOTS SHALL BE FILLED WITH A GROUT HAVING A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI. GROUT SHALL BE ALLOWED TO CURE A MINIMUM OF THREE DAYS PRIOR TO INSTALLING SKID.



1 SECTION



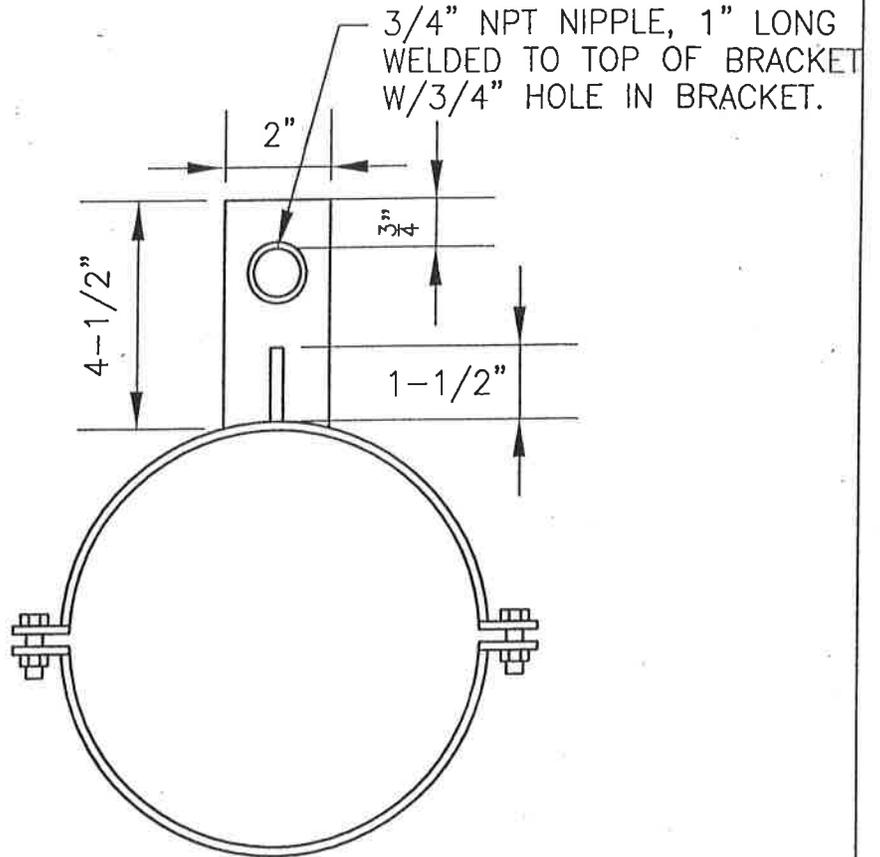
- GENERAL NOTES**
- SUBSEQUENT TO FABRICATION, ENTIRE ASSEMBLED SKID SHALL BE HOT DIPPED GALVANIZED.
  - STEEL TUBE SHALL CONFORM TO ASTM A-500 (Fy=42 K.S.I.) ALL OTHER STEEL TO CONFORM TO ASTM 36.
  - ALL WELDS TO BE E-70 ELECTRODES.
  - SKID SHOWN IS DESIGNED FOR THE FOLLOWING TANKS CONTAINING LIQUIDS HAVING A SPECIFIC GRAVITY OF LESS THAN 1.0 :  
A. 12,000 GALLON, 10'-6" DIA.  
B. 15,000 GALLON, 10'-6" DIA.
- PROPRIETARY STATEMENT**
- THIS DRAWING IS THE EXCLUSIVE PROPERTY OF SAFETY-KLEEN SYSTEMS, INC. AND IS PROPRIETARY AND CONFIDENTIAL INFORMATION. THIS DRAWING AND THE INFORMATION CONTAINED THEREIN MUST NOT BE DUPLICATED, USED, DIVULGED, REPRODUCED, COPIED, DISCLOSED OR APPROPRIATED IN WHOLE OR IN PART FOR ANY PURPOSE OTHER THAN AS EXPRESSLY AUTHORIZED BY SAFETY-KLEEN SYSTEMS, INC. THIS DRAWING MUST BE RETURNED PROMPTLY UPON REQUEST.

TITLE										TANK SKID FOR 12K/15K GALLON STORAGE TANK	
SCALE										1/2"=1'	
BY										JEK	
CHKD										DDP	
APPROVED										DDP	
OPERATIONS										DDP	
DATE										3/22/97	
NO.										DESCRIPTION	
BY										CHK	
APPR										DATE	
REVISIONS										FABRICATION	
SC-DWG NUMBER										BSD 896	
REV. NO.										0	

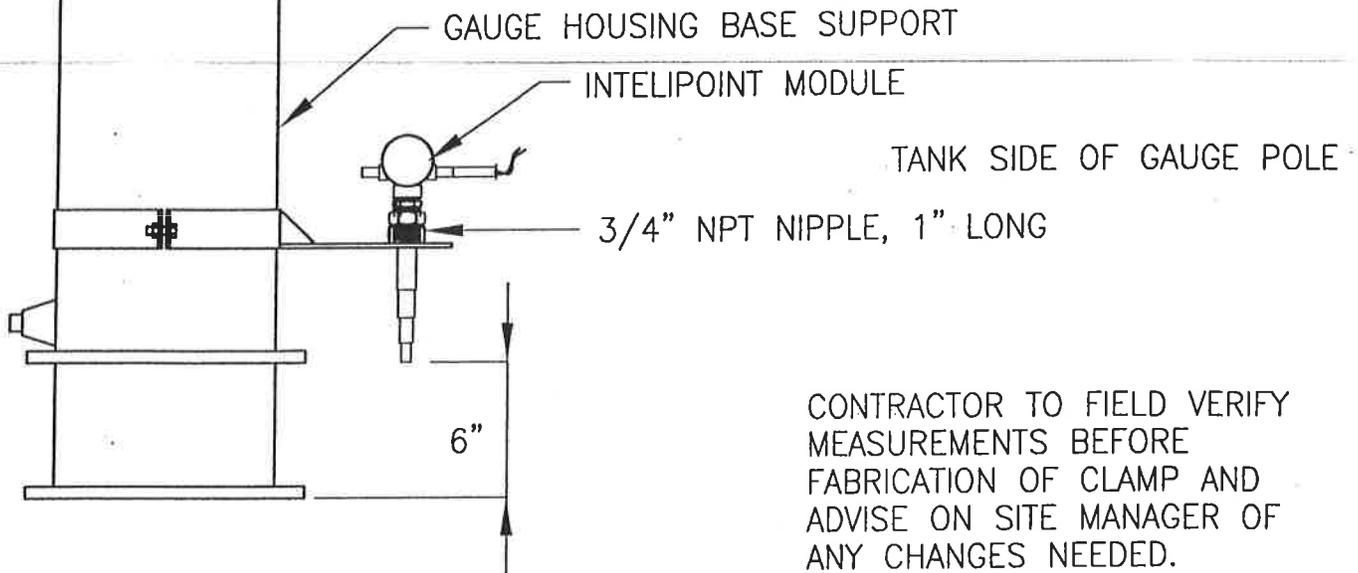
**SAFETY-KLEEN SYSTEMS, INC.**  
2600 N. CENT. EXPRESSWAY STE 400 RICHARDSON, TX. 75080  
PHONE: 800-669-5740

## Exhibit J-9

Tank Farm Leak Detection HLA Monitoring



2" X 1/4" STEEL BAND, 5" DIA.  
SPLIT, BOLTED WITH 2- 3/8" DIA.  
BOLTS, NUTS, LOCKWASHERS



CONTRACTOR TO FIELD VERIFY  
MEASUREMENTS BEFORE  
FABRICATION OF CLAMP AND  
ADVISE ON SITE MANAGER OF  
ANY CHANGES NEEDED.

**PROPRIETARY STATEMENT**

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**TANK FARM LEAK DETECTION  
HLA MOUNTING**

**SAFETY-KLEEN SYSTEMS, INC.**  
5400 LEGACY DR. CLUSTER III, BLDG. 3 PLANO, TX. 75024 800-869-8740

SCALE NONE	BY JEK	CHKD DZ	APPR DZ	OP. APPR DZ	DATE 7/01/08
SERVICE CENTER LOCATION FARMINGTON, N.M.			SC-DWG NUMBER 7133-4100-499		REV. NO. A

**Project Solutions**  
Companies

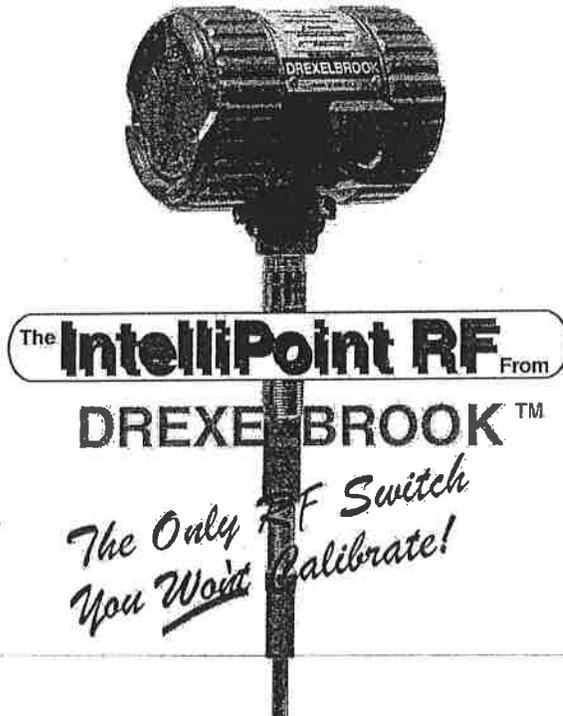
1390 Boone Industrial Drive • Suite 200 •  
Columbia • MO 65202  
Phone: (573) 443-7100  
Fax: (573) 443-7181

**AMETEK**<sup>®</sup>  
DREXELBROOK

**A Leader in Level Measurement**

## **IntelliPoint RF™ Series**

### **Two-Wire Point Level Switch**



#### **Intelligent Electronics**

- No calibration or setpoint adjustments.
- Ignores changes in dielectric or conductivity.
- Automatically recognizes and ignores coatings to prevent false alarms.
- Continuous self-test monitors circuits and sensing elements for faults.

#### **Diverse Applications**

- Detects the absence or presence of liquids, slurries, interfaces and granulars.

#### **Output**

- 8mA (Alarm) 16mA (Normal) or 8mA (Normal) and 16 mA (Alarm)

#### **No Calibration**

The only RF switch you won't calibrate. Simply install the IntelliPoint RF Series into the tank and apply power...that's it! Unlike other RF or capacitance systems that require calibration via setpoint potentiometers, jumpers, magnets, or pushbuttons, the IntelliPoint RF Series reliably detects the absence or presence of material without any adjustments.

The IntelliPoint RF Series software continuously monitors the application for changes in composition, dielectric or conductivity, and maintains a repeatable trip point on the probe. Other RF and capacitance systems require calibration adjustments when the process material is changed. Since the IntelliPoint RF Series recognizes changes in material, it is ideal for non-dedicated tanks that are used for a wide variety of products.

#### **Self-Test Feature**

Automatic and manual self-test functions ensure proper system operation. An AutoVerify™ self-check circuit continuously monitors that the complete system is functioning properly. The Manual Certify not only checks the function of the system, but also checks the AutoVerify self-test circuits to make sure that they are also working properly.

#### **Dual Compartment Housing**

New dual compartment housing separates the customer wiring from the sensing element and operating circuits. The encapsulated power supply/terminal block design eliminates the possibility of damage caused by moisture in the conduit.

## Specifications

**Technology:**  
RF Admittance.

**Calibration:**  
None.

**Modes Of Operation:**  
High and Low Level.

**Repeatability:**  
2 mm (0.08 inch) conductive liquids.

**Response Time:**  
less than one second.

**Ambient Electronic Temperature:**  
-30 to 70°C (-28 to 158°F)

**Storage Temperature:**  
-40 to 85°C (-40 to 185°F).

**Indicators:**  
LEDs: Green Power, Red Alarm.

**Self-Check:**  
AutoVerify automatically and continuously checks electronics and sensing element for faults. Manual Certify checks that the AutoVerify circuits are functioning.

**Time Delay:**  
0-60 seconds, forward or reverse-acting.

**Supply Voltage:**  
13-30 Vdc

**Power Consumption:**  
2 watts maximum.

**Output:**  
8 mA - Alarm.  
16 mA - Normal.  
22 mA - Fault.  
or  
8 mA - Normal.  
16 mA - Alarm.  
5 mA - Fault.

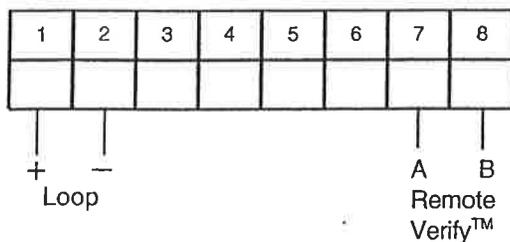
**Housing:**  
Dual Compartment, Powder-Coated aluminum with two cable entries.

**Cable Entry:**  
M20 x 1.5 CENELEC  
¾-inch NPT FM/CSA.

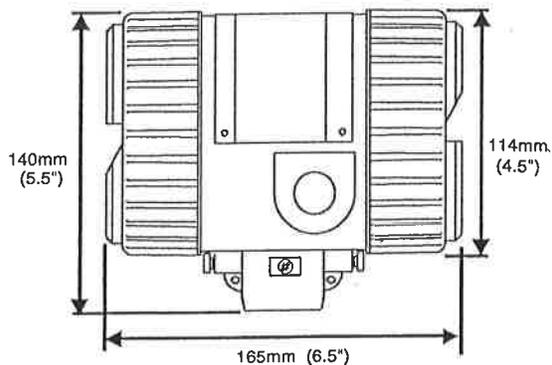
**Ingress Protection:**  
IP66 NEMA 4X.

**Approvals:**  
FM and CSA pending.

## Wiring



## Dimensions



# Model Numbering

## IntelliPoint RF™

### Technology

R RF Admittance

### Measurement Type

N No Calibration, Point Level

### Input

T Two wire Power Supply, 13-30 Vdc

### Housing

- 0 No Approvals, Dual Compartment NEMA 4X/IP66, M20 x 1.5 conduit entries
- 1 No Approvals, Dual Compartment NEMA 4X/IP66 ¾" NPT conduit entries
- 2 N/A
- 3 FM/CSA Approved, Dual Compartment NEMA 4X/IP66 ¾" NPT conduit entries

### Electronics

- 0 Integral
- 1 Remote, no cable
- 2 Remote with 3 m (10 feet) cable
- 3 Remote with 7.6 m (25 feet) cable
- 4 Remote with 10.6 m (35 feet) cable
- 5 Remote with 15.2 m (50 feet) cable
- 6 Remote with 23 m (75 feet) cable

### Output

0 8-16 mA Output

### Sensing Element

continued on next page

	Application	Sensing Element	Pressure/Temperature	Wetted Parts
00	General purpose	700-1202-001 remote 700-1202-021 integral	13.8 bar @ 232°C (200 PSI @ 450°F)	316SS and PEEK
01	Floating roof with cable attachment and brass bottom weight	700-1202-012 remote 700-1202-022 integral	13.8 bar @ 177°C (200 PSI @ 350°F)	316SS, Brass, and PEEK
02	General purpose, longer insertion lengths with cable attachment and 316SS bottom weight	700-1202-014 remote 700-1202-024 integral	13.8 bar @ 177°C (200 PSI @ 350°F)	316SS and PEEK
03	Proximity	700-1202-018 remote 700-1202-028 integral	13.8 bar @ 232°C (200 PSI @ 450°F)	316SS and PEEK with 76 mm (3) 316SS proximity plate
04	General purpose, high temperature and pressure	700-1202-041 remote 700-1202-042 integral	69 bar @ 121°C (1000 PSI @ 250°F) 20.7 bar @ 232°C (300 PSI @ 450°F)	316SS and PEEK
10	Corrosive liquids (2)(4)(9)	700-0001-018	3.4 bar @ 149°C (50 PSI @ 300°F)	PFA
11	General purpose, higher pressure TFE compatibility required	700-0201-005	69 bar @ 38°C (1000 PSI @ 100°F) 13.8 bar @ 232°C (200 PSI @ 450°F)	316SS and TFE
12	Corrosive material, higher pressure	700-0201-005 Hastelloy C	69 bar @ 38°C (1000 PSI @ 100°F) 13.8 bar @ 232°C (200 PSI @ 450°F)	Hastelloy C and TFE
13	Sanitary (3)	700-0201-036	69 bar @ 38°C (1000 PSI @ 100°F) 13.8 bar @ 232°C (200 PSI @ 450°F)	316/316L SS and TFE
14	General Purpose, low pressure	700-0202-002	3.4 bar @ 149°C (50 PSI @ 300°F) 1.4 bar @ 232°C (20 PSI @ 450°F)	316SS and TFE
15	Heavy duty, agitated tanks or material with high bulk density (1)	700-0202-043	69 bar @ 38°C (1000 PSI @ 100°F) 13.8 bar @ 232°C (200 PSI @ 450°F)	316SS and TFE
16	High integrity seal for hazardous material (8)	700-0002-360 (Seal Tyle™)	34.5 bar @ 149°C (500 PSI @ 300°F)	PFA (flange mounting only)
18	Corrosive material, higher pressure with waterlike viscosity (4)	700-0001-022	69 bar @ 38°C (1000 PSI @ 100°F) 34.5 bar @ 149°C (500 PSI @ 300°F)	TFE
20	Miniature Pilot Plant Sensor (1)(7)	700-0209-002	6.9 bar @ 121°C (100 PSI @ 250°F) 0 bar @ 232°C (0 PSI @ 450°F)	316 SS and TFE
60	Highest pressure and temperature (1)	700-0204-038	138 bar @ 93°C (2000 PSI @ 200°F) 69 bar @ 260°C (1000 PSI @ 500°F)	316SS and Ceramic



# Model Numbering (cont.)

Sensing Element				continued from previous page	
<b>Fly Ash Precipitators, Baghouse, and Economizers (1) (6)</b>					
	Application	Sensing Element	Pressure/Temperature	Wetted Parts	
31	No hopper installation	700-0029-001	0.1 bar @ 260°C (2 PSI @ 500°F)	316SS and TFE (CS Inactive)	
32	Hopper installation up to 200mm (8 inches)	700-0029-002	0.1 bar @ 260°C (2 PSI @ 500°F)	316SS and TFE (CS Inactive)	
33	Hopper installation up to 250mm (10 inches)	700-0029-003	0.1 bar @ 260°C (2 PSI @ 500°F)	316SS and TFE (CS Inactive)	
35	Hopper installation up to 400mm (16 inches)	700-0029-005	0.1 bar @ 260°C (2 PSI @ 500°F)	316SS and TFE (CS Inactive)	
<b>Plugged Chute Detection (1) (5)</b>					
	Application	Sensing Element	Pressure/Temperature	Wetted Parts	
50	Flush Mount Sensor 305mm <sup>2</sup> (12 inches <sup>2</sup> ) heavy duty	700-0207-001	0.1 bar @ 82°C (1 PSI @ 180°F)	304 SS and Polyurethane	
51	Flush Mount Sensor 305mm <sup>2</sup> (12 inches <sup>2</sup> ) higher temperature	700-0207-002	0.1 bar @ 149°C (1 PSI @ 300°F)	304 SS and TFE	
52	Flush Mount Sensor 305mm <sup>2</sup> (12 inches <sup>2</sup> ) with curved radius 153, 229, 305 mm (6, 9, or 12 inches)	700-0207-003	0.1 bar @ 82°C (1 PSI @ 180°F)	304 SS and Neoprene	
53	Flush Mount Sensor 305mm <sup>2</sup> (12 inches <sup>2</sup> ) extra heavy duty	700-0207-004	0.1 bar @ 82°C (1 PSI @ 180°F)	410 SS and UHMW Polyethylene	
55	Flush Mount Sensor 203mm <sup>2</sup> (8 inches <sup>2</sup> ) heavy duty	700-0207-006	0.1 bar @ 82°C (1 PSI @ 180°F)	304 SS and Polyurethane	

**Mounting Type (See separate Mounting Chart for first three digits)**

	IL	CSL	IL	CSL
xxxA	152 mm (6")	51 mm (2")	xxxH	914 mm (36") 254 mm (10")
xxxB	305 mm (12")	51 mm (2")	xxxJ	914 mm (36") 0 mm (0")
xxxC	305 mm (12")	89 mm (3.5")	xxxK	1219 mm (48") 254 mm (10")
xxxD	457 mm (18")	51 mm (2")	xxxL	1524 mm (60") 254 mm (10")
xxxE	457 mm (18")	89 mm (3.5")	P00X	IL/CSL factory set for Plugged Chute
xxxF	457 mm (18")	254 mm (10")	A1BX	IL/CSL factory set for Fly Ash
xxxG	457 mm (18")	0 mm (0")	xxxZ	Other



- Notes: (1) Available with remote electronics only (2) Use A1P mounting option (3) Choose from sanitary mounting options only (4) Available with 0-inch CSL only (5) Use P00X mounting option (6) Use A1B mounting option (7) Use A8B mounting option (1/4-inch NPT) (8) Choose from flange mounting only (9) FM approved with remote electronics only
- Not all mounting options available with all sensing elements**

**NPT Threads**

A1B	3/4" NPT	316SS
A1C	3/4" NPT	Hastelloy C
A1P	3/4" NPT	PFA
A2B	1" NPT	316SS
A2C	1" NPT	Hastelloy C

**Sanitary TriClamps**

C2B	1" TriClamp	316SS
C3B	1 1/2" TriClamp	316SS
C4B	2" TriClamp	316SS

**DIN Flanges**

E01	25 mm 16bar	RF 316/316L SS
EP1	25 mm 40 bar	RF 316/316L SS
EQ1	50 mm 16 bar	RF 316/316L SS
ER1	50 mm 40 bar	RF 316/316L SS
ES1	80 mm 16 bar	RF 316/316L SS
ET1	80 mm 40 bar	RF 316/316L SS
EU1	100 mm 16 bar	RF 316/316L SS
EV1	100 mm 40 bar	RF 316/316L SS
EW1	150 mm 16 bar	RF 316/316L SS
EX1	150 mm 40 bar	RF 316/316L SS

**DIN Flanges (cont.)**

E02	25 mm 16 bar	RF Carbon Steel
EP2	25 mm 40 bar	RF Carbon Steel
EQ2	50 mm 16 bar	RF Carbon Steel
ER2	50 mm 40 bar	RF Carbon Steel
ES2	80 mm 16 bar	RF Carbon Steel
ET2	80 mm 40 bar	RF Carbon Steel
EU2	100 mm 16 bar	RF Carbon Steel
EV2	100 mm 40 bar	RF Carbon Steel
EW2	150 mm 16 bar	RF Carbon Steel
EX2	150 mm 40 bar	RF Carbon Steel

**ANSI Flanges**

DA1	1" 150#	RF 316/316L SS
DB1	1 1/2" 150#	RF 316/316L SS
DC1	2" 150#	RF 316/316L SS
DD1	2 1/2" 150#	RF 316/316L SS
DE1	1" 300#	RF 316/316L SS
DF1	1 1/2" 300#	RF 316/316L SS
DG1	2" 300#	RF 316/316L SS
DH1	2 1/2" 300#	RF 316/316L SS
DI1	3" 150#	RF 316/316L SS

**ANSI Flanges (cont.)**

DJ1	3" 300#	RF 316/316L SS
DK1	4" 150#	RF 316/316L SS
DL1	4" 300#	RF 316/316L SS
DM1	6" 150#	RF 316/316L SS
DN1	6" 300#	RF 316/316L SS
DA2	1" 150#	RF Carbon Steel
DB2	1 1/2" 150#	RF Carbon Steel
DC2	2" 150#	RF Carbon Steel
DD2	2 1/2" 150#	RF Carbon Steel
DE2	1" 300#	RF Carbon Steel
DF2	1 1/2" 300#	RF Carbon Steel
DG2	2" 300#	RF Carbon Steel
DH2	2 1/2" 300#	RF Carbon Steel
DI2	3" 150#	RF Carbon Steel
DJ2	3" 300#	RF Carbon Steel
DK2	4" 150#	RF Carbon Steel
DL2	4" 300#	RF Carbon Steel
DM2	6" 150#	RF Carbon Steel
DN2	6" 300#	RF Carbon Steel

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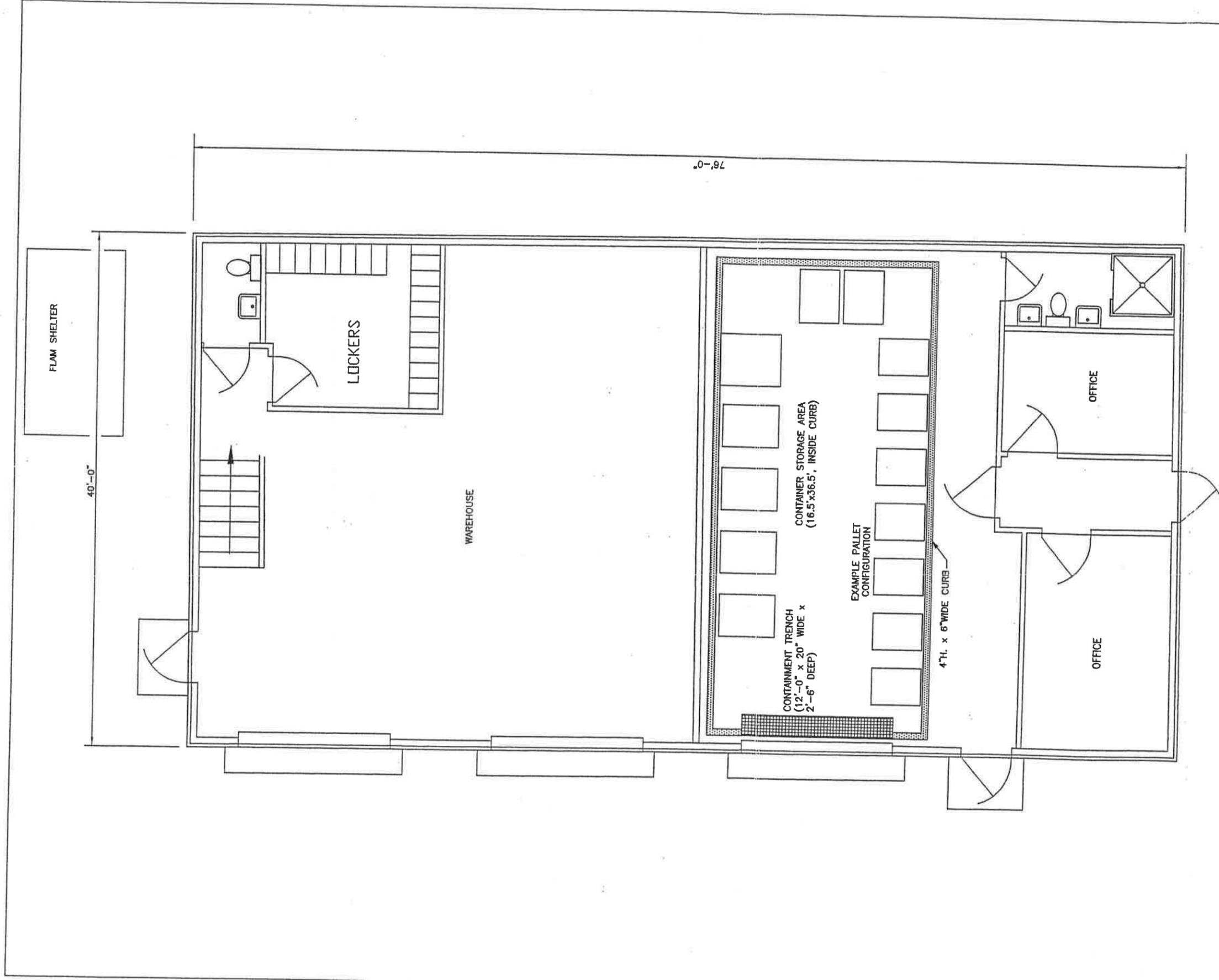
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## Exhibit J-10

Warehouse and Container Storage Area  
Floor Plan and Example Pallet Layout



A Trihydro Corporation representative conducted a field inspection to verify construction, equipment, components, dimensions and existing conditions on February 28, 2001. Items inaccessible to visual observation were not field verified during inspection. Notes have been added to document results and/or observed modifications (as appropriate) during the February 28, 2001 inspection.

