Apex environmental, inc.

632 Plank Road
Suite 203
Clifton Park, NY 12065
Telephone 518-383-6789
Facsimile 518-383-7720

TRANSMITTAL MEMORANDUM

To: Steve Fleming, P.E.
Senior Project Manager- Remediation
Safety-Kleen Corporation
11923 Tramway Drive
Sharonville, Ohio 45241

From: Joe Basile

CC: Kent Johnson, NYSDEC

Subject: Safety-Kleen, Post Closure Permit, Mattydale, New York

Date: Friday December 1, 2000

Transmitted By: Fed ex

Actions

- ❑ Per Your Request
- ❑ For Use on the Job
- ❑ Action Required
- ❑ For your Files

Message

Enclosed please find the replacement pages for the Post Closure Permit Application for the Safety-Kleen service Center located in Mattydale, New York. They have been hole punched for your convenience.

If you have any questions or comments, please contact me at 518-383-6789. Thank you.

1.0 INTRODUCTION

The Safety-Kleen Mattydale Service Center is located at the intersection of Factory and Mitchell Avenues, in the Town of Salina, Village of Mattydale, located Onondaga County, New York. **(Figure 1, Site Location Map)**. The facility was a Interim Status hazardous waste accumulation point for used oil, spent solvents, spent mineral spirits and used antifreeze prior to these materials being shipped off site for reclamation/recycling, while operating under 6 NYCRR Part 373-3. The service center consisted of a two-story cement block building which contained both warehouse and office space. It is located in an area slated for industrial use, according to the Town of Salina Zoning Ordinance Map, dated 1969 (Groundwater Technology, Inc. report dated August 6, 1990). The facility, which is the subject of this permit application, consists of an Interim Corrective Measure (ICM) remedial treatment system and the associated media being treated (e.g. groundwater and soil).

1.1 Background

A brief chronology of events and actions, which have taken place at the subject site, is noted below. The major project milestones are noted, and more detailed descriptions of each are part of the public record.

- On November 11, 1989, residents in a home adjacent to the facility reported the presence of vapors in their basement. Air samples were collected by Safety-Kleen, and confirmed that low-level vapor-phase volatile organic compounds (VOCs) were present. The VOCS appeared to have resulted from a mineral spirits release at the facility. The origin of which, or magnitude was unknown at that time.

- The residents of the impacted house were evacuated, and a Safety-Kleen contractor was dispatched to home to mitigate the impacts. A 30" diameter culvert well was installed between the house and the facility's return and fill station (former tank pit area – see **Figure 2, Site Map**). Eventually, a small accumulation of light non-aqueous phase liquid (LNAPL) was drawn to the culvert well, and it was periodically removed.

- Based on the presence of LNAPL in the culvert well, and other site information, Safety-Kleen prepared a brief report on the distribution of impacts found in the area of the tank pit, and up and down gradient of the tank pit. The results of the investigation were reported to the NYSDEC in a report dated January 16 1990, and prepared by Groundwater Technology, Inc. (GTI).

- As a result of the release of mineral spirits from the facility's underground storage tank system, The NYSDEC and Safety-Kleen entered into a consent order on June 5, 1990 (#C7-0001-90-03).

- In June of 1990, an 11,000-gallon used mineral spirits underground storage tank, as well as two other 1,000-gallon tanks (fuel oil and diesel oil) were removed. The tanks did not appear to have any breeches, were cleaned and transported off-site for destruction.

- In July 1990 an interim remedial system was installed at the site (the culvert well installation is noted above as well). It consisted of a 30" diameter groundwater extraction well, that was located central in an "L" shaped trench, down-gradient of the tank system, and between the, then, private residence. In addition, a multi-point soil vapor extraction system was also installed in the area of the tank system, as well as down-gradient of the tank system. Components of this interim system were later integrated into another remedial system.

- In the spring of 1993, a dual phase vacuum extraction system (DPE) was installed on-site. Additional monitoring points, extraction wells, and a mobile equipment trailer were installed. The system remained in operation till the early spring of 1999.

