

Transmitted Via Email to HWPP@dep.state.fl.us and lauren.coleman@floridadep.gov

November 18, 2024

Ms. Lauren Coleman Hazardous Waste Permitting Florida Department of Environmental Protection 2600 Blair Stone Rd., MS #4560 Tallahassee, FL 32399

RE: **First Request for Additional Information (RAI)** Safety-Kleen Sanford EPA ID Number: FLD 982 133 159 Current Operating Permit: 009207-001-HO DEP Application Number: 00907-012-HO Leon County – Hazardous Waste

Ms. Coleman,

On October 2, 2024, Safety-Kleen Systems, Inc. (Safety-Kleen) received the first Request for Additional Information (RAI) from the Florida Department of Environmental Protection (FDEP). Please see below FDEP's comments followed by Safety-Kleen's responses.

1) On page 231 of the pdf, the tank inspection report indicates a failure for corrosion and coating. Please provide the details associated with these issues being fixed or provide a compliance schedule to remedy the corrosion and coating issues.

Safety-Kleen Response: The tank inspection report that was included in the Application was for the incorrect tank. Please see the attached tank inspection report for the hazardous waste tank. Please note that even though corrosion and coating issues are noted, the report was reviewed by the tank inspector, and the paint repairs were only recommended. The tank was determined to be in fair condition and fit for use in its current condition.

2) On page 282 of the pdf, the closure cost estimates are for 2023. Please provide updated closure costs for 2024.

Safety-Kleen Response: After reviewing Part II Section K, the cost estimate included the inflation factor of 1.036 for 2024. Page 8 of Part II Section K has been corrected to 2024.

3) On page 299 of the pdf, the solvent wash dumpsters should be added to the return and fill area description in the SWMU Number Description table as a solid waste management unit as they meet the criteria of 40 CFR 264.600.

Safety-Kleen Response: Please see the attached replacement page 299.

4) On page 146 of the pdf, please provide a site-specific Waste Analysis Plan in accordance with 40 CFR 270.14(b) and 264.13. The Department no longer accepts the Annual Recharacterization and it must be removed from the WAP.

Safety-Kleen Response: Please refer to the attached letter that Safety-Kleen sent to FDEP on 9-12-2023 with regards to the Safety-Kleen Orange Park First RAI Waste Analysis Plan response.

If you have any questions regarding the information submitted in this modification request, please contact me at 308-241-0889 or via email at zebre.jessica@cleanharbors.com or Todd Blake at 336-644-0332 or via email at todd.blake@safety-kleen.com.

Sincerely,

Jessica Zebre Sr. Environmental Compliance Manager Safety-Kleen Systems, Inc. This is to certify that I have reviewed/examined the information submitted with this Request for Information response.

Name of Professional Engineer: N.D. Eryou, P.E.

Registration No. 46888

Telephone: 516-449-5814

E-mail: dennis@eryouengineering.com

Mailing Address: 5051 Castello Drive, Suite 244

Naples FL 34103

NA

Signature

[PLEASE AFFIX SEAL]



This item is digitally signed and sealed by N. Dennis Eryou on the date adjacent to the seal

Printed copies of this document are not considered signed and sealed and the signature must be verfied on any electronic copies.



NOD 1



Safety-Kleen Systems

Tallahassee, FL

Internal Inspection

T-3

Inspection Date: 10/8/2024



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Tank Data						
Design Standard:	UL	Nominal Diameter:	12'			
Build Date:	1998	Nominal Length:	34'			
Manufactured By:	No Data Available	Material:	Steel			
Orientation:	Horizontal	Continuous Release Detection Method (CRDM):	Elevated			
Release Prevention Barrier:	Concrete	Spill Control:	Secondary Containment System			

SUMMARY

Conclusion:

As determined by the condition found during the inspection of Tank# 3, the tank appears to be in fair condition at the time of this inspection.

Recommendations:

- Clean, prep, and repair coating
- Monitor internal corrosion periodically.

