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October 20, 2017

Ms. Lisa Graczyk
Environmental Protection Agency
RCRA/TSCA Programs Section
LR-8J
77 West Jackson Blvd
Chicago, IL 60604-3590

RE: Response to EPA's August 20, 2017 Comments on the 2017 Closure Plan and Closure Cost Estimate

Dear Ms. Graczyk:

Enclosed are the modified Closure Plan and Closure Cost Estimate. Also attached is a response to the comments and reference to the changes made in the 2 documents.

If you have addition questions or need clarification, please contact me at dzawodni@safety-kleen.com or 219-391-6127.

Respectfully,

Dennis M. Zawodni
Sr. Compliance Manager

Safety-Kleen Systems, Inc.
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80% PCW

EPA Comments on the Safety-Kleen Systems, Inc. 2017 Revised Closure Plan and Closure Cost Estimate for the East Chicago Facility

The following comments are based on the review of Safety-Kleen Systems, Inc. (Safety-Kleen) 2017 Closure Plan and Closure Cost Estimate for the renewal of the 1998 Polychlorinated Biphenyl (PCB) Approval for Alternative Treatment of PCBs and PCB Storage. The comments below describe in detail what is missing or deficient in the 2017 Revised Closure Plan and Closure Cost Estimate for the Safety-Kleen East Chicago facility.

1. Section 3.2, Maximum Inventory of PCB Waste. The maximum inventory of PCB waste is 460,375 gallons due to the addition of the three intermediate tanks. Please revise this number.

   The maximum gallons cannot be 460,375 gallons. The three additional storage tanks are for storing the VFS material produced from the 376,600 gallons in the storage tanks. VFS represents approximately 4% of the oil in the Used Oil Tanks. The most that would be on-site would be if all 14 used oil tanks were full and processing had not begun.

2. Section 4.1, Closure Schedule. This section says "Within ninety (90) days after the facility submits the written notice of intended closure, if any PCB used oil is in storage, it will be processed in compliance with the Approvals." 40 Code of Federal Regulations (CPR) 761.65(e)(6)(iii) states that the facility must dispose of the PCB waste with 90 days of receiving the last quantity of PCB waste and not 90 days from the notification. Please revise this accordingly.

   Revised to: Within 90 days after receiving the final quantity of PCB waste for storage, it will be processed in compliance with the Approvals.

3. Section 4.2, Inventory Removal. This section states that bulk PCB wastes in inventory will be disposed of through the hydrotreater. This is acceptable if Safety-Kleen's hydrotreater is in operation at the time of closure. However, should some unforeseen circumstance occur at the time of closure (bankruptcy, catastrophic damage to hydrotreater, etc.), then the PCB maximum inventory would need to be disposed of off-site. Revise this section to account for the need to dispose of the maximum PCB inventory should some unforeseen event occur at the time of closure. Also see comment 8.

   At closure, all bulk PCB wastes in inventory may be disposed through offsite disposal. The waste inventory removal methods to be utilized include transferring the bulk liquids from the tanks to trailer/tanker transport vehicles.

4. Section 5.2.2, Decontamination/Closure Standards. Item number I in this section refers to a cleanup level of I ppm PCBs for "other restricted areas" in 40 CPR 761.6l(a)(4)(i)(B). 40 CFR 761.61(a)(4)(i)(B) states that the cleanup level for PCB remediation waste in a low occupancy area is less than or equal to 25 ppm PCBs. 40 CPR 761.6l(a)(4)(i)(A) states that the cleanup level for PCB remediation waste in a high occupancy area is less than or equal to 1 ppm PCBs. Please revise this section to the correct regulation reference for the cleanup standard chosen by Safety-Kleen.

Revised to: Concrete floors and walls shall be decontaminated to comply with the cleanup standard for "other restricted access areas" in 40 CFR 761.61 (a)(4)(i)(A), specifically to a TSCA cleanup level of 1 ppm PCB's by weight.

5. Section 5.3.3.1, Decontamination Criteria. Change "40 CFR 761.61(a)(4)(B)" to "40 CPR 761.61(a)(4)(A)."

   Revised to: 40 CFR 761.61(a)(4)(A)

6. TSCA Closure Cost Estimate, Section 2.1, Disposal Facilities/Pricing. This section has two disposal facilities listed which currently have different owners/names. In Section 2.1, change the name of the disposal facilities to the correct facility names. Also, contact these facilities to get the current rates for transportation and disposal. The new transportation/ disposal rate will then need to be carried over to the other sections of the cost estimate for disposal costs.

   Revised to: Veolia, US Ecology and Altom Transportation

7. TSCA Closure Cost Estimate, Section 3.1, Container Storage Building. This section includes disposal costs of the drums but is missing disposal of the contents of the drums. Include costs for the disposal of the drum contents.

   Added disposal cost of drum contents.

8. TSCA Closure Cost Estimate, Section 3.2, Used Oil Tank Storage Area. Per comment 3, it cannot be assumed that the hydrotreater will be in operation at time of closure. In addition, per 40 CFR 761.65(f)(l)(ii), the cost estimate shall be based on the costs for hiring a third party to close the facility. EPA is concerned that a third party would not have the capability to operate Safety-Kleen's hydrotreater due to its technical complexity. Please suggest disposal options for disposal of the maximum inventory of PCB-regulated used oil that would be available to be carried out by a third-party in a "worst-case" scenario and include costs for labor for consolidation and preparation for shipment and costs for the disposal of the bulk liquid off-site. In addition, revise Note 1 in this section accordingly.

   Revised to include costs for off-site disposal.

9. TSCA Closure Cost Estimate, Section 3.2, Used Oil Storage Area. This section is missing costs for decontamination including labor, equipment, and solvent.

   Added the noted costs.

