



Jared Blumenfeld
Secretary for
Environmental Protection



Department of Toxic Substances Control

Meredith Williams, Ph.D.
Acting Director
8800 Cal Center Drive
Sacramento, California 95826-3200



Gavin Newsom
Governor

February 14, 2019

U.S. Certified Mail No. 7018 2290 0001 8897 3724
Return Receipt Requested

Ms. Nahid Toossi
Director Environmental Compliance
Safety-Kleen
2120 S Yale Street
Santa Ana, CA 92704

FIRST NOTICE OF DEFICIENCY FOR PERMIT RENEWAL FOR SAFETY-KLEEN SYSTEMS INC., LOS ANGELES SERVICE CENTER HAZARDOUS WASTE FACILITY, 2918 WORTHEN AVENUE, LOS ANGELES, CALIFORNIA 90039 EPA ID NO. CAT000613935

Dear Ms. Toossi:

The Department of Toxic Substances Control (DTSC) has completed its technical review of the Part B Application dated August 2018 for the Safety-Kleen Systems, Inc., Los Angeles Service Center (S-K Los Angeles) located at 2918 Worthen Avenue, Los Angeles, California, 90039, hereinafter referred to as the "Application". The Application has been reviewed for compliance with the applicable requirements of California Code of Regulations, title 22, division 4.5 and the Health and Safety Code, division 20. DTSC has determined that the Application is deficient. The enclosed comments comprise the Notice of Deficiency (NOD) issued for the Application. DTSC would like to schedule a meeting to discuss the deficiencies. I will contact you shortly to schedule this meeting.

The following must be submitted by April 19, 2019:

- 1) Two hardcopies and one electronic PDF copy (CD or flash drive) of the complete, clean version of the revised permit application. The revised permit application must be a complete application with all sections, figures, tables, appendices, calculations, attachments, and all information required by California Code of Regulations, title 22, division 4.5, and the Health and Safety Code, division 20. In other words, the revised permit application must be a stand-alone document with all deficiencies corrected.
- 2) One hardcopy redlined/strikeout version of the Application showing the changes that have been made as requested in the NOD.

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- 3) One hardcopy of the written response to each of the deficiencies identified in the NOD. In responding to each of the deficiencies, restate the deficiency and identify the page number(s) in the revised permit application where each deficiency has been addressed.

Please note that pursuant to Health and Safety Code section 25200.8 and California Code of Regulations, title 22, section 66271.2(e), DTSC may deny permit applications based on a failure of the applicant to respond to a NOD or when the applicant responds with substantially incomplete or substantially unsatisfactory information.

If you have any questions, please contact me at parisa.khosraviani@dtsc.ca.gov or (916) 255-6559.

Sincerely,



Parisa Khosraviani
Hazardous Substance Engineer
Permitting Division

Enclosure: Comments on Deficiencies
Attachments to Enclosure

- A. Engineering and Special Projects Office (ESPO) Cost Estimate Review
- B. Engineering and Special Projects Office (ESPO) Technical Memorandum
- C. Geological Service Branch (GSB) Technical Memorandum
- D. Environmental Chemistry Laboratory (ECL) Technical Memorandum

cc: Mr. Sam Coe
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FIRST NOTICE OF DEFICIENCY FOR THE SAFETY-KLEEN SYSTEMS INC., LOS ANGELES SERVICE CENTER HAZARDOUS WASTE FACILITY, 2918 WORTHEN AVENUE, LOS ANGELES, EPA ID NO. CAT000613935

LIST OF DEFICIENCIES

The results of DTSC's technical review for the Safety-Kleen, Inc., Los Angeles Service Center Hazardous Waste Facility are presented below. The technical review is formatted to correspond with the sections presented in Safety-Kleen Systems, Inc., Los Angeles Service Center's permit application. For each deficiency, the following are provided: (1) the requirement (i.e. relevant statute and/or regulation, where applicable), which provides the basis for the deficiency; (2) the part/section/page in which the deficiency is found in the application; (3) DTSC's findings, and, (4) instructions for remedying the deficiency.

Comments

1. Annual Quantity of Permitted Waste: Part A Form: Item 7 Description of Hazardous Waste, and Table III-1 Estimated Monthly and Annual Amounts of Permitted Wastes Handled. Pursuant to California Code of Regulations, title 22, section 66270.13(j) the Part A must include a "specification of the hazardous waste listed or designated under chapter 11 of this division to be transferred, treated, stored or disposed of at the facility, an estimate of the quantity of such wastes to be transferred, treated, stored or disposed annually, and a general description of the processes to be used for such wastes."

The permit application Table III-1, Estimated Monthly and Annual Amounts of Permitted Wastes Handled, indicates "Estimated Annual Amount" of waste as "3,000,000 pounds." The Hazardous Waste Permit Part A Form in Item 7, Description of Hazardous Waste, indicates the Estimate Annual Quantity of Waste as "254,000 gallons." Converting this volume from gallons to pounds assuming a density of water as 8.34 pounds per gallon would be 2,118,360 pounds.

The Application Part A and/or Part B must be revised to correct the discrepancy in the annual quantity of waste handled.

2. Photographs: Part A Form Appendix I-8: Pursuant to California Code of Regulations, title 22, section 66270.13(h) requires photographs of the facility. Appendix I-8 of the Part A form includes photographs of the facility. However, the photographs of the container storage areas are labeled as Unit A, B, and C. The usage of the term "Unit" can be misleading when considering the definition of "unit" as defined by the California Code of Regulations.

The Application must be revised with a different term to describe the container storage areas in the photographs.

3. Capacity of Container Storage Area: Part II.F.3.a and Part I.J.1 Storage.

Part II.F.3.a titled "Analysis of Timing to Ensure that Waste can be Removed Before Facility Floods" states that the "Capacity of the container storage area is limited to 36,500 gallons." The Part A application indicates the three container storage areas design capacity is 5,540 gallons. Part I.J.1, Storage, indicates the "permitted hazardous waste container storage areas have a maximum capacity of 5,540 gallons." Appendix IV-1, Container Storage Areas Certification, references the containerized waste that may be kept in "units" A, B, and C without exceeding the 10 percent volumetric capacity requirements as 1,730, 3810, and 30,960 gallons, respectively. These add up to 36,500 gallons. However, this appears to be a hypothetical limit, not the permitted limit.

The Application must be revised to clarify the reference to 36,500 gallons capacity of the container storage areas in Part II.F. It must clearly indicate the permitted hazardous waste capacity limit of each container storage area separately and the physical storage capacity limit that may include product or non-hazardous waste containers.

4. Hazardous Determination: Part III.A Waste Acceptance Procedures. Part III.A Waste Acceptance Procedures states that "if the generator has a clear understanding of what caused the variation analytical testing may not be needed." The process that Safety-Kleen uses to determine the impact of the variation caused by the generator is not adequately described. The Application also lacks information on what the specific hazardous constituents are.

The Application must be revised to adequately describe Safety-Kleen's process to determine if the variation in the waste does not require analytical testing. The Application must also describe how Safety-Kleen determines what the specific hazardous constituents are.

5. Annual Recharacterization Data: Part III.B.10 Results of Chemical and Physical Analysis of the Waste. The Waste Analysis Plan discusses the Annual Recharacterization Data however it is not provided.

The Application must be revised to include the Annual Recharacterization Data for each permitted waste stream (petroleum and aqueous-based solvent) and the tank bottom sediment.

6. Test Method Differentiation: Table III-2 Test Methods. Pursuant to California Code of Regulations, title 22, section 66264.13(b) requires the Waste Analysis Plan to include, at a minimum, the test methods which will be used. Table III-2 does not clearly differentiate which test methods are conducted for aqueous parts washer solvent versus mineral spirits parts washer solvent. Part III.E.2 Quantitative/Confirmation Analysis states that pH is tested

for aqueous based solvent. The rationale for pH analysis being applicable only to aqueous based solvent is not adequately described.

The Application must be revised such that Table III-2 Test Methods clearly identifies which test methods are applicable to which solvent. The Application must also provide the rationale to the different analyses conducted on the permitted waste streams.

7. Expected Waste Codes and Range: Table III-2 Test Methods. Table III-2 Test Methods indicates that the expected waste code for pH and Metals are None. The range for Volatiles and Metals is not provided in Table III-2. The rationale is not clear as to why the expected waste code for the various parameters is potentially "None". It is also unclear as to why the range was not provided for all the listed parameters.