Next External Inspection:
Next Internal Inspection:

9 years 20 years

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Corrosion Rate

Course	Previous Thickness (in.)	Current Thickness (in.)	Corrosion Rate (in./yr.)
1	0.250	0.243	0.0003
2	0.250	0.236	0.0006
3	0.250	0.236	0.0005
4	0.250	0.236	0.0005

*The above calculations are based on the average measured thickness and previous thickness. If there is no previous measured thickness, then an assumed thickness is utilized to establish a corrosion rate. The assumed thickness is based upon industry standard thickness for rolled plate steel. Remaining life could not be determined on courses where the current thickness is greater than or equal to the previous thickness.

*It should be noted that without established Condition Monitoring Location (CML) points, data collection locations may vary between inspections.

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EXTERNAL VISUAL INSPECTION							
Foundation General Condition							
Item	Acc Fin N/I N/A Comments						
Coating condition	\boxtimes						
Concrete condition	\boxtimes						
Containment / Dike walls	\boxtimes						
Elastomeric Liner				\boxtimes			
Site Drainage	\boxtimes						
Equipment Support			1	1	General Condition		
Item	Acc	Fin	N/I	N/A	Comments		
Coating		\boxtimes			Coating Failure		
Concrete Pad	\boxtimes						
Corrosion				\boxtimes			
Fireproofing				\boxtimes			
Outer Shell		-			General Condition		
Item	Acc	Fin	N/I	N/A	Comments		
Attachments	\boxtimes						
Bottom Projection Plate				\boxtimes			
Coating Condition		\boxtimes			Coating Failure		
Corrosion				\boxtimes			
Deformation				\boxtimes			
Insulation				\boxtimes			
Insulation Support Bands				\boxtimes			
Atmospheric Venting	\boxtimes						
Overfill Protection			\boxtimes				
Attached Piping	\boxtimes						
Repair(s)	\boxtimes						
Vegetation				\boxtimes			
Weather Jacket				\boxtimes			
Condition Monitoring Locations				\boxtimes			
Manways / Nozzles					General Condition		
Item	Acc Fin N/I N/A		N/A	Comments			
Bolting Condition	\boxtimes						
Coating Condition	\boxtimes						
Corrosion				\boxtimes			
Flange Condition	\boxtimes						
Reinforcement Pad Condition				\boxtimes			



EXTERNAL VISUAL INSPECTION CONTINUED							
Head/End	General Condition						
Items	Acc	Fin	N/I	N/A	Comments		
Coating Condition		\boxtimes			Coating Failure		
Corrosion				\boxtimes			
Insulation				\boxtimes			
Weather Jacket				\boxtimes			
Appurtenances		General Condition					
Items	Acc	Fin	N/I	N/A	Comments		
Anchors				\boxtimes			
Temperature Gauges, Sight Glass (damage)				\boxtimes			
Corrosion	\boxtimes						
Grounding Cable	\boxtimes						
Liquid Level Gauge	\boxtimes						
Data Plate				\boxtimes			



INTERNAL VISUAL INSPECTION							
Shell	General Condition						
ltem	Acc Fin N/I N/A Comments		Comments				
Cleanliness	\boxtimes						
Corrosion		\boxtimes			Scattered corrosion ranging from 0.100" – 0.125" in depth.		
Liner				\boxtimes			
Head/End					General Condition		
ltem	Acc	Fin	N/I	N/A	Comments		
Liner				\boxtimes			
Corrosion	\boxtimes						
Nozzles, Man Ways and Attachments	General Condition						
ltem	Acc	Fin	N/I	N/A	Comments		
Baffles				\boxtimes			
Corrosion	\boxtimes						
Down comer(s)	\boxtimes						
Internal coils				\boxtimes			
Level Float	\boxtimes						
Mixers, agitators				\boxtimes			
Thermowell(s)	\boxtimes						



Thickness Data:

	Тор	Bottom	East	West
First Course	0.243"	0.242"	0.241″	0.242″
	0.242″	0.242"	0.243″	0.242″
	0.245″	0.245"	0.245″	0.245″
Second Course	0.235″	0.232″	0.235″	0.235″
	0.238″	0.235″	0.236″	0.235″
	0.237″	0.235″	0.237″	0.237"
Third Course	0.237″	0.237″	0.236″	0.236″
	0.236″	0.237″	0.236″	0.236″
	0.237"	0.235″	0.237"	0.236″
Fourth Course	0.237″	0.236″	0.235″	0.235″
	0.236″	0.235"	0.236″	0.235″
	0.238″	0.235"	0.238″	0.237″
	Course 1		Course 2	
	Minimum	0.241"	Minimum	0.232″
	Average	0.243"	Average	0.236″
	Maximum	0.245″	Maximum	0.238″
	Standard Deviation	0.002″	Standard Deviation	0.002″
	Course 3		Course 4	
	Minimum	0.235″	Minimum	0.235″
	Average	0.236"	Average	0.236″
	Maximum	0.237"	Maximum	0.238″
	Standard Deviation	0.001"	Standard Deviation	0.001"
	Тор	Bottom	East	West
North Head	0.296″	0.294"	0.295″	0.293″
South Head	0.291″	0.294"	0.294″	0.293″
	0	180		
Manway	0.224″	0.227″		
-				



















Inspection Certification Certificate

Michael J. Bradshaw (Certified Inspector) has performed an In-Service Inspection of Tank# 3. The tank is located at the Safety-Kleen Systems facility in Tallahassee, FL. As determined by the condition found during the inspection of Tank# 3, the tank appears to be in fair condition at the time of this inspection. Facility personnel should perform periodic inspections in accordance with the applicable code.

The services performed, documentation of inspection, identification of deterioration, and the generation of a report was performed within the generally accepted principles and practices of API 653 and/or STI/SPFA SP001, Clean Harbors' Written Practice and Inspection procedures.

Jake Bradshaw

Michael J. Bradshaw STI SP001# AST-7308



WARRANTY

Clean Harbors Inspection Services, USA. ("Company") has performed inspection services on equipment designated by Safety-Kleen Systems (owner/operator) and has evaluated its condition based on observations and measurements made by Company's inspectors. While our evaluation accurately describes the condition of the equipment at the time of owner/operator independently assess inspection, the must the inspection information/report provided by Company and any conclusions reached by owner/operator and any action taken or omitted to be taken are the sole responsibility of the owner/operator. With respect to inspection and testing, Company warrants only that the services have been performed in accordance with accepted industry practice. If any such services fail to meet the foregoing warranty, Company shall re-perform the service to the same extent and on the same conditions as the original service.

Company makes no warranty, express or implied, regarding goods or services provided by Company other than those warranties set forth herein. The preceding paragraph sets forth the exclusive remedy for claims based on failure or of defect in materials or services, whether such claim is made in contract or tort (including negligence) and however instituted, and, upon expiration of the warranty period, all such liability shall terminate. The foregoing warranty is exclusive and in lieu of all other warranties, whether written, oral, implied or statutory. NO IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE SHALL APPLY, nor shall Company be liable for any loss or damage whatsoever by reason of its failure to discover, report, repair or modify latent defects or defects inherent in the design of any equipment inspected. In no event, whether a result of breach of contract, warranty or tort (including n e gligence) shall Company b e liable for any consequential or incidental damages including, but not limited to, loss of profit or revenues, loss of use of equipment tested or services by Company or any associated damage to facilities, down-time costs or claims of other damages.