REVISIONS	
Date	By



**WAREHOUSE AND CONTAINER STORAGE AREA FLOOR PLAN**  
4210A HAWKINS RD.  
FARMINGTON N.M.

**SAFETY-KLEEN SYSTEMS, INC.**  
1311 Grand Street, Suite 200, Colorado, South Carolina, 29701.  
Phone (803) 837-8200



Drawn By: DJR | Checked By: BC | Scale: SHOWN | Date: 03/22/01 | Reference: 333BLDG

# Exhibit J-11

## Container Storage Area Certification



# TERA, inc.

3100 South Gessner Road • Suite 650 • Houston, Texas 77063  
P.O. Box 770039 • Houston, Texas 77215-0039  
Tel. (713) 783-6292 • Fax (713) 783-3698

April 23, 1996  
96-400-018

Mr. Peter Olsen  
SAFETY-KLEEN CORP.  
2720 Girard NE  
Albuquerque, New Mexico 87107

Subject: Certification of Drum Storage Area, Farmington Branch, New Mexico

Dear Mr. Olsen:

On February 15, 1996, TERA conducted an inspection of the subject drum storage facility which is shown on attached Safety-Kleen Drawing No. 700821-7001-04. This inspection was to compare this facility to the requirements of 40 CFR 264 "Subpart I, Use and Management of Containers". This inspection was conducted by visual examination, measurements and calculations of available sump capacity.

## SYSTEM DESCRIPTION

The drum storage area is an integral part of the warehouse portion of the main building at Farmington (please refer to Safety-Kleen Drawing No. 700821-0001-00). The area is completely surrounded by a curb which is 4 3/4 high by 6.5 inches wide except at the truck door entrance. This area contains a grate covered trench open to the drum area. This trench collects any leakage that might occur in the drum storage area. The floor and driveway slope away from the trench on the outside edge. This prevents any run-on of precipitation.

## RESULTS OF INSPECTION

The following paragraphs compare this drum storage area to the requirements of 40 CFR 264.175:

- a. "Cracks, Gaps and Sufficiently Impervious" [40 CFR 264.175(b)(1)]

The area is free of any cracks or gaps and is coated such that it will contain leaks and spills. The entire unit is indoors under roof and thereby protected from any precipitation.

b. "Sloped to Drain" [40 CFR 264.175(b)(2)]

The floor area is sloped to drain to trench.

c. "Sufficient Capacity" [40 CFR 264.175(b)(3)]

The containment trench sizes are shown on the attached Safety-Kleen Drawing No. 700821-7001-04, Attachment B.

Calculations of trench capacity are shown on the drawing. This area has a trench capacity of 382 gallons, therefore it will support a storage capacity of 3,820 gallons.

d. "Run-on Prevented" [40 CFR 175(b)(4)]

The entire area is protected by its integral curb and appropriate sloping of the outside driveway at the doorway.

e. "Ignitable or Reactive Wastes" [40 CFR 264.176]

This area does not store flammables or reactive wastes.

f. "Incompatible Wastes" [40 CFR 264.177]

Wastes which are incompatible with one another are not stored in this area.

CERTIFICATION

Based on the results of the inspection and calculations, we conclude that this drum storage area meets the requirements of 40 CFR 264.175-177, Subpart I and New Mexico Environmental Improvement Board HWMR-6, Part 5.

\* \* \*

SAFETY-KLEEN CORP.  
Mr. Peter Olsen  
Page 3

TERA, Inc.  
April 23, 1996  
96-400-018

Should you have any questions on the above or if we can supply additional information, please contact me at 713/783-6292. Thank you for this opportunity to work with you and Safety-Kleen Corp.

Very truly yours,

TERA, Inc.



T. R. Barker, II, P.E.  
Principal



Thomas H. Wimbrow, P.E.  
President & Chief Engineer

TRB/da

Attachment



April 23, 1996

# Exhibit J-12

## Safety-Kleen Drum Spreadsheet

## SAFETY-KLEEN DRUMS

SK Inventoried Part #	Category	Type	Size (gal)	Nestable	Open-Head	Tight-Head	Drum Only	Lined	Un-lined	Bung Gasket	Gauge	Description	Manufactured Lining	Reconditioned Lining	UN-Rating	Primary Usage
13348	Drum	Steel	16	X	X		X	X			Body 20, bottom 18	Red-O.H.	Rust inhibitor, inside bottom head epoxy-phenolic (L-15X)	Rust inhibitor	1A2/Y1.6/200	Parts Washer
3348	Drum	Steel	16	X	X		X	X			Body 20, bottom 18	Red	Rust inhibitor	Rust inhibitor	UN exempt	Parts Washer
3348	Drum	Steel	16		X		X	X			Body 20, bottom 18	Red	Rust inhibitor	Rust inhibitor	UN exempt	Parts Washer
3398	Drum	Steel	16	X	X		X	X			19	Red	(L-35)		UN exempt	Parts Washer
3264	Drum	Steel	16		X			X		X	Drum, cover, bottom 22 gauge	Red (drum with 3/4" flange in side wall, lid color red with 1 2" and 3 3/4" bungs, bolt ring 14 X 18 gauge)	Pigmented 100% phenolic lining			Solvent (Minimizer)
13393	Drum	Steel	16	X	X		X	X			Body 20, bottom 18	Green	inside bottom head epoxy-	Rust inhibitor	1A2/Y1.6/200	Parts Washer
3250	Drum	Steel	16	X	X		X	X			Body 20, bottom 18	Black	Rust inhibitor lined only	Rust inhibitor	1A2/Y1.6/200	Gas Filter
3324	Drum	Steel	16	X	X			X		X	Body 20, bottom 18	Black (White lid with 2" center bung SK part # 3225, ring is 12 gauge SK part # 3389)	Rust inhibitor lined only	Rust inhibitor	1A2/Y1.6/200	FRS
3387	Drum	Steel	16		X		X		X		Straight 18	Gray (4 brackets spot welded)			1A2/Y1.6/200	Immersion Cleaner
3362	Drum	Steel	16			X		X	X		Straight 20	Black with 3/4" and 2" bungs	Purchased as new no lining	100 % phenolic (9967 and 9968)	1A1/Y1.2/100	Paint Refinishing
9967	Drum	Steel	16			X		X		X	Straight 20	Yellow with 3/4" and 2" bungs (Litho-Multi use US)	100 % phenolic	Rust inhibitor	1A1/Y1.8/300	Paint/Thinner (6568)
9968	Drum	Steel	16			X		X		X	Straight 20	Yellow with 3/4" and 2" bungs (Litho-Multi use Can)	100 % phenolic	Rust inhibitor	1A1/Y1.8/300	Paint/Thinner (6568)

## SAFETY-KLEEN DRUMS

SK Inventoried Part #	Category	Type	Size (gal)	Nestable	Open-Head	Tight-Head	Drum Only	Lined	Un-lined	Bung Gasket	Gauge	Description	Manufactured Lining	Reconditioned Lining	UN-Rating	Primary Usage
13349	Drum	Steel	30	X	X	X	X				Straight 18	Red	Rust inhibitor, inside bottom head epoxy-phenolic (L-15X)	Rust inhibitor	1A2/Y1.6/100	Parts Washer
3349	Drum	Steel	30	X	X	X	X				Straight 20	Red	Rust inhibitor	Rust inhibitor	UN exempt	Parts Washer
3349	Drum	Steel	30	X	X	X	X				Body 20, bottom 18	Red	Rust inhibitor	Rust inhibitor	UN exempt	Oil Recovery, Parts Washer
3399	Drum	Steel	30	X	X	X	X				Body 20, bottom 18	Red	Epoxy-phenolic (L-35)		UN exempt	Parts Washer
701140	Drum	Stainless Steel	30		X	X					22 gauge	Red Stainless Steel				Solvent (Minimizer)
13395	Drum	Steel	30	X	X	X	X				Straight 18	Green	Rust inhibitor, inside bottom head epoxy-phenolic (L-15X)	Rust inhibitor	1A2/Y1.6/100	Parts Washer
3395	Drum	Steel	30	X		X	X				Straight 20	Green	Rust inhibitor	Rust inhibitor	UN exempt	Parts Washer
3395	Drum	Steel	30	X	X	X	X				Body 20, bottom 18	Green	Rust inhibitor	Rust inhibitor	UN exempt	Oil Recovery, Parts Washer
3391	Drum	Steel	30	X	X		X			X	Straight 18	Yellow w/label (Yellow lid with 2" bung standard location SK part # 3218, ring is 12 gauge SK part # 3342)	Rust inhibitor	Rust inhibitor	1A2/Y1.6/100	Absorbent
3391	Drum	Steel	30	X	X		X			X	Straight 18	Yellow w/label (Yellow lid with 2" bung standard location SK part # 3218, ring is 12 gauge SK part # 3342)	Rust inhibitor	Rust inhibitor	1A2/Y1.6/100	Absorbent
3392	Drum	Steel	30	X	X	X	X				Straight 18	Yellow (no/label)	Rust inhibitor	Rust inhibitor	1A2/Y1.6/100	Absorbent
3252	Drum	Steel	30	X	X	X	X				Straight 18	Black	Rust inhibitor	Rust inhibitor	1A2/Y1.6/100	Gas Filter

## SAFETY-KLEEN DRUMS

<i>SK Inventoried Part #</i>	<i>Category</i>	<i>Type</i>	<i>Size (gal)</i>	<i>Nestable</i>	<i>Open-Head</i>	<i>Tight-Head</i>	<i>Drum Only</i>	<i>Lined</i>	<i>Un-lined</i>	<i>Bung Gasket</i>	<i>Gauge</i>	<i>Description</i>	<i>Manufactured Lining</i>	<i>Reconditioned Lining</i>	<i>UN-Rating</i>	<i>Primary Usage</i>
3345	Drum	Steel	30	X	X			X		X	Straight 18	Black (White lid with 2" center bung SK part # 3245, ring 12 gauge sk part # 3342)	Rust inhibitor	Rust inhibitor	1A2/Y1.6/100	FRS
3360	Drum	Steel	30	X	X		X	X			Straight 18	Blue	Rust inhibitor	Rust inhibitor , 100 % phenolic , 70% phenolic 30% epoxy	1A2/Y1.6/100	Aqueous Parts Washer
3303	Drum	Steel	30			X			X	X	Top 18, body 20, bottom 18	Black with 3/4" and 2" bungs			1A1/Y1.2/100	Paint Refinishing
3369	Drum	Steel	55		X				X	X	Top 18, body 20, bottom 18	Black (Black lid with 3/4" bung and 2" bung SK part # 3370, ring is 12 gauge SK part # 3371)			1A2/Y1.8/200, 1A2/Y1.6/150	FRS/Paint Refinishing/Oil Filters
3383	Drum	Steel	55		X				X	X	Top 18, body 20, bottom 18	Green		Rust inhibitor	1A2/Y1.8/200, 1A2/Y1.6/150	Oil Filters
8003369	Drum	Steel	55		X				X	X	Top 18, body 18-20, bottom 18	Black (Black lid with 3/4" bung and 2" bung SK part # 3370, ring is 12 gauge SK part # 3371)		Rust inhibitor	1A2/Y1.2/100 (US and CAN), Non-UN (CAN)	FRS/Paint Refinishing/Oil Filters
Non-part	Drum	Steel	55			X		X		X	bottom 20	Black	100 % Phenolic		1A1/Y1.8/200 (US)	Solvent/Thinner/IC
Non-part	Drum	Steel	55			X			X	X	Top 18, body 20, bottom 20	Black			1A1/Y1.8/300 (US), 1A1/Y1.8/200 (US), 1A1/Y1.2/100 (CAN)	Solvent/Thinner/IC
Non-part	Drum	Steel	55			X					Top 18, body 18-20, bottom 20	Black				
3300	Drum	Steel	85			X		X		X	Straight 16	Yellow (Yellow lid with 3/4" bung standard location SK part # 3220, ring is 12 gauge SK part # 3221 )	High baked epoxy-phenolic (L-5X)		1A2/X435/S (US), 1A2/X440/S (CAN)	FRS/Overpack
8003300	Drum	Steel	85						X		Straight 16	Yellow (Yellow lid with 3/4" bung standard location SK part # 3220 )			1A2/X400-440/S	FRS/Overpack
5415	Drum	Plastic	15	X	X		X					Yellow			1H2/Y80/S	Imaging
15415	Drum	Plastic	15	X	X		X					Black			1H2/Y80/S	TFS
3270	Drum	Plastic	15	X	X		X					Black	Barzon (3%)		1H2/Y1.2/80	Dry Cleaning
3280	Drum	Plastic	15	X	X		X					Black(Split 30)	Barzon (3%)		1H2/Y1.2/80	Dry Cleaning

## SAFETY-KLEEN DRUMS

SK Inventoried Part #	Category	Type	Size (gal)	Nestable	Open-Head	Tight-Head	Drum Only	Lined	Un-lined	Bung Gasket	Gauge	Description	Manufactured Lining	Reconditioned Lining	UN-Rating	Primary Usage
5552	Drum	Plastic	15			X				X		Blue with 3/4" and 2" bungs			1H1/1.8/100	Imaging
5430	Drum	Plastic	30	X	X		X					Yellow			1H2/Y100/S	Imaging
15430	Drum	Plastic	30	X	X		X					Black			1H2/Y100/S	TFS
5553	Drum	Plastic	30			X				X		Blue with two 2" bungs one NPS and one buttress			1H1/1.8/100	Imaging
5455	Drum	Plastic	55	X	X		X					Yellow			1H2/Y140/S	Imaging
15455	Drum	Plastic	55	X	X		X					Black			1H2/Y140/S	TFS
5555	Drum	Plastic	55			X				X		Blue with two 2" bungs one NPS and one buttress			1H1/1.8/100	Imaging
Non-part	Drum	Plastic	55		X							Blue cut out OH			Exempt	RC waste
8500	Drum	Plastic	95	X	X							Yellow--Salvage Drum			1H2/X/340 S	Overpack
8550	Drum	Fiber	5		X							Brown			UN/1G/X30/S	Lab Pack
8510	Drum	Fiber	10		X							Brown			UN/1G/X60/S	Lab Pack
8515	Drum	Fiber	15		X							Brown			UN/1G/X71/S	Lab Pack
8520	Drum	Fiber	20		X							Brown			UN/1G/Y108/S	Lab Pack
8530	Drum	Fiber	30		X							Brown			UN/1G/X75/S	Lab Pack
3388	Lid	Steel	16						X		Straight 18	Epoxy gray (SK drum 3387)				Immersion Cleaner
3213	Lid	Steel	16					X			Straight 18	Red (SK drum 13348 and 3348)	Rust Inhibitor			Parts Washer
103320	Lid	Steel	16					X			Straight 20	Red (SK drums 3398 and 3348)	Rust Inhibitor			Parts Washer, Oil Recovery
3217	Lid	Steel	16					X			Straight 18	Green (SK drum 13393)	Rust Inhibitor			Parts Washer
3225	Lid	Steel	16					X	X		Straight 18	White with 2" center bung (SK drum 3324)	Rust Inhibitor			FRS
3450	Lid	Steel	16					X	X		Straight 18	White with 2" center bung (SK drum 3250)	Rust Inhibitor			Gas Filter
230044	Lid	Steel	16						X	X	18 gauge	Purchased non-painted lightly oil, painted black by SK, 3 2" bungs, (SK drum 3324)				Oil recovery (Oil trap)
3214	Lid	Steel	30					X			Straight 18	Red (SK drums 13349, 3349 and 3360)	Rust Inhibitor			Parts Washer
103334	Lid	Steel	30					X			Straight 20	Red (SK drum 3399)	Rust Inhibitor			Parts Washer, Oil Recovery
3215	Lid	Steel	30					X			Straight 18	Green (SK drum 13395, 3395 and 3360)	Rust Inhibitor			Parts Washer
3218	Lid	Steel	30					X	X		Straight 18	(SK drum 3392)	Rust Inhibitor			Absorbent
3245	Lid	Steel	30					X	X		Straight 18	3345)	Rust Inhibitor			FRS
3452	Lid	Steel	30					X	X		Straight 18	White with 2" center bung (SK drum 3252)	Rust Inhibitor			Gas Filter

## SAFETY-KLEEN DRUMS

SK Inventoried Part #	Category	Type	Size (gal)	Nestable	Open-Head	Tight-Head	Drum Only	Lined	Un-lined	Bung Gasket	Gauge	Description	Manufactured Lining	Reconditioned Lining	UN-Rating	Primary Usage
230021	Lid	Steel	30						X	X	18 gauge	Pruchased non-painted lightly oil, painted black by SK, 3 2" bungs, (SK drum 3345)				Oil recovery (Oil trap)
3370	Lid	Steel	55						X	X	Straight 16	Black with 3/4" bung and 2" bung (SK drum 3369)				FRS/Paint Refinishing/Oil Filters
230003	Lid	Steel	55						X	X	18 gauge	Pruchased non-painted lightly oil, painted black by SK, 3 2" bungs, (SK drum 3369)				Oil recovery (Oil trap)
3220	Lid	Steel	85				X			X	Straight 16	Yellow with 3/4" bung standard location (SK drum 3300)	Epoxy-phenolic			FRS/Overpack
5471	Lid	Plastic	15							X		Yellow with 2 " bung (SK drum 5415)				Imaging
15471	Lid	Plastic	15							X		Black with 2" bung (SK cover for 15415 (black))				Imaging
3272	Lid	Plastic	15				X			X		Black with 2 3/4" vents and combination 2" bung and 3/4" vent (SK drum 3270)	Level 5 Fluorination			Dry Cleaning
5434	Lid	Plastic	30							X		Yellow with 2 " bung (SK drum 5430)				Imaging
15434	Lid	Plastic	30							X		Black with 2" bung (SK drum 15430)				Imaging
3282	Lid	Plastic	30				X					Black (SK drum 3280)	Level 5 Fluorination			Dry Cleaning
5476	Lid	Plastic	55							X		Yellow with 2" bung (SK drum 5455)				Imaging
15476	Lid	Plastic	55							X		Black with 2" bung (SK drum 15455)				Imaging
8501	Lid	Plastic	95				X					Yellow (SK drum 8500)				Overpack
3289	Ring	Steel	16								Straight 12	Lever-lock/bolt(SK part # 3387, 3250, 13348 and 13393)				Parts Washer, Immersion, Gas Filter
3389	Ring	Steel	16								Straight 12	Bolt ring (SK drum 3324)				FRS
3342	Ring	Steel	30								Straight 12	Bolt ring (SK drums 3391, 3392 and 3345)				FRS, Absorbed
3242	Ring	Steel	30								Straight 12	3348, 13395, 3395, 3360 and 3252)				Filter
3371	Ring	Steel	55								Straight 12	Bolt ring (SK drum 3369 and 8003369)				FRS/Paint Refinishing/Oil Filters
3221	Ring	Steel	85								Straight 12	Bolt ring (SK drum 3300 and 8003300)				FRS/Overpack
5472	Ring	Plastic	15								Straight 16	Lever-lock (SK drums 5415/15415)				Imaging
3274	Ring	Plastic	15								Straight 14	Lever-lock (SK drum 3270)				Dry Cleaning
5435	Ring	Plastic	30								Straight 16	Lever lock (SK drums 5430/15430)				Imaging
3284	Ring	Plastic	30								Straight 12	Lever-lock (SK drum 3282)				Dry Cleaning

## SAFETY-KLEEN DRUMS

<i>SK Inventoried Part #</i>	<i>Category</i>	<i>Type</i>	<i>Size (gal)</i>	<i>Nestable</i>	<i>Open-Head</i>	<i>Tight-Head</i>	<i>Drum Only</i>	<i>Lined</i>	<i>Un-lined</i>	<i>Bung Gasket</i>	<i>Gauge</i>	<i>Description</i>	<i>Manufactured Lining</i>	<i>Reconditioned Lining</i>	<i>UN-Rating</i>	<i>Primary Usage</i>
5477	Ring	Plastic	55								Straight 16	Lever-lock (SK drum 5455/15455)				Imaging
3211	Gasket	Nitrile	16									Gasket for 16 gal OH steel drum lids				Parts Washer, FRS, Gas Filter
3212	Gasket	Nitrile	30									Gasket for 30 gal OH steel drum lid				Parts Washer, FRS, Immersion Cleaner, Gas Filter
3273	Gasket	Nitrile	15									Gasket for 15 gal OH plastic drum lid				Dry Cleaning
3283	Gasket	Nitrile	30									Gasket for 30 gal OH plastic drum lid				Dry Cleaning
3372	Gasket	EDPM	55									Gasket for 55 gal OH steel drum lid				FRS/Paint Refinishing/Oil Filters
8503	Gasket	Nitrile	95									Gasket for 95 gal OH plastic drum lid				Overpack

# Exhibit J-13

## Personal Protective Equipment Matrix

# BRANCH PERSONAL PROTECTIVE EQUIPMENT REQUIREMENTS

## WORKPLACE HAZARD ASSESSMENT SUMMARY 2015

TASK								
RETURN PRODUCT SERVICE	Yes (Np)	Yes		Yes	S.T w/M	Yes		
SAMPLING - FIELD	Yes (Nc)	Yes	Yes*	Yes	S.T w/SR	Yes		APR=FF/ ORG. vapor/acid gas
SPILL RESPONSE (INCIDENTAL)	Yes (Np)	Yes	Yes*	Yes	S.T w/SR	Yes		APR=HF or FF/ ORG. vapor/acid gas
TANK TRUCK LOAD/UNLOAD	Yes (PVC or Np)	Yes		Yes	S.T w/SR	Yes		
TANK TRUCK TOP SAMPLING	Yes (PVC or Np)	Yes		Yes	S.T w/SR	Yes		
VAC SERVICE	Yes (PVC or Np)	Yes		Yes	S.T w/SR	Yes	Yes, w/pump on	
VISITOR IN OPS AREAS				Yes	Closed toe	Yes		
WWF SERVICE	Yes (Nc)*	Yes		Yes	S.T w/SR	Yes		

Service Reps – must have Safety Vest available

### GLOVES

Cr = Cut Resistant glove (work glove)  
 Np = Supported Neoprene Glove (Outer Glove)  
 Cp = Chloroprene (5ml) (Inner Glove)  
 PVC = Poly Vinyl Chloride (Insulated option)  
 Nc = Nitrile Coated (work glove)

Cr\* = Cut Resistant glove (if chemical present – Supported Neoprene)  
 Nr = Nitrile (8ml) glove  
 (Np)\* = discard if show signs of breakthrough (breakthrough = discoloration, swelling, stiffness, etc.)  
 PVC = Poly Vinyl Chloride (Insulated option)  
 (Nc/Cp)\* = discard if show signs of breakthrough (breakthrough = discoloration, swelling, stiffness, etc.)

### APRON

Tychem QC apron w/ sleeves\* = discard if show signs of breakthrough (breakthrough = discoloration, loss of coating, stain on inside of apron, etc.)

### FOOTWEAR

S.T. w/M = Steel Toes with Metatarsal Guard  
 S.T. w/SR = Steel Toes with Slip Resistant Soles

### RESPIRATOR / CARTRIDGE TYPE

APR = half face (HF) or full face (FF) air purifying respirator (facial hair shall not come in contact with the face piece seal)

### Parts Number - Arbill

**Gloves** - Cr - Kevlar Shell Nitrile Palm A14240, Np-SK 612, CP-151433, PVC - A141360, Nc-14056, Nr -151943. **Respirator/Cartridge Type** - HF-A500603, FF - A505820, Organic Vapor/Acid Gas- A500710, Organic Vapor - A500730,

**Apron** - Tychem QC apron w/sleeves - Medium - QC275BYLMD002500, Large - QC275BYLLG002500, Ex. Large - QC275BYLXL002500. **Hard Hat** - 475360-BL27128 - BL6400. **Safety Vest** - A209283. **Goggles** - A303630. **Hearing Protection** - Muffs - A401800, Plugs - A403770.

### Parts Number - Century Vallen

**Gloves** - Cr - Kevlar Shell Nitrile Palm EDM 11-500, Np-SK 612, Cp - GLONPG888-M, PVC-EDM 4-412, Nc-EDM 37-145, Nr-BST 8005PF-L  
**Respirator/Cartridge Type** - HF-3MS 6200, FF-3MS 6800, Organic Vapor/Acid Gas/HEPA-3MS 60923, Organic Vapor/HEPA-3MS 60921, HEPA - 3MS 2096, Dusk Mask - 3MS8511.