The Application must be revised to provide all applicable expected waste codes for the various parameters or provide sufficient rationale for stating "None" for any of the parameters. The Application must also be revised to include a range for all parameters or provide sufficient rationale for not including a range for Volatiles and Metals.

8. Restricted Waste: Part III.I.3 Storage of Restricted Waste. Pursuant to the California Code of Regulations, title 22, section 66268.7(a)(2) "the generator shall send a one-time written notice to each treatment or storage facility receiving the waste...". Part III.B.3 Waste name with restricted wastes identified states that it is "Not applicable." Part III.I.3 Additional Requirements Pertaining to the Storage of Restricted Waste states that this is "Not applicable". All RCRA waste must meet a treatment standard for land disposal and are therefore subject to land disposal restrictions.

The Application must be revised to include a description of how Safety-Kleen Los Angeles determines if the RCRA waste meets the treatment standard for land disposal and describe how the conclusion of this determination is communicated to the treatment or disposal facility in all applicable sections. The Application must clearly describe how the facility complies with 66268.7(a)(2).

9. Physical and Chemical Properties of Solvents: Part III.B.5.a Physical and Chemical Properties. Pursuant to the California Code of Regulations, title 22, section 66264.13(a)(1) states "Before an owner or operator transfers, treats, stores, or disposes of any hazardous waste, or non-hazardous waste if applicable under section 66264.113(d), the owner or operator shall obtain a detailed chemical and physical analysis of a representative sample of the waste."

The Waste Analysis Plan describes the services provided by Safety-Kleen to its customers and references providing petroleum-based solvents (mineral spirits) and aqueous based solvents. Part III Waste Analysis Plan does not include the specific Safety Data Sheets.

The Application must be revised to include the respective Safety Data Sheets.

10. Paper Profile and Waste Material Profile: Part III Waste Analysis Plan, Part III.A Permitted Waste Streams states "A Waste Material Profile will be completed or a sample will be taken from the drum and analyzed for the parameters listed in Table III-2." In Part III.X the waste analysis plan states that "Chemical analysis or a Paper Profile will be performed if the waste does not meet the Qualitative/Visual Analysis Criteria." The Application appears to use the two, Waste Material Profile and Paper Profile, interchangeably. It is unclear if the Application is referring to two different documents. The Application also does not include an example of either.

The Application must be revised to include an example of a Paper Profile and/or Waste Material profile. If the Waste Material Profile and Paper Profile are the same document, the Application should only use one terminology.

11. Hazardous Materials Laboratory Contact Part III.D.7 Statistically Representative Sampling Technique. Part III.D.7 Statistically Representative Sampling Technique includes the name of Dr. Bart Simmons, Ph.D. who was previously employed by the Department of Toxic Substances Control (DTSC) Hazardous Materials Laboratory. Dr. Bart Simmons name is also referenced in Table III-4 Qualitative Acceptance Criteria within the section titled Statistical Model. Dr. Bart Simmons is no longer employed by DTSC and DTSC does not have a Hazardous Materials Laboratory.

The Application must be revised such that specific resources and departments are not referenced.

12. Empty Containers Contaminated with Hazardous Waste: Part IV Facility Design. Pursuant to California Code of Regulations, title 22, section 66261.7(a) & (b), in order to retain the "empty exemption" which allows empty containers to be managed as non-hazardous waste, the empty containers in the Return & Fill Station with two drum washers must be managed in accordance with subsection 66261.7(e). Since the contaminated containers rinsed in the drum washers are not managed in accordance to subsection 66261.7(e), the "empty exemption" does not apply and the rinsing activities are considered a treatment of a hazardous waste and require authorization by DTSC.

The Application must be revised to reflect that contaminated containers are hazardous wastes and are treated in the Return & Fill area.

13. Tank High Level Alarms: Part IV.B.5 Liquid Level Monitoring. Pursuant to California Code of Regulations, title 22, section 66264.194(b), requires the owner to include overfill prevention controls such as high-level alarms. Section IV.B.5.e.1 states "An automatic alarm system indicates when the tanks are at 90 percent of capacity". Section IV.B.5.i states "The tank is equipped with liquid level indicators and high-level alarms." These statements may lead to confusion regarding the number of high level alarms for the waste solvent tank.

The Application must be revised to reference the correct number of high level alarms for the solvent waste underground storage tank.

14. Applicability of New Tank System Regulations: Part IV.B.9.c Integrity Assessment for New Tank Systems. Pursuant to California Code of Regulations, title 22, section 66260.10 the definition of "new tank system" or "new tank component" means "a tank system or component that will be used for the transfer, storage or treatment of hazardous waste and for which installation has commenced after the dates indicated below... (a) July 14, 1986, for tanks containing RCRA hazardous wastes, unless..."

Part IV.B.3.a.7, Age of Tank System, says the tank was installed in December 1993, and therefore it is a "new" tank by definition as cited above.

The Application must be revised to correct statements that the new tank regulations are not applicable and to describe Safety-Kleen's compliance with all the regulations in 22 CCR 66264.192 titled "Design and Installation of New Tank Systems or Components."

15. References to Existing Tank Regulations: Part IV.B, Tanks used for Storage or Treatment. Pursuant to California Code of Regulations, title 22, section 66260.10 "Existing tank system" or "existing tank component" means a "tank system or component that is used for the transfer, storage or treatment of hazardous waste and that is in operation, or for which installation has commenced on or prior to the dates indicated below: (a) July 14, 1986, for tanks containing RCRA hazardous wastes..." Conversely, the definition of new tanks is one where construction commences after July 14, 1986. The regulations in 22 CCR 66264.191 titled "Assessment of Existing Tank System's Integrity" summarize the requirements for tanks installed before July 14, 1986.

Part IV.B.3.a.7, Age of Tank System, says the underground waste solvent tank was installed in December 1993, and therefore it is a "new" tank by definition as cited above. Several sections in Part IV.B, Tanks Used for Storage or Treatment, reference the regulations in 22 CCR 66264.191 for existing tanks installed before July 14, 1986. These regulatory citations for existing tanks are not applicable and may be confusing.

The Application must be revised to remove the misleading references to existing tank regulations and clarify the applicability between new tank and existing tank system regulations.

16. Inspection Schedule for Tank System Condition: Part VIII.E, Facility Inspection and Appendix VIII-1, Inspection Frequencies. Pursuant to California Code of Regulations, title 22, section 66264.195(e) require "As part of the inspection schedule required in section 66264.15(b), and in addition to the specific requirements of subsection (a) of this section, the owner or operator shall develop a schedule and procedure for assessing the condition of the tank...The frequency of these assessments shall be based on the material of construction of the tank, type of corrosion or erosion observed during previous inspections and the characteristics of the waste being transferred, treated or stored."

Appendix IV-2, Waste Underground Tank Certification, is a tank assessment and tightness testing report dated July 2018 and stamped by professional engineer Dr. Joseph Matthew

Plecnik. It states that "A series of pressure tests were performed by Tait Environmental Services Inc. to ensure the tightness of the tank and all ancillary equipment. These tests are conducted every 3 years using CA SB 989." The report also mentions that the electronic leak detection system which is manufactured by Veeder-Root and maintained by Tait Environmental Services is "tested every year." Finally, the concluding section of this report indicates a recommended UST re-inspection date of November 2, 2020. The text of the Part B application, namely Part VIII.E, Facility Inspection, and the table in Appendix VIII-1 titled "Inspection Frequencies," do not mention the inspection and testing referenced in the Underground Tank Certification report. It is not clear whether the facility has committed to a tank integrity testing assessment frequency for the future, annual leak detection testing, or triannual cathodic protection and tightness testing.

The Application and inspection schedule must be revised to include the frequency for the tank integrity and condition assessments, cathodic protection system and tank tightness testing, and leak detection system testing.

17. Inspection Log Format: Part VIII.E.2.b The Written Inspection Checklist. Pursuant to California Code of Regulations, title 22, section 66264.15(d) The owner or operator shall record inspections in an inspection log or summary.

Part VIII.E.2.b, titled "the written inspection checklist and schedule is kept at the facility" states "A written (or electronic) checklist and schedule...." The Application however, does not mention which situation triggers the use of paper versus electronic formats and how or where the electronic format will be reviewed and archived.

The Application must be revised to elaborate on the tools, software; format, frequency, and use of electronic inspection forms.

18. Introductory Training: Part IX.3 Content of training program. Part IX.A.3 of the Application provides the material covered in the initial training and the refresher training topics. This section does not clearly show with proper indentation and numbering what is included in the initial training versus the refresher training.