NOD 2

CLOSURE COST ESTIMATE

The cost for closure of the facility is estimated in the CCE worksheets and summarized as follows:

•	Inventory Removal	\$41,896
•	Storage Tank Decontamination	\$12,395
•	Decontaminate the Return/Fill Station	\$10,702
•	Decontaminate Container Storage Area	\$12,105
•	Containerize, Stage, Transport and Dispose of Decon Wastes	\$17,717
•	Closure Certification Report	\$12,354
	Subtotal	\$107,169
	2024 Total CCE with Inflation	\$148,020
	15% contingency	\$22,202
	2024 Total CCR with Inflation and Contingency	\$170,222

NOD 3

SWMU NUMBER	DESCRIPTION
1	Container Storage Area Inside Service Center
2	Permitted Tank Storage Unit (Secondary
	Containment)
3	Used Antifreeze Storage Tank
4	RCRA-Permitted Hazardous Waste Tank
	(Used Solvent) (Inside SWMU-2)
5	Non-Hazardous Vacuum Waste Tanker
6	Transfer Waste Storage Area
7	Mercury lamp/devices & Battery Storage
	Area
8	Used Oil Filter Storage Area (Inside SWMU-
	1)
9	Return/Fill Area (Includes Wet Dumpster)
10	Satellite Container Area (Inside SWMU-9)
11	Used Oil Tanks (Inside SWMU-2)
12	Solid Waste Dumpster
13	Loading/Unloading Areas
13A	Warehouse Dock
13B	Return/Fill Dock
13C	Permitted Tank Storage Unit Area

NOD 4



September 12, 2023

Ms. Lauren Coleman Professional Geologist II Hazardous Waste Program & Permitting Florida Department of Environmental Protection 2600 Blair Stone Rd., MS #4560 Tallahassee, FL 32399-2400

RE: First Request for Additional Information (RAI) Safety-Kleen Orange Park EPA ID Number: FLD 980 847 214 Current Operating Permit: 77130-010-HO DEP Application Number: 77130-011-HO HWPP@dep.state.fl.us

Clay County – Hazardous Waste

Dear Ms. Coleman:

Safety-Kleen Systems, Inc. (SK) has prepared this letter in response to the Department's first request for additional information (RAI) letter from the Department, dated July 17, 2023. This purpose of this letter is to respond to Specific Comments on the Operating Application Renewal, #35 Waste Analysis Plan.

FDEP Specific Comment #35, Waste Analysis Plan

- a. The Department no longer accepts the Annual Recharacterization and it must be removed from the WAP. Safety-Kleen is to develop a site-specific WAP for its Orange Park branch. The Department recommends use of EPA's *Waste Analysis at facilities that Generate, Treat, Store, and Dispose of Hazardous Waste-Final* April 2015 (EPA 530-R-12-001).
- b. Ensure that your WAP uses FDEP SOPs, where appropriate such as FS 1000 General Sampling Procedures, FS 5000 Waste Sampling, etc.
- c. Ensure that the WAP meets the requirements of Chapter 62-160, F.A.C. (Quality Assurance)
- d. The use of EPA SW-846 Methods is recommended.
- e. Page 3: Identify the methodology for selecting laboratory methods used for characterizing wastes that fail the qualitative/visual analysis at the generator's location. Identify the suite of laboratory methods that could be used to characterize the wastes.
- f. Page 3, The last bullet states that "...immersion cleaner waste containers are not opened and inspected at the branch." This appears to be inconsistent with earlier paragraphs stating that the qualitative/visual analysis is performed on the immersion cleaner. The Part B should be clarified (if this is the case), that containers are only opened at the generator location and if acceptable, based upon the qualitative/visual analysis, are transported to the Branch where containers are not opened.