**Apron** - Tychem QC apron w/sleeves - LAK 527. **Hard Hat** - DSI HP542R -02 - SK Logo. **Safety Vest** - NORTV52B4/(SIZE). **Goggles** - UVXS700C. **Hearing Protection** - Muffs - PLT H10A. Plugs - EAR 312 - 1201.

# BRANCH PERSONAL PROTECTIVE EQUIPMENT REQUIREMENTS

## WORKPLACE HAZARD ASSESSMENT SUMMARY 2015

TASK								
AQUEOUS BLENDING (MANUAL)	Yes (Np)	Yes	Yes*		S.T w/M	Goggles	Yes, w/pneumatic	
AQUEOUS SERVICE - COLD	Yes (Np)	Yes		Yes	S.T w/M	Yes		
AQUEOUS SERVICE - HEATED	Yes (Np)	Yes		Yes	S.T w/M	Yes		
AQUEOUS TEST ANALYSIS	Yes (Nr or Cp)	Yes		Yes	S.T w/SR	Yes		
BRAKE CLEANING (ABC)	Yes (Np)	Yes		Yes	S.T w/M	Yes		
COOLANT SERVICE	Yes (Np)	Yes		Yes	S.T w/M	Yes		
CONTAINERIZED WASTE (CWS)	Yes (Np)	Yes		Yes	S.T w/M	Yes		
DRY CLEANER SERVICE	Yes (Np)*	Yes		Yes	S.T w/M	Yes		
GUN CLEANERS - UNVENTED	Yes (Np/Cp)*	Yes		Yes	S.T w/M	Yes		APR=HF or FF/Organic vapor
GUN CLEANERS - VENTED	Yes (Np/Cp)*	Yes		Yes	S.T w/M	Yes		
IMAGING SERVICE	Yes (Np)	Yes		Yes	S.T w/M	Yes		
IMMERSION CLEANER SERVICE	Yes (Np)	Yes		Yes	S.T w/M	Yes		
LIGHT BULB SERVICE	Yes (Np)	Yes		Yes	S.T w/M	Yes		
MATERIAL HANDLING	Yes (Np)	Yes		Yes	S.T w/M	Yes		
OIL SERVICE	Yes (PVC or Np)	Yes		Yes	S.T w/SR	Yes		
PARTS WASHER SERVICE	Yes (Np)	Yes		Yes	S.T w/M	Yes		
RETURN/FILL OPERATIONS	Yes (Np)	Yes	Yes*	Yes	S.T w/SR	Yes	Yes, w/pneumatic	

# Exhibit K-1

## Example Emergency Coordinator List



## Exhibit K-2

### Example Employee Emergency Functions

Exhibit K-2

Example Employee Emergency Functions (typical)

<b>Job Title</b>	<b>Emergency Function</b>
Emergency Coordinator	<ul style="list-style-type: none"><li>• Notify SK Emergency Response</li><li>• Notify regulatory agencies</li><li>• Notify Emergency Response agencies (Fire, Police)</li><li>• Shut off Electricity (if needed)</li><li>• Coordinate Evacuation (if needed)</li><li>• Initiate Spill Response</li></ul>
Alternate Emergency Coordinator	<ul style="list-style-type: none"><li>• Function as Emergency Coordinator (above)</li><li>• Assist Emergency Coordinator as directed</li></ul>
Sales and Service Personnel	<ul style="list-style-type: none"><li>• Assist Emergency Coordinator as directed</li></ul>
Material Handlers	<ul style="list-style-type: none"><li>• Assist Emergency Coordinator as directed</li></ul>
Administrative Support Staff	<ul style="list-style-type: none"><li>• Assist with Evacuation / headcount</li><li>• Assist Emergency Coordinator as directed</li></ul>

## Exhibit K-3

### Inventory of Emergency Equipment

Exhibit K-3

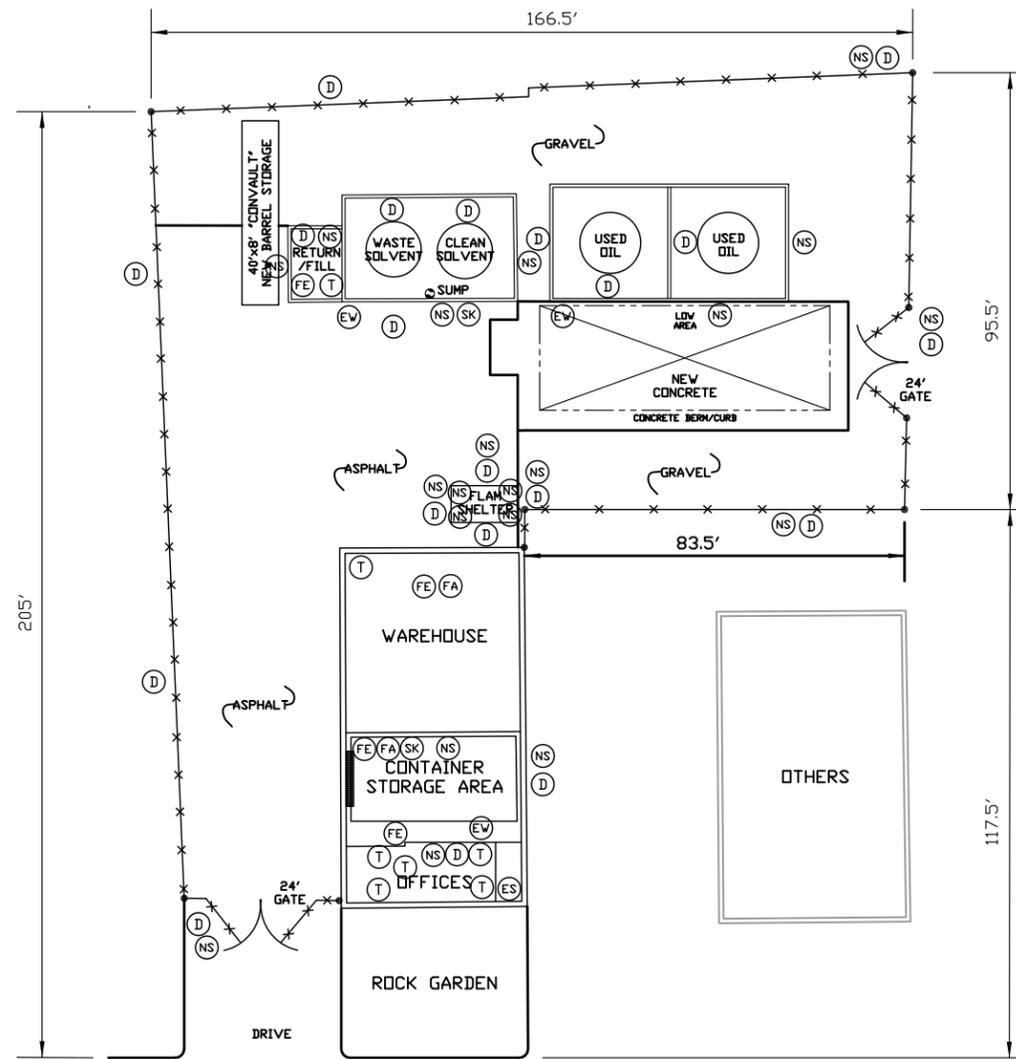
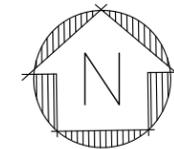
Facility Emergency Equipment

(See Exhibit K-4 for Specific Location for Equipment)

<b>Description</b>	<b>Location</b>	<b>Quantity</b>	<b>Capabilities</b>
Dry Chemical Fire Extinguishers-Hand held (type ABC)	Office area, warehouse, storage shed, return and fill shed	3	Able to extinguish type A, B, and C fires
First Aid Kits	Office/warehouse area	2	Provides items used to give basic medical attention
Eye wash station	Warehouse area, at return and fill	3	Provide a means of rinsing possibly harmful substances from the eyes and skin
Shower	Office area, warehouse area	1	Decontaminate plant personnel in the event of a spill or release of harmful material
Telephones/paging system	Office/warehouse area, return and fill	7	Alert personnel of an on-site emergency or spill incident, evacuation orders and general in-plant communications
Spill Kits / Absorbents	Tank farm, warehouse, return and fill areas	2	Able to contain and absorb spilled liquids  There is also a supply of absorbents for sale that can be accessed in the event of an emergency

# Exhibit K-4

## Location of Emergency Equipment



HAWKINS RD.

EMERGENCY EQUIPMENT LEGEND

- (T) - TELEPHONE
- (FE) - FIRE EXTINGUISHER (TYPICAL 10# ABC)
- (FA) - FIRST AID STATION
- (D) - 'DANGER' SIGN
- (NS) - 'NO SMOKING' SIGN
- (EW) - EYE WASH STATION
- (ES) - EMERGENCY SHOWER
- (SK) - SPILL KIT

PROPRIETARY STATEMENT

THIS DRAWING IS THE EXCLUSIVE PROPERTY OF SAFETY-KLEEN SYSTEMS, INC. AND IS PROPRIETARY AND CONFIDENTIAL INFORMATION. THIS DRAWING AND THE INFORMATION CONTAINED THEREIN MUST NOT BE DUPLICATED, USED, DIVULGED, REPRODUCED, COPIED, DISCLOSED OR APPROPRIATED IN WHOLE OR IN PART FOR ANY PURPOSE OTHER THAN AS EXPRESSLY AUTHORIZED BY SAFETY-KLEEN SYSTEMS, INC. THIS DRAWING MUST BE RETURNED PROMPTLY UPON REQUEST.

NO.	DESCRIPTION	BY	CHK	APPR	DATE
00	REVISED SAFETY KLEEN DRAWING TO SHOW CURRENT CONDITIONS	JEK	RS	RS	122809
REVISIONS					

TITLE  
 SITE EMERGENCY EQUIPMENT PLAN, 4210A HAWKINS RD.

**SAFETY-KLEEN SYSTEMS, INC.**  
 5360 LEGACY DR. BLDG. 2 SUITE 100 PLANO, TX. 75024 800-669-5740

SCALE 1" = 20'-0"	BY JEK	CHKD RS	P.E. APPR RS	DP. APPR RS	DATE 12/28/09
SERVICE CENTER BRANCH AT FARMINGTON, N.M.				STD-DWG-REV NO. 7133-SP00-004	

## Exhibit K-5

### Example Correspondence to Emergency Responders



PROTECTION · CHOICES · PEOPLE  
MAKE GREEN WORK

CERTIFIED MAIL RETURN RECEIPT REQUESTED 7001 2510 0002 6176 7951

July 20, 2015

Mr. Harron Ahmad  
Emergency Department  
San Juan Regional Medical Center  
801 West Maple  
Farmington, NM 87401

Dear Mr. Mink:

Pursuant to New Mexico Hazardous Waste Regulations that incorporate by reference 40 CFR 264.53, all revisions to a hazardous waste management facility's Contingency Plan must be provided to your office. The enclosed is a revised copy of the Emergency Contact List of Safety-Kleen Systems, Inc.'s (hereafter referred to as Safety-Kleen) Farmington, NM facility. Please replace the previous version of this plan in your files.

The Emergency Contact List is updated to change the Primary Emergency Coordinator and her contact information. We also deleted the home addresses and phone numbers of the emergency coordinators and added the work phone numbers.

In order to comply with 40 CFR 264.52(c) Safety-Kleen must document that arrangements have been made with your agency and that the Farmington Police Department can and will assist Safety-Kleen in the event of any emergency. Please acknowledge receipt of the Safety-Kleen's revised Emergency Contact List and that the Farmington Police Department will assist with an incident if called on by sending an email to me at [Nahid.toossi@safety-kleen.com](mailto:Nahid.toossi@safety-kleen.com) stating that you will respond *or* by signing and returning the attached response letter to:

Safety-Kleen Systems, Inc.  
Attn: Nahid Toossi  
4210 A Hawkins Road  
Farmington, NM 87401

If you have any questions or desire to visit our facility please contact me at 714-429-4355 or at 949-981-5099

Sincerely,

Nahid Toossi  
Senior Environment, Health and Safety Manager, C.S.P., C.H.M.M  
Safety-Kleen Systems Inc.  
[Nahid.toossi@safety-kleen.com](mailto:Nahid.toossi@safety-kleen.com)

Enclosures

4210 Hawkins Rd., Farmington, NM 87401  
Telephone 505-608-3550

Mr. Harron Ahmad  
Manager, Emergency Department  
San Juan Regional Medical Center  
801 West Maple  
Farmington, NM 87401

Safety-Kleen Systems, Inc.  
Attn: Nahid Toossi  
4210 A Hawkins Road  
Farmington, NM 87401

RE: Safety-Kleen Systems, Inc.  
4210 A Hawkins Road, Farmington, NM 87401  
EPA ID # NMD980698849  
Contingency Plan Update

Dear Ms. Toossi:

This letter is to acknowledge that this office has received the 7-20-2015 revision to the Emergency Contact List for the Safety-Kleen Systems, Inc. facility located in Farmington, NM. The revised contact list has been reviewed and the Farmington Police Department can and will assist by performing its role should an emergency situation occur.

Sincerely,

Signature

---

Date



PROTECTION · CHOICES · PEOPLE  
MAKE GREEN WORK

July 20, 2015

CERTIFIED MAIL RETURN RECEIPT REQUESTED 7001 2510 0002 6176 7944

Deputy Chief Terry Page  
Farmington Fire Department  
800 Municipal Dr.  
Farmington, NM 87401

Dear Deputy Chief Page:

Pursuant to New Mexico Hazardous Waste Regulations that incorporate by reference 40 CFR 264.53, all revisions to a hazardous waste management facility's Contingency Plan must be provided to your office. The enclosed is a revised copy of the Emergency Contact List of Safety-Kleen Systems, Inc.'s (hereafter referred to as Safety-Kleen) Farmington, NM facility. Please replace the previous version of this plan in your files.

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Safety-Kleen Systems, Inc.  
Attn: Nahid Toossi  
4210 A Hawkins Road  
Farmington, NM 87401

If you have any questions or desire to visit our facility please contact me at 714-429-4355 or at 949-981-5099

Sincerely,

Nahid Toossi  
Senior Environmental, Health and Safety Manager, C.S.P., C.H.M.M

Enclosures

Deputy Chief Page  
Farmington Fire Department  
800 Municipal Dr.  
Farmington, NM 87401

Safety-Kleen Systems, Inc.  
Attn: Nahid Toossi  
4210 A Hawkins Road  
Farmington, NM 87401

RE: Safety-Kleen Systems, Inc.  
4210 A Hawkins Road, Farmington, NM 87401  
EPA ID # NMD980698849  
Contingency Plan Update

Dear Ms. Toossi:

This letter is to acknowledge that this office has received the 7-20-2015 revision to the Emergency Contact List for the Safety-Kleen Systems, Inc. facility located in Farmington, NM. The revised contact list has been reviewed and the Farmington Police Department can and will assist by performing its role should an emergency situation occur.

Sincerely,

Signature

\_\_\_\_\_  
Date



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CERTIFIED MAIL RETURN RECEIPT REQUESTED 7001 2510 0002 6176 8293

July 20, 2015

Chief Steve Hebbe  
Farmington Police Department  
800 Municipal Dr.  
Farmington, NM 87491

Dear Chief Hebbe:

Pursuant to New Mexico Hazardous Waste Regulations that incorporate by reference 40 CFR 264.53, all revisions to a hazardous waste management facility's Contingency Plan must be provided to your office. The enclosed is a revised copy of the Emergency Contact List of Safety-Kleen Systems, Inc.'s (hereafter referred to as Safety-Kleen) Farmington, NM facility. Please replace the previous version of this plan in your files.

The Emergency Contact List is updated to change the Primary Emergency Coordinator and her contact information. We also deleted the home addresses and phone numbers of the emergency coordinators and added the work phone numbers.

In order to comply with 40 CFR 264.52(c) Safety-Kleen must document that arrangements have been made with your agency and that the Farmington Police Department can and will assist Safety-Kleen in the event of any emergency. Please acknowledge receipt of the Safety-Kleen's revised Emergency Contact List and that the Farmington Police Department will assist with an incident if called on by sending an email to me at [Nahid.toossi@safety-kleen.com](mailto:Nahid.toossi@safety-kleen.com) stating that you will respond *or* by signing and returning the attached response letter to:

Safety-Kleen Systems, Inc.  
Attn: Nahid Toossi  
4210 A Hawkins Road  
Farmington, NM 87401

If you have any questions or desire to visit our facility please contact me at 714-429-4355 or at 949-981-5099

Sincerely,

Nahid Toossi  
Senior Environment, Health and Safety Manager, C.S.P., C.H.M.M  
Safety-Kleen Systems Inc.  
[Nahid.toossi@safety-kleen.com](mailto:Nahid.toossi@safety-kleen.com)

Enclosures

Chief Steve Hebbe  
Farmington Police Dept.  
800 Municipal Dr.  
Farmington, NM 87401

Safety-Kleen Systems, Inc.  
Attn: Nahid Toossi  
4210 A Hawkins Road  
Farmington, NM 87401

RE: Safety-Kleen Systems, Inc.  
4210 A Hawkins Road, Farmington, NM 87401  
EPA ID # NMD980698849  
Contingency Plan Update

Dear Ms. Toossi:

This letter is to acknowledge that this office has received the 7-20-2015 revision to the Emergency Contact List for the Safety-Kleen Systems, Inc. facility located in Farmington, NM. The revised contact list has been reviewed and the Farmington Police Department can and will assist by performing its role should an emergency situation occur.

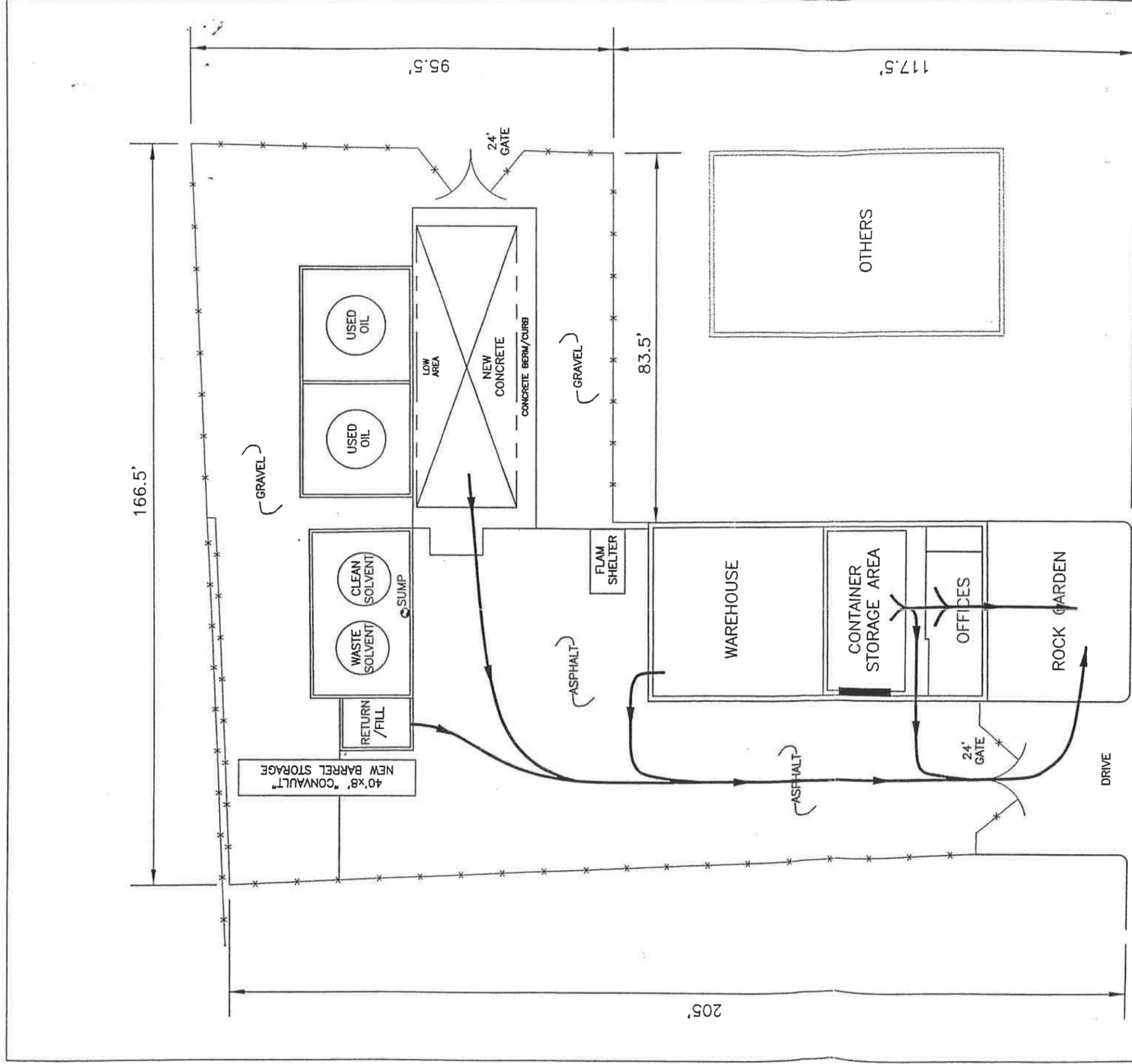
Sincerely,

Signature

\_\_\_\_\_  
Date

# Exhibit K-6

## Evacuation Diagram



205

A Trihydro Corporation representative conducted a field inspection to verify construction, equipment, components, dimensions and existing conditions on February 28, 2001. Items inaccessible to visual observation were not field verified during inspection. Notes have been added to document results and/or observed modifications (as appropriate) during the February 28, 2001 inspection.



REVISIONS	
Date	By



**TRIHIDRO Corporation**  
920 Sheridan Street  
Laramie, Wyoming 82070



**EVACUATION PLAN**  
4210A HAWKINS RD.  
FARMINGTON N.M.

**SAFETY-KLEEN SYSTEMS, INC.**  
1501 Grand Blvd., Suite 300, Omaha, Neb. 68108  
Phone (402) 833-2800

Drawn By: DJR    Checked By: BC    Scale: SHOWN    Date: 03/16/01    Reference: 333SITE

## Exhibit K-7

### Safety-Kleen Solvent (Premium/150) Safety Data Sheet



## Safety Data Sheet

Material Name: SAFETY-KLEEN PREMIUM SOLVENT (VIRGIN AND RECYCLED)

SDS ID: GHS 82658

### \*\*\* Section 1 - Identification \*\*\*

#### Product Identifier

SAFETY-KLEEN PREMIUM SOLVENT (VIRGIN AND RECYCLED)

#### Product Code

None.

#### Synonyms

Safety-Kleen Premium Gold Solvent; Safety-Kleen Continued Use Product Solvent (CUP); High Flash Degreasing Solvent; Parts Washer Solvent; Petroleum Distillates; Petroleum Naphtha; Naphtha, Solvent; Mineral Spirits

#### Recommended Use

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

#### Restrictions on Use

None known.

#### Manufacturer Information

Safety-Kleen Systems, Inc.  
2600 North Central Expressway  
Suite 400  
Richardson, TX 75080  
www.safety-kleen.com

Phone: 1-800-669-5740

Emergency # 1-800-468-1760

#### Issue Date

September 2, 2014

#### Supersedes Issue Date

November 8, 2012

#### Original Issue Date

January 26, 1995

### \*\*\* Section 2 - Hazard(s) Identification \*\*\*

#### Classification in Accordance with 29 CFR 1910.1200.

Flammable Liquids, Category 4

Specific Target Organ Toxicity - Single Exposure, Category 3 (central nervous system)

Aspiration Hazard, Category 1

#### GHS LABEL ELEMENTS

##### Symbol(s)



#### Signal Word

DANGER!

#### Hazard Statement(s)

Combustible liquid

May cause drowsiness and dizziness

May be fatal if swallowed and enters airways

# Safety Data Sheet

Material Name: SAFETY-KLEEN PREMIUM SOLVENT (VIRGIN AND RECYCLED)

SDS ID: GHS 82658

## Precautionary Statement(s)

### Prevention

Keep away from flames and hot surfaces. - No smoking. Wear protective gloves and eye/face protection. Avoid breathing vapor or mist. Use only outdoors or in a well-ventilated area.

### Response

In case of fire: Use Class B/C or Class A/B/C fire extinguisher, carbon dioxide, regular foam, dry chemical, water spray, or water fog for extinction. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell. IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Do NOT induce vomiting.

### Storage

Store in a well-ventilated place. Keep container tightly closed. Keep cool.

### Disposal

Dispose of in accordance with all applicable federal, state and local regulations.

### Hazard(s) Not Otherwise Classified

None known.

## \*\*\* Section 3 - Composition / Information on Ingredients \*\*\*

CAS	Component	Percent
64742-47-8	Distillates (petroleum), hydrotreated light	100

## \*\*\* Section 4 - First Aid Measures \*\*\*

### Description of Necessary Measures

#### Inhalation

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

#### Skin

IF ON SKIN: Wash with plenty of soap and water. Remove contaminated clothing and wash before reuse. Get medical attention if irritation develops or persists.

#### Eyes

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops or persists.

#### Ingestion

IF SWALLOWED: Aspiration hazard. Do NOT induce vomiting. If vomiting occurs, keep head lower than hips to help prevent aspiration. Call a poison control center or doctor immediately for treatment advice.

### Most Important Symptoms/Effects

#### Acute

Central nervous system depression

#### Delayed

Central nervous system damage

### Indication of Immediate Medical Attention and Special Treatment Needed, If Needed

IF exposed: Call a POISON CENTER or doctor/physician. Treat symptomatically and supportively. Treatment may vary with condition of victim and specifics of incident. Call 1-800-468-1760 for additional information.

## \*\*\* Section 5 - Fire-Fighting Measures \*\*\*

### Suitable Extinguishing Media

Class B/C or Class A/B/C fire extinguisher, carbon dioxide, regular foam, regular dry chemical, water spray, water fog.

## Safety Data Sheet

Material Name: SAFETY-KLEEN PREMIUM SOLVENT (VIRGIN AND RECYCLED)

SDS ID: GHS 82658

### Unsuitable Extinguishing Media

Do not use high-pressure water streams.