10. TSCA Closure Cost Estimate, Section 3.3, Hydrotreater. This section should include costs for decontamination of the hydrotreater by a third party. As discussed in previous comments, it cannot he assumed that the hydrotreater will be in operation at time of closure.

Added the costs for decontamination of the hydrotreater (Reactors: R-401A/B, 1256 Gallons, R-451A/B, 3450 Gallons, R-403, 10100 Gallons, R-404, 10100 Gallons and R-405, 10100 Gallons).

11. TSCA Closure Cost Estimate, Section 3.4, VFS Tank Storage Area. This section is missing costs for decontamination of tanks including labor, equipment, and solvent. Note 2 states that the rinse material will be processed through the hydrotreater. It cannot be assumed that the hydrotreater will be operational at the time of closure.

    Revised to include 3rd party decontamination.

12. Section 5.1, TSCA Closure Cost Estimate. Revise this section with the updated values after the above comments are addressed.

    Revised the values to reflect the modifications.

Safety-Kleen Systems, Inc.
TSCA Closure Plan

October 2017

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1.0 Introduction

1.1 Current Regulatory Status

Safety-Kleen Systems, Inc. (EAS) owns and operates an used oil re-refinery facility at 601 Riley Road, East Chicago, IN. The EPA I.D. number for the facility is IND 077042034. The existing re-refinery facility operates in compliance with 329 IAC 13 regulated by the Indiana Department of Environmental Management (IDEM). In addition, the EAS facility has an Approval to Store and Dispose of PCB Contaminated Waste Oil by Re-Refining Process, issued by U.S. Environmental Protection Agency (EPA) Region V and an Approval of PCB Alternative Disposal Facility issued IDEM. EAS is authorized under these Approvals to process PCB contaminated used oil on a batch basis. Each batch is limited to 376,000 gallons unless additional volume is approved by EPA and IDEM. The disposal is accomplished using the same equipment as the primary full-time operation of re-refining used oil. The used oil re-refining process will exist at all times over the life of the PCB storage facility.

2.0 Purpose of the Closure Plan

In accordance with the regulatory requirements set forth by the EPA in 40 CFR 761.65(e) and by the IDEM in 329 IAC 4.1-4 (which incorporates 40 CFR 761.65(e), EAS has developed this TSCA Closure Plan as part of its commercial Polychlorinated Biphenyl (PCB) storage facility permit modification application.

This Plan identifies all activities that are necessary to close each PCB management unit or the facility as a whole during any point or at the end of its intended operating life. For the purposes of this Plan, all units will be assumed to be fully active and operating at maximum capacity at the time of closure. The plan addresses decontamination of all units and areas of the facility used for PCB waste processing activities under the commercial PCB storage facility application.

The Closure Plan will be amended to reflect any changes in the maximum capacity occurring as the result of significant facility modifications or the closure of any of the individual PCB management units. All amendments to the Closure Plan will be submitted to EPA and IDEM for review and approval in accordance with 40 CFR 761.65(e)(4).

The purpose of this Closure Plan is to ensure that the EAS facility and the PCB management units within the facility are closed in a manner that minimizes the need for post-closure maintenance. This Plan has been carefully designed to eliminate the risk of post-closure escape of PCB wastes to groundwater, surface water, soil, or the atmosphere, and to prevent any threat to public health, safety, or welfare, or the environment. This plan is accompanied by a corresponding "Closure Cost Estimate" and a "Financial Assurance for Closure."

Changes in the design and operation of the commercial PCB storage facility will not be implemented until the appropriate modifications have been approved by EPA and IDEM. The facility Compliance Manager at EAS has the responsibility to amend the Closure

Plan whenever changes in operating plans, facility design or facility equipment affect the accuracy of the Closure Plan.

This Closure Plan will become effective upon approval of EAS's permit modification request, and remain in effect until modified by EAS and/or EPA/IDEM. A copy of this Closure Plan will be maintained on file at EAS. The Closure Plan will, as necessary, be amended in accordance with the requirements of 40 CFR 761.65(e) (4).

3.0 PCB Waste Handling Areas and Maximum Waste Inventory

3.1 Identification of PCB Waste Handling Areas

As described in the PCB permit modification application, EAS shall conduct PCB handling activities in numerous units throughout the facility, as follows:

A. TSCA Drum Storage Area

The following units are designated as "TSCA storage areas" that are designed in accordance with 40 CFR 761.65(b) standards.

1. Plant 1 Container Storage Building – A fully-contained building used for the indoor storage of site generated PCB wastes in containers (e.g., drums);

B. Tank Storage Area

1. Eleven 30,000 gallon carbon steel tanks in the used oil tank farm;
2. Two 15,000 gallon carbon steel tanks in the used oil tank farm;
3. One 20,000 gallon carbon steel tank in the used oil tank farm; and
4. Three 30,000 gallon carbon steel tanks in the intermediate tank farm

C. Shipping/Receiving Areas

The following units are designated as "shipping/receiving areas" for PCB waste in bulk form.

1. Truck Unloading Bay (Receiving Bay 1), functions as the active offloading area for tanker trailers transporters hauling PCB wastes;
2. Railcar Unloading (Railcar Unloading Area); and
3. Truck Loading Area (adjacent to the Intermediate tank farm).

D. Process Area

1. The Hydrotreater area of the facility contains the units in which PCB's will be processed and disposed.

E. Other Areas

These "other areas" are assets or structures that may provide support services related to EAS's management of PCB's at the facility (e.g., a laboratory used to test samples to determine PCB concentration, etc.), but are not PCB waste storage or disposal units or processes which require a USEPA TSCA permit. The "other areas" are identified under this application so that they may be included in confirmatory PCB sampling at the time of facility closure. The "other areas" include the following units:

1. Laboratory – An analytical testing laboratory for onsite waste analysis;

2. Roadway System – A concrete paved roadway system on which all highway vehicles carrying PCB wastes move about the facility; and

3. Rail Tracks – railroad tracks from the facility property line to the railcar unloading are.

3.2 Maximum Inventory of PCB Waste

The maximum waste inventory for the facility is 380,175 gallons. The "maximum inventory" is based on the376,600 gallon tank storage limit (for receipts) and the 3,575 gallon drum storage limit. This maximum inventory shall be used as the basis for the TSCA closure cost estimate calculations.