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- g. Page 3: Identify the methodology for selecting laboratory methods used for characterizing wastes that are received by the Branch that contain questionable contents. Identify the suite of laboratory methods that could be used to characterize the wastes.
- h. Page 5 [139/298], last paragraph: Because the 40 CFR 264 Subparts AA/BB/CC air emissions standards are typically referenced together for TSDFs and LQGs, please include a description regarding the determination that the facility isn't subject to Subpart AA requirements.
- i. Page 6, bulleted wastestreams: The Department believes that the "Used parts washer solvent" is the "Spent Parts Washer Solvent." However, is the "Aqueous Parts Washer Solvent" the same as the "Aqueous Brake Cleaner"? Please clarify.
- j. Page 7, last paragraph: This paragraph states that "The only permitted hazardous waste containers opened at the facility are the used parts washer solvent wastes, which are eventually consolidated into the RCRA-Permitted Hazardous Waste Tank..." However, page 2 of the WAP states that parts washer and immersion cleaners are subject to the qualitative/visual analysis that requires opening the containers. Again, it is possible that the immersion cleaners are only opened at the generator location and if accepted, not opened at the Branch.
- k. Page 8 [142/298]: Paragraph 3 states "The drum washer sediment generated at the facility is containerized and shipped offsite for reclamation." However, in Part II, A.5, page 15 [87/298], the Branch Generated Liquids/Solids/Dumpster Sediment section states that these materials to a permitted Safety-Kleen/Clean Harbors TSDF or other permitted facility for *disposal*. The Department believes that because this wastestream has little intrinsic value, this wastestream would not be suitable for reclamation and should be disposed. Please reconcile the differences.
- I. Page 8: 270.14(a), 264.13(a)(1), 268.1, 268.7, 268.9, 268.32-37, 268.41-43 Waste Analysis: Explain the process for determining Underlying Hazardous Constituents.

Safety-Kleen Response

- a. While a section of the facility's WAP references a national waste analysis statistical study, the WAP and its contents and conditions are specific to the Orange Park facility. The Annual Recharacterization (AR) process has been designed and continues to be executed in full compliance with the regulatory requirements of 40 CFR 261.10 and 40 CFR 264.13. In addition, this program has been in place for 30+ years and repeatedly approved by regulatory agencies in 47 states, including Florida. The Waste Analysis Plan (WAP) does not solely rely on the AR program. Rather, the WAP uses a multitiered process based on qualitative and quantitative analysis, statistical analysis, and generator waste characterizations. Safety-Kleen has a robust process for ensuring permitted waste meet our acceptance criteria including, but not limited to the following:
 - 1. Evaluating the customer's needs and applications to place the appropriate equipment, products, and service terms;
 - 2. Informing the customer to properly use the parts cleaning equipment and solvents following the operation manual;
 - 3. Informing the customer that they must not introduce any hazardous waste or substances to parts cleaning equipment, except through incidental normal use of the machine, and that

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they may not clean parts that have been contaminated with PCBs, herbicides, pesticides, dioxins, or listed hazardous waste;

- 4. Labeling Safety-Kleen Equipment with safety and operating requirements;
- 5. Conducting a qualitative (color/volume/appearance/odor) inspection of the waste at the customer/generator location (qualitative visual analysis);
- 6. Documenting the results of the visual inspection/qualitative analysis at each service;
- 7. Completing additional (quantitative) analysis when a waste does not meet the qualitative inspection criteria or Safety-Kleen is notified of a change in process or constituents;
- 8. Requiring customers/generators to review and certify the waste is properly classified at each service;
- 9. Utilizing a companywide Annual Recharacterization Program.

Per 40 CFR 262.11, it is the generator's responsibility to complete their own accurate waste determination. Safety-Kleen cannot and does not take on that responsibility for generators. In accordance with 40 CFR 261.10(a)(2), Safety-Kleen customers may use generator knowledge, analysis, or a combination of the two to make a hazardous waste determination. Safety-Kleen's AR program provides the generator with information about the typical characteristics of standardized waste streams generated from like processes. Customers/generators may then use the AR program data in conjunction with their own "generator knowledge" and/or analysis to assign the proper RCRA waste codes, if applicable, as part of their required waste determination. If a generator has knowledge of any hazardous waste or substance being added to a permitted waste stream, additional waste codes that apply, or waste codes applied in error, they are required to notify Safety-Kleen so the applicable changes can be made to ensure the waste shipment is documented and managed properly. In these instances, a customer specific profile is completed noting the specific waste generation process and waste codes applicable to the waste. At the time of service, each generator must certify that the profile used for a service is an accurate characterization of their waste or notify Safety-Kleen of any non-conformances and changes needed. Safety-Kleen maintains records of the generator certifications and all site-specific profiles created as part of the facility operating records.