### Specific Hazards Arising from the Chemical

Combustible liquid and vapor. The vapor is heavier than air. Vapors or gases may ignite at distant ignition sources and flash back. Run-off to sewer may create a fire hazard. Heated containers may rupture or be thrown into the air. Empty containers may retain product residue including flammable/explosive vapors. Product may be sensitive to static discharge, which could result in fire or explosion.

### Hazardous Combustion Products

Decomposition and combustion materials may be toxic - Burning may produce carbon monoxide and unidentified organic compounds.

### Special Protective Equipment and Precautions for Firefighters

A positive-pressure, self-contained breathing apparatus (SCBA) and full-body protective equipment are required for fire emergencies.

### Fire Fighting Measures

Keep away from sources of ignition - No smoking. Keep unnecessary people away, isolate hazard area and deny entry. Move container from fire area if it can be done without risk. Cool containers with water spray until well after the fire is out. Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible withdraw from area and let fire burn. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tanks due to fire. Stay away from the ends of tanks. For tank, rail car or tank truck, evacuation radius: 800 meters (1/2 mile). Stay upwind and keep out of low areas. Dike for later disposal.

### NFPA Ratings: Health: 1 Fire: 2 Reactivity: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

## \* \* \* Section 6 - Accidental Release Measures \* \* \*

### Personal Precautions, Protective Equipment and Emergency Procedures

Wear personal protective clothing and equipment. See **Section 8 – Exposure Controls/Personal Protection**. Avoid release to the environment.

### Methods and Materials for Containment and Clean Up

Remove all ignition sources. Do not touch or walk through spilled product. Stop leak if you can do it without risk. Wear protective equipment and provide engineering controls as specified in **Section 8 – Exposure Controls/Personal Protection**. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Ventilate area and avoid breathing vapor or mist. A vapor suppressing foam may be used to reduce vapors. Contain spill away from surface water and sewers. Contain spill as a liquid for possible recovery, or sorb with compatible sorbent material and shovel with a clean, sparkproof tool into a sealable container for disposal. Additionally, for large spills: Water spray may reduce vapor, but may not prevent ignition in closed spaces. Dike far ahead of liquid spill for collection and later disposal.

There may be specific regulatory reporting requirements associated with spills, leaks, or releases of this product. Also see **Section 15 – Regulatory Information**.

## \* \* \* Section 7 - Handling and Storage \* \* \*

### Precautions for Safe Handling

Keep away from heat, sparks, or flame. Where flammable mixtures may be present, equipment safe for such locations should be used. When transferring product, trucks and tank cars should be grounded and bonded. Do not breathe vapor or mist.

Use in a well-ventilated area. Avoid contact with eyes, skin, clothing, and shoes. Do not smoke while using this product.

### Conditions for Safe Storage, Including Any Incompatibilities

Keep containers away from heat, flame, sparks, static electricity, or other sources of ignition. Keep container tightly closed. Keep cool. Do not pressurize, cut, weld, braze, solder, drill, or grind containers. Empty product containers may retain product residue and can be dangerous. Store in a well-ventilated place. See **Section 14 – Transportation Information** for Packing Group information.

## Safety Data Sheet

Material Name: SAFETY-KLEEN PREMIUM SOLVENT (VIRGIN AND RECYCLED)

SDS ID: GHS 82658

### Incompatibilities

Strong oxidizing materials.

<b>*** Section 8 - Exposure Controls / Personal Protection ***</b>
--

### Component Exposure Limits

#### Distillates (petroleum), hydrotreated light (64742-47-8)

**ACGIH:** 100 ppm TWA (related to Stoddard solvent)

**OSHA Final:** 500 ppm TWA; 2900 mg/m<sup>3</sup> TWA (related to Stoddard solvent)

**OSHA Vacated:** 100 ppm TWA; 525 mg/m<sup>3</sup> TWA (related to Stoddard solvent)

**NIOSH:** 350 mg/m<sup>3</sup> TWA (related to Stoddard solvent)

1800 mg/m<sup>3</sup> Ceiling (15 min, related to Stoddard solvent)

### Appropriate Engineering Controls

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

### Individual Protective Measures, such as Personal Protective Equipment

Personal protective equipment should be selected based upon the conditions under which this material is used. A hazard assessment of the work area for PPE requirements should be conducted by a qualified professional pursuant to regulatory requirements. The following PPE should be considered the minimum required: safety glasses, gloves, lab coat or apron.

### Eyes/Face Protection

Safety glasses with side shields should be worn at a minimum. Additional protection such as goggles, face shields, or respirators may be needed depending upon anticipated use and concentrations of mists or vapors. Provide an emergency eye wash fountain and quick drench shower in the immediate work area. Contact lens use is not recommended.

### Skin Protection

Where skin contact is likely, wear neoprene, nitrile, or equivalent protective gloves; use of natural rubber or equivalent gloves is not recommended. To avoid prolonged or repeated contact with products where spills and splashes are likely, wear appropriate chemical-resistant faceshield, boots, apron, coveralls, long sleeve shirts, or other protective clothing.

### Respiratory Protection

Use NIOSH-certified P- or R- series particulate filter and organic vapor cartridges when concentration of vapor or mist exceeds applicable exposure limits. Protection provided by air purifying respirators is limited. Do not use N-rated respirators. 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.

## Safety Data Sheet

Material Name: SAFETY-KLEEN PREMIUM SOLVENT (VIRGIN AND RECYCLED)

SDS ID: GHS 82658

### \*\*\* Section 9 - Physical & Chemical Properties \*\*\*

<b>Appearance/Odor :</b> Liquid, clear, colorless to pale yellow Mild hydrocarbon odor	<b>pH:</b> Not applicable
<b>Boiling Point:</b> 350°F (177°C) (initial)	<b>Odor Threshold:</b> 30 ppm (based on Stoddard Solvent)
<b>Solubility (H<sub>2</sub>O):</b> Insoluble.	<b>Melting Point:</b> -45°F (-43°C) (maximum)
<b>Density:</b> 6.4 to 6.7 LB/US gal (770 to 800 g/l)	<b>Specific Gravity:</b> 0.77 to 0.82 at 60°F (15.6°C) (water = 1)
<b>Evaporation Rate:</b> <0.1 (butyl acetate = 1)	<b>Octanol/H<sub>2</sub>O Coeff.:</b> Not available
<b>LFL:</b> 0.7 VOL% (minimum)	<b>Auto Ignition Temperature:</b> 480°F (249°C) (minimum)
<b>UFL:</b> 5 VOL% (maximum)	<b>Flash Point:</b> 148°F (64°C) (minimum)
<b>Vapor Pressure:</b> 0.2 mm Hg at 68°F (20°C); 0.6 mm Hg at 100°F (37°C)	<b>Viscosity:</b> Not available
	<b>Vapor Density:</b> 5 (air = 1) (approximately)

#### Other Property Information

No information is available.

### \*\*\* Section 10 - Stability & Reactivity \*\*\*

#### Reactivity

No reactivity hazard is expected.

#### Chemical Stability

Stable under normal temperatures and pressures.

#### Possibility of Hazardous Reactions

Will not polymerize under normal temperature and pressure conditions.

#### Conditions To Avoid

Avoid heat, sparks, flames, and other sources of ignition Avoid contact with incompatible materials.

#### Incompatible Materials

Avoid acids, alkalis, oxidizing agents, reducing agents, or reactive halogens.

#### Hazardous Decomposition Products

None under normal temperatures and pressures. See also **Section 5: Hazardous Combustion Products.**

### \*\*\* Section 11 - Toxicological Information \*\*\*

#### Toxicity Data and Information

##### Component Analysis - LD50/LC50

**Distillates (petroleum), hydrotreated light (64742-47-8)**

Inhalation LC50 Rat >5.2 mg/L 4 h; Oral LD50 Rat >5000 mg/kg; Dermal LD50 Rabbit >2000 mg/kg

#### Information on Likely Routes of Exposure

##### Inhalation

May cause irritation, nausea, loss of appetite, headache, drowsiness, dizziness, disorientation, tremors, lung damage (from aspiration), convulsions, and coma.

##### Ingestion

May cause headache, drowsiness, dizziness, loss of coordination, and aspiration hazard.

##### Skin Contact

May cause irritation of the skin.

##### Eye Contact

No information on significant adverse effects.

## Safety Data Sheet

Material Name: SAFETY-KLEEN PREMIUM SOLVENT (VIRGIN AND RECYCLED)

SDS ID: GHS 82658

### Immediate Effects

Central nervous system depression, lung damage (from aspiration), respiratory tract irritation, skin irritation.

### Delayed Effects

Central nervous system damage, respiratory system damage.

### Irritation/Corrosivity

Respiratory tract irritation, skin irritation.

### Respiratory Sensitization

No information available for the product.

### Skin Sensitization

No information available for the product.

### Carcinogenicity

No carcinogenicity data available for this product.

### Component Carcinogenicity

None of this product's components are listed by ACGIH, IARC, OSHA, NIOSH, or NTP.

### Germ Cell Mutagenicity

Based on best current information, there is no known mutagenicity associated with this product.

### Teratogenicity

No information available for the product.

### Reproductive Effects

No epidemiological data is available for this product.

### Specific Target Organ Effects - Single Exposure

Central nervous system.

### Specific Target Organ Effects - Repeated Exposure

Central nervous system.

### Aspiration Hazard

Lung aspiration hazard if swallowed.

### Medical Conditions Aggravated by Exposure

Individuals with pre-existing respiratory tract (nose, throat, and lungs), central nervous system, kidneys, and eye and/or skin disorders may have increased susceptibility to the effects of exposure.

## \*\*\* Section 12 - Ecological Information \*\*\*

### Ecotoxicity

According to the California Code of Regulations, a toxicity to aquatic life, specifically fish, is determined using an acute 96 hour bioassay. A material is non-hazardous if the LC<sub>50</sub> is >500 mg/L. This product passed the bioassay and is considered non-hazardous.

### Persistence and Degradability

This material is believed not to biodegrade.

### Bioaccumulation Potential

This material is believed not to bioaccumulate.

### Mobility in Soil

Expected to have high mobility in soil.

### Other Adverse Effects

No additional information is available.

## \*\*\* Section 13 - Disposal Considerations \*\*\*

### Disposal Methods

Not regulated. Based on available data, this information applies to the product as supplied to the user. Processing, use, or contamination by the user may change the waste code applicable to the disposal of this product.

## Safety Data Sheet

Material Name: SAFETY-KLEEN PREMIUM SOLVENT (VIRGIN AND RECYCLED)

SDS ID: GHS 82658

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 proper recycling or disposal.

### \*\*\* Section 14 - Transport Information \*\*\*

#### Emergency Response Guide Number

128: Reference . *North American Emergency Response Guide Book*

#### Transportation Regulations

##### DOT Non-Bulk Packages (less than or equal to 119 gallons)

Not regulated.

**Shipping Name:** Cleaning compounds (Petroleum naphtha)(Not US DOT regulated)

##### Bulk Packages

**Shipping Name:** Combustible liquid, n.o.s. (petroleum naphtha)

**UN/NA #:** NA1993 **Hazard Class:** Combustible liquid **Packing Group:** III

Required Placards: Class 3, NA 1993

**TDG** Not regulated as dangerous goods.

### \*\*\* Section 15 - Regulatory Information \*\*\*

#### Volatile Organic Compounds (As Regulated)

100 WT%; 6.4 to 6.7 LB/US gal; 770 to 800 g/l

As per 40 CFR Part 51.100(s).

VOC Vapor Pressure: <1.0 mmHg @ 20°C

Product may or may not be considered photochemically reactive (100% by weight).

Consult your state or local air district regulations for location specific information.

#### Federal Regulations

##### SARA 302/304

##### Component Analysis

Based on the ingredient(s) listed in SECTION 3, this product does not contain any "extremely hazardous substances" listed pursuant to Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) Section 302 or Section 304 as identified in 40 CFR Part 355, Appendix A and B.

##### SARA 311/312 Hazardous Categories

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

**Acute Health:** Yes **Chronic Health:** Yes **Fire:** Yes **Pressure:** No **Reactive:** No

##### SARA Section 313

##### Component Analysis

This product does not contain any "toxic" chemical subject to the requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) and 40 CFR Part 372.

#### CERCLA

##### Component Analysis

Based on the ingredient(s) listed in SECTION 3, this product does not contain any "hazardous substance" listed under the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) in 40 CFR Part 302, Table 302.4.

#### TSCA Inventory

All the components of this substance are listed on or are exempt from the TSCA inventory listing.

## Safety Data Sheet

Material Name: SAFETY-KLEEN PREMIUM SOLVENT (VIRGIN AND RECYCLED)

SDS ID: GHS 82658

### Component Analysis

Component	CAS #	TSCA
Distillates (petroleum), hydrotreated light	64742-47-8	Yes

### U.S. State Regulations

This product may contain a detectable amount of benzene CAS 71-43-2, p-dichlorobenzene CAS 106-46-7, ethylbenzene CAS 100-41-4, and naphthalene CAS 91-20-3. WARNING: These chemicals are known to the State of California to cause cancer.

This product may contain a detectable amount of benzene CAS 71-43-2 and toluene CAS 108-88-3. WARNING: These chemicals are known to the State of California to cause birth defects or other reproductive harm.

### Canadian Regulations

This product has been classified in accordance with the criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

### Component Analysis

Component	CAS #	CAN
Distillates (petroleum), hydrotreated light	64742-47-8	DSL

### Canadian WHMIS Information

B3 D2B

\*\*\* Section 16 - Other Information \*\*\*

### Revision Information

Reformat to OSHA HazCom 29 CFR 1910.1200 adoption of GHS Revision 3.

### Key/Legend

ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSL - Domestic Substances List; EEC - European Economic Community; EINECS - European Inventory of Existing Commercial Chemical Substances; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IMDG - International Maritime Dangerous Goods; JP - Japan; Kow - Octanol/water partition coefficient; KR - Korea; LEL - Lower Explosive Limit; LOLI - List Of Lists™ - ChemADVISOR's Regulatory Database; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PH - Philippines; RCRA - Resource Conservation and Recovery Act; RID - European Rail Transport; RTECS - Registry of Toxic Effects of Chemical Substances®; SARA - Superfund Amendments and Reauthorization Act; STEL - Short-term Exposure Limit; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act; TWA - Time Weighted Average; UEL - Upper Explosive Limit; US - United States

### Disclaimer

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, of merchantability, fitness for a particular purpose or of any other nature are made hereunder with respect to the information or the product to which the information refers. The data contained on this sheet apply to the product as supplier to the user.

End of Sheet 82658

# Exhibit K-8

## Safety-Kleen Lacquer Thinner Safety Data Sheet



## Safety Data Sheet

Material Name: SAFETY-KLEEN HEAVY DUTY LACQUER THINNER

SDS ID: 82343

### \*\*\* Section 1 - Identification \*\*\*

#### Product Identifier

SAFETY-KLEEN HEAVY DUTY LACQUER THINNER

#### Product Code

5820, 5825, 6782

#### Synonyms

Not applicable.

#### Recommended Use

For cleaning coating equipment (e.g., paint spray guns). If this product is used in combination with other products, refer to the Safety Data Sheet for those products.

#### Restrictions on Use

**THIS PRODUCT IS NOT FOR SALE OR USE IN THE STATE OF CALIFORNIA.**

#### Manufacturer Information

Safety-Kleen Systems, Inc.  
2600 North Central Expressway  
Suite 400  
Richardson, TX 75080  
www.safety-kleen.com

Phone: 1-800-669-5740

Emergency # 1-800-468-1760

#### Issue Date

November 1, 2014

#### Supersedes Issue Date

October 18, 2013

#### Original Issue Date

July 20, 1989

### \*\*\* Section 2 - Hazard(s) Identification \*\*\*

#### Classification in Accordance with 29 CFR 1910.1200.

Flammable Liquids, Category 2  
Acute Toxicity (Inhalation), Category 2  
Acute Toxicity (Oral), Category 4  
Skin Corrosion / Irritation, Category 2  
Eye Damage / Irritation, Category 1  
Germ Cell Mutagenicity, Category 1B  
Carcinogenicity, Category 1B  
Toxic to Reproduction, Category 2  
Specific Target Organ Toxicity - Single Exposure, Category 1 (central nervous system, respiratory system, liver, and heart);  
Single Exposure, Category 2 (kidneys); Single Exposure, Category 3 (respiratory system and central nervous system)  
Specific Target Organ Toxicity Repeated Exposure, Category 1 (central nervous system, nervous system, nervous system,  
liver, respiratory system, and heart); Repeated Exposure, Category 2 (blood, kidneys, and lungs)  
Aspiration Hazard, Category 1  
Hazardous to the Aquatic Environment - Acute Hazard, Category 3; Chronic Hazard, Category 3

#### GHS LABEL ELEMENTS

##### Symbol(s)



## Safety Data Sheet

Material Name: SAFETY-KLEEN HEAVY DUTY LACQUER THINNER

SDS ID: 82343

### Signal Word

DANGER!

### Hazard Statement(s)

Highly flammable liquid and vapor

Fatal if inhaled

Harmful if swallowed

Causes skin irritation, serious eye damage, and damage to central nervous system, liver, respiratory system, and heart

May cause genetic defects, cancer, damage to kidneys, drowsiness and dizziness, and respiratory irritation.

Suspected of damaging fertility or the unborn child.

Causes damage to central nervous system, liver, respiratory system, and heart through prolonged or repeated exposure.

May cause damage to blood, kidneys, and lungs through prolonged or repeated exposure

May be fatal if swallowed and enters airways

Harmful to aquatic life with long lasting effects

### Precautionary Statement(s)

#### Prevention

Keep away from heat, sparks, open flame, and hot surfaces - No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Wear protective gloves/clothing and eye/face protection. Wash thoroughly after handling. Wear respiratory protection. Do not eat, drink or smoke when using this product. Do not breathe vapor or mist. Use only outdoors or in a well-ventilated area. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid release to the environment.

#### Response

In case of fire: Use carbon dioxide, regular foam, regular dry chemical, and water spray for extinction. IF exposed or concerned: Get medical advice/attention. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician. Specific treatment may be needed, see first aid section of Safety Data Sheet. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation occurs, get medical advice/attention. Wash contaminated clothing before reuse. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician. IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Do NOT induce vomiting.

#### Storage

Store in a well-ventilated place. Keep container tightly closed. Keep cool.

#### Disposal

Dispose of in accordance with all applicable federal, state and local regulations.

#### Hazard(s) Not Otherwise Classified

None known.

# Safety Data Sheet

Material Name: SAFETY-KLEEN HEAVY DUTY LACQUER THINNER

SDS ID: 82343

## \*\*\* Section 3 - Composition / Information on Ingredients \*\*\*

CAS	Component	Percent
63231-51-6	Aromatic hydrocarbons	30-75
*MIXTURE	Ketones	0-60
**MIXTURE	Aliphatic hydrocarbons	0-60
***MIXTURE	Acetates	0-17
763-69-9	Ethyl 3-ethoxypropanoate	0-17
68475-56-9	Alcohols, C1-3	0-12
****MIXTURE	Other alcohols	0-10
*****MIXTURE	Chlorinated solvents	0-1

### Component Information/Information on Non-Hazardous Components

\*Mixture of 67-64-1, 78-93-3, 108-10-1, 110-43-0, 107-87-9

\*\*Mixture of 64741-89-5, 8030-6

\*\*\*Mixture of 123-86-4, 110-19-0, 108-21-4, 108-65-6, 141-78-6

\*\*\*\*Mixture of 71-36-3, 75-65-0

\*\*\*\*\*Mixture of 75-09-2, 127-18-4, 71-55-6

## \*\*\* Section 4 - First Aid Measures \*\*\*

### Description of Necessary Measures

#### Inhalation

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.

#### Skin

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

#### Eyes

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

#### Ingestion

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Do NOT induce vomiting. If vomiting occurs, keep head lower than hips to help prevent aspiration. Rinse mouth.

### Most Important Symptoms/Effects

#### Acute

Harmful if swallowed, fatal if inhaled, eye burns, skin irritation, central nervous system damage, respiratory system damage, liver damage, heart damage, respiratory tract irritation, central nervous system depression, kidney damage, lung damage (from aspiration).

#### Delayed

Mutagenic effects, cancer, reproductive effects, central nervous system damage, nervous system damage, kidney damage, liver damage, blood damage, respiratory system damage, heart damage, lung damage.

### Indication of Immediate Medical Attention and Special Treatment Needed, If Needed

IF exposed: Call a POISON CENTER or doctor/physician. Treat symptomatically and supportively.

## \*\*\* Section 5 - Fire-Fighting Measures \*\*\*

### Suitable Extinguishing Media

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

### Unsuitable Extinguishing Media

Do not use high-pressure water streams.

# Safety Data Sheet

Material Name: SAFETY-KLEEN HEAVY DUTY LACQUER THINNER

SDS ID: 82343

## Specific Hazards Arising from the Chemical

Highly flammable liquid and vapor. Vapors may form explosive mixture with air. Vapors are heavier than air and may travel along the ground to some distant source of ignition and flash back. Fire may produce irritating, poisonous and/or corrosive fumes. Runoff may create fire or explosion hazard. Empty product containers may retain product residue and can be dangerous. Containers may rupture or explode.

## Hazardous Combustion Products

Decomposition and combustion materials may be toxic. Burning may produce phosgene, chlorides, chloroacetylenes, formaldehyde, peracetic acid, carbon monoxide and unidentified organic compounds.

## Special Protective Equipment and Precautions for Firefighters

Wear full protective fire fighting gear including self contained breathing apparatus (SCBA) for protection against possible exposure.

## Fire Fighting Measures

Keep storage containers cool with water spray. Move container from fire area if it can be done without risk. Cool containers with water from unmanned hose holder or monitor nozzles until well after fire is out. Stay away from the ends of tanks. Do not scatter spilled material with high-pressure water streams. Apply water from a protected location or from a safe distance. Avoid inhalation of material or combustion by-products. Let the fire burn. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tanks due to fire. For tank, rail car or tank truck, evacuation radius: 800 meters (1/2 mile). Stay upwind and keep out of low areas. Dike for later disposal.

## NFPA Ratings: Health: 2 Fire: 3 Reactivity: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

### \* \* \* Section 6 - Accidental Release Measures \* \* \*

## Personal Precautions, Protective Equipment and Emergency Procedures

Wear personal protective clothing and equipment, see **Section 8, Exposure Controls/Personal Protection**. Avoid release to the environment.

## Methods and Materials for Containment and Clean Up

Remove all ignition sources. Do not touch or walk through spilled product. Stop leak if you can do it without risk. Wear protective equipment and provide engineering controls as specified in **Section 8, Exposure Control/Personal Protection**. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Ventilate area and avoid breathing vapor or mist. A vapor suppressing foam may be used to reduce vapors. Contain spill away from surface water and sewers. Contain spill as a liquid for possible recovery, or sorb with compatible sorbent material and shovel with a clean, sparkproof tool into a sealable container for disposal.

Additionally, for large spills: Water spray may reduce vapor, but may not prevent ignition in closed spaces. Dike far ahead of liquid spill for collection and later disposal.

There may be specific federal regulatory reporting requirements associated with spills, leaks, or releases of this product. Also see **Section 15, Regulatory Information**.

### \* \* \* Section 7 - Handling and Storage \* \* \*

## Precautions for Safe Handling

Keep away from heat, sparks, or flame. Where flammable mixtures may be present, equipment safe for such locations should be used. Use clean, sparkproof tools and explosion-proof equipment. When transferring large quantities of product, metal containers, including trucks and tank cars, should be grounded and bonded. Do not breathe vapor or mist. Use in a well ventilated area. Avoid contact with eyes, skin, clothing, and shoes. Do not smoke while using this product. Wash thoroughly after handling.

# Safety Data Sheet

Material Name: SAFETY-KLEEN HEAVY DUTY LACQUER THINNER

SDS ID: 82343

## Conditions for Safe Storage, Including Any Incompatibilities

Keep containers away from heat, flame, sparks, static electricity, or other sources of ignition. Keep container tightly closed. Keep cool. Do not pressurize, cut, weld, braze, solder, drill, or grind containers. Empty product containers may retain product residue and can be dangerous. Store containers in a cool, dry place. Store in a well-ventilated place. See **Section 14 Transportation Information** for Packing Group information.

## Incompatibilities

Combustible materials, strong acids, strong oxidizing materials, alkalis, reducing agents, reactive halogens, reactive metals.