The Application must be revised to indent and number the section properly to clearly identify what is included in the initial training and the refresher training.

19. Annual Training: Part IX.B Continuing program outline. Pursuant to California Code of Regulations, title 22, Section 66264.16(c) requires "Facility personnel shall take part in an annual review of the initial training required in subsection (a) of this section". Section IX.B.1 states that "The Annual training for all employees is the Core Training and an 8-hour Health and Safety refresher course". The Application describes the training required in Section 66264.16 (a) to be part of the initial training and not the core training.

The Application must be revised to clearly demonstrate that the annual training provided is in compliance with 66264.16(c).

20. Core Training: Part IX Personnel Training Program. Section IX.B.1 Page 6 states "All employees receive the Core Training and 8 hours of Health and Safety training annually". Section IX.B.1 Page 9 for Material Handlers (Return/Fill) states "Annual refreshers include Core Training, which is approximately 8 hours of Health and Safety Training". Section IX.B.1 for the Service Representative states that Core Training topics are listed in Appendix IX-1. Appendix IX-1 includes a list of RCRA Training at Facility and the SPARK Course Agenda. It is unclear as to which of the topics shown in Appendix IX-1 are included as part of Core Training.

The Application must be revised to clearly identify what is included as part of the Core Training for the various job titles.

21. Material Handler: Part IX.B.1 Material Handlers (Return/Fill). Part IX.B.1 of the application for the Material Handlers (Return/Fill) states that "An example of the training requirements for the material handler is presented in Appendix IX-2, Page 10". This page could not be located in the Application.

The Application must be revised to include the training requirements for the material handler per the Application's statement.

22. Triennial Training: Part IX Personnel Training Program. Pursuant to California Code of Regulations, title 22, section 66264.14(a) "Facility personnel engaged in shipping hazardous waste shall be triennially trained with their responsibilities to meet the requirement in section 172.704 of Title 49, Code of Federal Regulations". The Application does not state that training for personnel shipping hazardous waste is required triennially.

The Application must be revised to include triennial training as required for facility personnel engaged in shipping of hazardous waste.

23. Closure Plan, Maximum Waste Inventory: Part XI.B Maximum Waste Inventory. Pursuant to California Code of Regulations, title 22, section 66264.112(b)(3) the closure plan must include "an estimate of the maximum inventory of hazardous wastes ever on-site over the active life of the facility."

Section XI.B lists the maximum waste inventory at the facility as 17,850 gallons however the sum of the gallons identified in Section XI.B parts a, b, and c does not equate to 17,850 gallons.

The Application must be revised to correct the discrepancy found in the Maximum Waste Inventory.

24. Closure Schedule: Part XI.C Schedule for closure. Pursuant to California Code of Regulations, title 22, section 66264.112(b)(6) "The schedule shall include, at a minimum, the total time required to close each hazardous waste management unit and the time required for intervening closure activities which allow tracking of the progress of partial and final closure".

Section XI.C does not include a schedule that identifies the total time required to close each hazardous waste management unit or the time required for the closure activities.

The Application must be revised to include a schedule that shows the total time required to close each hazardous waste management unit and the time required for the closure activities.

25. No Salvage Value for Closure of Tank, Drum Washers, or Concrete: Part XI.D.2 Unit Decontamination Procedures and XI.E Final Disposition of Waste Management Units. Pursuant to California Code of Regulations, title 22, section 66264.111 the facility must be closed in a manner that...complies with 22 CCR 66264.197 the Closure and Post-closure Care requirements for hazardous waste tanks. Pursuant to 22 CCR 66264.197(a) "At closure of a tank system, the owner or operator shall remove or decontaminate all waste residues, contaminated containment system components (liners, etc.), contaminated soils, and structures and equipment contaminated with waste, and manage them as hazardous waste..."

Part XI.D.2, Unit Decontamination Procedures, states "Safety-Kleen anticipates that the underground tank will be scrapped following removal" and "Alternatively, the drum washer unit(s) may be scrapped" and "Following decontamination, the metal containment pans will either be removed and scrapped;..." Part XI.E, Final Disposition of Waste Management Units" states "The tanks and all piping will be removed from the excavation, rendered un-useable and transported off site for recycling." It also says, "At final closure drum washers will be fully decontaminated as described above, and either reused at this or another Safety-Kleen facility or scrapped." Part XI.E, Final Disposition of Waste Management Units, states "The concrete may be stockpiled on plastic and covered pending disposal, or directly placed into trucks or roll-off bins and transported offsite for recycling or disposal."

The Application must be revised to clarify that the Closure Plan does not account for any scrap value. For purposes of closure cost estimating (and financial assurance), these wastes should be assumed to be disposed offsite as hazardous waste and associated disposal costs included in Appendix XI-1 Closure Cost Estimate.

26. Closure Plan, Cost Estimate for Disposal of Rinsate: Part XI.D.2, Unit Decontamination Procedures. Pursuant to 22 CCR 66264.197(a) "At closure of a tank system, the owner or operator shall remove or decontaminate all waste residues, contaminated containment system components (liners, etc.), contaminated soils, and structures and equipment contaminated with waste, and manage them as hazardous waste..."

Part XI.D.2, Unit Decontamination Procedures, with regards to decontamination of the tank states "The rinsate will be appropriately labeled and manifested offsite for treatment and/or disposal. Alternatively, the rinsate will be sampled and analyzed for waste characteristics and appropriately managed pending receipt of the analytical results." This is similar for the decontamination of the drum washer.

The Application must be revised to assume disposal at an offsite hazardous waste facility and associated disposal costs should be included in Appendix XI-1 Closure Cost Estimate.

27. Metal Secondary Containment Pan: Part XI.D.2 Unit Decontamination Procedures. In Part XI.D.2 Unit Decontamination Procedures for the Drum Washers, there is a reference to metal secondary containment pans beneath the dock structure of the return/fill area. The metal secondary containment pan does not exist as determined through a site visit on November 14, 2018.

The Application must be revised to accurately describe the secondary containment area.

28. Cost Estimate for Preparing Closure Report: Appendix XI-1 Closure Cost Estimate. Pursuant to California Code of Regulations, title 22, section 66264.142(a) "The owner or operator shall prepare and submit to the Department a detailed written estimate, in current dollars, of the cost of closing the facility in accordance with the requirements in sections 66264.111 through 66264.115..." Regulations in section 66264.115 describe the documentation needed for the closure certification.

Appendix XI-1, Closure Cost Estimate, Item 7 is titled "Closure Certification" and appears to include costs for the PE field oversight during the decommissioning of each unit. It is not clear whether the cost for preparing the written closure report as described in Part XI.H, Closure Certificate, is included in the closure cost estimate.

The closure cost estimate must be revised to clarify or include the cost for preparation of the written closure report described in Part XI.H and as required in applicable UST regulations.

29. Closure Plan, Closure Plan Amendment: Part XI.L Closure Plan Amendment. Pursuant to California Code of Regulations, title 22, section 66264.112(c)(3), the request for permit modification shall occur at least 60 days prior to the proposed change in facility design or operation. Part XI.L of the Application states that the request for modification of the Closure Plan shall be made within 60 days after the change in plans or design occurs.

The Application must be revised such that the request for modification of the Closure Plan occurs at least 60 days prior to the proposed change.

30. Liability Insurance Coverage Certificate: Part XII.C Liability Coverage Mechanism. Pursuant to California Code of Regulations, title 22, section 66264.147(a)(1) "An owner or operator may demonstrate the required liability coverage by having liability insurance as specified in this subsection."

Part XII.C Liability Coverage Mechanism states "Appendix XII-2 presents a copy of the Hazardous Waste Facility Liability Endorsements from the Greenwich Insurance Company of Connecticut for the year of this permit application." Appendix XII-2, Hazardous Waste

Facility Liability Certificate of Insurance is missing the Certificate of Liability issued by Greenwich Insurance.

The Application must be revised to include the omitted Certificate of Liability Insurance from Greenwich Insurance Company.

31. Waste Solvent Tank: Part X.A.1 Located, Designed, Constructed, Maintained, and Operated to Minimize Emergency Situations and Figure IV-2, Return and Fill Shelter Piping Schematic.