Safety-Kleen has been in compliance with 40 CFR 264.13(a)(1) since the AR program was developed over 30 years ago, and we are still in compliance with the regulation today.

40 CFR 264.13(a)(2) states: "The analysis may include data developed under parts 261 of this chapter, and existing published or documented data on the hazardous waste or on hazardous waste generated from similar processes".

[1: For example, the facility's records of analyses performed on the waste before the effective date of these regulations, or studies conducted on hazardous waste generated from processes similar to that which generated the waste to be managed at the facility, may be included in the data base required to comply with paragraph (a)(1) of this section. The owner or operator of an off-site facility may arrange for the generator of the hazardous waste to supply part of the information required by paragraph (a)(1) of this section, except as otherwise specified in 40 CFR

268.7(b) and (c). If the generator does not supply the information, and the owner or operator chooses to accept a hazardous waste, the owner or operator is responsible for obtaining the information required to comply with this section.]

Numerous AR samples are pulled from separate Safety-Kleen facilities, including two Florida branches, across the U.S. to provide a representative sampling of different regions within the country. The AR data is only applicable to customers that generate "core" waste streams. There are three main criteria that define a "core" waste stream: 1) the waste must originate from an identical (or nearly identical) product supplied by Safety-Kleen or 3rd party sources, 2) the process that generates the waste is uniform/similar regardless of the industry or customer segment type, and 3) no other hazardous waste has been mixed with the waste stream and there is no contact with PCBs, herbicides, pesticides, dioxins, or listed hazardous waste (with the exception of dry-cleaning waste using PERC solvent). Evaluating numerous samples of the same waste stream at different locations throughout the country provides the best opportunity for a comprehensive and representative analysis of each waste stream. Statistics tell us a larger sample size increases precision because it provides more data and information. As sample size increases the precision increases. Limiting the sampling to one location would decrease the precision of the study and would result in a less accurate analysis of the core waste streams.

To ensure that the analysis is accurate and up to date, each core waste stream is sampled and analyzed on an annual basis, in accordance with the requirements of 40 CFR 264.13(a)(3). Each sample is collected in accordance with the methods listed in Chapter 9 of the SW-846 Compendium. As summarized in Table 2 below, each sample is analyzed for the characteristics of hazardous waste using an EPA approved test method. The sampling method, parameters and test methods utilized are in accordance with the requirements of 40 CFR 264.13(b).

Parameters	SW-846 Test Method
TCLP Metals	EPA 6020B – Metals (ICP) – TCLP
TCLP Mercury	7471B
TCLP Volatiles	Method: 8260C – Volatile Organics (GC/MS) -
	TCLP
TCLP Semi Volatiles	EPA 8270D LL
TCLP Herbicides	EPA 8151A
Flash Point	1010A
рН	EPA 9045D
Specific Gravity	ASTM D5057-90

Table 2

Each year the analytical data is evaluated using a statistical method designed by Dr. Robert Gibbons (Professor of Statistical Application at the University of Chicago). This statistical analysis program has been used since 1990. It is extensive in scope and surpasses the minimum confidence level identified by the methodology. The purpose of this annual study is to determine which waste codes should appear

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on the profile based on laboratory analytical results. There is always a minimum of 35 samples for each core waste stream and always includes the data from the three previous years to ensure the characteristics of the waste are fully evaluated. In addition, Safety-Kleen maintains historical records from thousands of samples going back for decades allowing us to observe trends in data and the ability to evaluate if additional testing and or parameters or reduced testing or parameters is warranted. Analysis shows that there is uniformity among the core waste streams with little to no variance year over year. Table 1 below is an example of the consistency of the federal waste codes for our waste parts washer solvent (petroleum naptha) that resulted from year over year analytical sampling. In addition, when there is a need to add or remove a waste code, our AR program has been successful in capturing those changes.