- In March 1994 the facility tank system, which consisted of an 11,000-gallon clean mineral spirits tank, 12,000 gallon used mineral spirits tank, a container storage area, as well as the return and fill station were closed in accordance with RCRA's in-place facility closure plan. During the removal activities, approximately 65 cubic yards of impacted soils were also removed from the tank pit.

Safety-Kleen Corporation performed an initial site investigation (Phase 1 Investigation) at their Service Center located in Mattydale, New York (Figure 1), the results of which are included in the Groundwater Technology, Inc. (GTI) report dated August 6, 1990. The investigation was prompted by evidence of hydrocarbon impacts to soil gas and groundwater in the vicinity of the mineral spirits underground storage tank area. The Phase 1 Report provided data regarding the presence of dissolved and adsorbed phase impacts at locations on and off-site. The results of the Phase 1 Investigation also indicated that impacts downgradient of the current monitoring well array could not be accurately defined based on the available information. During the completion of the Phase 1 Investigation, a consent Order (# C7-0001-90-03) defining further environmental action to be undertaken at the site, was issued by the New York State Department of Environmental Conservation (NYSDEC).

In accordance with Item II of the compliance schedule C of the Consent Order; Safety-Kleen was required to perform a second investigation (Phase II Investigation) to provide the site assessment data needed to initiate further remedial action. A Phase II Investigation Work Plan, dated December 14, 1990 was submitted to NYSDEC in fulfillment of Item II, Schedule C of the Consent Order. The Work Plan was approved by the NYSDEC as stated in their letter to Safety-Kleen dated April 1, 1991. The letter stipulated that Safety-Kleen must periodically submit status reports to the NYSDEC on the results of completed work steps, and to report how the data would assist in the direction of subsequent work steps. In compliance with this request, Safety-Kleen submitted reports to the NYSDEC on May 24, 1991 (round 1 groundwater sampling), August 7, 1991 (ground penetrating radar), August 20, 1991 (initial temporary well point results), October 25, 1991 (supplemental temporary well point results), and March 13, 1992 (round 2 groundwater sampling, soil boring/monitoring well installation).

Safety-Kleen completed remedial pilot testing in the study area (**Figure 2**) in an effort to provide the data necessary for a subsurface remedial system design. A summary of the supplemental work scope is detailed in the March 13, 1992 status report prepared by Groundwater Technology, Inc. The data from the pilot testing was used to design an interim remedial system as noted above, and later the remedial system was expanded to include a DPE system. Periodically, and in accordance with the consent order, Safety-Kleen has submitted various reports detailing the operations of the remedial system, as well as the current status of groundwater quality on-site.

In October 2000, Safety-Kleen and the NYSDEC agreed to administer the site under the auspices of a Post Closure Permit, and deactivate the current consent order. In addition, upgrades to the remedial system and site strategy are to be addressed via the submission of a Focused Corrective Measures Study that will be submitted following the approval of the PCP.

The following section of this document constitutes the Post Closure Permit for the facility, as well as presents a Groundwater Monitoring Plan for the sampling, analysis, and statistical evaluation of groundwater quality data at the site (Appendix A).

1.2 Regulatory Status

As described above section 1.2, a used mineral spirits UST system and two return and fill dumpsters were designated as hazardous waste management units (HWMUs) under the NYSDEC Part A application. The units were removed from service in 1993, along with a container storage area located within the facility. The Closure Certification for the Hazardous Waste Management Units (HWMUs) stated that the August 1993 Closure Plan was implemented and that the closure performance standards noted in the Closure Plan had been met

The soil and groundwater (media) around the HWMU systems were not closed at the time the systems were removed from service, as agreed to by the NYSDEC. The NYSDEC granted Safety-Kleen an extended closure period under which the interim remedial measures, or other activities could be conducted which would allow Safety-Kleen to (once appropriate media standards had been met) apply for unrestricted clean closure of the impacted media. An Interim Corrective Measure, as well as a final remedial measure was implemented on-site as noted in Section 1.2.