4.0 General Closure Activities

4.1 Closure Schedule

EAS will submit a written notice of intended closure to the USEPA at least 60 days prior to the date on which closure is expected to begin. Within 90 days after receiving the final quantity of PCB waste for storage, it will be processed in compliance with the Approvals. All closure activities will be completed within 180 days after receiving the final volume of PCB waste at the PCB management unit or facility. Within 60 days of the completion of closure, EAS will certify completion of closure in a written notice to USEPA. The certification of closure will be signed by EAS and an independent professional engineer.

Upon closure of the facility, all equipment and structures that have been in contact with PCB wastes will be decontaminated or demolished and transported for secure land disposal in accordance with 40 CFR Part 761. Decontamination of the facility and removal of all wastes for off-site disposal at the time of closure will eliminate the need for post-closure care. The closure schedule is for planning purposes, and intermediate time frames and completion dates may vary from those given in the schedule. The time required for completion of all closure activities for a final facility closure is estimated to be 90 days.

4.2 Inventory Removal

At closure, all bulk PCB wastes in inventory may be disposed of through offsite disposal. All containerized PCB wastes will be prepared for transport and shipped to offsite treatment and disposal facilities in accordance with 40 CFR 761 record keeping and container standards.

The waste inventory removal methods to be utilized include transferring the bulk liquids from the tanks to trailer/tanker transport vehicles. Similarly, drummed solids (e.g., soil, debris) shall be consolidated into rolloff containers for bulk shipment purposes. Empty drums that are no longer usable will be disposed of at authorized offsite waste disposal facilities.

Following inventory removal, all dust and other residues will be swept or otherwise cleaned up and handled as PCB waste. Pallets used for container staging purposes will be broken down and disposed of as PCB debris.

The specific types of offsite PCB waste management facilities to be used for the disposal of EAS's waste inventory will be based on the availability of such facilities and any advancement in PCB treatment technologies. For the purposes of cost estimation, the disposal or treatment options to be considered will include:

1. For PCB liquids, including PCB oils, solvent flush and aqueous PCB mixtures- incineration at Veolia in Port Arthur, TX.

Decontamination of a PCB management unit will begin as soon as the unit is cleared of all inventory. Decontamination procedures are described in Section 5.0 below.

5.0 Description of Closure/Decontamination Activities

In Sections 5.1 through 5.4, EAS describes the procedures and decontamination objectives for the various types of PCB handling units/structure in operation at the facility, including:

- Equipment such as tanks, pipes, pumps, and other associated Equipment (e.g., filter baskets) are used for liquid transfer activities (Section 5.1);
- Concrete floor surfaces found in the container storage building and the tank containment area; and the Receiving areas (Section 5.2);
- Contaminated gravel from railways (Section 5.3); and
- Miscellaneous units, structures, and equipment not otherwise addressed in Sections 5.1 through 5.3 (Section 5.4).

5.1 Tank, Piping, Pumps, and Ancillary Equipment

5.1.1 Equipment and Areas to be Decontaminated

Equipment such as tanks, pipes, pumps, and other associated equipment (e.g., filter baskets) are used for liquid transfer activities.

5.1.2 Decontamination/Closure Standards

Specific decontamination/closure standards which apply to the piping and ancillary equipment are as follows:

1. Pursuant to 40 CFR 761.60 (b)(6), the piping and ancillary equipment (which meet the definition of "PCB article") may be disposed at a TSCA landfill operating under 40 CFR 761.75 provided that all free flowing liquid is removed and incinerated in a TSCA incinerator operating under 40 CFR 761.70. Under this option, the pipelines, pumps, and other equipment would be disconnected, inspected for the presence of free liquids, drained if free liquids are found, and then sent offsite for disposal at a TSCA landfill.

2. If a scrap metal or non-PCB reuse option is identified, the piping and other equipment shall first be decontaminated to meet a TSCA decontamination procedure as required by USEPA regulations or USEPA Region V policy. The internal and external surfaces of all pipelines and other impervious equipment would be triple rinsed with a solvent capable of dissolving PCB's as required by 40 CFR 761.79(c). Any piping or other equipment would be drained for 15 hours. All surfaces would then be soaked with a sufficient amount of diesel fuel or kerosene (containing <2 ppm PCBs) for at least 15 hours at $\geq 20^{\circ}C$. A sufficient amount is at least 800 ml for each 100 cm^2 of surface. The diesel fuel or kerosene will then be drained from the surfaces. All surfaces would again be soaked with a sufficient amount of diesel fuel or kerosene (containing <2 ppm PCBs) for at least 15 hours at $\geq 20^{\circ}C$. The diesel fuel or kerosene will then be drained from the surfaces.

3. All porous materials contaminated with PCB's such as wood, gasket material, and rubber shall be disposed at a TSCA incinerator per 40 CFR 761.70, or a TSCA landfill per 40 CFR 761.75. Contaminated porous materials will include all materials with visible staining or porous materials present in a PCB storage area.

4. All solvents and cleanup material (rags, absorbent pads, etc.) contaminated with solvent shall be incinerated at a facility in compliance with 40 CFR 761.70.