## \* \* \* Section 8 - Exposure Controls / Personal Protection \* \* \*

### Component Exposure Limits

#### \*Mixture (107-87-9)

**ACGIH:** 150 ppm STEL  
**OSHA Final:** 200 ppm TWA; 700 mg/m<sup>3</sup> TWA  
**OSHA Vacated:** 200 ppm TWA; 700 mg/m<sup>3</sup> TWA  
250 ppm STEL; 875 mg/m<sup>3</sup> STEL  
**NIOSH:** 150 ppm TWA; 530 mg/m<sup>3</sup> TWA

#### \*Mixture (108-10-1)

**ACGIH:** 20 ppm TWA  
75 ppm STEL  
**OSHA Final:** 100 ppm TWA; 410 mg/m<sup>3</sup> TWA  
**OSHA Vacated:** 50 ppm TWA; 205 mg/m<sup>3</sup> TWA  
75 ppm STEL; 300 mg/m<sup>3</sup> STEL  
**NIOSH:** 50 ppm TWA; 205 mg/m<sup>3</sup> TWA  
75 ppm STEL; 300 mg/m<sup>3</sup> STEL

#### \*Mixture (110-43-0)

**ACGIH:** 50 ppm TWA  
**OSHA Final:** 100 ppm TWA; 465 mg/m<sup>3</sup> TWA  
**OSHA Vacated:** 100 ppm TWA; 465 mg/m<sup>3</sup> TWA  
**NIOSH:** 100 ppm TWA; 465 mg/m<sup>3</sup> TWA

#### \*Mixture (67-64-1)

**ACGIH:** 500 ppm TWA  
750 ppm STEL  
**OSHA Final:** 1000 ppm TWA; 2400 mg/m<sup>3</sup> TWA  
**OSHA Vacated:** 750 ppm TWA; 1800 mg/m<sup>3</sup> TWA  
2400 mg/m<sup>3</sup> STEL (The acetone STEL does not apply to the cellulose acetate fiber industry. It is in effect for all other sectors); 1000 ppm STEL  
**NIOSH:** 250 ppm TWA; 590 mg/m<sup>3</sup> TWA

#### \*Mixture (78-93-3)

**ACGIH:** 200 ppm TWA  
300 ppm STEL  
**OSHA Final:** 200 ppm TWA; 590 mg/m<sup>3</sup> TWA  
**OSHA Vacated:** 200 ppm TWA; 590 mg/m<sup>3</sup> TWA  
300 ppm STEL; 885 mg/m<sup>3</sup> STEL  
**NIOSH:** 200 ppm TWA; 590 mg/m<sup>3</sup> TWA  
300 ppm STEL; 885 mg/m<sup>3</sup> STEL

#### \*\*Mixture (8030-30-6)

**OSHA Final:** 100 ppm TWA; 400 mg/m<sup>3</sup> TWA  
**OSHA Vacated:** 100 ppm TWA; 400 mg/m<sup>3</sup> TWA  
**NIOSH:** 100 ppm TWA; 400 mg/m<sup>3</sup> TWA

#### \*\*\*Mixture (141-78-6)

**ACGIH:** 400 ppm TWA  
**OSHA Final:** 400 ppm TWA; 1400 mg/m<sup>3</sup> TWA  
**OSHA Vacated:** 400 ppm TWA; 1400 mg/m<sup>3</sup> TWA  
**NIOSH:** 400 ppm TWA; 1400 mg/m<sup>3</sup> TWA

## Safety Data Sheet

Material Name: SAFETY-KLEEN HEAVY DUTY LACQUER THINNER

SDS ID: 82343

\*\*\*Mixture (108-21-4)

**ACGIH:** 100 ppm TWA  
200 ppm STEL  
**OSHA Final:** 250 ppm TWA; 950 mg/m<sup>3</sup> TWA  
**OSHA Vacated:** 250 ppm TWA; 950 mg/m<sup>3</sup> TWA  
310 ppm STEL; 1185 mg/m<sup>3</sup> STEL

\*\*\*Mixture (110-19-0)

**ACGIH:** 150 ppm TWA  
**OSHA Final:** 150 ppm TWA; 700 mg/m<sup>3</sup> TWA  
**OSHA Vacated:** 150 ppm TWA; 700 mg/m<sup>3</sup> TWA  
**NIOSH:** 150 ppm TWA; 700 mg/m<sup>3</sup> TWA

\*\*\*Mixture (123-86-4)

**ACGIH:** 150 ppm TWA  
200 ppm STEL  
**OSHA Final:** 150 ppm TWA; 710 mg/m<sup>3</sup> TWA  
**OSHA Vacated:** 150 ppm TWA; 710 mg/m<sup>3</sup> TWA  
200 ppm STEL; 950 mg/m<sup>3</sup> STEL  
**NIOSH:** 150 ppm TWA; 710 mg/m<sup>3</sup> TWA  
200 ppm STEL; 950 mg/m<sup>3</sup> STEL

\*\*\*\*Mixture (71-36-3)

**ACGIH:** 20 ppm TWA  
**OSHA Final:** 100 ppm TWA; 300 mg/m<sup>3</sup> TWA  
**OSHA Vacated:** 50 ppm Ceiling; 150 mg/m<sup>3</sup> Ceiling  
Prevent or reduce skin absorption  
**NIOSH:** 50 ppm Ceiling; 150 mg/m<sup>3</sup> Ceiling  
Potential for dermal absorption

\*\*\*\*Mixture (75-65-0)

**ACGIH:** 100 ppm TWA  
**OSHA Final:** 100 ppm TWA; 300 mg/m<sup>3</sup> TWA  
**OSHA Vacated:** 100 ppm TWA; 300 mg/m<sup>3</sup> TWA  
150 ppm STEL; 450 mg/m<sup>3</sup> STEL  
**NIOSH:** 100 ppm TWA; 300 mg/m<sup>3</sup> TWA  
150 ppm STEL; 450 mg/m<sup>3</sup> STEL

\*\*\*\*Mixture (127-18-4)

**ACGIH:** 25 ppm TWA  
100 ppm STEL  
**OSHA Final:** 100 ppm TWA  
200 ppm Ceiling  
**OSHA Vacated:** 25 ppm TWA; 170 mg/m<sup>3</sup> TWA

\*\*\*\*Mixture (71-55-6)

**ACGIH:** 350 ppm TWA  
450 ppm STEL  
**OSHA Final:** 350 ppm TWA; 1900 mg/m<sup>3</sup> TWA  
**OSHA Vacated:** 350 ppm TWA; 1900 mg/m<sup>3</sup> TWA  
450 ppm STEL; 2450 mg/m<sup>3</sup> STEL  
**NIOSH:** 350 ppm Ceiling (15 min); 1900 mg/m<sup>3</sup> Ceiling (15 min)

\*\*\*\*Mixture (75-09-2)

**ACGIH:** 50 ppm TWA  
**OSHA Final:** 125 ppm STEL (See 29 CFR 1910.1052, 15 min); 12.5 ppm Action Level (See 29 CFR 1910.1052); 25 ppm TWA (See 29 CFR 1910.1052)  
25 ppm TWA  
125 ppm STEL (see 29 CFR 1910.1052)  
**OSHA Vacated:** 500 ppm TWA  
2000 ppm STEL (5 min in any 3 h)  
1000 ppm Ceiling

# Safety Data Sheet

Material Name: SAFETY-KLEEN HEAVY DUTY LACQUER THINNER

SDS ID: 82343

## Appropriate Engineering Controls

Provide general ventilation needed to maintain concentration of vapor or mist below applicable exposure limits. Where adequate general ventilation is unavailable, use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below applicable exposure limits. Use explosion proof equipment. Ensure compliance with applicable exposure limits.

## Individual Protective Measures, such as Personal Protective Equipment.

Personal protective equipment should be selected based upon the conditions under which this material is used. A hazard assessment of the work area for PPE requirements should be conducted by a qualified professional pursuant to regulatory requirements. The following PPE should be considered the minimum required: safety glasses, gloves, lab coat or apron.

## Eyes/Face Protection

Eye protection: Safety glasses with side shields should be worn at a minimum. Additional protection such as goggles, face shields, or respirators may be needed depending upon anticipated use and concentrations of mists or vapors. Provide an emergency eye wash fountain and quick drench shower in the immediate work area. Contact lens use is not recommended.

## Skin Protection

Where skin contact is likely, wear chemical impervious protective gloves; use of natural rubber (latex), polyvinyl chloride (PVC), neoprene or equivalent gloves is not recommended.

To avoid prolonged or repeated contact where spills and splashes are likely, wear appropriate chemical-resistant faceshield, boots, apron, whole body suits, or other protective clothing.

## Respiratory Protection

Use NIOSH air-certified, air-supplied respirators (self-contained breathing apparatus or air-line) respiratory protective equipment when concentration of methanol or methylene chloride may exceed applicable exposure limits. Otherwise, use NIOSH-certified P- or R- series particulate filter and organic vapor cartridges when concentration of vapor or mist exceeds applicable exposure limits. Protection provided by air purifying respirators is limited. Do not use N-rated respirators. 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.

## \*\*\* Section 9 - Physical & Chemical Properties \*\*\*

<b>Appearance/Odor :</b>	Liquid, clear and colorless, solvent odor	<b>pH:</b>	Not applicable
<b>Boiling Point:</b>	133 to 342°F (56 to 172°C)	<b>Odor Threshold:</b>	Not available.
<b>Solubility (H<sub>2</sub>O):</b>	Slight.	<b>Melting Point:</b>	Not available.
<b>Density:</b>	6.9 LB/US gal (830 g/L) (approximately)	<b>Specific Gravity:</b>	0.83 (water = 1) (approximately)
<b>Evaporation Rate:</b>	3.7 (butyl acetate = 1) (based on a similar product)	<b>Octanol/H<sub>2</sub>O Coeff.:</b>	Not available.
<b>LFL:</b>	1 VOL% (approximately)	<b>Auto Ignition Temperature:</b>	800°F (427°C)
<b>UFL:</b>	13 VOL% (approximately)	<b>Flash Point:</b>	less than 70°F (21°C) Tag Closed Cup
<b>Vapor Pressure:</b>	86 mm Hg at 68°F (20°C) 205 mmHg at 100°F (38°C)	<b>Viscosity:</b>	Not available
		<b>Vapor Density:</b>	2.2 to 3.9 (air = 1) (approximately)

## Other Property Information

No information is available.

## \*\*\* Section 10 - Stability & Reactivity \*\*\*

### Reactivity

No reactivity hazard is expected.

### Chemical Stability

Stable under normal temperatures and pressures.

# Safety Data Sheet

Material Name: SAFETY-KLEEN HEAVY DUTY LACQUER THINNER

SDS ID: 82343

## Possibility of Hazardous Reactions

Will not polymerize under normal temperature and pressure conditions.

## Conditions To Avoid

Avoid heat, sparks, flames, and other sources of ignition Avoid contact with incompatible materials.

## Incompatible Materials

Avoid acids, alkalies, oxidizing agents, reducing agents, reactive halogens, or reactive metals.

## Hazardous Decomposition Products

Burning may produce phosgene, chlorides, formaldehyde, acetic acid, carbon monoxide, and unidentified organic compounds., See also **Section 5, Hazardous Combustion Products.**

## \* \* \* Section 11 - Toxicological Information \* \* \*

### Toxicity Data and Information

#### Component Analysis - LD50/LC50

*Mixture (107-87-9)	Oral LD50 Rat 1600 mg/kg
*Mixture (108-10-1)	Dermal LD50 Rabbit >16000 mg/kg; Inhalation LC50 Rat 8.2 mg/L 4 h; Oral LD50 Rat 2080 mg/kg
**Mixture (64741-89-5)	Dermal LD50 Rabbit >5 g/kg; Inhalation LC50 Rat 2.18 mg/L 4 h; Oral LD50 Rat >5000 mg/kg
*Mixture (67-64-1)	Inhalation LC50 Rat 50100 mg/m <sup>3</sup> 8 h
*Mixture (78-93-3)	Inhalation LC50 Rat 23500 mg/m <sup>3</sup> 8 h
***Mixture (141-78-6)	Dermal LD50 Rabbit >20 mL/kg; Inhalation LC50 Mouse 1500 ppm 4 h; Oral LD50 Rat 5620 mg/kg
***Mixture (108-21-4)	Dermal LD50 Rabbit >20 mL/kg; Inhalation LC50 Rat 50600 mg/m <sup>3</sup> 8 h; Oral LD50 Rat 3000 mg/kg
***Mixture (108-65-6)	Dermal LD50 Rabbit >5 g/kg; Oral LD50 Rat 8532 mg/kg
***Mixture (110-19-0)	Dermal LD50 Rabbit >17400 mg/kg; Oral LD50 Rat 13400 mg/kg
Ethyl 3-ethoxypropanoate (763-69-9)	Oral LD50 Rat 3200 mg/kg
***Mixture (123-86-4)	Dermal LD50 Rabbit >17600 mg/kg; Inhalation LC50 Rat 390 ppm 4 h
****Mixture (71-36-3)	Dermal LD50 Rabbit 3400 mg/kg; Inhalation LC50 Rat 8000 ppm 4 h; Oral LD50 Rat 790 mg/kg
****Mixture (75-65-0)	Dermal LD50 Rabbit >2 g/kg; Inhalation LC50 Rat >10000 ppm 4 h; Oral LD50 Rat 2733 mg/kg
*****Mixture (127-18-4)	Dermal LD50 Mouse 2800 mg/kg; Inhalation LC50 Rat 4000 ppm 4 h; Oral LD50 Rat 2629 mg/kg
*****Mixture (71-55-6)	Dermal LD50 Rabbit >15800 mg/kg; Inhalation LC50 Rat 18000 ppm 4 h; Oral LD50 Rat >2000 mg/kg
*****Mixture (75-09-2)	Oral LD50 Rat 1410 mg/kg

### Information on Likely Routes of Exposure

#### Inhalation

Fatal if inhaled. May cause irritation, nausea, and central nervous system effects.

#### Ingestion

Aspiration hazard. Harmful if swallowed. May cause throat irritation, nausea, vomiting, and diarrhea.

#### Skin Contact

Causes skin irritation.

#### Eye Contact

Causes serious eye damage.

#### Immediate Effects

Fatal if inhaled, harmful if swallowed, eye burns, skin irritation, respiratory tract irritation, aspiration hazard, central nervous system damage, central nervous system depression, respiratory system damage, liver damage, heart damage, kidney damage, lung damage (from aspiration)

#### Delayed Effects

Mutagenic effects, cancer, reproductive effects, central nervous system damage, nervous system damage, kidney damage, liver damage, respiratory system damage, heart damage, blood damage, lung damage

#### Irritation/Corrosivity

Eye burns, skin irritation, respiratory tract irritation

#### Respiratory Sensitization

No information available for the product.

# Safety Data Sheet

Material Name: SAFETY-KLEEN HEAVY DUTY LACQUER THINNER

SDS ID: 82343

## Skin Sensitization

No information available for the product.

## Carcinogenicity

### Component Carcinogenicity

#### \*Mixture (108-10-1)

**ACGIH:** A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans

**OSHA:** Present (select carcinogen)

**IARC:** Monograph 101 [2012] (Group 2B (possibly carcinogenic to humans))

#### \*Mixture (67-64-1)

**ACGIH:** A4 - Not Classifiable as a Human Carcinogen

#### \*\*\*\*Mixture (75-65-0)

**ACGIH:** A4 - Not Classifiable as a Human Carcinogen

#### \*\*\*\*\*Mixture (127-18-4)

**ACGIH:** A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans

**OSHA:** Present (select carcinogen)

**NIOSH:** potential occupational carcinogen

**NTP:** Reasonably Anticipated To Be A Human Carcinogen (Suspect Carcinogen)

**IARC:** Monograph 106 [in preparation]; Monograph 63 [1995]; Supplement 7 [1987] (Group 2A (probably carcinogenic to humans))

#### \*\*\*\*\*Mixture (71-55-6)

**ACGIH:** A4 - Not Classifiable as a Human Carcinogen

**IARC:** Monograph 71 [1999]; Supplement 7 [1987]; Monograph 20 [1979] (Group 3 (not classifiable))

#### \*\*\*\*\*Mixture (75-09-2)

**ACGIH:** A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans

**OSHA:** 125 ppm STEL (See 29 CFR 1910.1052, 15 min); 12.5 ppm Action Level (See 29 CFR 1910.1052); 25 ppm TWA (See 29 CFR 1910.1052) (specifically regulated carcinogen)

Present (select carcinogen)

**NIOSH:** potential occupational carcinogen

**NTP:** Reasonably Anticipated To Be A Human Carcinogen (Suspect Carcinogen)

**IARC:** Monograph 71 [1999]; Supplement 7 [1987] (Group 2B (possibly carcinogenic to humans))

## Germ Cell Mutagenicity

May cause genetic defects

## Teratogenicity

No information available for the product.

## Reproductive Effects

Available data characterizes this substance as a reproductive hazard.

## Specific Target Organ Effects - Single Exposure

Central nervous system, respiratory system, heart, liver, kidneys

## Specific Target Organ Effects - Repeated Exposure

Central nervous system, nervous system, kidneys, liver, respiratory system, heart, blood, lungs

## Aspiration Hazard

This material is an aspiration hazard.

## Medical Conditions Aggravated by Exposure

Blood disorders, central nervous system disorders, eye disorders, hearing or inner ear disorders, kidney disorders, liver disorders, nervous system disorders, respiratory disorders, skin disorders, heart disorders, systemic disorders

## Safety Data Sheet

Material Name: SAFETY-KLEEN HEAVY DUTY LACQUER THINNER

SDS ID: 82343

**\*\*\* Section 12 - Ecological Information \*\*\***

**Ecotoxicity**

Harmful to aquatic life with long lasting effects.

**Component Analysis - Ecotoxicity - Aquatic Toxicity**

**\*Mixture (107-87-9)**

Duration/Test/Species	Concentration/Conditions	Notes
96 Hr LC50 Pimephales promelas	1190 - 1290 mg/L [flow-through]	

**\*Mixture (108-10-1)**

Duration/Test/Species	Concentration/Conditions	Notes
96 Hr LC50 Pimephales promelas	496 - 514 mg/L [flow-through]	
96 Hr EC50 Pseudokirchneriella subcapitata	400 mg/L	
48 Hr EC50 Daphnia magna	170 mg/L	

**\*Mixture (110-43-0)**

Duration/Test/Species	Concentration/Conditions	Notes
96 Hr LC50 Pimephales promelas	126 - 137 mg/L [flow-through]	

**\*\*Mixture (64741-89-5)**

Duration/Test/Species	Concentration/Conditions	Notes
96 Hr LC50 Oncorhynchus mykiss	>5000 mg/L	
48 Hr EC50 Daphnia magna	>1000 mg/L	

**\*Mixture (67-64-1)**

Duration/Test/Species	Concentration/Conditions	Notes
96 Hr LC50 Oncorhynchus mykiss	4.74 - 6.33 mL/L	
96 Hr LC50 Pimephales promelas	6210 - 8120 mg/L [static]	
96 Hr LC50 Lepomis macrochirus	8300 mg/L	
48 Hr EC50 Daphnia magna	10294 - 17704 mg/L [Static]	
48 Hr EC50 Daphnia magna	12600 - 12700 mg/L	

**\*Mixture (78-93-3)**

Duration/Test/Species	Concentration/Conditions	Notes
96 Hr LC50 Pimephales promelas	3130 - 3320 mg/L [flow-through]	
48 Hr EC50 Daphnia magna	>520 mg/L	
48 Hr EC50 Daphnia magna	5091 mg/L	
48 Hr EC50 Daphnia magna	4025 - 6440 mg/L [Static]	

**\*\*Mixture (8030-30-6)**

Duration/Test/Species	Concentration/Conditions	Notes
96 Hr LC50 Lepomis macrochirus	9.2 mg/L [static]	
72 Hr EC50 Pseudokirchneriella subcapitata	4700 mg/L	

**\*\*\*Mixture (141-78-6)**

Duration/Test/Species	Concentration/Conditions	Notes
96 Hr LC50 Pimephales promelas	220 - 250 mg/L [flow-through]	
96 Hr LC50 Oncorhynchus mykiss	484 mg/L [flow-through]	
96 Hr LC50 Oncorhynchus mykiss	352 - 500 mg/L [semi-static]	
48 Hr EC50 Daphnia magna	560 mg/L [Static]	

**\*\*\*Mixture (108-65-6)**

Duration/Test/Species	Concentration/Conditions	Notes
96 Hr LC50 Pimephales promelas	161 mg/L [static]	
48 Hr EC50 Daphnia magna	>500 mg/L	

**Ethyl 3-ethoxypropanoate (763-69-9)**

Duration/Test/Species	Concentration/Conditions	Notes
96 Hr LC50 Pimephales promelas	62 mg/L [static]	
48 Hr EC50 Daphnia magna	970 mg/L	

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**Material Name: SAFETY-KLEEN HEAVY DUTY LACQUER THINNER**

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**\*\*\*Mixture (123-86-4)**

Duration/Test/Species	Concentration/Conditions	Notes
96 Hr LC50 Lepomis macrochirus	100 mg/L [static]	
96 Hr LC50 Pimephales promelas	17 - 19 mg/L [flow-through]	
72 Hr EC50 Desmodesmus subspicatus	674.7 mg/L	

**\*\*\*\*Mixture (71-36-3)**

Duration/Test/Species	Concentration/Conditions	Notes
96 Hr LC50 Pimephales promelas	1730 - 1910 mg/L [static]	
96 Hr LC50 Pimephales promelas	1740 mg/L [flow-through]	
96 Hr LC50 Lepomis macrochirus	100000 - 500000 µg/L [static]	
96 Hr LC50 Pimephales promelas	1910000 µg/L [static]	
96 Hr EC50 Desmodesmus subspicatus	>500 mg/L	
72 Hr EC50 Desmodesmus subspicatus	>500 mg/L	
48 Hr EC50 Daphnia magna	1983 mg/L	
48 Hr EC50 Daphnia magna	1897 - 2072 mg/L [Static]	

**\*\*\*\*Mixture (75-65-0)**

Duration/Test/Species	Concentration/Conditions	Notes
96 Hr LC50 Pimephales promelas	6130 - 6700 mg/L [flow-through]	
72 Hr EC50 Desmodesmus subspicatus	>1000 mg/L	
48 Hr EC50 Daphnia magna	933 mg/L	
48 Hr EC50 Daphnia magna	4607 - 6577 mg/L [Static]	

**\*\*\*\*\*Mixture (127-18-4)**

Duration/Test/Species	Concentration/Conditions	Notes
96 Hr LC50 Pimephales promelas	12.4 - 14.4 mg/L [flow-through]	
96 Hr LC50 Pimephales promelas	8.6 - 13.5 mg/L [static]	
96 Hr LC50 Lepomis macrochirus	11.0 - 15.0 mg/L [static]	
96 Hr LC50 Oncorhynchus mykiss	4.73 - 5.27 mg/L [flow-through]	
96 Hr EC50 Pseudokirchneriella subcapitata	>500 mg/L	
48 Hr EC50 Daphnia magna	6.1 - 9.0 mg/L [Static]	

**\*\*\*\*\*Mixture (71-55-6)**

Duration/Test/Species	Concentration/Conditions	Notes
96 Hr LC50 Pimephales promelas	35.2 - 50.7 mg/L [flow-through]	
96 Hr LC50 Lepomis macrochirus	57 - 90 mg/L [static]	juvenile
96 Hr LC50 Cyprinus carpio	56 mg/L [flow-through]	
96 Hr LC50 Poecilia reticulata	52.9 mg/L [flow-through]	
96 Hr LC50 Poecilia reticulata	69.7 mg/L [static]	
96 Hr LC50 Pimephales promelas	91 - 126 mg/L [static]	
96 Hr LC50 Oncorhynchus mykiss	46 - 59 mg/L [static]	
96 Hr EC50 Pseudokirchneriella subcapitata	>500 mg/L	
48 Hr LC50 Daphnia magna	>530 mg/L	
48 Hr EC50 Daphnia magna	2384 mg/L	
48 Hr EC50 Daphnia magna	9.7 - 12.8 mg/L [Static]	

**\*\*\*\*\*Mixture (75-09-2)**

Duration/Test/Species	Concentration/Conditions	Notes
96 Hr LC50 Pimephales promelas	140.8 - 277.8 mg/L [flow-through]	
96 Hr LC50 Pimephales promelas	262 - 855 mg/L [static]	
96 Hr LC50 Lepomis macrochirus	193 mg/L [static]	
96 Hr LC50 Lepomis macrochirus	193 mg/L [flow-through]	
96 Hr EC50 Pseudokirchneriella subcapitata	>500 mg/L	
72 Hr EC50 Pseudokirchneriella subcapitata	>500 mg/L	
48 Hr EC50 Daphnia magna	1532 - 1847 mg/L [Static]	
48 Hr EC50 Daphnia magna	190 mg/L	

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Material Name: SAFETY-KLEEN HEAVY DUTY LACQUER THINNER

SDS ID: 82343

## Persistence and Degradability

No information available for the product.

## Bioaccumulation Potential

No information available for the product.

## Mobility in Soil

No information available for the product.

## Other Adverse Effects

No additional information is available.

## \*\*\* Section 13 - Disposal Considerations \*\*\*

### Disposal Methods

D001, D018, D035, D039. Based on available data, this information applies to the product as supplied to the user. Processing, use, or contamination by the user may change the waste code applicable to the disposal of this product. Dispose of in accordance with all applicable federal, state 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 proper recycling or disposal.

## \*\*\* Section 14 - Transport Information \*\*\*

### Emergency Response Guide Number

128 Reference *North American Emergency Response Guidebook*

### International Transportation Regulations

**DOT Shipping Name:** Paint related material  
**UN/NA #:** UN1263 **Hazard Class:** 3 **Packing Group:** II  
**Required Label(s):** FLAMMABLE LIQUID

**TDG Shipping Name:** Paint related material  
**UN/NA #:** UN1263 **Hazard Class:** 3 **Packing Group:** II  
**Required Label(s):** FLAMMABLE LIQUID

## \*\*\* Section 15 - Regulatory Information \*\*\*

### Volatile Organic Compounds (As Regulated)

Up to 100 WT %; 6.9 lb/US gal (830 g/l)  
As per 40 CFR Part 51.100(s)  
VOC VP = 86 mm Hg @ 20°C (approx.)  
Photochemically Reactive (up to 100% by volume)  
Consult your state or local air district for location specific information.

### Federal Regulations

#### SARA 302/304

#### Component Analysis

Based on the ingredient(s) listed in SECTION 3, this product does not contain any "extremely hazardous substances" listed pursuant to Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) Section 302 or Section 304 as identified in 40 CFR Part 355, Appendix A and B.

#### SARA 311/312 Hazardous Categories

**Acute Health:** Yes **Chronic Health:** Yes **Fire:** Yes **Pressure:** No **Reactive:** No

## Safety Data Sheet

**Material Name: SAFETY-KLEEN HEAVY DUTY LACQUER THINNER**

**SDS ID: 82343**

### SARA Section 313

#### Component Analysis

This product contains a "toxic" chemical subject to the requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) and 40 CFR Part 372.

*Mixture (108-10-1)	1.0 % de minimis concentration
***Mixture (71-36-3)	1.0 % de minimis concentration
***Mixture (75-65-0)	1.0 % de minimis concentration
*****Mixture (127-18-4)	0.1 % de minimis concentration
*****Mixture (71-55-6)	1.0 % de minimis concentration
*****Mixture (75-09-2)	0.1 % de minimis concentration

### CERCLA

#### Component Analysis

Based on the ingredient(s) listed in SECTION 3, this product contains the following "hazardous substance" listed under the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) in 40 CFR Part 302, Table 302.4 with the following reportable quantities (RQ):

*Mixture (108-10-1)	5000 lb final RQ; 2270 kg final RQ
*Mixture (67-64-1)	5000 lb final RQ; 2270 kg final RQ
*Mixture (78-93-3)	5000 lb final RQ; 2270 kg final RQ
***Mixture (141-78-6)	5000 lb final RQ; 2270 kg final RQ
***Mixture (110-19-0)	5000 lb final RQ; 2270 kg final RQ
***Mixture (123-86-4)	5000 lb final RQ; 2270 kg final RQ
***Mixture (71-36-3)	5000 lb final RQ; 2270 kg final RQ
*****Mixture (127-18-4)	100 lb final RQ; 45.4 kg final RQ
*****Mixture (71-55-6)	1000 lb final RQ; 454 kg final RQ
*****Mixture (75-09-2)	1000 lb final RQ; 454 kg final RQ

### TSCA Inventory

All the components of this product are listed on, or are automatically included as "naturally occurring chemical substances" on, or are exempted from the requirement to be listed on, the TSCA Inventory.