NYSDEC agreed with Safety-Kleen that a PCP would function as the administrative control and guidance document for the site in correspondence addressed to Safety-Kleen dated October 17, 2000. Once issued, the Post-Closure Permit will regulate the operation of the corrective measure and provide guidelines for termination of treatment, post-termination groundwater monitoring, and site closure.

1.3 Closure Performance Standards

Closure performance standards for both soil and groundwater have been developed for the Safety-Kleen Service Center in Mattydale, New York. The standards are the same as those already approved for other Safety-Kleen facilities in Corrective Action within New York State at this time. Safety-Kleen, however, reserves the right to submit modifications to the closure performance standards as additional remediation, site

activities and local area land use may prescribe. For reference, these standards are listed in table 1

2.0 POST-CLOSURE PLAN

As described above, the NYSDEC has requested that Safety-Kleen submit a Post-Closure Permit application for the Mattydale, New York site pursuant to 6NYCRR Part 373-3.10(h). The permit requirements are contained in 6NYCRR 373 sections 1 and 3. Pertinent to the Mattydale, New York facility, the subparts of 6 NYCRR 373 sections 1 and 3, which are deemed relevant to the stated goal of the Post-Closure Permit, are listed below in section 2.1. Additional discussion of remedial system operation & maintenance and groundwater monitoring requirements follows in sections 2.2 and 2.3.

2.1 Compliance with Post-closure Permitting Requirement

2.1.1 Compliance with General Permitting Requirements

Safety-Kleen shall comply with NYCRR Subpart 373-1 as follows, with clarifications noted below:

General (373-1.1)

- 6 NYCRR Subpart 373-1.1(b) - Applicability
- 6 NYCRR Subpart 373-1.1(c) - Safeguarding Information
- 6 NYCRR Subpart 373-1.1(f) - Uniform Procedures
- 6 NYCRR Subpart 373-1.1(g) - Enforcement
- 6 NYCRR Subpart 373-1.1(h) - Severability
- 6 NYCRR Subpart 373-1.1(l) - Terms

Permit Application Requirements (373-1.4)

- 6 NYCRR Subpart 373-1.4(a)(5)(ii) - Reports
- 6 NYCRR Subpart 373-1.4(a)(5)(iii) - Changes to Authorization
- 6 NYCRR Subpart 373-1.4(a)(5)(iv) - Certification
- 6 NYCRR Subpart 373-1.4(g) - Record Keeping

Permit Conditions (373-1.6)

- 6 NYCRR Subpart 373-1.6(a) - Conditions Applicable to all Permits
- 6 NYCRR Subpart 373-1.6(a)(1) - Duty to Comply
- 6 NYCRR Subpart 373-1.6(a)(2) - Duty to Reapply
- 6 NYCRR Subpart 373-1.6(a)(3) - Duty to Halt or Reduce Activity not a Defense
- 6 NYCRR Subpart 373-1.6(a)(4) - Duty to Mitigate
- 6 NYCRR Subpart 373-1.6(a)(5) - Proper Operations and Maintenance
- 6 NYCRR Subpart 373-1.6(a)(6) - Permit Actions
- 6 NYCRR Subpart 373-1.6(a)(7) - Property Rights
- 6 NYCRR Subpart 373-1.6(a)(8) - Duty to Provide Information

- 6 NYCRR Subpart 373-1.6(a)(9)(I-iv) - Inspection and Entry
- 6 NYCRR Subpart 373-1.6(a)(10)(I-iv) - Monitoring and Records
- 6 NYCRR Subpart 373-1.6(a)(11) - Signatory Requirements
- 6 NYCRR Subpart 373-1.6(a)(12)(I-xi) - Reporting Requirements
- 6 NYCRR Subpart 373-1.6(d)(2)(I-iv) - Alternative Schedules of Compliance

Permit Modifications (373-1.7)

- 6 NYCRR Subpart 373-1.7(a) - Transfer of Permits
- 6 NYCRR Subpart 373-1.7(b) - Modification of Permits
- 6 NYCRR Subpart 373-1.7(c) - Minor Modifications of RCRA Delegated Permits
- 6 NYCRR Subpart 373-1.7(d) - Major Modifications
- 6 NYCRR Subpart 373-1.7(e) - Announcement of Determinations
- 6 NYCRR Subpart 373-1.7(f) - Temporary Authorizations
- 6 NYCRR Subpart 373-1.7(g) - Newly Regulated Waste and Units