5. All tank (s) will be decontaminated per the PCB Approval and 40 CFR 761.79 c(1).

5.1.3 Materials and Procedures for Decontamination

If necessary, the piping, pumps and other equipment shall be dismantled using wrenches and other standard hand tools. The piping and other equipment shall be visually inspected for signs of free flowing liquid. Any free liquids inside the piping or other equipment shall be containerized and shipped for offsite disposal at a TSCA incinerator.

Equipment decontamination shall be conducted inside Plant 1, the Hydrotreater area or the Intermediate Tank Farm. In all cases, EAS shall take all appropriate precautions to reduce PCB contamination during closure such as lining the floor of the building with plastic sheeting.

No TSCA decontamination standard is applicable if the equipment is intended to be shipped for TSCA disposal. If a non-TSCA reuse option is selected, or if the piping and other equipment are intended for scrap metal reclaim, it must first meet a TSCA decontamination procedure as required by USEPA regulations or by USEPA Region V policy.

5.2 Concrete Floors and Walls

5.2.1 Equipment and Areas to be Decontaminated/Closed

The equipment and area in this phase includes concrete floors and walls (up to 5' from the floor) of units such as the receiving areas and the container storage building.

5.2.2 Decontamination/Closure Standards

Specific closure/decontamination standards which apply to concrete floors and walls are as follows:

1. Concrete floors and walls shall be decontaminated to comply with the cleanup standard for "other restricted access areas" in 40 CFR 761.61 (a)(4)(i)(A), specifically to a TSCA cleanup level of 1 ppm PCB's by weight.

2. All solvents and cleanup material (rags, absorbent pads, etc.) contaminated with solvent shall be incinerated at a TSCA incinerator per 40 CFR 761.70. All sandblast grit and other porous residuals contaminated with PCB's at a detection limit of 1 ppm PCB shall be disposed at a TSCA incinerator per 40 CFR 761.70, or a TSCA landfill per 40 CFR 761.75.

3. Destructive sampling will be done for concrete.

5.2.3 Materials and Procedures for Decontamination/Closure

EAS may elect to conduct pre-cleaning sampling of concrete floors and walls to determine if, in fact, they are contaminated with PCB's and require TSCA decontamination. Samples shall be collected in accordance with the grid sampling procedures described in Section 6.1 below. If the samples show a PCB concentration of less than 1 ppm, the piece shall be deemed clean and not subject to further decontamination procedures.

If necessary, TSCA decontamination shall be conducted using a solvent soak and a thorough scrub down with hard bristle brushes and brooms. Hardened residual shall be scraped off using common hand tools, and following the initial scrub down, the walls/floors shall be rinsed with clean solvent. Grid samples will be taken from the floor and walls to confirm compliance with the TSCA cleanup level of 1 ppm.

If necessary, TSCA decontamination may also be conducted by sandblasting the exposed floor/wall surfaces, and disposing of the spent abrasive grit which contains greater than 1 ppm PCB in a TSCA landfill per 40 CFR 761.75. Samples shall be taken from the floor and walls in accordance with the grid sampling procedures described in Section 6.1 below to confirm compliance with the TSCA cleanup level of 1 ppm. Because concrete is a porous surface and decontamination to a cleanup level may not be possible, it may be necessary to remove the concrete and dispose of it as a PCB remediation waste.

5.3 Concrete/Gravel

5.3.1 Areas to be Decontaminated/Closed

The facility roadway system and other gravel areas (rail tracks leading to the unloading area) that are outside of concrete-lined and sealed secondary containment structures shall be included in the facility closure plan. Should a PCB spill take place on the plant traffic routes during transportation within the facility boundary line, cleanup immediately begins pursuant to 40 CFR 761.61 (a). Under this potential spill management practice, the plant traffic routes are maintained free from PCB contamination. At the closure of this facility, Safety-Kleen will perform destructive random sampling from ten (10) locations in the area indicated on Facility Roadway Plan drawing.

5.3.2 Investigative Sampling to Confirm PCB Contamination

Gravel areas which have been identified as having handled PCB's shall be pre-sampled to determine if PCB contamination is actually present. Ten (10) random samples will be collected in the rail tracks. All gravel contaminated with less than 1 ppm PCB's shall be considered to be clean and not requiring further decontamination/closure. Any gravel results which show a PCB concentration equal to or greater than 1 ppm shall be

considered to be PCB contaminated and shall be excavated and disposed as described in Section 5.3.3 below.

5.3.3 Excavation of PCB Contaminated Gravel

5.3.3.1 Decontamination Criteria

Specific decontamination/closure standards which apply to the gravel are as follows:

1. In accordance with 40 CFR 761.61 (a)(4)(A) gravel contaminated with PCB's shall be excavated to 1 ppm PCB's by weight. All gravel contaminated with less than 1 ppm PCB's shall be considered non-TSCA regulated.

5.4 Decontamination/Closure

For the designated "other areas" where PCB's are to be handled, the following decontamination/closure procedures shall apply:

- Laboratory: Removal and disposal of all PCB samples, contaminated glassware and debris, followed by a solvent washdown of the walls, floors, And workbenches similar to the procedures for floors and walls described in Section 5.1 above. The washdown will be followed by sampling of the cleaned surface in accordance with the sampling procedures described in Section 6.2 below.

- Roadway System: Shall be decontaminated/closed as described in Section 5.2.3 above.

- Rail Tracks: Shall be decontaminated/closed as described in Section 5.3 above.

Any remaining area, structure, piece of equipment, or other device that is contaminated with PCB's shall be subject to decontamination and closure using the procedures analogous to described in Section 5.1 through 5.3 above, in accordance with 40 CFR Part 761, and/or as directed by USEPA Region V.