In most places in the application, such as in Part I.A.6, Description of Business Conducted, it states "The Safety-Kleen Los Angeles Branch operates two nominal 12,000-gallon USTs... One UST stores spent parts washer solution (petroleum or aqueous based solvents) received from the Return and Fill area. The other UST is used for storage of clean product." However, in Part X.A.1 Located, Designed, Constructed, Maintained, and Operated to Minimize Emergency Situations, it states "There are two underground storage tanks (USTs) at the facility used for storage of spent parts washer solvent (petroleum or aqueous-based)." In addition, Figure IV-2, Return and Fill Shelter Piping Schematic, shows both 12,000-gallon USTs and labels one "12,000 gal. Dbl. wall UST for Used Oil."

The Application must be revised to correctly reflect that only one UST contains spent parts washer solvent. Figure IV-2 must be corrected to identify the second UST as storing clean product.

Ms. Nahid Toossi
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ATTACHMENT A
ESPO COST ESTIMATE MEMORANDUM



Department of Toxic Substances Control



Matthew Rodriguez
Secretary for
Environmental Protection

Barbara A. Lee, Director
5796 Corporate Ave
Cypress, California 90260

Edmund G. Brown Jr.
Governor

FINANCIAL ASSURANCE COST ESTIMATE INITIAL FINDINGS MEMORANDUM

TO: Parisa Khosraviani
Project Manager
Permitting Division, Sacramento

William Veile, P.E.
Senior Hazardous Substances Engineer
Permitting Division, Sacramento

FROM: Christine P. Brown, P.E.
Hazardous Substances Engineer
Engineering Services, Cypress

REVIEWER: Perry Myers, P.E. *PM*
Senior Hazardous Substances Engineer
Engineering and Special Projects Office, Sacramento

SUBJECT: REVIEW OF THE CLOSURE PLAN AND FINANCIAL ASSURANCE
CLOSURE COST ESTIMATE FOR SAFETY KLEEN SYSTEMS, INC., 2918
WORTHEN AVE, LOS ANGELES, LOS ANGELES COUNTY, CALIFORNIA
(DTSC Site Code 300277)

DATE: December 4, 2018



Christine P. Brown
December 4, 2018

Document Reviewed

The result of this review is limited to the following documents, or sections thereof:

Closure Plan and Closure Cost Estimate, Hazardous Waste Storage Facility Permit Application (Permit Application), Safety Kleen Systems, Inc., Los Angeles, dated August 2018, prepared by Safety Kleen Systems, Inc.

COST ESTIMATE REVIEW FINDINGS

The Department of Toxic Substances Control (DTSC) Cost Estimating Work Group (CEWG) engineering staff reviewed the Closure Cost Estimate (CCE) for the Safety Kleen Los Angeles Facility in Los Angeles, Los Angeles County, California to determine if the estimated dollar amount is sufficient for compliance with the financial assurance requirements established for the site under California Code of Regulations, title 22, sections 66264.142 and 66264.144. Pursuant to these requirements the owner or operator shall prepare and submit to the Department a detailed written estimate, in current dollars, of the cost of closing the facility in accordance with the requirements established in the approved Closure and, if necessary, Post-Closure Plans. This memorandum provides the initial findings of our review.

PROJECT BACKGROUND

Safety Kleen Los Angeles operates an offsite hazardous waste storage facility that collects spent solvents from customers in the automotive repair, industrial maintenance, and dry-cleaning industries. Hazardous wastes stored at the facility include used parts washer solvents, spent immersion cleaner, dry cleaning wastes (perchloroethylene), paint waste and lacquer thinner, spent antifreeze, used oil, and transfer wastes. The hazardous waste management units include three container storage areas, a 12,000-gallon underground storage tank that stores spent parts washer solution (petroleum or aqueous-based solvents), and two drum washer units located in a return and fill station. The container storage areas are designated Unit 2 (area A) and Unit 3 (area B and designated portion of area C) in the March 17, 2009 Hazardous Waste Facility Permit. The secondary containment for Unit 2 is provided by two grated trenches. The secondary containment for Unit 3 is provided by two trenches and a perimeter berm with a height of four inches, and a ramp for forklift access to maintain the minimum perimeter height of four inches. The permitted capacities for Units 2 and 3 are 1,730 gallons and 3,810 gallons, respectively.

The scope of the work for the Closure Plan includes:

- Hazardous waste inventory removal and disposal – removal of waste from the 12,000-gallon underground storage tank, hazardous waste storage areas (areas A, B, and C, corresponding to Units 2 and 3 in the 2009 Hazardous Waste Facility Permit) and return/fill Station
- Decontamination of the underground storage tank, hazardous waste storage areas and return/fill Station
- Destruction and disposal of the tank and associated piping, disposal of the metal secondary containment pads beneath the dock structure in the return/fill station
- Disposal of rinsate from decontamination, and soil from soil cuttings and potentially contaminated soil from tank excavation
- Soil Vapor Sampling of site soils
- Preparation of Closure Certification Report

Based on my review of the above listed documents, I have concluded that the above-referenced document does not contain sufficient information for review of the Closure Cost Estimate. The deficiencies found in the Closure Cost Estimate documentation are listed below in this memorandum.

REVIEW OF CLOSURE PLAN

1. Section B, Item c: There is an error in the amount of drummed waste. The amount of waste should be 5,540 gallons.
2. Section D.2. Decontamination of drum washers. Please describe the "dock structure" mentioned in this section (title 22, section 66264.112(b)(4)).
3. Section D.2. Equipment decontamination. This section should describe the types of equipment that will be decontaminated (title 22, section 66264.112(b)(4)).
4. Section F. Soil Sampling at Closure. Tank. Second paragraph. If the excavated soil is to be used as backfill, Engineering Services recommends that samples be collected from this soil and analyzed for the constituents listed in Table X1-1, second row. Engineering Services also recommends that this laboratory analysis of excavated soils be included as a requirement in the Closure Plan (title 22, section 66264.112(b)(4)).
5. Section F. Background Samples. Engineering Services recommends that a map depicting the proposed location of background samples be provided in the Closure Plan (title 22, section 66264.112(b)(4)).

REVIEW OF CLOSURE COST ESTIMATE

6. Closure Cost Estimate. Engineering Services recognizes that the Closure Cost Estimate was prepared based on CostPro version 6.0. It is likely that labor and waste disposal costs have increased more than the approximately 1% inflation rate per year included in the estimate. For disposal and transportation of the hazardous waste inventory and rinsate, the Closure Cost Estimate should include costs based on recent vendor quotes. For labor and equipment, the rates should be based on the latest RS Means or equivalent rates (title 22, section 66264.142(a)).
7. Closure Cost Estimate. Section 2, Underground Storage Tank Decontamination and Removal. A vendor quote should be provided for excavation, disassembly and loading of the tank, backfill and grading, and asphalt paving. The costs listed in the Closure Cost Estimate are extremely low (title 22, section 66264.142(a)).

8. Closure Cost Estimate. Section 3, Decontaminate the return/fill station. Section titled Subcontractor Costs. Engineering Services presumes that the term "waste AST" refers to the drum washer units in the return/fill station. Please clarify. Costs for decontaminating the concrete underlying the return/fill station should be included in the Closure Cost Estimate (title 22, section 66264.142(a)).
9. Closure Cost Estimate. Provided that closure cost estimate costs are updated to reflect 2018 costs, a 10% contingency is adequate. (title 22, section 66264.142(a)).

The Cost Estimating Working Group (CEWG) review was based on the information available at the time the review was performed and does not constitute a guarantee of the accuracy of the assumptions used by the responsible party to develop their financial assurance cost estimate. The review of this financial assurance cost estimate is not intended to be all-inclusive as this review does not include a technical assessment and evaluation of the controlling document or the accuracy and reliability of data used to support the assumptions.