Expiration and Continuation of Permits (373-1.8)

- 6 NYCRR Subpart 373-1.8(b) - Renewal Applications

The following clarifications and modifications to the requirements of these subdivisions shall apply:

6 NYCRR Subpart 373-1.1(b) – Applicability. For the purpose of this permit, the "facility" shall be defined as the treatment system (including associated equipment, piping, and extraction wells) and monitoring wells only. Other structures, facilities, operations, or personnel at the site not directly involved with the operation of the treatment system or the groundwater monitoring program are not subject to the provisions of this permit.

6 NYCRR Subpart 373-1.6(a)(5)- Proper Operations and Maintenance. The requirements of this paragraph shall be fulfilled by adherence to the specific operation and maintenance procedures contained in the Operation and Maintenance section of the *Remedial Design Report, prepared by Geraghty & Miller, Inc., dated June 1993.*

6 NYCRR Subpart 373-1.6(a)(10) – Monitoring and Records (subparagraphs ii-iii). Fulfillment of the record keeping requirements of this paragraph may include manufacturer's calibration logs, instrument maintenance records at Safety-Kleen's consultant's office, technician's field notes, consultant project files, chain of custody forms, and analytical laboratory notebooks

6 NYCRR Subpart 373-1.6(a)(11) – Signatory Requirements. The signatory and certification requirements shall not apply to monitoring reports, but only to the Final Post Closure Certification Report.

6 NYCRR Subpart 373-1.6(a)(12) – Reporting Requirements (subparagraph ix). No annual reports will be required.

2.1.2 Compliance with Final Facility Status Standards

Safety-Kleen shall comply with 6 NYCRR Subpart 373-3 as follows, with clarifications noted below:

General (373-2.1)

- 6 NYCRR Subpart 373-2.1(a) - Purpose, Scope and Applicability
- 6 NYCRR Subpart 373-2.1(c) - Imminent Hazard Action

General Facility Standards (373-2.2)

- 6 NYCRR Subpart 373-2.2(a) - Applicability
- 6 NYCRR Subpart 373-2.2(b) - Facility Ownership Transfer
- 6 NYCRR Subpart 373-2.2(f) - Security
- 6 NYCRR Subpart 373-2.2(g) - General Inspection Requirements
- 6 NYCRR Subpart 373-2.2(h) - Personnel Training

Preparedness and Prevention (373-2.3)

- 6 NYCRR Subpart 373-2.3(a) - Applicability
- 6 NYCRR Subpart 373-2.3(b) - Purpose and Implementation of Contingency Plan
- 6 NYCRR Subpart 373-2.3(c) - Required Equipment
- 6 NYCRR Subpart 373-2.3(d) -Testing and maintenance
- 6 NYCRR Subpart 373-2.3(e) - Access to Communications or Alarm Systems
- 6 NYCRR Subpart 373-2.3(g) - Arrangements with Local Authorities

Contingency Plan and Emergency Procedures (373-2.4)

- 6 NYCRR Subpart 373-2.4(a) - Applicability
- 6 NYCRR Subpart 373-2.4(b) - Purpose and Implementation Contingency Plan
- 6 NYCRR Subpart 373-2.4(c) - Content of Contingency Plan
- 6 NYCRR Subpart 373-2.4(d) - Copies of Contingency Plan
- 6 NYCRR Subpart 373-2.4(e) - Amendment of Contingency Plan
- 6 NYCRR Subpart 373-2.4(f) - Emergency Coordinator
- 6 NYCRR Subpart 373-2.4(g) - Emergency Procedures

Manifest System, Record Keeping, and Reporting (373-2.5)

- 6 NYCRR Subpart 373-2.5(a) - Applicability
- 6 NYCRR Subpart 373-2.5(b) - Manifest Requirements
- 6 NYCRR Subpart 373-2.5(c) - Operating Record
- 6 NYCRR Subpart 373-2.5(d) - Availability, Retention, and Disposition of Records
- 6 NYCRR Subpart 373-2.5(f) - Unmanifested Waste