Historical AR for Petroleum Naptha Parts Washer Solvent - Bulk											
Year		Federal Waste Codes									
2023	D001	D018	D039	D040							
2022	D001	D018	D039	D040							
2021	D001	D018	D039	D040							
2020	D001	D018	D039	D040							
2019	D001	D018	D039	D040							

Table 1

Once the statistical evaluation is complete, a profile reflecting the results is prepared. The profile documents the waste characteristics by providing a description of the process generating the waste, the chemical composition, and the physical attributes of the waste. Each Safety-Kleen customer (generator) can use this AR profile in conjunction with their own waste characterization determination. Some generators add or change waste codes and others make the determination that Safety-Kleen's AR results are representative of their waste. In addition, at the time of service each generator provides written certification that the information on the profile is an accurate characterization of their waste.

In accordance with 40 CFR 265.13(4), Safety-Kleen service representatives perform qualitative visual conformance analysis at the customer location. The volume of waste present is compared to the volume that was originally delivered to the customer. The color and odor of the waste is evaluated. If the waste does not pass the qualitative analysis, additional analysis is required. This process is referenced in the WAP presented to the Department in the permit renewal application, though it may be helpful if revisions are made to address more specific actions to be taken when waste fails the qualitative acceptance criteria.

The rationale for Safety-Kleen's AR was originally laid out in U.S. SW-846 (1986). As stated by U.S. EPA "The upper limit of the CI for u 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 chemical contaminant of concern is not considered to be present in the waste at a hazardous level if the Ms. Lauren Coleman September 12, 2023 Page **6** of **8**

upper limit of the Cl is less that the applicable RT. Otherwise the opposite conclusion is reached (U.S. EPA SW-846 (1986) chapter 9, page 3). More recently there is continued support for the nonparametric confidence intervals that we have used here in the U.S. EPA Unified Statistical Guidance Document (2009) see section 21.2. As noted in the Unified Guidance, "The advantage of a nonparametric interval around the median is its greater flexibility to define confidence intervals on non-normal data sets." Finally, even more recent support for the use of the upper confidence limit approach can be found in the 2015 U.S. EPA Guidance Manual "Waste Analysis at Facilities that Generate, Treat, Store, and Dispose of Hazardous Wastes – Final Guidance Manual," (TSDF WAP) in section 2.7 entitled "Quantifying Data Uncertainty." The guidance illustrates the problem with comparing individual measurements to a regulatory standard and instead recommends the use of the upper confidence limit (UCL) for the "true" concentration instead.

"For example, suppose you analyze a waste for organic halogens to determine if it is a candidate for a particular waste management method that you have tentatively selected. In addition, suppose this method can be used only if the waste contains an organic halogen concentration below 500 ppm. The decision you need to make is whether to manage the waste using this method and this is dependent on the organic halogen concentration.

At first glance, it would make sense to use 500 ppm as your action level. An action level is simply a value that causes the decision maker to choose between different alternatives. That is, you would decide to use the management method if the organic halogen result is less than 500 ppm but would not if the result is 500 ppm or greater. The problem with this approach is that you rarely have complete confidence that your analytical data are correct due to the non-homogeneity of most wastes and slight differences in how you handle, sample, and analyze the waste. Even when your analytical result is lower than an action level, the uncertainty may result in some possibility that the true concentration in the waste is actually higher than the action level, especially if the analytical result is nearing the action level. This will vary by situation and may need to be determined by considering the consequences of making a wrong decision (e.g., determine a waste is not hazardous when it is hazardous). ...

Due to the significance of the consequences, you will likely want to minimize uncertainty that the true mean organic halogen concentration is greater than 500 ppm to justify a decision to use the management method even when the analytical results are less than 500 ppm. This may be accomplished by establishing a confidence level for the mean. A confidence level indicates the degree of certainty in the data in terms of a percent.