#### Component Analysis

Component	CAS #	TSCA
Aromatic hydrocarbons	63231-51-6	No
*Mixture	107-87-9	Yes
*Mixture	108-10-1	Yes
*Mixture	110-43-0	Yes
**Mixture	64741-89-5	Yes
*Mixture	67-64-1	Yes
*Mixture	78-93-3	Yes
**Mixture	8030-30-6	Yes
***Mixture	141-78-6	Yes
***Mixture	108-21-4	Yes
***Mixture	108-65-6	Yes
***Mixture	110-19-0	Yes
Ethyl 3-ethoxypropanoate	763-69-9	Yes
***Mixture	123-86-4	Yes
Alcohols, C1-3	68475-56-9	Yes
*****Mixture	71-36-3	Yes
*****Mixture	75-65-0	Yes
*****Mixture	127-18-4	Yes
*****Mixture	71-55-6	Yes
*****Mixture	75-09-2	Yes

## Safety Data Sheet

**Material Name: SAFETY-KLEEN HEAVY DUTY LACQUER THINNER**

**SDS ID: 82343**

### U.S. State Regulations

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS	MA	MN	NJ	PA	CA
*Mixture	107-87-9	Yes	Yes	Yes	Yes	Yes
*Mixture	108-10-1	Yes	Yes	Yes	Yes	Yes
*Mixture	110-43-0	Yes	Yes	Yes	Yes	Yes
**Mixture	64741-89-5	No	Yes	No	No	No
*Mixture	67-64-1	Yes	Yes	Yes	Yes	Yes
*Mixture	78-93-3	Yes	Yes	Yes	Yes	Yes
**Mixture	8030-30-6	Yes	Yes	Yes	Yes	Yes
***Mixture	141-78-6	Yes	Yes	Yes	Yes	Yes
***Mixture	108-21-4	Yes	Yes	Yes	Yes	Yes
***Mixture	110-19-0	Yes	Yes	Yes	Yes	Yes
***Mixture	123-86-4	Yes	Yes	Yes	Yes	Yes
****Mixture	71-36-3	Yes	Yes	Yes	Yes	Yes
****Mixture	75-65-0	Yes	Yes	Yes	Yes	Yes
*****Mixture	127-18-4	Yes	Yes	Yes	Yes	Yes
*****Mixture	71-55-6	Yes	Yes	Yes	Yes	Yes
*****Mixture	75-09-2	Yes	Yes	Yes	Yes	Yes

**THIS PRODUCT IS NOT FOR SALE OR USE IN THE STATE OF CALIFORNIA**

### Canadian Regulations

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all information required by the CPR.

### Component Analysis

Component	CAS #	CAN
Aromatic hydrocarbons	63231-51-6	No
*Mixture	107-87-9	DSL
*Mixture	108-10-1	DSL
*Mixture	110-43-0	DSL
**Mixture	64741-89-5	DSL
*Mixture	67-64-1	DSL
*Mixture	78-93-3	DSL
**Mixture	8030-30-6	DSL
***Mixture	141-78-6	DSL
***Mixture	108-21-4	DSL
***Mixture	108-65-6	DSL
***Mixture	110-19-0	DSL
Ethyl 3-ethoxypropanoate	763-69-9	DSL
***Mixture	123-86-4	DSL
Alcohols, C1-3	68475-56-9	NSL
****Mixture	71-36-3	DSL
****Mixture	75-65-0	DSL
*****Mixture	127-18-4	DSL
*****Mixture	71-55-6	DSL
*****Mixture	75-09-2	DSL

# Safety Data Sheet

Material Name: SAFETY-KLEEN HEAVY DUTY LACQUER THINNER

SDS ID: 82343

## Canadian WHMIS Information

B2, D1B, D2A, D2B

## Component Analysis - WHMIS IDL

The following components are identified under the Canadian Hazardous Products Act Ingredient Disclosure List:

*Mixture (107-87-9)	1 %
*Mixture (108-10-1)	1 %
*Mixture (110-43-0)	1 %
*Mixture (67-64-1)	1 %
*Mixture (78-93-3)	1 %
***Mixture (141-78-6)	1 %
***Mixture (108-21-4)	1 %
***Mixture (110-19-0)	1 %
***Mixture (123-86-4)	1 %
****Mixture (71-36-3)	1 %
****Mixture (75-65-0)	1 %
*****Mixture (127-18-4)	1 %
*****Mixture (71-55-6)	0.1 %
*****Mixture (75-09-2)	0.1 %

## \*\*\* Section 16 - Other Information \*\*\*

### Revision Information

Reformat to OSHA HazCom 29 CFR 1910.1200 adoption of GHS Revision 3.

### Key/Legend

ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSL - Domestic Substances List; EEC - European Economic Community; EINECS - European Inventory of Existing Commercial Chemical Substances; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IMDG - International Maritime Dangerous Goods; JP - Japan; Kow - Octanol/water partition coefficient; KR - Korea; LEL - Lower Explosive Limit; LOLI - List Of Lists™ - ChemADVISOR's Regulatory Database; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PH - Philippines; RCRA - Resource Conservation and Recovery Act; RID - European Rail Transport; RTECS - Registry of Toxic Effects of Chemical Substances®; SARA - Superfund Amendments and Reauthorization Act; STEL - Short-term Exposure Limit; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act; TWA - Time Weighted Average; UEL - Upper Explosive Limit; US - United States

### Disclaimer

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, of merchantability, fitness for a particular purpose or of any other nature are made hereunder with respect to the information or the product to which the information refers. The data contained on this sheet apply to the product as supplier to the user.

End of Sheet 82343

# Exhibit K-9

## Safety-Kleen Immersion Cleaner Safety Data Sheet



## Safety Data Sheet

Material Name: SAFETY-KLEEN IMMERSION AND COLD PARTS CLEANER SOLVENT

### \*\*\* Section 1 - Identification \*\*\*

**Product Identifier**

SAFETY-KLEEN IMMERSION AND COLD PARTS CLEANER SOLVENT

**Product Code**

50, 699, 6861

**Synonyms**

None

**Recommended Use**

For cleaning carburetors and metal parts. If this product is used in combination with other products, refer to the Safety Data Sheet for those products.

**Restrictions on Use****Manufacturer Information**

Safety-Kleen Systems, Inc.  
2600 North Central Expressway  
Suite 400  
Richardson, TX 75080  
www.safety-kleen.com

Phone: 1-800-669-5740

Emergency # 1-800-468-1760

**Issue Date**

September 2, 2014

**Supersedes Issue Date**

April 4, 2014

**Original Issue Date**

December 1, 1989

### \*\*\* Section 2 - Hazard(s) Identification \*\*\*

**Classification in Accordance with 29 CFR 1910.1200.**

Flammable Liquids, Category 4  
Acute Toxicity (Inhalation), Category 2  
Skin Corrosion / Irritation, Category 1  
Eye Damage / Irritation, Category 1  
Skin sensitization - Category 1  
Carcinogenicity, Category 2  
Toxic to Reproduction, Category 1B  
Specific Target Organ Toxicity - Single Exposure, Category 1 (blood, eyes, liver, nervous system, and respiratory system)  
Specific Target Organ Toxicity - Single Exposure, Category 3 (respiratory tract irritation)  
Specific Target Organ Toxicity - Repeated Exposure, Category 1 (adrenal gland, blood, bone marrow, digestive system, eyes, kidneys, liver, nervous system, respiratory system, spleen, and testes)  
Aspiration Hazard, Category 1  
Hazardous to the Aquatic Environment - Acute Hazard, Category 1  
Hazardous to the Aquatic Environment - Chronic Hazard, Category 1

**GHS LABEL ELEMENTS****Symbol(s)**

## Safety Data Sheet

Material Name: SAFETY-KLEEN IMMERSION CLEANER AND COLD PARTS CLEANER SOLVENT SDS ID: 82411

### Signal Word

DANGER!

### Hazard Statement(s)

Combustible Liquid

Fatal if inhaled

Causes severe skin burns and eye damage

May cause allergic skin reaction

Suspected of causing cancer

May damage fertility or the unborn child

Causes damage to blood, eyes, liver, nervous system, and respiratory system.

May cause respiratory irritation

Causes damage to adrenal gland, blood, bone marrow, digestive system, eyes, kidneys, liver, nervous system, respiratory system, spleen, and testes through prolonged or repeated exposure.

May be fatal if swallowed and enters airways

Very toxic to aquatic life with long lasting effects

### Precautionary Statement(s)

#### Prevention

Keep away from flames and hot surfaces. - No smoking. Do not breathe gas, fumes, vapor, or spray. Use only outdoors or in a well-ventilated area. In case of inadequate ventilation wear respiratory protection. Wash thoroughly after handling. Wear protective gloves and eye/face protection. Contaminated work clothing should not be allowed out of the workplace. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not eat, drink or smoke when using this product. Avoid release to the environment.

#### Response

In case of fire: Use carbon dioxide, alcohol resistant foam, dry chemical, water spray, or water fog for extinction. IF exposed or concerned: Get medical advice/attention. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse. IF SWALLOWED: Aspiration hazard. Do NOT induce vomiting. If vomiting occurs, keep head lower than hips to help prevent aspiration. Rinse mouth. Immediately call a POISON CENTER or doctor/physician. Call 1-800-468-1760 for additional information.

#### Storage

Store in a well-ventilated place. Keep container tightly closed.

#### Disposal

Dispose of in accordance with all applicable federal, state and local regulations.

#### Hazard(s) Not Otherwise Classified

None known.

### \*\*\* Section 3 - Composition / Information on Ingredients \*\*\*

CAS	Component	Percent
64742-94-5	Solvent naphtha (petroleum), heavy arom.	30-60
872-50-4	1-Methyl-2-pyrrolidone	10-30
34590-94-8	Dipropylene glycol monomethyl ether	7-13
112-80-1	Oleic acid	5-10
141-43-5	Ethanolamine	3-7
91-20-3	Naphthalene	3-6

## Safety Data Sheet

Material Name: SAFETY-KLEEN IMMERSION CLEANER AND COLD PARTS CLEANER SOLVENT SDS ID: 82411

### \*\*\* Section 4 - First Aid Measures \*\*\*

#### Description of Necessary Measures

##### Inhalation

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.

##### Skin

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

##### Eyes

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

##### Ingestion

IF SWALLOWED: Aspiration hazard. Do NOT induce vomiting. If vomiting occurs, keep head lower than hips to help prevent aspiration. Rinse mouth. Immediately call a POISON CENTER or doctor/physician. Call 1-800-468-1760 for additional information.

#### Most Important Symptoms/Effects

##### Acute

Fatal if inhaled, eye damage, skin damage, blood system disorders, liver damage, nervous system damage, respiratory system damage, respiratory tract irritation, skin sensitizer, aspiration hazard.

##### Delayed

Adrenal gland effects, blood disorders, bone marrow effects, digestive system effects, eye damage, kidney damage, liver damage, nervous system damage, respiratory system damage, spleen damage, testes damage, cancer, reproductive effects, skin sensitizer.

#### Indication of Immediate Medical Attention and Special Treatment Needed, If Needed

Treat symptomatically and supportively.

### \*\*\* Section 5 - Fire-Fighting Measures \*\*\*

#### Suitable Extinguishing Media

Carbon dioxide, alcohol-resistant foam, dry chemical, water spray, or water fog.

#### Unsuitable Extinguishing Media

Do not use high-pressure water streams.

#### Specific Hazards Arising from the Chemical

Combustible liquid. Vapor is heavier than air. Vapors or gases may ignite at distant ignition sources and flash back. Run-off to sewer may create a fire hazard. Heated containers may rupture or be thrown into the air. Empty containers may retain product residue including flammable/explosive vapors. Product may be sensitive to static discharge, which could result in fire or explosion.

#### Hazardous Combustion Products

Decomposition and combustion materials may be toxic. Burning may produce nitrogen oxides, acid halides, carbon monoxide and unidentified organic compounds.

#### Special Protective Equipment and Precautions for Firefighters

A positive-pressure, self-contained breathing apparatus (SCBA) and full-body protective equipment are required for fire emergencies.

## Safety Data Sheet

Material Name: SAFETY-KLEEN IMMERSION CLEANER AND COLD PARTS CLEANER SOLVENT SDS ID: 82411

### Fire Fighting Measures

Keep away from sources of ignition - No smoking. Keep unnecessary people away, isolate hazard area and deny entry. Move container from fire area if it can be done without risk. Cool containers with water spray until well after the fire is out. Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible withdraw from area and let fire burn. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tanks due to fire. Stay away from the ends of tanks. For tank, rail car or tank truck, evacuation radius: 800 meters (1/2 mile). Stay upwind and keep out of low areas. Dike for later disposal.

NFPA Ratings: Health: 3 Fire: 2 Reactivity: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

### \*\*\* Section 6 - Accidental Release Measures \*\*\*

#### Personal Precautions, Protective Equipment and Emergency Procedures

Wear personal protective clothing and equipment, see Section 8. Avoid release to the environment.

#### Methods and Materials for Containment and Clean Up

Remove all ignition sources. Do not touch or walk through spilled product. Stop leak if you can do it without risk. Wear protective equipment and provide engineering controls as specified in **Section 8: Exposure Controls/Personal Protection**. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Ventilate area and avoid breathing vapor or mist. A vapor suppressing foam may be used to reduce vapors. Contain spill away from surface water and sewers. Contain spill as a liquid for possible recovery, or sorb with compatible sorbent material and shovel with a clean, sparkproof tool into a sealable container for disposal.

Additionally, for large spills: Water spray may reduce vapor, but may not prevent ignition in closed spaces. Dike far ahead of liquid spill for collection and later disposal.

There may be specific regulatory reporting requirements associated with spills, leaks, or releases of this product. Also see **Section 15: Regulatory Information**.

### \*\*\* Section 7 - Handling and Storage \*\*\*

#### Precautions for Safe Handling

Keep away from heat, sparks, or flame. Where flammable mixtures may be present, equipment safe for such locations should be used. When transferring product, trucks and tank cars should be grounded and bonded. Do not breathe vapor or mist. Use in a well ventilated area. Avoid contact with eyes, skin, clothing, and shoes. Do not smoke when using this product.

#### Conditions for Safe Storage, Including Any Incompatibilities

Keep container tightly closed when not in use and during transport. Do not pressurize, cut, weld, braze, solder, drill, or grind containers. Keep containers away from heat, flame, sparks, static electricity, or other sources of ignition. Empty product containers may retain product residue and can be dangerous. See **Section 14: Transportation Information** for Packing Group information.

#### Incompatibilities

Strong oxidizing materials.

## Safety Data Sheet

Material Name: SAFETY-KLEEN IMMERSION CLEANER AND COLD PARTS CLEANER SOLVENT SDS ID: 82411

### \*\*\* Section 8 - Exposure Controls / Personal Protection \*\*\*

#### Component Exposure Limits

##### Dipropylene glycol monomethyl ether (34590-94-8)

**ACGIH:** 100 ppm TWA  
150 ppm STEL  
Skin - potential significant contribution to overall exposure by the cutaneous route

**OSHA Final:** 100 ppm TWA; 600 mg/m<sup>3</sup> TWA  
prevent or reduce skin absorption

**OSHA Vacated:** 100 ppm TWA; 600 mg/m<sup>3</sup> TWA  
150 ppm STEL; 900 mg/m<sup>3</sup> STEL  
Prevent or reduce skin absorption

**NIOSH:** 100 ppm TWA; 600 mg/m<sup>3</sup> TWA  
150 ppm STEL; 900 mg/m<sup>3</sup> STEL  
Potential for dermal absorption

##### Ethanolamine (141-43-5)

**ACGIH:** 3 ppm TWA  
6 ppm STEL

**OSHA Final:** 3 ppm TWA; 6 mg/m<sup>3</sup> TWA

**OSHA Vacated:** 3 ppm TWA; 8 mg/m<sup>3</sup> TWA  
6 ppm STEL; 15 mg/m<sup>3</sup> STEL

**NIOSH:** 3 ppm TWA; 8 mg/m<sup>3</sup> TWA  
6 ppm STEL; 15 mg/m<sup>3</sup> STEL

##### Naphthalene (91-20-3)

**ACGIH:** 10 ppm TWA  
15 ppm STEL  
Skin - potential significant contribution to overall exposure by the cutaneous route

**OSHA Final:** 10 ppm TWA; 50 mg/m<sup>3</sup> TWA

**OSHA Vacated:** 10 ppm TWA; 50 mg/m<sup>3</sup> TWA  
15 ppm STEL; 75 mg/m<sup>3</sup> STEL

**NIOSH:** 10 ppm TWA; 50 mg/m<sup>3</sup> TWA  
15 ppm STEL; 75 mg/m<sup>3</sup> STEL

#### Appropriate Engineering Controls

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

#### Individual Protective Measures, such as Personal Protective Equipment

Personal protective equipment should be selected based upon the conditions under which this material is used. A hazard assessment of the work area for PPE requirements should be conducted by a qualified professional pursuant to regulatory requirements. The following PPE should be considered the minimum required: safety glasses, gloves, lab coat or apron.

#### Eyes/Face Protection

Safety glasses with side shields should be worn at a minimum. Additional protection such as goggles, face shields, or respirators may be needed depending upon anticipated use and concentrations of mists or vapors. Provide an emergency eye wash fountain and quick drench shower in the immediate work area. Contact lens use is not recommended.

## Safety Data Sheet

Material Name: SAFETY-KLEEN IMMERSION CLEANER AND COLD PARTS CLEANER SOLVENT SDS ID: 82411

### Skin Protection

Where skin contact is likely, wear neoprene, nitrile, or equivalent protective gloves; use of natural rubber or equivalent gloves is not recommended. To avoid prolonged or repeated contact where spills and splashes are likely, wear appropriate chemical-resistant faceshield, boots, apron, whole body suits, or other protective clothing.

### Respiratory Protection

Use NIOSH-certified, full-faced, air-purifying respiratory protective equipment with organic vapor cartridges when concentration of vapor or mist exceeds applicable exposure limits. Protection provided by air purifying respirators is limited. 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.

## \*\*\* Section 9 - Physical & Chemical Properties \*\*\*

<b>Appearance/Odor :</b> Liquid, clear and brown. Characteristic	<b>pH:</b> 11
<b>Boiling Point:</b> 340°F (171°C) (initial)	<b>Odor Threshold:</b> Not available.
<b>Solubility (H2O):</b> Complete.	<b>Melting Point:</b> < 10°F (-12°C)
<b>Density:</b> 7.9 LB/US gal (950 g/l)	<b>Specific Gravity:</b> 0.95 (water = 1)
<b>Evaporation Rate:</b> 1 (butyl acetate = 1)	<b>Octanol/H2O Coeff.:</b> Not available.
<b>LFL:</b> 0.8 VOL% (approximately)	<b>Auto Ignition Temperature:</b> 829°F (443°C) (approximately)
<b>UFL:</b> 7 VOL% (approximately)	<b>Flash Point:</b> >140°F (60°C)
<b>Vapor Pressure:</b> <0.4 mmHg at 68°F (20°C)	<b>Viscosity:</b> Not available
<b>Decomposition Temperature:</b> Not available	<b>Vapor Density:</b> Not available

### Other Property Information

No information is available.

## \*\*\* Section 10 - Stability & Reactivity \*\*\*

### Reactivity

No reactivity hazard is expected.

### Chemical Stability

Stable under normal temperatures and pressures.

### Possibility of Hazardous Reactions

Will not polymerize.

### Conditions To Avoid

Avoid heat, sparks, flames, and other sources of ignition Avoid contact with incompatible materials.

### Incompatible Materials

Avoid acids, alkalis, oxidizing agents, reactive halogens, or reactive metals. Oleic acid can react with perchlorates or perchloric acid to form explosive products.

### Hazardous Decomposition Products

None under normal temperatures and pressures.

## \*\*\* Section 11 - Toxicological Information \*\*\*

### Toxicity Data and Information

#### Component Analysis - LD50/LC50

**Solvent naphtha (petroleum), heavy arom. (64742-94-5)**

Oral LD50 Rat >5000 mg/kg; Dermal LD50 Rabbit >2 mL/kg; Inhalation LC50 Rat >590 mg/m<sup>3</sup> 4 h

**1-Methyl-2-pyrrolidone (872-50-4)**

Inhalation LC50 Rat 3.1 mg/L 4 h; Oral LD50 Rat 3598 mg/kg; Dermal LD50 Rabbit 8 g/kg

## Safety Data Sheet

Material Name: SAFETY-KLEEN IMMERSION CLEANER AND COLD PARTS CLEANER SOLVENT SDS ID: 82411

### Dipropylene glycol monomethyl ether (34590-94-8)

Oral LD50 Rat 5230 mg/kg; Dermal LD50 Rabbit 9500 mg/kg

### Ethanolamine (141-43-5)

Oral LD50 Rat 1720 mg/kg; Dermal LD50 Rabbit 1 mL/kg

### Naphthalene (91-20-3)

Dermal LD50 Rabbit >20 g/kg; Inhalation LC50 Rat >340 mg/m<sup>3</sup> 1 h

## Information on Likely Routes of Exposure

### Inhalation

Fatal if inhaled. May cause respiratory tract irritation.

### Ingestion

May be fatal if swallowed and enters airways.

### Skin Contact

Causes severe skin burns and eye damage May cause an allergic skin reaction.

### Eye Contact

Causes serious eye damage.

### Immediate Effects

Fatal if inhaled, eye damage, skin damage, blood system disorders, liver damage, nervous system damage, respiratory system damage, respiratory tract irritation, skin sensitizer, aspiration hazard.

### Delayed Effects

Adrenal gland effects, blood disorders, bone marrow effects, digestive system effects, eye damage, kidney damage, liver damage, nervous system damage, respiratory system damage, spleen damage, testes damage, reproductive effects, cancer, skin sensitizer.

### Irritation/Corrosivity

Causes skin, eye and respiratory irritation.

### Respiratory Sensitization

No information available for the product.

### Skin Sensitization

May cause an allergic skin reaction.

### Carcinogenicity

#### Component Carcinogenicity

##### Naphthalene (91-20-3)

**ACGIH:** A4 - Not Classifiable as a Human Carcinogen

**OSHA:** Present (select carcinogen)

**NTP:** Reasonably Anticipated To Be A Human Carcinogen (Suspect Carcinogen)

**IARC:** Monograph 82 [2002] (Group 2B (possibly carcinogenic to humans))

### Germ Cell Mutagenicity

No information available for the product.

### Teratogenicity

No information available for the product.

### Reproductive Effects

Available data characterizes this substance as a reproductive hazard.

### Specific Target Organ Effects - Single Exposure

Blood, eye, liver, nervous system, respiratory system.

### Specific Target Organ Effects - Repeated Exposure

Adrenal glands, blood, bone marrow, digestive system, eye, kidneys, liver, nervous system, respiratory system, spleen, testes.

### Aspiration Hazard

Yes

## Safety Data Sheet

Material Name: SAFETY-KLEEN IMMERSION CLEANER AND COLD PARTS CLEANER SOLVENT SDS ID: 82411

### Medical Conditions Aggravated by Exposure

Individuals with pre-existing liver, kidney, respiratory tract (nose, throat, and lungs), central nervous system, eye, and/or skin disorders may have increased susceptibility to the effects of exposure.

## \*\*\* Section 12 - Ecological Information \*\*\*

### Ecotoxicity

Very toxic to aquatic life with long lasting effects.

### Component Analysis - Ecotoxicity - Aquatic Toxicity

#### Solvent naphtha (petroleum), heavy arom. (64742-94-5)

Duration/Test/Species	Concentration/Conditions	Notes
96 Hr LC50 Pimephales promelas	19 mg/L [static]	
96 Hr LC50 Oncorhynchus mykiss	2.34 mg/L	
96 Hr LC50 Lepomis macrochirus	1740 mg/L [static]	
96 Hr LC50 Pimephales promelas	45 mg/L [flow-through]	
96 Hr LC50 Pimephales promelas	41 mg/L	
72 Hr EC50 Skeletonema costatum	2.5 mg/L	
48 Hr EC50 Daphnia magna	0.95 mg/L	

#### 1-Methyl-2-pyrrolidone (872-50-4)

Duration/Test/Species	Concentration/Conditions	Notes
96 Hr LC50 Lepomis macrochirus	832 mg/L [static]	
96 Hr LC50 Leuciscus idus	4000 mg/L [static]	
96 Hr LC50 Pimephales promelas	1072 mg/L [static]	
96 Hr LC50 Poecilia reticulata	1400 mg/L [static]	
72 Hr EC50 Desmodesmus subspicatus	>500 mg/L	
48 Hr EC50 Daphnia magna	4897 mg/L	

#### Dipropylene glycol monomethyl ether (34590-94-8)

Duration/Test/Species	Concentration/Conditions	Notes
96 Hr LC50 Pimephales promelas	>10000 mg/L [static]	
48 Hr LC50 Daphnia magna	1919 mg/L	

#### Oleic acid (112-80-1)

Duration/Test/Species	Concentration/Conditions	Notes
96 Hr LC50 Pimephales promelas	205 mg/L [static]	

#### Ethanolamine (141-43-5)

Duration/Test/Species	Concentration/Conditions	Notes
96 Hr LC50 Pimephales promelas	227 mg/L [flow-through]	
96 Hr LC50 Brachydanio rerio	3684 mg/L [static]	
96 Hr LC50 Lepomis macrochirus	300 - 1000 mg/L [static]	
96 Hr LC50 Oncorhynchus mykiss	114 - 196 mg/L [static]	
96 Hr LC50 Oncorhynchus mykiss	>200 mg/L [flow-through]	
72 Hr EC50 Desmodesmus subspicatus	15 mg/L	
48 Hr EC50 Daphnia magna	65 mg/L	

## Safety Data Sheet

Material Name: SAFETY-KLEEN IMMERSION CLEANER AND COLD PARTS CLEANER SOLVENT SDS ID: 82411

### Naphthalene (91-20-3)

Duration/Test/Species	Concentration/Conditions	Notes
96 Hr LC50 Pimephales promelas	5.74 - 6.44 mg/L [flow-through]	
96 Hr LC50 Oncorhynchus mykiss	1.6 mg/L [flow-through]	
96 Hr LC50 Oncorhynchus mykiss	0.91 - 2.82 mg/L [static]	
96 Hr LC50 Pimephales promelas	1.99 mg/L [static]	
96 Hr LC50 Lepomis macrochirus	31.0265 mg/L [static]	
72 Hr EC50 Skeletonema costatum	0.4 mg/L	
48 Hr LC50 Daphnia magna	2.16 mg/L	
48 Hr EC50 Daphnia magna	1.96 mg/L [Flow through]	
48 Hr EC50 Daphnia magna	1.09 - 3.4 mg/L [Static]	

### Persistence and Degradability

No information available for the product.