ATTACHMENT B
ESPO TECHNICAL MEMORANDUM



Jared Blumenfeld
Secretary for
Environmental Protection



Department of Toxic Substances Control

Meredith Williams, PhD
Acting Director
5796 Corporate Avenue
Cypress, California 90630



Gavin Newsom
Governor

MEMORANDUM



Christine P. Brown
January 30, 2019

TO: Parisa Khosraviani
Project Manager, Sacramento Office
Permitting Division

FROM: Christine P. Brown, P.E.
Hazardous Substances Engineer
Engineering Services, Cypress

REVIEWERS: Perry Myers, P.E. *PM*
Senior Hazardous Substances Engineer
Engineering and Special Projects Office, Sacramento

DOCUMENT HAZARDOUS WASTE STORAGE FACILITY PERMIT
APPLICATION, SAFETY KLEEN SYSTEMS, INC., 2918
WORTHEN AVE, LOS ANGELES, LOS ANGELES COUNTY,
CALIFORNIA (DTSC Site Code 300277)

DATE: January 30, 2019

DOCUMENTS REVIEWED

Hazardous Waste Storage Facility Permit Application (Permit Application), Safety Kleen Systems, Inc., Los Angeles, dated August 2018, prepared by Safety Kleen Systems, Inc., including Part IV, Facility Design, Appendix IV-1, Container Storage Areas Certification, Appendix IV-2, Waste Underground Tank Certification, Appendix IV-3, Assessment of the Installation of Underground Storage Tanks

INTRODUCTION

Per your request, Engineering Services has reviewed the above-referenced Hazardous Waste Facility Permit Application. If you have any questions, please contact me at Christine.Brown@dtsc.ca.gov or at 714-484-5382.

PROJECT BACKGROUND

Safety Kleen Los Angeles operates an offsite hazardous waste storage facility that collects spent solvents from customers in the automotive repair, industrial maintenance, and dry-cleaning industries. Hazardous wastes stored at the facility include used parts washer solvents, spent immersion cleaner, dry cleaning wastes (perchloroethylene), paint waste and lacquer thinner, spent antifreeze, used oil, and transfer wastes. The hazardous waste management units include three container storage areas, a 12,000-gallon underground storage tank that stores spent parts washer solution (petroleum or aqueous-based solvents), and two drum washer units located in a return and fill station. The container storage areas are designated Unit 2 (area A) and Unit 3 (area B and designated portion of area C) in the March 19, 2009 Hazardous Waste Facility Permit. The secondary containment for Unit 2 is provided by two grated trenches. The secondary containment for Unit 3 is provided by two trenches and a perimeter berm with a height of four inches and a ramp for forklift access to maintain the minimum perimeter height of four inches. The permitted capacities for Units 2 and 3 are 1,730 gallons and 3,810 gallons, respectively.

COMMENTS AND RECOMMENDATIONS ON SECTION 4A, CONTAINER STORAGE DESIGN

1. Section 4A(1) should describe the permitted storage capacity for the area A (Unit 2), area B and designated portion of area C (Unit 3) container storage areas (title 22, section 66270.14(b)(19)).
2. Section A(1)(c). The hazardous waste codes for all hazardous wastes stored in the container storage area should be listed here. The Waste Analysis Plan lists the following RCRA waste codes: D001, D004 through D011, D018, D039, and D040, and the following California Waste Codes: 133, 134, and 213 (title 22, sections 66264.172 and 66270.14(b)(19)).
3. Section A(5)(b)(1). The portion of the container storage area or areas storing ignitable waste should be designated on figure IV-1 or on a detailed figure of the container storage areas (title 22, section 66264.176 and 66270.14(b)(19)).

COMMENTS AND RECOMMENDATIONS ON REPORT TITLED "RCRA CONTAINER STORAGE AREA CERTIFICATIONS", APPENDIX IV-1 OF THE PERMIT APPLICATION

4. Section 2.0, Regulatory Review, title 22, section 66264.175(b)(1). The Report titled "RCRA Container Storage Area Certifications" provided as appendix IV-1 is dated June 18, 2008 (2008 Report) and is out-of-date. The 2008 Report stated that "In units A, B, and C, the epoxy coating had been worn away in some of the

high traffic areas...”, and that “An expansion joint and some localized cracks were noted in Area C.” These areas are denoted Unit 2 (Area A) and Unit 3 (Areas B and designated portion of area C) in the Hazardous Waste Facility Permit dated March 17, 2009. On a recent site visit conducted on November 14, 2018, DTSC staff observed that the concrete floors of Areas A, B and C do not have an epoxy coating. Engineering Services recommends that an epoxy coating be applied to the concrete surface of the container storage areas and the Permit Application include an up-to-date inspection report for areas A, B and C that documents the current condition of the secondary containment.

COMMENTS AND RECOMMENDATIONS ON SECTION 4B, TANKS USED FOR STORAGE OR TREATMENT

5. Return and Fill Station. This unit contains two drum washers and a drum washer basin, into which spent parts solvent is emptied. Engineering Services recommends that this unit be designated as a miscellaneous unit, separate from the underground storage tank. Revise the Permit Application to include the information required under 66270.23. Additionally, Engineering Services recommends that design calculations be provided in the Permit Application that demonstrate that the concrete slab beneath the drum washers has adequate strength to support the weight of drum washers full of liquid and their ancillary equipment. Engineering Services also recommends that calculations demonstrating that the anchoring system attaching the drum washers to the concrete framing is adequate to hold the drum washer(s) in place in the event of an earthquake be provided in the Permit Application. Because the drum washers hold liquids, information demonstrating that the secondary containment meets the requirements of title 22, 66264.175(b) and (c) should be provided. Calculations should be performed by a qualified civil engineer licensed in the state of California (title 22, section 66270.14(b)(19)).
6. Section 4B evaluates the spent parts washer solvent tank as an “existing tank”. According to title 22, section 66260.10, the tank is new because it contains RCRA waste and was installed after July 14, 1986. Please revise the section to document that the tank complies with the provisions of title 22, section 66264.192 for new tanks. Please remove all references to title 22, section 66264.191, since this section is not applicable for this tank.
7. Section 4B, subsection 1. This section states that a tank design drawing is included in Figures IV-2 to IV-4. No tank design drawing is included in these figures. Engineering Services recommends that a drawing of the tank be provided in the Permit Application, but reference to a drawing in the Waste Solvent Tank Report (Appendix IV-2) is acceptable.

8. Figure IV-2. This figure depicts a 12,000-gallon used oil tank. Engineering Services understands that this tank has been converted to a product storage tank. Please revise the figure.
9. Section 4B, subsection 2. This section states that the number, types, and location(s) of all tanks at the facility are described in section 1. Section 1 does not include this information. Section 2 should be revised to include the number of tanks included under the Permit Application and a reference to Figure IV-1 for tank location pursuant to title 22, section 66270.14(b)(1).
10. Section 4B, subsection 3(a)(7). The estimated age of the tank system installed in 1993 is listed as 30 years. This would indicate an end of life date in 2023. However, the tank assessment report (Appendix IV-2) states that, based on an inspection date of 11/2/2017, that the tank has a remaining life expectancy of approximately 25 years based on the observation of the interior surfaces, thickness testing and analysis, and the professional engineer's experience with similar tanks operating in similar environments. The Permit Application should be revised to be consistent with the tank assessment report (Appendix IV-2) (title 22, section 66264.192(l)(3)).
11. Section 4B, subsection 3(d). The cathodic protection system should be described here (title 22, section 66270.16(e)).
12. Section 4B, subsections 3(e), 3(i) and 12(k)(2). Subsection 3(e) should discuss how the tank meets the Class II requirements of the NFPA codes for storage of combustible and flammable liquids. For both subsections, the specific NFPA codes should be cited, as well as the appropriate California Fire Code Section. Section 12(k)(2) should provide a description of how the tank meets the NFPA-30 setback requirements. (title 22, section 66270.14(b)(19)) and 66264.198(b)).
13. Section 4B, subsection 3(f). This section states that the tank has an estimated life expectancy of 30 years. This is not consistent with the information provided in Appendix IV-2. Please see comment 10.
14. Section 4B, subsection 5(b). Instrumentation. This section should discuss the tank instrumentation, and should provide the specific citation of title 23, chapter 16. A process and instrumentation diagram should be provided in the Permit Application. Instrumentation is not discussed in Appendix IV-2 (title 22, section 66270.16(d)).
15. Section 4B, subsection 5(b). Liquid Level Monitoring. The location of the paper tape is not shown on Figure IV-1. This Section should refer to figure IV-2, and

the paper tape location should be depicted on this figure (title 22, section 66264.192(l)(6)).