6.0 Sampling Procedures

6.1 Statistical Sampling Program for PCB's

A PCB Sampling Program will be conducted after removal of PCB wastes and waste containers from the site (per 40 CFR 761, Subparts N and P) and prior to initiating PCB cleanup activities. Where the initial samples exceed the appropriate levels for high occupancy areas (40 CFR 761.6 1 (a)(4)), cleanup and/or demolition and removal of

materials will be conducted, until cleanup objectives are met. After each cleanup of an area, additional sampling will be conducted, per requirements of 40 CFR 761, Subpart O, to verify that cleanup objectives have been met.

All floor and wall surfaces, as well as all containment structure surfaces, will first be visually inspected to identify any potential hot spots. This visual inspection will include both PCB storage and processing areas, areas through which PCB's are transported, and areas that might have inadvertently been contaminated by workers (restrooms, lunch rooms, etc.). This, along with the physical sampling program described below, will assist in identifying those areas or structures requiring cleaning or removal to achieve a clean closure of the PCB storage and associated areas. Locations exhibiting suspicious stains will be marked for sampling, cleanup, or removal.

The pre-cleanup sampling program will include the following:

A. PCB storage and processing areas.

Initial sampling will be conducted on a three-meter grid of all concrete surfaces, per 40 CFR 761, Subpart N (any re-sampling will be conducted in accordance with 40 CFR 761, Subpart O). The sampling and quality assurance procedures described in USEPA Region 1 publication, "Draft Standard Operating Procedure for Sampling Concrete in the Field", 12/1/97, will be followed in conducting the bulk sampling. As suggested by this procedure, a sampling depth of ½ inch will be used, so that the sample taken at each sampling location may be considered a 'surface sample' (i.e., the concrete between 0 and ½ inch will be removed for analysis). In order to get sufficient sample material in each sample for analysis, each sample may be a composite of cores drilled at the sampling location to a depth of ½ inch - a total sample volume of about 35 cm^3 will be produced at each sample location. Each composite sample will be sufficiently large to allow analysis to the levels specified in 40 CFR 761.61 (a)(4). An equipment blank and field duplicate will also be produced, along with the samples taken in each storage/processing area to assure the integrity and accuracy of the sampling procedures.

Any non-porous surfaces in the PCB storage/processing areas will be sampled per 40 CFR 761, Subpart P. Large, nearly flat surfaces will be divided into 1 meter grids and each 1 meter square samples via a wipe sample of 100 cm^2 within the 1 meter square (761.302(a)). The location of the sample location in each 1-meter square will be determined per 761.304. Small, irregular surfaces will be sampled via wipe sample, also be produced along with the samples taken in each storage/processing area to assure the integrity and accuracy of the sampling procedures.

B. Traffic areas and other potentially contaminated areasding.

1. Two hundred and fifty nine (259) wipe samples will be taken in the potentially contaminated areas (loading/unloading, traffic areas to/from PCB storage areas, Laboratory and rail tracks) where PCB's are stored/processed. Resampling will be conducted as necessary to verify cleanup of contaminated areas previously identified. An

equipment blank and field duplicate will also be produced along with the samples taken in each storage/processing area to assure the integrity and accuracy of the sampling procedures.

All sampling and analysis documentation will be maintained by EAS for a period of at least three years from the sampling date. If the sample results are equal to or below the cleanup levels specified in 40 CFR 761.61(a)(4) for high occupancy areas (10 micrograms/ 100 cm^2 for surface wipe samples and 1 ppm for the bulk samples), no further actions will be taken. Where these levels are not met, the areas will be cleaned and/or material removed for offsite disposal; until resampling of the area indicates that these levels have been met.

6.2 Wipe Testing Protocol

Wipe testing shall be performed and interpreted as follows:

1. Wipe samples should be taken of smooth, relatively non-porous surfaces (metal, glass) and concrete for conformance testing.
2. A 100 cm^2 template shall be placed on the area to be tested (except for interior pipe sampling).
3. The wiping medium shall be a gauze pad, glass wool or filter paper which has been saturated with hexane.
4. Collection and testing of field blanks and replicates shall be carried out in accordance with standard laboratory practices.
5. The analytical procedures to be used are SW 846 8082A & 3540.
6. Results from wipe tests must be less than 10 micrograms per 100 square centimeters (except for interior pipe sampling).
7. If results are higher than 10 micrograms per 100 cm^2, the areas must be re-cleaned and testing repeated until contamination levels are less than 10 micrograms per 100 cm^2 unless USEPA Region V approval is given to encapsulate these areas.

6.3 Destructive Sampling Protocol

Destructive sampling of solid samples shall be performed and interpreted as follows:

1. Destructive samples should be taken of hard porous surfaces (e.g., concrete) and gravel.
2. Samples should be obtained using hammer, chisel, drill or hole saws and piston core, bulb planter, hand auger or King-tube sampler for

gravel.

3. Concrete cores should be taken to a depth of 0.5 inches. The sample size should be approximately 35 cm^3. Gravel samples should be taken to a depth of 12 inches. The gravel will be composited to produce a sample large enough to meet the required analytical level.

4. Collection and testing of field blanks and replicates shall be carried out in accordance with standard laboratory practices.

5. Results from destructive tests must be less than 1 miligram per kilogram.

6. If results are higher than 1 miligram per kilogram, the areas will be disposed in a TSCA landfill until results below 1 miligram per kilogram are found.

6.4 Analytical Methodology

1. A measured volume or weight of sample is extracted using the appropriate matrix specific sample extraction technique.

2. Liquid samples may be extracted at neutral pH with methylene chloride using either Method 3510 (separatory funnel), Method 3520 (continuous liquid-liquid extractor), Method 3535 (solid-phase extraction), or other appropriate technique or solvents.

3. Solid samples may be extracted with hexane-acetone (1:1) or methylene chloride-acetone (1:1) using Method 3540 (Soxhlet), Method 3541 (automated Soxhlet), Method 3545 (pressurized fluid extraction), Method 3546 (microwave extraction), Method 3550 (ultrasonic extraction), Method 3562 (supercritical fluid extraction), or other appropriate technique or solvents.