- 6 NYCRR Subpart 373-2.5(g) - Additional Reports

Releases from Solid Waste Management Units (373-2.6)

Post-Closure (373-2.7)

- 6 NYCRR Subpart 373-2.7(a) - Applicability
- 6 NYCRR Subpart 373-2.7(g) - Post-closure Care and Use of Property
- 6 NYCRR Subpart 373-2.7(h) - Post-closure Plan; Amendment to Plan
- 6 NYCRR Subpart 373-2.7(l) - Post-Closure Notices
- 6 NYCRR Subpart 373-2.7(j) - Certification of Completion of Post-Closure Care

Tank System (373-2.10)

6 NYCRR Subpart 373-2.10 (h)- Post- Closure Plan

The following clarifications and modifications to the requirements of these subdivisions shall apply:

6 NYCRR Subpart 373-2.2(f) – Security. The requirements of this subdivision shall be fulfilled by maintaining a locked equipment compound and by securing each monitoring or extraction well cover with bolts. This will ensure to any reasonable extent that only authorized individuals with proper equipment and training have access to the treatment system.

6 NYCRR Subpart 373-2.2(g)- General Requirements. The existing Operation and Maintenance Plan shall fulfill the requirements of this subdivision for the treatment system.

6 NYCRR Subpart 373-2.2(h)- Personnel Training. All personnel involved with the installation or operation and maintenance of the treatment system will be properly trained per applicable Occupational Safety and Health Administration (OSHA) and Safety-Kleen's consultant's requirements. These requirements shall not apply to other personnel at the site who are not directly involved with the installation or operation and maintenance of the treatment system. Safety-Kleen's consultant's training program and training records shall fulfill the requirements of this subdivision. These requirements are summarized in below.

Each worker who will operate or maintain the on-site remedial system will have completed, at a minimum, the following health and safety-training requirements, as administered by Safety-Kleen's consultant and in compliance with the guidelines, as appropriate, established by OSHA.

Safety-Kleen's Consultant's personnel will have as a minimum, the following training:

- OSHA HAZWOPER 40 hour Training Course

- OSHA 8 hour Refresher Course (annual refresher)
- 8 hour Supervisor Training
- Lockout/Tagout Electrical Training
- Confined Space Entry Training
- Competent Person Training
- First Aid/CPR Training
- Defensive Driver Training
- Hazardous Materials (126S) Training

Field staff is enrolled in a Medical Monitoring Program, which involves an annual physical evaluation by a trained Medical Doctor. Also, all field staff is properly fitted to wear air (cartridge type) purifying respirators. As required, other specialized training is provided on an as needed basis to fit job and site requirements.

6 NYCRR Subpart 373-2.3(c)- Required Equipment. The minimal hazards posed to treatment system maintenance personnel or other personnel located at the site by the operation of the treatment system does not warrant an internal communications or alarm system (paragraph 1) or water to supply fire suppression equipment (paragraph 4). Such items as an air pressure regulator valve, and a vacuum relief valve, in addition to electrical overload sensing circuits have been installed on the remedial system. Circuit breakers are also employed as required by the local electrical code. In addition, if a low water condition exists within the DPE system the system will shut down.

Maintenance personnel will have available on their work vehicle; a portable telephone, portable fire extinguisher, sorbent pads, and PPE. Use of a vehicle equipped with these items shall constitute fulfillment of the requirements of this subdivision.

6 NYCRR Subpart 373-2.3(e)- Access to Communications or Alarm System. Use of a vehicle equipped with a portable telephone shall constitute fulfillment of the requirements of this subdivision.

6 NYCRR Subpart 373-2.3(g)- Arrangements with Local Authorities. The minimal hazards posed to treatment system maintenance personnel, other personnel located at the site, and the surrounding community by the operation of the treatment system do not warrant special prior arrangements with police, fire departments, emergency response teams, hospitals, or other organizations.