16. Section 4B, subsection 9. The section numbering and indentation should be revised to be more readable. The current numbering and indentation do not allow for accurate reference to the subsections.
17. Section 4B, subsection 9(c). Integrity assessment for new tank systems, title 22 66264.192. This section is applicable because the spent parts washer storage tank is a new tank. See comment 6.
18. Section 4B, subsection 9, subsection titled "design or operating measures to protect underground portions of tank system against damage from vehicular traffic". A more detailed description of the compacted soil cover (thickness) and concrete slab (thickness, type of rebar) should be provided. The Waste Tank Report should provide calculations to demonstrate that the cover/slab system can withstand the load of the vehicular traffic to demonstrate compliance with title 22 section 66264.192(b)(4). Please see comment 38.
19. Section 4B, subsection 9, subsection titled "tank foundations will maintain load of full tank". Design calculations to demonstrate that the concrete slab beneath the drum washers will support the weight of drum washers full of liquid and their ancillary equipment, and sufficient secondary containment volume should be provided in the Waste Solvent Tank Report (Appendix IV-2).
20. Section 4B, subsection 9, subsection titled "tank system will be designed to prevent flotation or dislodgement (if located in saturated zone or a seismic fault zone)". This section states that "The tank is anchored with 1-inch galvanized anchor bolts with 10-inch thread and two nuts with four of these anchors located on each side of tank." It is unclear what the location and function of these anchor bolts are, since neither the tank assessment report titled "Waste Solvent Tank" included as Appendix IV-2 nor the 1993 Underground Storage Tanks Installation Report included as Appendix IV-3 mentions anchor bolts. This section should describe the anchoring described on page 3 of the Underground Storage Tanks Installation Report (title 22 section 66264.192(b)(5)(B)).
21. Section 4B, subsection 10, Tank system Installation. This section is applicable, because the tank is new. See comment 6 (title 22, sections 66264.192 c-h, and section 66270.16(e) and (f)).
22. Section 4B, subsection 11(b). This section mentions procedures for testing the tank in accordance with NFPA Pamphlet 329, "Recommended Practices for Handling Underground Leakage of Flammable and Combustible Liquids". These

procedures should be described in detail in the Permit Application, or the specific page and paragraph(s) of the 1993 Underground Storage Tanks Installation Report should be referenced (title 22, section 66270.14(b)(19)).

23. Section 4B, subsection 12(c). This section is applicable, because the tanks contain waste. This section should be revised to describe how the tank meets the requirements of title 22, section 66264.17. Please revise the text (title 22 sections 66264.17 and 66264.194).
24. Section 4B, subsections 13(b)(1) and 13(c)(2). These subsections mention the design of the secondary containment system (outer wall of a double walled tank) with respect to the ability to withstand pressure gradients. These design calculations are not included in Appendix IV-2 or Appendix IV-3. These calculations should be provided in the Waste Solvent Tank Report. Please see comment 36. (title 22, section 66264.193(c)(1)).
25. Section 4B, subsection 13(b)(2). This section states "The secondary containment system for the tank is constructed of fiberglass-coated steel designed for this type of service." Engineering services notes that the interior surface of the outer tank wall, which is the surface that would come in contact with the waste in the event of a leak, is not coated with fiberglass. This section should discuss the compatibility of the interior surface of the outer tank wall with the waste (title 22, section 66264.193(c)(1)).
26. Section 4B, subsection 13(b)(3). It is unclear what this section is referring to. Title 22, section 66264.193(c)(1) does not refer to physical contact of the tank with saturated soil or moisture.
27. Section 4B, subsection 13(b)(5). This section discusses protection of underground components (tank and associated piping) from vehicular traffic, yet no calculations were provided in either Appendix IV-2 or IV-3 that demonstrate that the soil cover/concrete slab are adequately designed to support vehicular traffic. These calculations should be provided in the Waste Solvent Tank Report. Please see comment 18. (title 22, section 66264.192(b)(4) and title 22, section 66264.193(c)(1)).
28. Section 4B, subsection 13(c)(1). This section should describe the foundation of the tank, which is provided by compacted backfill and concrete deadman, with straps anchoring the tank to the concrete deadman. Design calculations that demonstrate the tank system is anchored to prevent flotation or dislodgement should be provided in the Permit Application and tank assessment report. (title 22, section 66264.192(b)(5)).

29. Section 4B, subsection 13(c)(3). This section states that calculations are presented in Appendix IV-2 that indicate the foundation design provides satisfactory support, resistance to pressure gradients, and protection against settlement, compression, and uplift. No calculations to this effect are presented in Appendix IV-2. The Waste Solvent Tank Report should include these calculations. Please see comment 35 (title 22, section 66264.193(c)(2)).
30. Section 4B, subsection 13(f)(2). The waste that would be released to the secondary containment system is spent parts washer solvent, which is a RCRA waste. The waste should go to an appropriately permitted treatment, storage and disposal facility, not a recycling facility. The Permit Application should be revised to reflect proper disposition of the waste (title 22, section 66270.14(b)(19)).
31. Section 4B, subsection 13(h). No secondary containment calculations were provided for the return/fill station to document that the secondary containment has sufficient capacity to contain a spill. These calculations should be provided (title 22, section 66270.14(b)(19)). See comment 5.
32. Section 4B, subsection 13(m). This section should describe the location of the double-walled underground piping. (title 22, sections 66264.193(f) and 66270.16(g)).

COMMENTS AND RECOMMENDATIONS ON REPORT TITLED "WASTE SOLVENT TANK", APPENDIX IV-2 OF THE PERMIT APPLICATION

33. The Report is missing a structural assessment for the tank and a description of the design standards to which the tank ancillary equipment were constructed. The Report may wish to use information on tank design provided in the document titled "Design Assessment Proposed Used Solvent Storage Tank System, Los Angeles, California Branch" dated June 1992. (title 22, section 66264.192(a)(b)).
34. A piping and instrumentation diagram (P&ID) and a discussion of this diagram should be provided in the Report (title 22, section 66270.16(d)).
35. Secondary Containment Assessment. The Report is missing information on how the secondary containment (outer wall of a double walled tank) is designed, constructed and operated to meet the requirements of title 22, section 66264.192 sections (a), (b), (c), (d), (e) and (f). The Report should include calculations demonstrating that the tank system provides satisfactory support, resistance to pressure gradients, and protection against settlement, compression, and uplift. The Report preparer may wish to consult information on the tank design provided

in the document titled "Design Assessment Proposed Used Solvent Storage Tank System, Los Angeles, California Branch" dated June 1992.

36. **Material Storage.** This section should describe the hazardous characteristics of the aqueous-based solvent in addition to the petroleum-based solvent described. (title 22, section 66264.192(b)(2).
37. **Chemical Compatibility Findings.** This section should provide more detail. The Report should include information provided in Appendix C of the document titled "Design Assessment Proposed Used Solvent Storage Tank System, Los Angeles, California Branch" dated June 1992. (title 22, section 66264.192(b)).
38. **Concrete Foundation.** The Report should document the details of construction of the concrete slab and should provide design calculations demonstrating that the soil cover and concrete will support the weight of the truck traffic. Please see comment 18 (title 22, section 66264.192(b)(4) and 66264.193(c)(1)).
39. **Anchorage.** This section should describe the anchoring described on page 3 of the Underground Storage Tanks Installation Report (title 22, section 66264.192(b)(5)).
40. **Corrosion.** The cathodic protection system should be described here (title 22, section 66264.192(b)(3)).
41. The Report contains an Appendix A titled "Field Thickness Data" which contains tank wall thickness data. The Report should describe the ultrasonic instrument (make and model) used to perform the thickness testing, and the results of the calibration of the instrument. The Report should also provide the technician certification (most current). The tank inspector training should meet the following requirements:

API (American Petroleum Institute) Standard 653, Tank Inspection, Repair, Alteration and Reconstruction, Section 12, Examination and Testing, requires American Society of Non-Destructive Testing (ASNT) certified inspectors and specifies that the inspectors be certified per API Standard 650, section 8, and, in particular, section 8.3, which outlines the requirements for Ultrasonic Testing, including the ASNT certification.

A professional engineer licensed in the State of California (Civil, Chemical, Corrosion, or Mechanical, only for the internal thickness measurements) can provide the calibration data and the results of the ultrasonic evaluation requested above if they are ASNT certified, or if proper documentation of training equivalent to the requirements for ASNT certification in the use of the ultrasonic thickness

testing equipment is provided. An independent third-party testing certification of the calibration blocks used in the tank thickness testing, completed within the last two years, should also be provided.