4. Tissue samples may be extracted using Method 3562 (supercritical fluid extraction), or other appropriate technique. The extraction techniques for other solid matrices may be appropriate for tissue samples.

5. Extracts for PCB analysis may be subjected to a sequential sulfuric acid/potassium permanganate cleanup (Method 3665) designed specifically for these analytes. This cleanup technique will remove (destroy) many single component organochlorine or organophosphorus pesticides. Therefore, this method is not applicable to the analysis of those compounds. Instead, use Method 8081.

6. After cleanup, the extract is analyzed by injecting a measured aliquot into a gas chromatograph equipped with either a narrow- or wide-bore fused-

silica capillary column and either an electron capture detector (GC/ECD) or an electrolytic conductivity detector (GC/ELCD) (SW 846 8082A).

6.5 Health & Safety

All sampling activities will be conducted within the context of the facility's Health and Safety Plan, Training Plan and Contingency Plan to ensure that appropriate levels of personnel training, monitoring and protective equipment are maintained throughout pre-closure sampling process. All contaminated sampling debris and residuals will be containerized and disposed as PCB waste along with the PCB waste inventory.

6.6 Decontamination Criteria

The PCB management units are more than 0.1 kilometers away from a residential/commercial area and are surrounded by a manmade barrier (chain link fence). The units contain both low-contact and high-contact industrial surfaces. The surfaces which will undergo decontamination (e.g.: floors, walls, curbing) are non-impervious solid surfaces such as concrete and gravel.

All PCB storage areas will be decontaminated in accordance with 40 CFR 761.61 (a)(4) standards. All solid surfaces shall be cleaned to a level of 1 ppm. The property has an Environmental Restrictive Covenant filed with the Lake County Recorder's Office, which restricts this property from being used as residential or for recreational purposes. As such, there is no need to clean up the site to meet the low occupancy area cleanup level in compliance with 40 CFR 761.61 (a)(4)(i) and (ii).

The verification cleanup standard for nonporous surfaces is less than 10 micrograms per 100 cm^2 as measured by a standard wipe test (40 CFR 761.123).

7.0 Certification of Closure

Within 60 days of the completion of closure activities for a particular unit or the facility in general, EAS shall, by certified mail or by hand-delivery, submit in writing to EPA a certification signed by EAS and an independent professional engineer that the facility has been closed in compliance with the requirements of this Closure Plan.

8.0 Closure Cost Estimate

EAS has prepared a detailed cost estimate for the TSCA closure activities described in this Plan. A copy of the TSCA Closure Cost Estimate is included in Appendix 1 of this Closure Plan.

Per 40 CFR 761.65 (f)(2), the TSCA closure cost estimate will be revised annually to account for inflation. The closure cost estimate will also be adjusted following any

modification to the closure plan which increases the cost for closure.

9.0 Financial Assurance for Closure

EAS will provide suitable financial assurance for TSCA Closure Cost Estimate prior to final issuance of the facility's Commercial PCB Storage Facility Permit. The TSCA financial assurance mechanism shall, at a minimum be valued to reflect any cost TSCA closure which is in addition to any RCRA closure cost estimate. A copy of the TSCA financial assurance mechanism is included in Appendix 2.

Appendix 1

Safety-Kleen Systems, Inc.
TSCA Closure Cost Estimate

October 2017

1.0 TSCA Units Undergoing Closure

Individual cost estimates are presented in Section 3.0 for the following TSCA management units proposed for PCB management activities at Safety-Kleen Systems, Inc. (EAS):

Section / Unit

3.1 Container Storage Building (Plant 1)
3.2 Used Oil Storage Tanks (14 tanks)
3.3 VFS Storage Tanks (3 tanks)
3.4 Truck Unloading Bay (Receiving Bay 1)
3.5 Railcar Unloading (Railcar Unloading Area)
3.6 Truck Loading Area (adjacent to the Intermediate tank farm)
3.7 Other Areas – Roadway System, Laboratory, Rail Tracks and the Distillation Area

2.0 Pricing and Assumptions

2.1 Disposal Facilities/Pricing

The following disposal facilities and costs are used to calculate closure cost estimates. These figures represent third-party transportation and disposal costs as of September 2017.

Disposal Facility	Disposal Transportation Total
a. Veolia — Port Arthur, TX TSCA Incineration	
- PCB bulk liquids	$0.56/lb $4.26/gal
b. Altom Transport Inc.	
– PCB bulk liquid	$5911/6000 gal TT
c. US ECOLOGY — Belleville, MI	
TSCA Secure Chemical Landfill	
- PCB solids/debris	$120/ton/yard plus 10% EIR Fee

2.2 Labor, Equipment, and Analytical Charges

The following labor cost and equipment costs represent charges that would be incurred during a third-party closure of EAS.

Labor

a. Work crew (1 supervisor @$270/day, 3 laborers @ 170/day/man) = $ 780/day

Equipment

a. Miscellaneous Supplies (Brooms, squeegees, shovels, protective clothing, etc.)	= $ 128/day
b. Portable Drum Crusher	= $ 128/day
c. Vacuum truck with operator	= $ 1025/day
d. Rolloff Container (30 cubic yards)	= $ 128/day

Analytical

a. Wipe samples	= $ 64/sample
b. Soil/solid/liquid samples	= $ 58/sample

2.3 General Assumptions

1. Where possible, all wastes will be consolidated onsite and shipped to the ultimate treatment/disposal facility in bulk form. The rate of repacking/consolidation is approximately 100 55-gallon drums per work crew per day.