### Bioaccumulation Potential

No information available for the product.

### Mobility in Soil

No information available for the product.

### Other Adverse Effects

No additional information is available.

## \*\*\* Section 13 - Disposal Considerations \*\*\*

### Disposal Methods

Not regulated. Based on available data, this information applies to the product as supplied to the user. Processing, use, or contamination by the user may change the waste code applicable to the disposal of this product. 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 proper recycling or disposal.

## \*\*\* Section 14 - Transport Information \*\*\*

### Emergency Response Guide Number

153: Reference. *North American Emergency Response Guide Book*

### Transportation Regulations

**DOT Shipping Name:** Corrosive liquid, basic, organic, n.o.s. (monoethanolamine)

**UN/NA #:** UN3267 **Hazard Class:** 8 **Packing Group:** III

**Required Label(s):** CORROSIVE

**TDG Shipping Name:** CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (monoethanolamine)

**UN/NA #:** UN3267 **Hazard Class:** 8 **Packing Group:** III

**Required Label(s):** CORROSIVE

## \*\*\* Section 15 - Regulatory Information \*\*\*

### Volatile Organic Compounds (As Regulated)

100 WT%; 7.9 LB/US gal; 950 g/l

As per U.S EPA 40 CFR 51.100(s)

VOC Vapor Pressure <1.0 mmHg @ 20°C

CONTAINS: Photochemically Reactive solvent 60% by volume

Consult your state or local air district regulations for location specific information.

## Safety Data Sheet

Material Name: SAFETY-KLEEN IMMERSION CLEANER AND COLD PARTS CLEANER SOLVENT SDS ID: 82411

### Federal Regulations

#### SARA 302/304

#### Component Analysis

Based on the ingredient(s) listed in Section 3, this product does not contain any "extremely hazardous substances" listed pursuant to Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) Section 302 or Section 304 as identified in 40 CFR Part 355, Appendix A and B.

#### SARA 311/312 Hazardous Categories

This product poses the following health hazard(s) as defined in 40 CFR Part 370 and is subject to the requirements of sections 311 and 312 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA):

Immediate (Acute) Health Hazard

Delayed (Chronic) Health Hazard

Fire Hazard

**Acute Health:** Yes **Chronic Health:** Yes **Pressure:** No **Reactive:** No

#### SARA Section 313

#### Component Analysis

This product contains a "toxic" chemical subject to the requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) and 40 CFR Part 372.

**1-Methyl-2-pyrrolidone (872-50-4)** 1.0 % de minimis concentration

**Naphthalene (91-20-3)** 0.1 % de minimis concentration

#### CERCLA

#### Component Analysis

Based on the ingredient(s) listed in SECTION 3, this product contains the following "hazardous substance" listed under the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) in 40 CFR Part 302, Table 302.4 with the following reportable quantities (RQ):

**Naphthalene (91-20-3)** 100 lb final RQ; 45.4 kg final RQ

#### TSCA Inventory

All the components of this substance are listed on or are exempt from the TSCA inventory listing.

#### Component Analysis

Component	CAS #	TSCA
Solvent naphtha (petroleum), heavy arom.	64742-94-5	Yes
1-Methyl-2-pyrrolidone	872-50-4	Yes
Dipropylene glycol monomethyl ether	34590-94-8	Yes
Oleic acid	112-80-1	Yes
Ethanolamine	141-43-5	Yes
Naphthalene	91-20-3	Yes

#### U.S. State Regulations

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS	MA	MN	NJ	PA	CA
1-Methyl-2-pyrrolidone	872-50-4	No	Yes	No	Yes	Yes
Dipropylene glycol monomethyl ether	34590-94-8	Yes	Yes	Yes	Yes	Yes
Oleic acid	112-80-1	No	No	No	No	Yes
Ethanolamine	141-43-5	Yes	Yes	Yes	Yes	Yes
Naphthalene	91-20-3	Yes	Yes	Yes	Yes	Yes

## Safety Data Sheet

Material Name: SAFETY-KLEEN IMMERSION CLEANER AND COLD PARTS CLEANER SOLVENT SDS ID: 82411

### Canadian Regulations

#### Component Analysis

Component	CAS #	CAN
Solvent naphtha (petroleum), heavy arom.	64742-94-5	DSL
1-Methyl-2-pyrrolidone	872-50-4	DSL
Dipropylene glycol monomethyl ether	34590-94-8	DSL
Oleic acid	112-80-1	DSL
Ethanolamine	141-43-5	DSL
Naphthalene	91-20-3	DSL

#### Canadian WHMIS Information

B3 D2A E.

#### Component Analysis - WHMIS IDL

The following components are identified under the Canadian Hazardous Products Act Ingredient Disclosure List:

Dipropylene glycol monomethyl ether (34590-94-8)	1 %
Oleic acid (112-80-1)	1 %
Ethanolamine (141-43-5)	1 %
Naphthalene (91-20-3)	1 %

\* \* \* Section 16 - Other Information \* \* \*

#### Revision Information

Reformat to OSHA HazCom 29 CFR 1910.1200 adoption of GHS Revision 3.

#### Key/Legend

ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSL - Domestic Substances List; EEC - European Economic Community; EINECS - European Inventory of Existing Commercial Chemical Substances; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IMDG - International Maritime Dangerous Goods; JP - Japan; Kow - Octanol/water partition coefficient; KR - Korea; LEL - Lower Explosive Limit; LOLI - List Of Lists™ - ChemADVISOR's Regulatory Database; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PH - Philippines; RCRA - Resource Conservation and Recovery Act; RID - European Rail Transport; RTECS - Registry of Toxic Effects of Chemical Substances®; SARA - Superfund Amendments and Reauthorization Act; STEL - Short-term Exposure Limit; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act; TWA - Time Weighted Average; UEL - Upper Explosive Limit; US - United States

#### Disclaimer

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, of merchantability, fitness for a particular purpose or of any other nature are made hereunder with respect to the information or the product to which the information refers. The data contained on this sheet apply to the product as supplier to the user.

End of Sheet 82411

# Exhibit K-10

## Armakleen 4 in 1 Concentrate Safety Data Sheet



## SECTION 1: IDENTIFICATION

### Product Identifier

**Product Form:** Mixture

**Product Name:** ArmaKleen™ 4 in 1 Cleaner Concentrate

### Intended Use of the Product

Concentrated cleaner. For professional use only. If this product is used in combination with other products, refer to the Safety Data Sheet for those products.

### Name, Address, and Telephone of the Responsible Party

#### Manufacturer

Church & Dwight  
The ArmaKleen™ Company  
469 North Harrison Street  
Princeton, NJ 08543 USA  
T (800) 332-5424

[www.churchdwight.com](http://www.churchdwight.com)

#### Supplier

Safety-Kleen Systems, Inc.  
2600 North Central Expressway, Suite 200  
Richardson, TX 75080 USA  
T (800) 669-5740

### Emergency Telephone Number

**Emergency Number** : For Medical Emergency: 1-888-234-1828, For Chemical Emergency: 1-800-424-9300 (CHEMTREC)

## SECTION 2: HAZARDS IDENTIFICATION

### Classification of the Substance or Mixture

#### Classification (GHS-US)

Skin Corr. 1A H314

Eye Dam. 1 H318

Skin Sens. 1 H317

#### Label Elements

##### GHS-US Labeling

#### Hazard Pictograms (GHS-US)



#### Signal Word (GHS-US)

: Danger

#### Hazard Statements (GHS-US)

: H314 - Causes severe skin burns and eye damage.

H317 - May cause an allergic skin reaction.

H318 - Causes serious eye damage.

#### Precautionary Statements (GHS-US)

: P260 - Do not breathe vapors, mist, or spray.

P264 - Wash hands, forearms, and exposed areas thoroughly after handling.

P272 - Contaminated work clothing must not be allowed out of the workplace.

P280 - Wear protective clothing, protective gloves, eye protection.

P301+P330+P331 – **IF SWALLOWED:** Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER/doctor/physician.

P303+P361+P353+P363+P333+P313 - **IF ON SKIN (OR HAIR):** Take off immediately all contaminated clothing. Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical advice/attention.

P304+P340+P310 - **IF INHALED:** Remove person to fresh air and keep at rest in a position comfortable for breathing. Immediately call a poison center or doctor.

P305+P351+P338 - **IF IN EYES:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON

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CENTER/doctor/physician.

P501 - Dispose of contents/container in accordance with local, regional, national, territorial, provincial, and international regulations.

**Other Hazards** May irritate the respiratory tract (nose, throat, and lungs), eyes, and skin. Repeated exposure may cause skin dryness or cracking. Toxic to aquatic life with long lasting effects.

**Unknown Acute Toxicity (GHS-US)** 3 percent of the mixture consists of ingredient(s) of unknown acute toxicity (Oral, Dermal)

### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

#### Mixture

Name	Product Identifier	% (w/w)
Water	(CAS No) 7732-18-5	60 -100
Octanoic acid	(CAS No) 124-07-2	5 - 10
Alcohols, C9-11, ethoxylated	(CAS No) 68439-46-3	1 - 5
Alcohols, C6-10, ethoxylated propoxylated	(CAS No) 68987-81-5	1 - 5
Amines, tallow alkyl, ethoxylated	(CAS No) 61791-26-2	1 - 5
Sodium hydroxide	(CAS No) 1310-73-2	1 - 5
Alcohols, C8-10, ethers with polyethylene-polypropylene glycol monobenzyl ether	(CAS No) 68154-99-4	1 - 5
Disodium carbonate	(CAS No) 497-19-8	1 - 5
Succinic acid	(CAS No) 110-15-6	1 - 5
Acetic acid, hydroxyphosphono-	(CAS No) 23783-26-8	0.1 - 1

The specific chemical identity and/or exact percentage of composition have been withheld as a trade secret [29 CFR 1910.1200]. A range of concentration as prescribed by the Controlled Products Regulations has been used where necessary, due to varying composition.

### SECTION 4: FIRST AID MEASURES

#### Description of First Aid Measures

**General:** Never give anything by mouth to an unconscious person. IF exposed or concerned: Get medical advice/attention.

**Inhalation:** When symptoms occur: go into open air and ventilate suspected area. Remove to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER/doctor/physician.

**Skin Contact:** Remove contaminated clothing and shoes. Wash with plenty of soap and water. Seek medical advice if irritation develops or persists. Wash contaminated clothing before reuse.

**Eye Contact:** Rinse cautiously with water. Remove contact lenses, if present and easy to do so. Continue rinsing. Immediately call a POISON CENTER/doctor/physician.

**Ingestion:** Rinse mouth. Do not induce vomiting. Immediately call a POISON CENTER/doctor/physician.

#### Most Important Symptoms and Effects Both Acute and Delayed

**General:** Causes severe skin burns and eye damage. Exposure may produce an allergic reaction.

**Inhalation:** May cause respiratory irritation.

**Skin Contact:** Redness, pain, swelling, itching, burning, dryness, and dermatitis. May cause an allergic skin reaction.

**Eye Contact:** Redness, pain, swelling, itching, burning, tearing, and blurred vision.

**Ingestion:** May cause abdominal discomfort and may irritate the alimentary mucose.

**Chronic Symptoms:** Repeated exposure may cause skin dryness or cracking.

#### Indication of Any Immediate Medical Attention and Special Treatment Needed

If medical advice is needed, have product container or label at hand.

### SECTION 5: FIRE-FIGHTING MEASURES

#### Extinguishing Media

**Suitable Extinguishing Media:** Use extinguishing media appropriate for surrounding fire.

**Unsuitable Extinguishing Media:** Use of heavy stream of water may spread fire.

#### Special Hazards Arising From the Substance or Mixture

**Fire Hazard:** Not flammable.

**Explosion Hazard:** Product is not explosive. Containers may rupture when exposed to excessive heat.

**Reactivity:** Hazardous reactions will not occur under normal conditions. May react vigorously with strong acids.

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### Advice for Firefighters

**Precautionary Measures Fire:** Exercise caution when fighting any chemical fire. Under fire conditions, hazardous fumes will be present.

**Firefighting Instructions:** Use water spray or fog for cooling exposed containers.

**Protection During Firefighting:** Do not enter fire area without proper protective equipment, including respiratory protection.

**Hazardous Combustion Products:** Carbon oxides (CO, CO<sub>2</sub>). Nitrogen oxides.

### Reference to Other Sections

Refer to section 9 for flammability properties. Refer to section 16 for NFPA information.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

### Personal Precautions, Protective Equipment and Emergency Procedures

**General Measures:** Do not get in eyes, on skin, or on clothing. Do not breathe vapor, mist or spray. Spilled material may present a slipping hazard.

#### For Non-Emergency Personnel

**Protective Equipment:** Use appropriate personal protection equipment (PPE).

**Emergency Procedures:** Evacuate unnecessary personnel.

#### For Emergency Personnel

**Protective Equipment:** Equip cleanup crew with proper protection.

**Emergency Procedures:** Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit.

**Environmental Precautions** Prevent entry to sewers and public waters. Contact competent authorities after a spill.

### Methods and Material for Containment and Cleaning Up

**For Containment:** Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

**Methods for Cleaning Up:** Clean up spills immediately and dispose of waste safely. Keep in suitable, closed containers for disposal.

### Reference to Other Sections

See Section 8, Exposure Controls and Personal Protection. See Section 13, Disposal Considerations.

## SECTION 7: HANDLING AND STORAGE

### Precautions for Safe Handling

**Hygiene Measures:** Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again when leaving work. Do not eat, drink or smoke when using this product.

### Conditions for Safe Storage, Including Any Incompatibilities

**Technical Measures:** Container remains hazardous when empty. Continue to observe all precautions.

**Storage Conditions:** Store in a dry, cool and well-ventilated place. Keep container tightly closed.

**Incompatible Materials:** Acids. Oxidizers. Reducing agents.

**Specific End Use(s)** Concentrated cleaner. For professional use only. If this product is used in combination with other products, refer to the Safety Data Sheet for those products.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control Parameters

For substances listed in section 3 that are not listed here, there are no established Exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), NIOSH (REL), OSHA (PEL), Canadian provincial governments, or the Mexican government

Sodium hydroxide (1310-73-2)		
Mexico	OEL Ceiling (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
USA ACGIH	ACGIH Ceiling (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
USA OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
USA NIOSH	NIOSH REL (ceiling) (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
USA IDLH	US IDLH (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>
CANADA	OEL Ceiling (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>

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### Exposure Controls

**Appropriate Engineering Controls:** Not generally required. Site-specific risk assessments should be conducted to determine the appropriate exposure control measures. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

**Personal Protective Equipment:** Gloves. Protective goggles. Protective clothing. Insufficient ventilation: wear respiratory protection.

**Materials for Protective Clothing:** As required: Chemically resistant materials and fabrics.

**Hand Protection:** Wear chemically resistant protective gloves.

**Eye Protection:** Safety glasses with side shields, or goggles, are recommended.

**Skin and Body Protection:** Wash contaminated clothing before reuse.

**Respiratory Protection:** If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn.

**Other Information:** When using, do not eat, drink or smoke.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### Information on Basic Physical and Chemical Properties

Physical State	: Liquid
Appearance	: Amber Clear
Odor	: Mild detergent
Odor Threshold	: Not available
pH	: 11.9
Evaporation Rate	: Not available
Melting Point	: 0 °C (32 °F)
Freezing Point	: Not available
Boiling Point	: 100 °C (212 °F)
Flash Point	: > 100 °C (212 °F)
Auto-ignition Temperature	: Not available
Decomposition Temperature	: Not available
Flammability (solid, gas)	: Not available
Lower Flammable Limit	: Not available
Upper Flammable Limit	: Not available
Vapor Pressure	: Not available
Relative Vapor Density at 20 °C	: Not available
Specific Gravity	: 1.055
Solubility	: Complete in water
Partition Coefficient: N-Octanol/Water	: Not available
Viscosity	: Not available
Explosion Data – Sensitivity to Mechanical Impact	: Not expected to present an explosion hazard due to mechanical impact.
Explosion Data – Sensitivity to Static Discharge	: Not expected to present an explosion hazard due to static discharge.

## SECTION 10: STABILITY AND REACTIVITY

**Reactivity:** Hazardous reactions will not occur under normal conditions. May react vigorously with strong acids.

**Chemical Stability:** The product is stable at normal handling and storage conditions.

**Possibility of Hazardous Reactions:** Hazardous polymerization will not occur.

**Conditions to Avoid:** Extremely high or low temperatures. Incompatible materials.

**Incompatible Materials:** Acids. Oxidizers. Reducing agents.

**Hazardous Decomposition Products:** Thermal decomposition generates: Carbon oxides (CO, CO<sub>2</sub>). Nitrogen oxides.

## SECTION 11: TOXICOLOGICAL INFORMATION

### Information on Toxicological Effects - Product

**Acute Toxicity:** Not classified

**LD50 and LC50 Data:** Not available

**Skin Corrosion/Irritation:** Causes severe skin burns and eye damage. (pH: 11.9)

**Serious Eye Damage/Irritation:** Causes serious eye damage. (pH: 11.9)

**Respiratory or Skin Sensitization:** May cause an allergic skin reaction.

**Germ Cell Mutagenicity:** Not classified

**Teratogenicity:** Not classified

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**Carcinogenicity:** Not classified

**Specific Target Organ Toxicity (Repeated Exposure):** Not classified

**Reproductive Toxicity:** Not classified

**Specific Target Organ Toxicity (Single Exposure):** Not classified

**Aspiration Hazard:** Not classified

**Symptoms/Injuries After Inhalation:** May cause respiratory irritation.

**Symptoms/Injuries After Skin Contact:** Redness, pain, swelling, itching, burning, dryness, and dermatitis. May cause an allergic skin reaction.

**Symptoms/Injuries After Eye Contact:** Redness, pain, swelling, itching, burning, tearing, and blurred vision.

**Symptoms/Injuries After Ingestion:** May cause irritation to the digestive tract.

**Chronic Symptoms:** Repeated exposure may cause skin dryness or cracking.

### Information on Toxicological Effects - Ingredient(s)

#### LD50 and LC50 Data:

<b>Octanoic acid (124-07-2)</b>	
LD50 Dermal Rabbit	> 2000 mg/kg
<b>Amines, tallow alkyl, ethoxylated (61791-26-2)</b>	
ATE US (oral)	500.00 mg/kg body weight
<b>Alcohols, C9-11, ethoxylated (68439-46-3)</b>	
LD50 Oral Rat	1400 mg/kg
LD50 Dermal Rat	> 2 g/kg
<b>Disodium carbonate (497-19-8)</b>	
LD50 Oral Rat	4090 mg/kg
LC50 Inhalation Rat	2300 mg/m <sup>3</sup> (Exposure time: 2 h)
<b>Acetic acid, hydroxyphosphono- (23783-26-8)</b>	
ATE US (oral)	500.00 mg/kg body weight
<b>Succinic acid (110-15-6)</b>	
LD50 Oral Rat	> 2000 mg/kg
LD50 Dermal Rat	> 2000 mg/kg
LC50 Inhalation Rat	> 1.284 mg/l/4h

## SECTION 12: ECOLOGICAL INFORMATION

### Toxicity

**Ecology - General:** Toxic to aquatic life with long lasting effects.

<b>Sodium hydroxide (1310-73-2)</b>	
LC50 Fish 1	45.4 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])
EC50 Daphnia 1	40 mg/l
<b>Octanoic acid (124-07-2)</b>	
LC50 Fish 1	310 mg/l (Exposure time: 96 h - Species: Oryzias latipes [semi-static])
LC50 Fish 2	110 mg/l (Exposure time: 96 h - Species: Brachydanio rerio [semi-static])
<b>Disodium carbonate (497-19-8)</b>	
LC50 Fish 1	300 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])
EC50 Daphnia 1	265 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC50 Fish 2	310 - 1220 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])

**Persistence and Degradability** Not established

### Bioaccumulative Potential

<b>Octanoic acid (124-07-2)</b>	
Log POW	2.92
<b>Disodium carbonate (497-19-8)</b>	
BCF Fish 1	(no bioaccumulation)

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**Mobility in Soil** Not available

### **Other Adverse Effects**

**Other Information:** Avoid release to the environment.

## **SECTION 13: DISPOSAL CONSIDERATIONS**

**Sewage Disposal Recommendations:** Do not empty into drains; dispose of this material and its container in a safe way.

**Waste Disposal Recommendations:** Dispose of waste material in accordance with all local, regional, national, provincial, territorial and international regulations.

**Additional Information:** Container remains hazardous when empty. Continue to observe all precautions. This product, if discarded, would not be a hazardous waste by listing and is not expected to be a characteristic hazardous waste. Processing, use, or contamination by the user may change the waste code(s) applicable to the disposal of this product.

## **SECTION 14: TRANSPORT INFORMATION**

**In Accordance with DOT** Not regulated for transport

**In Accordance with IMDG** Not regulated for transport

**In Accordance with IATA** Not regulated for transport

**In Accordance with TDG** Not regulated for transport

## **SECTION 15: REGULATORY INFORMATION**

### **US Federal and International Regulations**

<b>ArmaKleen™ 4 in 1 Cleaner Concentrate</b>	
<b>SARA Section 311/312 Hazard Classes</b>	Immediate (acute) health hazard
<b>Water (7732-18-5)</b>	
Listed on the Canadian DSL (Domestic Substances List)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
<b>Sodium hydroxide (1310-73-2)</b>	
Listed on the Canadian DSL (Domestic Substances List)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Listed on the Canadian IDL (Ingredient Disclosure List)	
<b>Octanoic acid (124-07-2)</b>	
Listed on the Canadian DSL (Domestic Substances List)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Listed on the Canadian IDL (Ingredient Disclosure List)	
<b>Alcohols, C6-10, ethoxylated propoxylated (68987-81-5)</b>	
Listed on the Canadian NDSL (Non-Domestic Substances List)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
<b>Amines, tallow alkyl, ethoxylated (61791-26-2)</b>	
Listed on the Canadian DSL (Domestic Substances List)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
<b>Alcohols, C9-11, ethoxylated (68439-46-3)</b>	
Listed on the Canadian DSL (Domestic Substances List)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
<b>Alcohols, C8-10, ethers with polyethylene-polypropylene glycol monobenzyl ether (68154-99-4)</b>	
Listed on the Canadian DSL (Domestic Substances List)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
<b>Disodium carbonate (497-19-8)</b>	
Listed on the Canadian DSL (Domestic Substances List)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Listed on the Canadian IDL (Ingredient Disclosure List)	
<b>Acetic acid, hydroxyphosphono- (23783-26-8)</b>	
Listed on the Canadian DSL (Domestic Substances List)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	

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<b>Succinic acid (110-15-6)</b>	
Listed on the Canadian DSL (Domestic Substances List)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Listed on the Canadian IDL (Ingredient Disclosure List)	
<b>EPA TSCA Regulatory Flag</b>	Y2 - Y2 - indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.

### VOLATILE ORGANIC COMPOUNDS (AS REGULATED)

2.5% Solution	0.51 WT%; 0.044 LB/US gal; 5.25 g/L; As per 40 CFR Part 51.100(s) Product Vapor Pressure @20°C = 17.5 mmHg Product does not contain photochemically reactive solvents
5.0% Solution	1.02 WT%; 0.088 LB/US gal; 10.5 g/L; As per 40 CFR Part 51.100(s) Product Vapor Pressure @20°C = 17.5 mmHg VOC Vapor Pressure @38°C = 0.644 mmHg Product does not contain photochemically reactive solvents
10% Solution	2.04 WT%; 0.175 LB/US gal; 21g/L; As per 40 CFR Part 51.100(s) Product Vapor Pressure @20°C = 17.5 mmHg VOC Vapor Pressure @38°C = 0.734 mmHg Product does not contain photochemically reactive solvents
100% Concentrate	21.1 WT%; 1.76 LB/US gal; 210.92 g/L; As per 40 CFR Part 51.100(s) Product Vapor Pressure @20°C = 17.5 mmHg Product does not contain photochemically reactive solvents

### US State Regulations

<b>Sodium hydroxide (1310-73-2)</b>
U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List
U.S. - Pennsylvania - RTK (Right to Know) List

### Canadian Regulations

<b>ArmaKleen™ 4 in 1 Cleaner Concentrate</b>	
WHMIS Classification	Class E - Corrosive Material Class D Division 2 Subdivision B - Toxic material causing other toxic effects
	

<b>Water (7732-18-5)</b>	
Listed on the Canadian DSL (Domestic Substances List)	
WHMIS Classification	Uncontrolled product according to WHMIS classification criteria

<b>Sodium hydroxide (1310-73-2)</b>	
Listed on the Canadian DSL (Domestic Substances List)	
Listed on the Canadian IDL (Ingredient Disclosure List)	
IDL Concentration 1 %	
WHMIS Classification	Class E - Corrosive Material

<b>Octanoic acid (124-07-2)</b>	
Listed on the Canadian DSL (Domestic Substances List)	
Listed on the Canadian IDL (Ingredient Disclosure List)	
IDL Concentration 1 %	
WHMIS Classification	Class E - Corrosive Material

<b>Alcohols, C6-10, ethoxylated propoxylated (68987-81-5)</b>	
Listed on the Canadian NDSL (Non-Domestic Substances List)	

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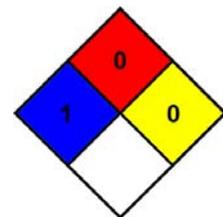
WHMIS Classification	Class D Division 2 Subdivision B - Toxic material causing other toxic effects
<b>Amines, tallow alkyl, ethoxylated (61791-26-2)</b>	
Listed on the Canadian DSL (Domestic Substances List)	
WHMIS Classification	Class D Division 2 Subdivision B - Toxic material causing other toxic effects
<b>Alcohols, C9-11, ethoxylated (68439-46-3)</b>	
Listed on the Canadian DSL (Domestic Substances List)	
WHMIS Classification	Class E - Corrosive Material
<b>Alcohols, C8-10, ethers with polyethylene-polypropylene glycol monobenzyl ether (68154-99-4)</b>	
Listed on the Canadian DSL (Domestic Substances List)	
WHMIS Classification	Class D Division 2 Subdivision B - Toxic material causing other toxic effects

<b>Disodium carbonate (497-19-8)</b>	
Listed on the Canadian DSL (Domestic Substances List)	
Listed on the Canadian IDL (Ingredient Disclosure List)	
IDL Concentration 1 %	
WHMIS Classification	Class D Division 2 Subdivision B - Toxic material causing other toxic effects
<b>Acetic acid, hydroxyphosphono- (23783-26-8)</b>	
Listed on the Canadian DSL (Domestic Substances List)	
WHMIS Classification	Class E - Corrosive Material Class D Division 1 Subdivision B - Toxic material causing immediate and serious toxic effects Class D Division 2 Subdivision B - Toxic material causing other toxic effects
<b>Succinic acid (110-15-6)</b>	
Listed on the Canadian DSL (Domestic Substances List)	
Listed on the Canadian IDL (Ingredient Disclosure List)	
IDL Concentration 1 %	
WHMIS Classification	Class D Division 2 Subdivision B - Toxic material causing other toxic effects

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all of the information required by CPR.

### SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

<b>Revision Date</b>	: 04/27/2015
<b>Other Information</b>	: This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.
<b>NFPA Health Hazard</b>	: 1 - Exposure could cause irritation but only minor residual injury even if no treatment is given. medical attention is given.
<b>NFPA Fire Hazard</b>	: 0 - Materials that will not burn.
<b>NFPA Reactivity</b>	: 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.



#### Party Responsible for the Preparation of This Document

Church & Dwight  
500 Charles Ewing Blvd  
Ewing Township, NJ 08628  
T 1-800-332-5424

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.*

Church&Dwight NA GHS SDS

# Exhibit L-1

## Closure Cost Estimate

Table 1. Closure Cost Estimate Worksheet, Safety-Kleen Branch Service Center [Farmington, NM]

Activity	Category	Hourly Rate or Unit Charge	Hours or Unit Estimate	Subtotal Cost
<b>1. INVENTORY REMOVAL</b>				
<u>Assumptions</u>				<b>Capacity (gallons)</b>
- Waste mineral spirits tank(s) is full			12000	
- Tank One			0	
- Tank Two (IF APPLICABLE)			0	
	Total Tank Capacity		12000	
- Return/Fill station is full				
- Maximum capacity of drum washers added to waste mineral spirits tank quantity			750	
- Container storage area(s) full				
- CSA 1			3820	
- CSA 2 (IF APPLICABLE)			0	
	Total CSA Capacity		3820	
<u>Subcontractor Costs</u>				
- Transfer tank contents to tankers				
Tank Capacity (total gallons)			12750	
Work Rate to Unload Tank Capacity (hours per gallon)			0.0003	
Total Hours to Unload			3.8	
Labor and equipment rate to unload (PPE Level D) and cost	Labor/equipment	\$175.95	3.8	\$673
- Transport waste mineral spirits to a TSD for treatment/disposal				
Number of tanker trailers required (6,000 gallons max each load)			3	
Cost per mile = \$5.64/mile				
Mileage = 300 miles (Number in second column is 300 miles x number trucks)	Transport = 300 miles each	\$5.64	900	\$5,076
Disposal/treatment cost (per gallon - low cost based on suitability for fuel)	TSD @\$0.45/gallon	\$0.450	12750	\$5,738
- Transfer drums from CSA(s) to trucks				
Labor/Equipment (PPE Level D)	Labor/equipment per drum	\$3.57	70	\$250
(Number in second column is number of drums determined from total CSA capacity)				
- Transport drums to TSD for Treatment/Disposal				
Total Number of Drums (Number is total of CSA drums and Flam Shed drums)			70	
Total Number of Trucks Required to Transport Drums (84 per truck max)			1	
Cost per mile = \$5.64/mile				
Mileage = 300 miles (Number in second column is 300 miles x number of trucks)	Transport trailer(s) x 300 miles	\$5.64	300	\$1,692
Disposal/treatment cost (per drum - low cost based on suitability for fuel)	TSD @ \$90/drum	\$90	70	\$6,300
	Activity 1. Subtotal			\$19,728
<b>2. STORAGE TANK DECONTAMINATION</b>				
<u>Assumptions:</u>				<b>Square Footage</b>
- The tanks, piping and appurtenant equipment are decontaminated and remain in place			781	
- Rinsate sampling necessary because the tank will remain in place. Assumes 1 rinsate sample per tank.			0	
- Includes decontamination of the containment area			0	
- Assumes containment area to remain in place following decontamination			781	
- Assumes 1 rinsate sample required to leave containment in place				
- Assumes 2 soil samples required from beneath containment area. Actual number of samples will be based on engineer's inspection.				
- Tank Interior Square Footage (based on tank volume)				
- Tank 1				
- Tank 2 (IF APPLICABLE)				
	Total Tank Interior Square Footage		781	
- Tank Farm Containment Square Footage (includes floor and walls)			1168	
<u>Prime Contractor Costs</u>				
- Costs for oversight and engineers inspection included in Closure Certification Activity below				
- Collect Rinsate Sample(s) (1 per tank and 1 per containment)				
Work Rate for Sampling (hours per sample)			0.5000	
Number of Samples			1	
Labor and equipment per work hour (PPE Level D)	Labor/equipment	\$91.88	0.50	\$46
- Drilling for Soil Samples (2.5 in boring to 1 ft each)				
Work Rate for Drilling (hours per foot)			0.3050	
Number of Feet (subslab sample depth = 1 foot each)			2	
Labor and equipment per work hour (PPE Level D)	Labor/equipment	\$146.29	0.61	\$89
- Collect 2 Soil Samples				
Work Rate for Sampling (hours per sample)			0.5000	
Number of Samples			2	
Labor and equipment per work hour (PPE Level D)	Labor/equipment	\$91.88	1.00	\$92
<u>Subcontractor Costs</u>				
- Decontaminate waste AST, piping and appurtenant equipment				
Work Rate to Pressure Wash (hours per square foot)			0.0405	
Area of Tanks to be decontaminated			781	
Labor and equipment for tank decon (PPE Level C)	Labor/equipment	\$97.23	32	\$3,074
- Decontaminate Tank Containment Area				
Work Rate to Pressure Wash 1 sq ft (hours per square foot)			0.0405	
Total Area of Containment (includes walls and floor)			1168	
Labor and equipment for CSA decon (PPE Level D)	Labor/equipment	\$65.77	47	\$3,111
<u>Laboratory Subcontractor Costs</u>				
- Analyze rinsate sample(s) from tank(s) and containment area for VOCs, SVOCs and RCRA metals	VOCs @ \$189/sample SVOCs @ \$359/sample 8 RCRA Metals @ \$110/sample Total per sample cost	\$658	1	\$658
- Analyze soil sample(s) from containment area for VOCs, SVOCs and RCRA metals	VOCs @ \$189/sample SVOCs @ \$359/sample 8 RCRA Metals @ \$110/sample Total per sample cost	\$658	2	\$1,316
	Activity 2. Subtotal			\$8,386

Table 1. Closure Cost Estimate Worksheet, Safety-Kleen Branch Service Center [Farmington, NM]

Activity	Category	Hourly Rate or Unit Charge	Hours or Unit Estimate	Subtotal Cost
<b>3. DECONTAMINATE THE RETURN/FILL STATION</b>				
<u>Assumptions:</u>				
- Decontamination shall consist of washing with detergent/water solution and rinsing with high-pressure spray				
- Return/Fill structure and dock area will remain in place following decontamination				
- Drum washers to remain in place or sent offsite for reuse following decontamination				
- Rinsate sampling required from each drum washer to remain in place or sent offsite for reuse, and from containment				
- Assumes 2 soil samples required from beneath containment area. Actual number of samples will be based on engineer's inspection				
- Square footage used for decontamination includes containment, dock and drum washer units				
			<b>Square Footage</b>	
			1000	
<u>Prime Contractor Costs</u>				
- Costs for oversight and engineers inspection included in Closure Certification Activity below				
- Collect Rinsate Samples (1 per drum washer plus containment)				
Work Rate for Sampling ( hours per sample)			0.5000	
Number of Samples			2	
Labor and equipment per work hour (PPE Level D)	Labor/equipment	\$91.88	1.00	\$92
- Drilling for Soil Samples (2.5 in boring to 1 ft each)				
Work Rate for Drilling ( hours per foot)			0.3050	
Number of Feet (subslab sample depth = 1 foot each)			2	
Labor and equipment per work hour (PPE Level D)	Labor/equipment	\$146.29	0.61	\$89
- Collect Soil Samples				
Work Rate for Sampling (per sample)			0.5000	
Number of Samples			2	
Labor and equipment per work hour (PPE Level D)	Labor/equipment	\$91.88	1.00	\$92
<u>Subcontractor Costs</u>				
- Decontaminate waste AST, piping and appurtenant equipment				
Work Rate to Pressure Wash (hours per square foot)			0.0405	
Area of Return/Fill to be decontaminated			1000	
Labor and equipment for tank decon (PPE Level C)	Labor/equipment	\$97.23	41	\$3,938
<u>Laboratory Subcontractor Costs</u>				
- Analyze 1 rinsate sample per drum washer and containment for VOCs, SVOCs and RCRA metals	VOCs @ \$189/sample SVOCs @ \$359/sample 8 RCRA Metals @ \$110/sample Total per sample cost	<b>\$658</b>	2	\$1,316
- Analyze soil sample(s) from containment area for VOCs, SVOCs and RCRA metals	VOCs @ \$189/sample SVOCs @ \$359/sample 8 RCRA Metals @ \$110/sample Total per sample cost	<b>\$658</b>	2	\$1,316
<b>Activity 3. Subtotal</b>				<b>\$6,843</b>
<b>4. DECONTAMINATE CONTAINER STORAGE AREA(S)</b>				
<u>Assumptions:</u>				
- Decontamination shall consist of washing with a detergent water solution and rinsing with a high-pressure spray				
- CSA(s) to remain in-place following closure				
- Decontamination of CSA includes floor, curbing and containment trenches				
- Assumes 1 rinsate and 2 soil samples required per CSA. Actual number of soil samples will be based on engineer's inspection.				
- CSA Containment Square Footage				
- CSA 1			629	
- CSA 2 (IF APPLICABLE)			0	
	Total CSA Square Footage		629	
<u>Prime Contractor Costs</u>				
- Costs for oversight and engineers inspection included in Closure Certification Activity below				
- Collect Rinsate Samples (1 per CSA)				
Work Rate for Sampling (hours per sample)			0.5000	
Number of Samples			1	
Labor and equipment per work hour (PPE Level D)	Labor/equipment	\$91.88	0.50	\$46
- Drilling for Soil Samples (2.5 in boring to 1 ft each)				
Work Rate for Drilling ( hours per foot)			0.3050	
Number of Feet (subslab sample depth = 1 foot each x number of samples)			2	
Labor and equipment per work hour (PPE Level D)	Labor/equipment	\$146.29	0.61	\$89
- Collect Soil Samples				
Work Rate for Sampling (hours per sample)			0.5000	
Number of Samples			2	
Labor and equipment per work hour (PPE Level D)	Labor/equipment	\$91.88	1.00	\$92
<u>Subcontractor Costs</u>				
- Decontaminate CSA(s)				
Work Rate to Pressure Wash (hours per square foot)			0.0405	
Total Area of Permitted CSA(s) to be decontaminated			629	
Labor and equipment for CSA decon (PPE Level D)	Labor/equipment	\$65.77	25	\$1,675
<u>Laboratory Subcontractor Costs</u>				
- Analyze rinsate sample(s) from each CSA for VOCs, SVOCs and RCRA metals	VOCs @ \$189/sample SVOCs @ \$359/sample 8 RCRA Metals @ \$110/sample Total per sample cost	<b>\$658</b>	1	\$658
- Analyze 2 soil sample(s) from each CSA for VOCs, SVOCs and RCRA metals	VOCs @ \$189/sample SVOCs @ \$359/sample 8 RCRA Metals @ \$110/sample Total per sample cost	<b>\$658</b>	2	\$1,316
<b>Activity 4. Subtotal</b>				<b>\$3,877</b>

Table 1. Closure Cost Estimate Worksheet, Safety-Kleen Branch Service Center [Farmington, NM]

Activity	Category	Hourly Rate or Unit Charge	Hours or Unit Estimate	Subtotal Cost
<b>5. CONTAINERIZE, STAGE, TRANSPORT AND DISPOSE OF DECONTAMINATION WASTES</b>				
<u>Assumptions:</u>				
- Amount of decon wash water generated derived from previous closure experience. Quantity based on approximately 0.8 gal/ sq ft for tank systems and 0.1 gal/sq ft for containment area floors				
Unit Description	Square Footage	Number Gallons	Number Drums	
STORAGE TANK DECONTAMINATION	781	625	12	
DECONTAMINATE TANK CONTAINMENT	1,168	117	3	
DECONTAMINATE THE RETURN/FILL STATION	1,000	800	15	
DECONTAMINATE CONTAINER STORAGE AREA(S)	629	63	2	
PPE, CONSUMABLES, DEBRIS	NA	NA	5	
- Purchase 55-gallon drums to containerize wash water	Drums @ \$83 each	\$83	37	\$3,378
<u>Subcontractor Costs</u>				
- Transfer drums to trucks				
Labor/Equipment (PPE Level D)	Labor/equipment per drum	\$3.57	37	\$132
- Transport drums to TSD for Treatment/Disposal				
Total Number of Trucks Required to Transport Drums (84 per truck max)			1	
Cost per mile =\$5.64/mile				
Mileage = 300 miles (Number in second column is 300 miles x number trucks)	Transport trailer(s) x 300 miles	\$5.64	300	\$1,692
Disposal/treatment cost (per drum - low cost based on lack of hazardous constituents)	TSD @ \$90/drum	\$90	32	\$2,880
Disposal/treatment cost for PPE drums (assumed haz to landfill)	TSD @\$250/drum	\$250	5	\$1,250
<b>Activity 5. Subtotal</b>				<b>\$9,332</b>
<b>6. CLOSURE CERTIFICATION</b>				
<u>Assumptions:</u>				
- Cost Pro unit rate per unit to be closed is \$4,118				
- Unit rate includes engineer inspection and decontamination oversight of each unit				
<u>Prime Contractor Costs</u>				
- Oversee and certify closure per unit times number of units	Project Manager/Engineer	\$4,118	3	\$12,354
<b>Activity 6. Subtotal</b>				<b>\$12,354</b>
<b>COST ESTIMATE ACTIVITIES SUMMARY</b>				
1. INVENTORY REMOVAL				\$19,728
2. STORAGE TANK DECONTAMINATION				\$8,386
3. DECONTAMINATE THE RETURN/FILL STATION				\$6,843
4. DECONTAMINATE CONTAINER STORAGE AREA(S)				\$3,877
5. CONTAINERIZE, STAGE, TRANSPORT AND DISPOSE OF DECONTAMINATION WASTES				\$9,332
6. CLOSURE CERTIFICATION				\$12,354
<b>TOTAL CLOSURE COST ESTIMATE</b>				<b>\$60,520</b>
<b>CONTINGENCY</b>				<b>10%</b>
<b>TOTAL CLOSURE COST WITH CONTINGENCY</b>				<b>\$66,572</b>

**Notes:**

- Estimate assumes that waste management units are at permitted capacity at time of closure, which is the most expensive in the facility's operating life.
- All unit rates obtained from Cost Pro version 6.0, which is designed to be representative of 3rd party costs and includes the following:
  - Transportation @ \$5.64/mile and 300 mile trip
  - Disposal for bulk liquids \$0.45/gallon based on suitability of waste mineral spirits as fuel
  - Disposal for CSA liquids \$90/drum based on suitability of drummed waste streams as fuel
  - Disposal of decon wash water \$90/drum based on lack of hazardous constituents in waste (soapy water)
  - Subcontractor Decontamination Rate for tanks and return/fill based on PPE Level C
  - Subcontractor decontamination rates for tank containment, CSAs and Flam Shed (if applicable) based on PPE Level D
  - Prime Contractor Rates based on hourly rate for rinsate sampling, drilling and soil sample collection
  - Lab subcontractor rates for analysis of rinsate and soil samples (Assumes VOCs, SVOCs and metals)
  - Closure Certification Activity includes contractor oversight, PE integrity inspections and reporting/Certification

# Exhibit L-2

## Closure Schedule

Activity	Calendar Days After Notification and/or Approval											Number of Days Following Completion of Clean Closure		
	0	30	60	90	120	150	180	210	240	270	0	30	60	
1. Notification of Intent to Commence Closure														
2. Removal/Disposal of Final Waste Inventory	[Solid black bar from Day 0 to Day 90]													
3. Notification to Agency of Critical Closure Activities	[Solid black bar from Day 60 to Day 180]													
4. Storage Tank Decontamination	[Solid black bar from Day 90 to Day 180]													
5. Return/Fill Station Decontamination	[Solid black bar from Day 90 to Day 180]													
6. Drum Storage Area Decontamination	[Solid black bar from Day 90 to Day 180]													
7. Flammable Materials Storage Area Decontamination	[Solid black bar from Day 90 to Day 180]													
8. Analytical Results Compilation and Evaluation	[Solid black bar from Day 120 to Day 180]													
9. Closure Progress Report Preparation and Submittal	[Solid black bar from Day 150 to Day 240] [Grey bar from Day 240 to Day 270] >>													
10. Remedial Action Plan/Closure Plan Addendum (if necessary)	[Grey bar from Day 210 to Day 240]													
11. Closure Certification *	[Solid black bar from Day 0 to Day 60]													

Notes:

[Solid black bar] >>> Indicates that this activity continues until certification of "clean closure."

[Grey bar] Indicates an optional activity based on the closure analytical results.

\* If no impacts are detected during the decontamination activities, closure certification will be submitted within 60 days of the completion of closure activities.

Closure Plan Table 1: Tentative Closure Completion Schedule, Safety-Kleen Systems, Inc. Service Center, Albuquerque, New Mexico

## Exhibit L-3

### Closure Insurance Certificate



Via FedEx

January 7, 2015

Mr. Dave Strasser  
New Mexico Environment Department  
5500 San Antonio Drive NE  
Albuquerque, NM 87109

RE: Safety-Kleen Systems, Inc.  
Financial Assurance  
January 25, 2015 Annual Inflation Increases

Dear Mr. Strasser:

Enclosed is an original insurance certificate issued by Indian Harbor Insurance Company for financial assurance coverage for Safety-Kleen's facilities located in Albuquerque and Farmington.

The certificate has been amended, effective January 25, 2015, to reflect the annual inflation increase of the financial assurance. The increase was calculated by using information obtained on February 4, 2014 from the U.S. Department of Commerce, Bureau of Economic Analysis, Table 1.1.9 Implicit Price Deflators for Gross Domestic Product as indicated below:

<u>2013 Annual GDP</u>	<u>106.570 divided by:</u>
2012 Annual GDP	105.002

**Implicit Price Deflator for January 25, 2015 = 1.015 or 1.5%**

Please contact me if you have any questions or need additional information. I can be reached at 803-225-5459 or at [hodge.kathleen@cleanharbors.com](mailto:hodge.kathleen@cleanharbors.com).

Sincerely,

Kathy Hodge  
Manager, EHS Compliance Administration

## CERTIFICATE OF INSURANCE FOR CLOSURE OR POST-CLOSURE CARE

Name and Address of Insurer (herein called the "Insurer"):

Indian Harbor Insurance Company  
Seaview House, 70 Seaview Avenue  
Stamford, CT 06902-6040

Name and Address of Insured (herein called the "Insured"):

Safety-Kleen Systems, Inc.  
2600 North Central Expressway  
Suite 400  
Richardson, TX 75080

Facilities covered:

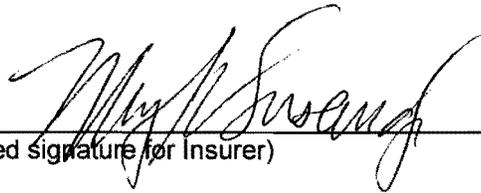
Albuquerque 7-008-01	2720 Girard NE Albuquerque, NM 87107	NMD000804294	Closure: \$100,945
Farmington 7-008-21	4210A Hawkins Road Farmington, NM 87401	NMD980698849	\$101,559
TOTAL:			<u>\$202,504</u>

Face Amount: \$202,504  
Policy Number: PEC000659413  
Effective Date: January 25, 2015

The Insurer hereby certifies that it has issued to the Insured the policy of insurance identified above to provide financial assurance for closure for the facilities identified above. The Insurer further warrants that such policy conforms in all respects with the requirements of 40 CFR 264.143(e), 264.145(e), 265.143(d) and 265.145(d), as applicable and as such regulations were constituted on the date shown immediately below. It is agreed that any provision of the policy inconsistent with such regulations is hereby amended to eliminate such inconsistency.

Whenever requested by the Secretary of the New Mexico Environmental Department, the Insurer agrees to furnish to the New Mexico Environmental Department a duplicate original of the policy listed above, including all endorsements thereon.

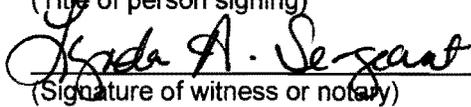
I hereby certify that the wording of this certificate is identical to the wording specified in 40 CFR 264.151(e) as such regulations were constituted on the date shown immediately below.



\_\_\_\_\_  
(Authorized signature for Insurer)

Mary Ann Susavidge  
\_\_\_\_\_  
(Name of person signing)

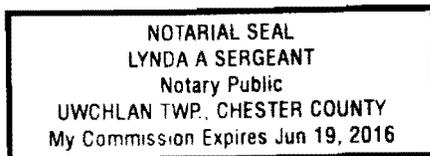
Vice President  
\_\_\_\_\_  
(Title of person signing)



\_\_\_\_\_  
(Signature of witness or notary)

1-22-15  
\_\_\_\_\_  
(Date)

SEAL



From: (803) 473-4872  
 Kathy Hodge  
 Safety-Kleen Systems Inc  
 1021 Pebble Lane

Origin ID: FLOA



J151015011403uv

Manning, SC 29102

Ship Date: 20JAN15  
 ActWgt: 0.1 LB  
 CAD: 100021226/NET3610

Delivery Address Bar Code



SHIP TO: (505) 827-2855

BILL SENDER

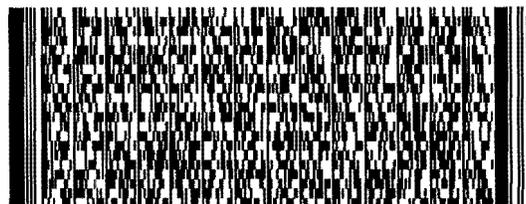
**Dave Strasser**  
**New Mexico Environment Dept**  
**5500 SAN ANTONIO DR NE**

Ref # S206577ECU  
 Invoice #  
 PO #  
 Dept #

ALBUQUERQUE, NM 87109

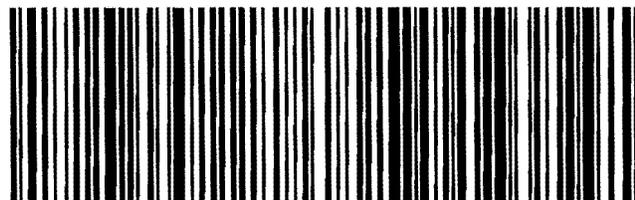
WED - 21 JAN AA  
 STANDARD OVERNIGHT

TRK# 7726 4660 6744  
 0201



**XX ABQA**

87109  
 NM-US  
 ABQ



537.J18F15/EE4B

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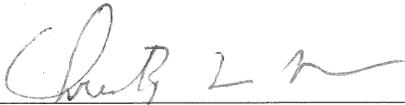
# Exhibit M-1

## Hazardous Waste Facility Certificate of Insurance

## HAZARDOUS WASTE FACILITY CERTIFICATE OF LIABILITY INSURANCE

1. Indian Harbor Insurance Company, the Insurer of Seaview House, 70 Seaview Avenue, Stamford, CT 06902-6040, hereby certifies that it has issued liability insurance covering bodily injury and property damage to Clean Harbors, Inc., the Insured, of 42 Longwater Drive, Norwell, MA 02061 in connection with the Insured's obligation to demonstrate financial responsibility under the New Mexico Hazardous Waste Management Regulations, Section 20.40.1.500. The coverage applies at EPA ID# \_\_\_\_\_, SEE ATTACHED LIST for sudden accidental occurrences. If coverage is for multiple facilities and the coverage is different for different facilities, indicate which facility(ies) are insured for sudden accidental occurrences, which are insured for nonsudden accidental occurrences, and which are insured for both. The limits of liability are \$1,000,000 each occurrence and \$2,000,000 annual aggregate, exclusive of legal defense costs. The coverage is provided under policy number PEC004203901 issued on November 1, 2014. The effective date of said policy is November 1, 2014.
  
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 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 the New Mexico Hazardous Waste Management Regulations, Section 20.40.1.500.
  - (c) Whenever requested by the New Mexico Environment Department, 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 New Mexico Environment Department.
  - (e) Any other termination of the insurance 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 New Mexico Environment Department.

I hereby certify that the wording of this instrument is identical to the wording specified in the New Mexico Waste Management Regulations, 20.40.1.500, incorporating by reference 40 CFR 265.151(j), 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.



(Signature of Authorized Representative of Insurer)

Date: 01/21/2015

Christopher Biddle, Vice President

Authorized Representative of Indian Harbor Insurance Company

c/o XL Insurance  
505 Eagleview Boulevard  
P.O. Box 636  
Exton, PA 19341-0636

NM-HAZWASTE (4/10)

**SAFETY-KLEEN SYSTEMS, INC. LOCATIONS**

**STATE OF NEW MEXICO**

**2720 Girard NE  
Albuquerque, NM 87107**

**NMD 000804294**

**4200 A Hawkins Road  
Farmington, NM 87401**

**NMD 980698849**