For example, date meeting a 90% confidence level can be interpreted that it is 90% certain (10% uncertain) that the true organic halogen concentration is below 500 ppm.

To apply a specific confidence level to your data, you need to determine confidence limits statistically. If you do not have normally distributed results, you may still determine confidence limits for your data, but you will need to use a different statistical method." Ms. Lauren Coleman September 12, 2023 Page **7** of **8**

The annual statistical waste characterization plan prepared by Dr. Gibbons for Safety-Kleen is based on a fully nonparametric approach to computing the 90% upper confidence limit for the 50th percentile of the distribution of analytic measurements. The rationale for the nonparametric approach was based on the non-normality of the distribution of analytic measurements observed at that time and even more importantly, the large proportion of measurements that did not detect the analyte in the sample; so called "non-detects".

The Safety-Kleen Annual Waste Recharacterization Program includes the presence of large numbers of non-detects, which raises serious questions regarding the use of the parametric approach. In light of this concern, nonparametric methods are used throughout this analysis. Again, as stated by U.S. EPA, "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).

Specifically, following U.S. EPA SW-846, the Unified Statistical Guidance Document, and the TSDF WAP, Safety-Kleen constructs a nonparametric 90% UCL for the 50th 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.

In summary, the Safety-Kleen Orange Park WAP was developed explicitly following the U.S. EPA guidance referenced above and fully complies with the requirements within 40 CFR 261.10 and 264.13 and EPA's *Waste Analysis at facilities that Generate, Treat, Store, and Dispose of Hazardous Waste-Final* April 2015 (EPA 530-R-12-001).

- b. The revised WAP will reference FDEP SOP's where appropriate.
- c. The revised WAP will meet the requirements of Chapter 62-160, F.A.C. (Quality Assurance).
- d. The WAP currently uses EPA SW-846 Methods.
- e. This section will be revised to identify the methodology for selecting laboratory methods used for characterizing wastes that fail the qualitative/visual analysis at the generator's location as well as outlining laboratory methods.
- f. Page 3, last bullet stating that immersion cleaner waste containers are not opened at the branch is correct. In an earlier paragraph, on page #2, the WAP refers to qualitative/visual analysis being performed on the immersion cleaner by Safety-Kleen representatives at the time of waste pick up and machine service. Safety-Kleen will make this point clear in a revised WAP.
- g. Again, this section will be revised to identify the methodology for selecting laboratory methods used for characterizing wastes received by the branch that contain questionable contents, and identify the suite of laboratory methods that could be used to characterize the waste.
- h. 40 CFR Part 264, Subpart AA applies to process vents associated with distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operations that manage

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> hazardous wastes with organic concentrations of at least 10 ppmw...... The Safety-Kleen Orange Park, FL facility does not perform any of these operations.

- i. Used parts washer solvent and spent parts washer solvent are one in the same. Aqueous Parts Washer Solvent & Aqueous Brake Cleaner waste streams are generated by machines that use an aqueous solution to clean parts. This aqueous based cleaner concentrate is mixed with water for use in the aqueous brake cleaner & aqueous parts washers.
- J. The only permitted hazardous waste containers opened at the branch are used parts washer solvent wastes. Immersion cleaner containers are not opened at the branch but are subject to qualitative/visual analysis by service personnel at the generator's location.
- k. The drum washer sediment generated at the facility is sent for disposal. This item will be reconciled in a revised WAP.
- The process for determining Underlying Hazardous Constituents (UHCs) is to find the average value of each parameter for each waste stream. These averages are then compared with the values listed in 40 CFR 268.40 (Table: "Treatment standards for hazardous waste", nonwastewater values). If the values exceed the treatment standards, they are then assigned as UHCs.

Safety-Kleen appreciates the Department's time and consideration of these response comments. Safety-Kleen will revise the WAP previously submitted to address items b. through I. as referenced above.

If there are questions or clarification needed regarding this response letter, or if you would like to meet in person or have a call to discuss further please contact me at (561) 523-4719 or via e-mail.

Sincerely,

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