42. Seismic Evaluation. This section needs more detail. Pursuant to title 22, section 66264.192(a), the Report should include a full seismic evaluation of the site to demonstrate that the tank system structural integrity, including piping connections, will not be compromised in the event of an earthquake. The seismic analysis should be based on the current/latest industry standards (2015 Uniform California Earthquake Rupture Forecast (UCERF 3) and NGA West 2 ground motion prediction models) and should include the effects of ground shaking, the potential for seismically-induced liquefaction and related effects such as lateral spreading, settlement/subsidence or uplift, the potential for seismically-induced slope instability, and the potential for tsunamis/seiche.
43. Seismic Evaluation. The Report did not provide an analysis of liquefaction as required per section 66264.192(a) AND (B). Because the facility is located in an area identified on the California Geological Survey on-line map as being within a liquefiable zone (<https://maps.conservation.ca.gov/cgs/EQZApp/app>), the tank may be subject to flotation in the event of an earthquake. According to ASCE 7-10, Chapter 20, section 20.3.1, the site should be classified as site class F because the soils are liquefiable. The liquefaction analysis should follow the provisions outlined in ASCE 7-10, section 11.8. The analysis should include an evaluation of the effect of soil liquefaction and consequent tank movement on the tank piping connections, and describe mitigation measures to prevent rupture of piping connections due to tank movement.

DISCLAIMER

The Engineering Services review was based solely on the information supplied by the DTSC Project Manager at the time the review was performed and does not constitute a guarantee of the completeness of the information or accuracy of the assumptions used by the project proponent.

Ms. Nahid Toossi
February 14, 2019
Page 13 of 14

ATTACHMENT C
GSU MEMORANDUM



Department of Toxic Substances Control

Matthew Rodriguez
Secretary for
Environmental Protection

Barbara A. Lee
Director
8800 Cal Center Drive
Sacramento, California 95826-3200

Edmund G. Brown Jr.
Governor

MEMORANDUM

TO: Parisa Khosraviani
Hazardous Substances Engineer
Permitting Division
Hazardous Waste Management Program

FROM: Matthew Farris, PG #8316
Engineering Geologist
Sacramento Geological Services Unit
Geological Services Branch
Site Mitigation and Restoration Program



REVIEWER: Stephen Sterling, PG #4572
Senior Engineering Geologist
Sacramento Geological Services Unit
Geological Services Branch
Site Mitigation and Restoration Program

DATE: December 3, 2018

SUBJECT: Part B Permit Application
Safety-Kleen (SK) Systems, Incorporated
Los Angeles, California
Project Number: 300277-78/24043/20053523

DOCUMENTS REVIEWED

Hazardous Waste Storage Facility Permit Application, Part B, Safety-Kleen Systems, Incorporated, Los Angeles, California, EPA ID# CAT000613935, prepared by Safety-Kleen Systems, Inc., dated August 2018

The Department of Toxic Substances Control (DTSC), Geological Services Unit (GSU) reviewed the above-referenced document and prepared the following comments. If you have any questions regarding this memorandum, please contact me at (916) 255-3704 or matthew.farris@dtsc.ca.gov.

SUMMARY OF REVIEW

GSU was asked to review Part XI (Closure Plan) of the Part B Hazardous Waste Storage Facility Permit to determine if the proposed closure plan activities and scope of sampling are sufficient to comply with closure requirements for hazardous waste management facilities outlined in Title 22 of the California Code of Regulations (CCR) sections §66264.110 through §66264.115 et seq.

GSU has reviewed the Closure Plan provided by Safety-Kleen Systems, Inc. and concludes the proposed sampling scope of work substantively addresses requirements for closure. However, several textural edits are necessary to comply with Title 22.

The following specific comments identify changes that should be included in the Closure Plan to address these deficiencies.

COMMENTS

1. Section H, First Paragraph. The following sentence beginning with: (i.e., rinsate samples verify that...), should be modified to include soil gas as well as soil samples as part of the evaluation to determine if appropriate closure criteria have been met.
1. Section H, Second Paragraph. The following sentence beginning with: (i.e., closure soil sample results are...), should be modified to include soil gas as well as soil samples as part of the evaluation to determine if appropriate closure criteria have been met.
2. Section L, Last Sentence. Currently, the Closure Plan states "The request for modification of the Closure Plan shall be made within 60 days *after* the change in plans or design occurs". Pursuant to §66264.112 (c)(3), the owner or operator shall submit a written request for a permit modification including a copy of the amended closure plan for approval at least 60 days *prior* to the proposed change in facility design or operation, or no later than 60 days after an *unexpected* event has occurred which has affected the closure plan. As such, the last sentence of Section L should be modified to more closely comply with permit modification requirements outlined in Title 22.

ATTACMENT D
ECL MEMORANDUM



Jared Blumenfeld
Secretary for
Environmental Protection



Department of Toxic Substances Control

Meredith Williams, Ph. D.
Acting Director
Environmental Chemistry Laboratory – Berkeley
700 Heinz Avenue, Suite 100
Berkeley, CA 94710



Gavin Newsom
Governor

DATE: January 29, 2019

TO: Parisa Khosraviani
Hazardous Waste Management Program
Permitting Division
Department of Toxic Substances Control, Sacramento

FROM: Carol Wortham
Quality Management Officer
Environmental Chemistry Laboratory, Berkeley

SUBJECT: Environmental Chemistry Laboratory (ECL) Review of Part III Waste Analysis Plan (WAP) and for the Safety-Kleen Hazardous Waste Storage Facility Permit Application, Safety-Kleen Systems, Inc. Los Angeles, California August 2018

In response to the October 9, 2018 Envirostor request, the Environmental Chemistry Laboratory (ECL) reviewed Part III Waste Analysis Plan (WAP) and for the Safety-Kleen Hazardous Waste Storage Facility Permit Application, Safety-Kleen Systems, Inc. Los Angeles, California August 2018.

General Comments

Review the training document to verify the training and qualifications of all staff involved with sampling, review of sample results, and decision making regarding the wastes identified in the WAP.

The WAP uses phrases that indicate an action is optional or that other unspecified methods may be used at the facility's discretion, without DTSC's knowledge of use or review of effectiveness. Review each place in the document where discretionary terms "typically", "may", "should", "can", etc. are used and clarify the text to ensure the intents of the section is achieved. Where options are warranted, state the intent followed by typical approaches to achieving it.

For example: "Depending on what characteristic is out of specification, the analytical testing **may** include Prequal or TCLP analysis for metals, volatiles, flash point, and pH." Identify the specification requirements for the characteristics then identify the options available when they are not met.

A. Waste Acceptance Procedures

First Paragraph

"Wastes that are found to be out of compliance with the established physical characteristics (color, smell, volume, etc.) will be further evaluated to determine applicability to the recycling program and to the expected manifest description."

Describe the recycling program along with the evaluation requirements necessary for a waste to be applicable for the program.

"Depending on what characteristic is out of specification, the analytical testing may include Prequal or TCLP analysis for metals, volatiles, flash point, and pH."

Explain what is meant by Prequal.

Second Paragraph

"Once a cause of the out-of-specification characteristic(s) has been identified, a determination is made as to whether the waste is materially the same as the originally anticipated core waste."

- 1) Describe the process for determining the cause of the out-of-specification characteristic(s).
- 2) Provide the criteria used to determine if the waste is materially the same as originally anticipated.

"However, if it is determined that the waste is contaminated with uncharacteristic material, the waste will need to be managed under the Containerized Waste Program (CWP), and will require a unique Material Waste Profile."

- 1) Describe the process for managing a waste under the Containerized Waste Program.
- 2) Describe the process for acquiring a unique Material Waste Profile.

Permitted Waste Streams:

"If the analytical resulted indicate that the solvent/cleaner has been altered then the customer may have Safety-Kleen manage the waste separately which may require it to be (for example) either incinerated or burned for energy recovery."

- 1) Provide the process and criteria used for evaluation of the waste for separate management.
- 2) Identify if Safety-Kleen is permitted to manage waste for incineration or energy recovery.

B. Waste Identification and General Information

5. Hazardous Properties of the Waste

a. Physical and chemical properties

2. "Aqueous (water) based solvents with various proprietary Arm & Hammer cleaning soap (surfactants);"

If this refers to the Armakleen (joint venture between Chruch & Dwight and Safety-Kleen) family of aqueous industrial parts cleaners, some of these products contain ingredients other than solvents and "soaps". Make sure the products to be received at the facility are accurately described when assessing physical, chemical, and hazardous waste properties of the resulting wastes.

"The mineral spirits pass this aquatic toxicity standard (96-hr fish bioassay), but fish do not like soap."

According to an Armakleen Safety Data Sheet (SDS), hydrotreated light petroleum distillates may fail the fish bioassay.

https://www.safety-kleen.com/File%20Library/msds/82341_rev-7-18.pdf

Review to determine if the statement needs revision.

b. Ignitability

"The virgin/recycled Safety-Kleen parts washer solvent (Petroleum- or aqueous based) is not ignitable due to a flash point more than 140°F."