2. The floors and walls of the containment basin/pad undergoing decontamination will be cleaned using a suitable solvent (e.g., hexane, diesel fuel, No. 2 heat oil, etc.) and scrubbing brooms, followed by a solvent rinse. All cleaning residues and rinsate waters will be collected and shipped offsite for treatment/disposal. The total volume of solvent used in the cleaning and rinsing process is equal to 1% of the containment volume of the unit undergoing decontamination.

3. All empty drums will be crushed onsite using a portable drum crusher unit and shipped offsite in 30-CY rolloff containers. For cost estimation purposes, it is assumed that 1 crushed drum occupies a volume of 3 cubic feet or 0.11 cubic yards.

4. All pallets will be broken down and shipped offsite in 30-CY rolloff containers. For cost estimation purposes, it is assumed that 1 pallet occupies a volume of 4 cubic feet or 0.15 cubic yards.

5. All materials and equipment used as part of onsite decontamination activities (e.g., pumps, hoses, drum crusher, etc.) shall be adequately decontaminated after use. The cost for such decontamination is assumed to be $3,200 per PCB unit.

6. Sampling costs are included in labor costs. Analytical costs are separately accounted.

7. Liquid density is assumed to be 9.0 lb/gal. Solid density is assumed to be 2000 lb/yd3.

3.0 Unit-Specific Closure Costs

3.1 Container Storage Building (Plant 1)

Item	Number	Time/Quantity	Unit Rate	Item Cost
A. Consolidation and Preparation for Shipment				
Labor	1 crew	1 days	780 $/day	1460
Equipment				
- Rolloff	1 unit	2 days	128 $/day	256
- Drum Crusher	1 unit	2 days	128 $/day	256
- Miscellaneous	1 unit	2 days	128 $/day	256
Labor and Equipment Subtotal				2228
B. Disposal				
Debris				
- crushed drums	65 drums	0.11 cy/dr	132.00 $/cy	944
- pallets	17 units	0.15 cy/unit	132.00 $/cy	337
- PCB debris	16,250 lbs	10T/rolloff	132.00$/T	1073
Disposal Subtotal				2354
C. Storage Bay Decontamination				
Labor	1 crew	1 day	780 $/day	780
Equipment				
- Miscellaneous	1 unit	1 day	128 $/day	128
- Decontamination	1 unit	1 unit	3200 $/unit	3200
Analytical				
- Pre-Cleanup	1 bay	3 sample/bay	58 $/sample	174
- Wipe Samples	1 bay	13 sample/bay	64 $/sample	832
- Random destructive Samples		13 sample/bay	64 $/sample	832
Disposal	10 gallons	1 unit	4.26 $/gal	43
Decontamination Subtotal				5989
GRAND TOTAL				10571

Notes:

1. The TSCA storage area is designed to hold up to 65 55-gallon drums. This is for site generated waste, consisting mostly of pump filter strainings, absorbents, personal protection equipment (PPE), sample containers and lab waste. At closure, drums containing bulk solids will be consolidated into a roll-off container.

2. The floor and wall surfaces of the storage unit will be adequately decontaminated through solvent wash and a thorough scrub down with hard bristle brushes and brooms.

3. The amount of solvent for the floors and walls is equal to 1% of the total containment volume of the structure. Per the calculations, the containment volume for the Storage Building (Plant 1) 1,010 gallons. Therefore, the solvent used is 10 gallons [(.01)(1010) = 10].

4. Emptied liquid/solid drums will be crushed onsite and placed into three 30 cubic yard roll off containers along with wooden pallets (65/4 = 17) and decontamination residuals (e.g.: brooms, squeegees, protective equipment, etc.)

5. Post-closure analysis consists of 13 random wipe samples and 13 random destructive samples taken in conformance with the USEPA "Field Manual for Grid Sampling of PCB Spill Sites to Verify Cleanup", May 1986.

3.2 Used Oil Tank Storage Area

Item	Number	Time/Quantity	Unit Rate	Item Cost
A. Consolidation and Preparation for Shipment				
Labor	1 crew	7 day	780$/day	5460
Consolidation And Preparation Subtotal				5460
B. Disposal				
Liquid				
- Bulk	Incineration	376600 gals	4.20$/gal	1581720
-Transportation	Trailer	63 trailers	5911 $/TT	372393
Disposal Subtotal				1954113
C. Decontamination				
Labor	1 crew	14 days	780 $/day	10920
Equipment				
- Miscellaneous		14 days	128 $/day	1792
- Decontamination		14 units	1500 $/unit	21000
Analytical				
- Decon solvent	14 tank	3/tank	58 $/sample	2436
- Pre-Cleanup	1 tank farm	166 sample/tank farm	58 $/sample	9628
-Disposal				
-Rinseate	37660 gallons	14 tanks	4.20$/gal	158172
-Transportation	Trailer	7 trailers	5911 $/TT	41377
- PCB debris	16800 lbs	10T/rolloff	132.00$/T	1109
Decontamination Subtotal				275762
GRAND TOTAL				2235335

Notes:

1. The tanks are used for the storage of up to 376,600 gallons of PCB liquid. For "worst case" closure cost estimation purposes, EAS has assumed that the tank contains 376,600 gallons of PCB liquids requiring TSCA disposal.

2. Closure per 40 CFR 761.79(c)(1) involves triple washing with a suitable solvent. EAS intends to utilize used oil, as is approved in the Permit. Each tank will be decontaminated by spraying the sidewalls of the tank, utilizing the manways in the roof. The material will be tested after each filling, ensuring that the final rinse is < 50 ppm.

3. Debris in the bottoms of the tanks will be removed by a hand shovel, with access through the manway in the tankwall. These tanks typically contain a minimum amount of debris.