6 NYCRR Subpart 373-2.4- Contingency Plan and Emergency Procedures. Contingency plans for evacuation, medical emergency, fire emergency, and spills / releases are contained within the Health & Safety Plan for the site. These plans constitute fulfillment of the requirements of this section.

6 NYCRR Subpart 373-2.5(d) - Availability, Retention, and Disposition of Records. Required records will be maintained in the consultant's project files and the Safety-Kleen Remediation Project Manager's site files for the appropriate retention period. This shall fulfill the requirements of this subdivision.

6 NYCRR Subpart 373-2.6 (f through j) - Releases from Solid Waste Management Units. The requirements of these subdivisions shall be fulfilled by implementation of the Groundwater Monitoring Plan for the site (Appendix A) and the Post-Closure Plan.

6 NYCRR Subpart 373-2.7(l) - Post Closure Notices. It is Safety-Kleen's intention at this time to remediate this facility to conditions classified for unrestricted use. To the extent that this is achieved during the life of this permit or any extensions to this permit, the requirements of this subdivision shall be postponed and post-closure notices shall not be required at this time.

2.2 Remedial System Operation & Maintenance

Remedial system operation and maintenance procedures have been established in the Remedial Design Report noted above. The O&M procedures are summarized below:

The DPE system will be monitored on a monthly basis to evaluate system performance, to assure that all components are in working order, and to maintain compliance with air discharge and treated water permit requirements. The tasks to be performed during each monitoring visit are listed and can vary, but will usually include those tasks noted below. A semi-annual groundwater-monitoring program will also be conducted to evaluate the remediation progress at the site. Notes from the monthly site visits are recorded on Site Visit Forms and kept in the consultant's project files.

- The DPE system will be inspected and operating parameters (pressure vacuum readings, air flow rates) of the equipment and at individual points will be monitored and adjusted, as required.

- The DPE equipment will be routinely maintained. Routine maintenance will include the following tasks: draining moisture knockout, checking and / or changing air filter elements, changing motor oil.

- Monitoring wells will be gauged using an interface probe.

- Concentrations of dissolved oxygen will be recorded in selected monitoring wells.

- The hour meter readings will be recorded to verify duration of system operation between site visits.

- Influent, after blower, and final SVE off-gas treatment system effluent air will be monitored using a PID. Airflow rates will be measured and documented. The final effluent air sample will be collected and analyzed at the frequency required by the air discharge permit. Air samples will be analyzed for BTEX and halogenated hydrocarbons.

- A semi-annual operating report will be prepared and submitted to NYSDEC.

2.3 Groundwater Quality Monitoring Requirements

A Groundwater Monitoring Plan (GMP) has been developed for the site and is included as appendix A of this application. The GMP defines the objectives, sampling procedures to be followed, and statistical methods for evaluating the results to be employed during both phases of groundwater quality monitoring. The procedures detailed in the GMP provide for flexibility with regards to transient detections of Target Compounds above the closure performance standards listed in table 1.

Therefore, if concentrations in selected monitoring wells appear slightly elevated during a particular sampling round, this will not automatically reset the Compliance Monitoring Program.

Two phases of groundwater quality monitoring will be required during the life of the Post-Closure Permit: a remediation monitoring program, and a Compliance Monitoring Program. During both phases of groundwater quality monitoring, groundwater samples will be collected and analyzed for BTEX compounds, halogenated volatile organics, and TPH as mineral spirits for comparison to the closure performance standards. The project compound list will be comprised of those constituents listed in table 1. The remediation-monitoring program will remain in effect during active groundwater treatment. Once closure performance standards have been met at the monitoring wells, as detailed in the GMP, the program will revert to the Compliance Monitoring phase. Compliance monitoring will be performed at the POC wells for a minimum of three years to demonstrate that groundwater concentrations have remained in compliance with the GMP criteria. At that time final closure will have been attained.