Subsection B.8. indicates Qsol-220 and Qsol-300 as solvents received at the facility. The SDS for these products identifies them as a flammable liquid.

Parachlorobenzotrifluoride, identified as Qsol-220, has a flash point <140°F. Accurately describe the solvents received at the facility and their properties.

8. Process(es) Used for Handling the Waste

"Each package meets the testing requirements under 49 CFR 18 as it applies to each individual package (unless exempted from this requirement)."

- 1) Describe the process used to exempt a package from these requirements. Identify the criteria used.
- 2) Identify the records for these exemptions and how they will be managed and used.

9. Process Design Capacity and Units of Measure for Processes Used for Handling the Waste

First Paragraph

"When the tanks are approximately 85% full (or less) a tanker truck is dispatched to the Branch and the waste is removed from the tank for transport."

Describe how the sludge from the bottom of the tanks will be removed and managed.

"Parts Washer sludge from the drum washer will be placed in DOT-approved container and shipped as containerized waste."

Update the document to include the process of evaluating, labeling, and identifying this waste for proper shipment (example: sections C, D, E, F, H, K, appendix III-2)

C. Waste Analysis Parameters

1. The parameters for which the waste will be analyzed

Describe the procedure that will be followed to evaluate the laboratory data to determine if the detection and reporting limits meet the data quality objectives (DQOs) of the program. Refer to the DQO process in EPA 530-R-12-001 April 2015 Waste Analysis at Facilities that Generate, Treat, Store, and Dispose of Hazardous Wastes Section 2.3 Systematic Planning.

D. Waste Sampling and Sample Management

7. Statistically representative sampling technique

"Safety-Kleen employs an AR process that utilizes statistically representative sampling consistent with SW-846 and that was previously reviewed and approved by the Department's Hazardous Materials Laboratory (i.e., Dr. Bart Simmons, Ph. D.)."

Since ECL has not been referred to as the Hazardous Materials Laboratory for at least 9 years, and the permit is at least 10 years old, the representative sampling process needs to be reviewed again. It needs to be reviewed to any updates to SW-846 that have not been incorporated. Provide the representative sampling process for review.

E. Waste Analysis Procedures

- 1) Identify what a Paper Profile and/or Waste Material Profile includes and how it is created.
- 2) Explain how these profiles meet the needs of the program.
- 3) Provide the process for evaluating a Paper Profile or Waste Material Profile.
- 4) Provide the process for determining if the waste needs to be sampled or can be evaluated through a profile.
- 5) Identify the records created and used.

Third Paragraph

“Chemical analysis or a Paper Profile will be performed if the waste does not meet the Qualitative/Visual Analysis Criteria.”

Qsol 220 contains chlorinated solvents. Identify if the testing assesses the potential presence of chlorinated solvents and if not, why.

Fourth Paragraph

“As stated earlier, each customer is required to sign documents that assure the customer will inform Safety-Kleen of such changes.”

- 1) Provide the procedure to be followed if a customer does not comply with the document.
- 2) Provide the procedure and records Safety-Kleen uses to verify if the customer is complying with the document.

1. Qualitative/Visual Analysis

Fourth Paragraph

“A waste that fails acceptance criteria would likely be acceptable for the Safety-Kleen Industrial Solvents Program.”

- 1) Describe the Safety-Kleen Industrial Solvents Program.
- 2) Provide the criteria for determining if a waste is acceptable for the program.
- 3) Describes what happens to a waste that does not meet the criteria for the program.

Sixth Paragraph

“If either analysis reveals that the waste can be handled through Safety-Kleen’s containerized waste service, the customer can elect to have Safety-Kleen handle the waste through that program.”

- 1) Describe the containerized waste service program.
- 2) Provide the criteria for a waste to be acceptable for the containerized waste service program and how the evaluation is performed.

Seventh Paragraph

“For any waste that fails the Q/V Analysis or is determined to be contaminated based on laboratory analysis, the Safety-Kleen Branch will work with the generator to determine the source of the contamination and ensure that further waste will not be contaminated prior to accepting additional waste from the generator.”

- 1) Provide the procedure for determining the source of contamination.

- 2) Provide the procedure for ensuring that further waste will not be contaminated prior to acceptance.

2. Quantitative/Confirmation Analysis

Second paragraph

Explain how annual testing is sufficient for the program.

F. Conditions Requiring & Frequency of Repeated Sampling and Analysis

d. Additional Testing

Provide the process for determining if a container needs to undergo further testing.

G. Additional Requirements for Off-Site Facilities

1. The waste analyses that hazardous waste generators have agreed to supply

The title of this item suggests that the generators have agreed to supply analysis results. The document states that Safety-Kleen generally does not utilize these results supplied by the generators. Explain why these analyses results are required if they are not being utilized in determination of the waste.

3. Shipment Screening Procedures

d. Procedure for unacceptable shipments

Provide the procedure for determining if a waste contains constituents which render it unsuitable for recycling.

H. QA/QC Procedures

1. Goals of QA/QC

If the goal of the program is to ensure that analytical data is representative of the waste streams managed, explain why samples are only taken annually in the absence of control charts and quantitative criteria.

3. Acknowledgement that QA/QC procedures will be followed as described in specific test methods in SW-846

This section only discusses QA/QC procedures regarding field QC. The laboratory QC criteria for on-site and off-site laboratories is not addressed. The section does state that the facility will only use State of California Accredited Laboratories but they don't identify what processes will be performed if the laboratory's internal QA/QC criteria is not met. Explain how this will affect the characterization of the waste.

Provide the accuracy and precision criteria needed for decision-making.

Provide the procedure for evaluation of the laboratory data for decision-making purposes.

Provide the correction or corrective action procedures for QA/QC failures.

First Paragraph

It states that any blanks would be contaminated. Explain how you will ensure that samples are not contaminated and cross-contamination does not take place without monitoring using blanks.

Trip blanks provide information regarding volatile compounds in the area and the air that could transfer to other sample containers. If samples can be exposed, personnel can be exposed. Section D.2. does not state that personnel wear any type of respiration gear. Explain why analysis of trip blanks would be considered non-useful.

B. "The second type is when several samples do not conform to the waste history"

- 1) Provide the criteria used to determine if a change is valid and justified.
- 2) Identify the records created for this process.

4. Chain of Custody Procedures

a. Labeling and seals

Include the time the sample was taken on the label. Some method holding times are determined in hours instead of days and require the sample time to be identified.

9. For all facilities, describe methods to ensure that the waste analysis plan will kept up to date

Define what constitutes a waste analysis procedure failure that will require WAP update.

I. Waste Analysis Requirements Pertaining to Land Disposal Restrictions

1. Waste Characterization and 2. b. Notification and certification for wastes to be further managed

Explain how the different types of services mentioned in section H.3.E.A, the containerized waste service and the Industrial Solvents Program, fit within this standard.

J. Waste Analysis Requirements for Wastes to be Incinerated During Operation and Performance Test.

The facility states that they are not an incinerator facility yet in Section A. Waste Acceptance Procedure, the last sentence states that "the customer may have Safety-Kleen manage the waste separately which may require it to be (for example) either incinerated or burned for energy recovery." In several sections of the WAP, Safety-Kleen identifies an Industrial Solvents Program but does not provide details of the program. It is not clear if material is burned at the site. Clearly identify the

programs that are performed at this specific Safety-Kleen facility and programs performed at other facilities.

K. Ignitable, Reactive and Incompatible Wastes

2. Waste compatibility with containers

e. Procedures for Determining Compatibility to Wastes Previously Held in Reused Containers that were Not Decontaminated.

Provide the procedure followed if the drum was identified as having been contaminated by the customer.

Table III-2

Explain the purpose of the range information and how it will be used.

Verify the range specified for pH.

Explain why range information is not included for volatiles and metals.

Obtaining a Composite Sample (Only those branches that require a composite per permit)

Identify if the composite sampling is required for the facility identified in this permit.

Identify the criteria necessary to require composite sampling to be performed.

Appendix III-2

Sampling:

Provide the procedure followed by the samplers to determine if a facility requires a composite sample.

Volatiles in liquid have a holding time of 7 days from collection to TCLP extraction when they are not preserved with hydrochloric acid. Review and update as necessary.

If you have any questions, please do not hesitate to contact me.

Reviewed by



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