3.3 Hydrotreater

Item	Number	Time/Quantity	Unit Rate	Item Cost
A. Consolidation and Preparation for Shipment				
Labor	1 crew	7 days	780 $/day	5460
Vacuum truck		3 days	1025 $/day	3075
B. Disposal				
- Bulk Liquid	11914 gals	7 reactors	4.20 $/gal	50039
-Transportation	Trailer	2 trailers	5911 $/TT	11822
- Debris	186400 lbs	7 reactors	132.00$/T	12302
Disposal Subtotal				82698
C. Decontamination				
Labor	1 crew	7 days	780 $/day	5460
- Miscellaneous		7 days	128 $/day	1792
- Decontamination equipment		7 units	1500 $/unit	10500
Analytical				
- Decontamination	7 tanks	3/units	58 $/unit	1218
-Decon rinseate	3971 gals	3/unit	4.20 $/gal	16678
-Transportation	Trailer	1 trailer	5911 $/TT	5911
Decontamination Subtotal				41559
GRAND TOTAL				124257

Notes:

1. There are 7 reactors of various sizes that make up the hydrotreater. The sizes are: R-401 A&B = 1256 gallons each; R-451 A&B = 3450 gallons each; and R-403, R-404 and R-405 are 10100 gallons each. The contents of the reactors are approximately 70% catalyst and support media and 30% oil.

2. The first step will be to drain the oil from the reactors. Once the oil is drained, the catalyst and support media will be vacuumed out.

3.4 VFS Tank Storage Area

Item	Number	Time/Quantity	Unit Rate	Item Cost
A. Decontamination				
Labor	1 crew	3 days	780 $/day	2340
Equipment				
- Decontamination	3	3 units	1500 $/unit	4500
Analytical				
- Decon solvent	3 tanks	3/tank	58 $/sample	522
- Pre-Cleanup	1 tank farm	454 sample/tank farm	64 $/sample	29056
- Disposal	9000	3/unit	4.20 $/gal	37800
-Transportation	Trailer	2 trailers	5911 $/TT	11822
Decontamination Subtotal				86040
GRAND TOTAL				86040

Notes:

1. The tanks are used for the storage of up to 79,800 gallons of PCB liquid during processing. Since the closure plan is assuming that the guard tanks are full, that would mean that the VFS tanks are empty. No PCB liquids would have to be removed. The only way that there would be liquids in the VFS tanks, is if closure were to happen while PCBs were being processed. In that case, the disposal costs reserved for the guard tanks will be enough to cover any liquids in these tanks.

2. Closure per 40 CFR 761.79(c)(1) involves triple washing with a suitable solvent. EAS intends to utilize used oil, as is approved in the Permit. Each tank will be decontaminated by spraying the sidewalls of the tank, utilizing the manways in the roof.

3. Debris in the bottoms of the tanks will be removed by a hand shovel, with access through the manway in the tankwall. These tanks typically contain a minimum amount of debris.

3.7 Other Areas – Roadway System, Laboratory & Rail Tracks

Item	Number	Time/Quantity	Unit Rate	Item Cost
A. Waste Consolidation and Disposal – Not Applicable; see Note 1.				
B. Roadway Decontamination				
Labor	1 crew	4 days	2000 $/day	8000
Equipment				
- Miscellaneous	1 unit	4 days	128 $/day	512
- Decontamination	1 unit	4 days	3200 $/unit	12800
Analytical				
- concrete	1 zone	148 sample/zone	141 $/sam	20860
Decontamination Subtotal				42180
C. Laboratory Decontamination				
Labor	1 crew	1 day	2000 $/day	2000
Equipment				
- Miscellaneous	1 unit	1 days	128 $/day	128
- Decontamination	1 unit	1 unit	3200 $/unit	3200
Analytical				
- wipe	1 round	37 sample/rnd	64 $/sam	2368
- solid	1 round	37 sample/rnd	141 $/sam	5217
Decontamination Subtotal				12913
D. Rail Tracks				
Labor	1 crew	2 days	2000 $/day	4000
Equipment				
- Miscellaneous	1 unit	2 days	128 $/day	256
- Decontamination	1 unit	2 days	3200 $/unit	6400
Analytical				
- gravel	1 zones	74 sample/zone	141 $/sample	10434
Decontamination Subtotal				21090
GRAND TOTAL				76183

Notes:

1. The Roadway System, Laboratory & Rail Tracks are not TSCA storage units. There is no inventory of PCB waste to be disposed.

2. The exact number and location of PCB samples for the roadway system and rail tracks will be taken in conformance with the USEPA "Field Manual for Grid Sampling of PCB Spill Sites to Verify Cleanup", May 1986. Given the size of the roadway system, the cost estimate provides for 2 zones of sampling.

3. The exact number and location of PCB samples for the laboratory will be taken in conformance with the USEPA "Field Manual for Grid Sampling of PCB Spill Sites to Verify Cleanup", May 1986. Given that the nature of the floors, walls, and other surface areas in the laboratory are both pervious/impervious, the cost estimate provides sampling for both types.

4.0 Inspection and Certification by Professional Engineer

EAS will retain an independent Professional Engineer (P.E.) to inspect and certify that the closure activities have been completed in accordance with the approved Closure Plan. It is assumed the cost for the P.E. will be 40 hours at $128 per hour or $5,120.

5.0 Summary of Closure Costs

5.1 TSCA Closure Cost Estimate

Using the unit-specific cost estimates calculated above, the total cost for full TSCA closure (i.e., removal of maximum PCB inventory and decontamination of PCB storage units) at EAS is:

Unit	Unit Cost
3.1 Container Storage Building (Plant 1)	10571
3.2 Used Oil Tank Storage Area	2235335
3.3 Hydrotreater	124257
3.4 VFS Tank Storage Area	86040
3.5 Other Areas – Roadway System & Laboratory	76183
4.0 Professional Engineer Certification	5120
Subtotal	2537506
Contingency Factor (5%)	126875
Grand Total	2,664,381