3.0 POST-CLOSURE COST ESTIMATE

This Post Closure Cost Estimate has been prepared in accordance with the requirements of 6 NYCRR Part 373-3.8 (e). Cost estimates below are for third party completion of the summarized tasks. All costs are reflected in 2000 dollars, and extended for a five-year period, which is the anticipated length that the Permit will be in force. The cost estimate is included as **Table 2.**

4.0 FINANCIAL ASSURANCE

In accordance with 6 NYCRR Part 373-3.8(f), an owner or operator of the facility must establish financial assurance for post closure care of the permitted facility. Safety-Kleen will provide a Letter of Credit in the amount of the Post Closure Cost Estimate (section 3.0) as allowed and stipulated in 6 NYCRR 373-3.8(3). The Current Letter of Credit for the site, as well as other Safety-Kleen facilities is under revision, as the company is in the process of reorganizing under Chapter 11 of the Bankruptcy laws. The revised Letter of Credit will be submitted to the NYSDEC upon receipt.

5.0 FOCUSED CORRECTIVE MEASURES STUDY DEVELOPMENT

Safety-Kleen will prepare a Focused Corrective Measures Study for the site, which will follow the guidelines of established NYSDEC guidance for such documents. The content of document is summarized below. The CMS will contain a remedial alternatives screening, technology application analysis, as well as the selection of the technology/approach Safety-Kleen will use to further remediate the site soils and groundwater as required.

5.1 Corrective Measures Study Overview:

The CMS shall summarize the results of the investigations, provide a summary description of the corrective measures evaluated and include an evaluation of how each corrective measure alternative meets the standards set forth as closure performance standards (Table 1). Also, Safety-Kleen will provide additional information (if needed) to support the corrective measure selection decision-making process.

5.2 Presumptive Remedy Selection

Safety-Kleen is prepared to submit a Focused CMS approval that evaluates remedial alternatives that are pragmatic and consistent with standard industry practices and remedial measures. The CMS will therefore include a conceptual design for this presumptive remedy and explain how it meets the pertinent requirements for site remediation and attainment of the remedial objectives for the site.

5.3 Corrective Measure Selection

Based on the information presented in the CMS, the focused corrective measure will demonstrate that the remedial enhancements proposed will: (i) Be protective of human health and the environment; (ii) Attain media target cleanup levels noted in Table 1; (iii) Control the source(s) of release(s) so as to reduce or eliminate, to the maximum extent practicable, further releases of hazardous waste, including hazardous constituents, that might pose a threat to human health and the environment; and (iv) Meet all applicable waste management requirements.

In selecting the corrective measure Safety-Kleen shall consider, as appropriate; long-term reliability and effectiveness, any potential corrective measure assessed for the long-term reliability and effectiveness it affords, along with the degree of certainty that the corrective measure(s) will prove successful.

5.4 Corrective Measures Evaluation Criteria

Factors that shall be considered in this evaluation include; 1) Magnitude of residual risks in terms of amounts and concentrations of hazardous waste, including hazardous constituents, remaining following implementation of the corrective measure(s), 2) The type and degree of long-term management required, including monitoring and operation and maintenance; 3) Potential for exposure of humans and environmental receptors to remaining impacts, considering the potential threat to human health and the environment associated with excavation, transportation, redisposal or containment; 4) Long-term reliability of the engineering and institutional controls, and 5) Potential need for

replacement of the corrective measure(s), 6) The types of costs that may be incurred based on the implementation of the selected corrective measure, or alternatives. Cost factors that will be considered include capital costs, operation and maintenance costs; net present value of capital and operation and maintenance costs; and potential future corrective measure costs as it relates to the length of the Post Closure Permit (*i.e.; 5 year cost projections).

5.5 Focused CMS Report

Safety-Kleen will submit a focused CMS report that will contain information as needed, to address the above referenced criteria. This will include:

- Site background and History;
- Summary of Current Environmental Subsurface conditions;
- Technology Screening for applicable and non-applicable remedial enhancements;
- Recommendations for Remedial System Enhancement, based on screening, as well as previous discussions between Apex and Safety-Kleen (i.e. focused excavation, oxygen addition); and
- Conceptual Design of the selected and proposed remedy with anticipated cost ranges.

Figures, Tables and Appendices will include:

- Site Location Map;
- Site Map;
- Tabular Presentation of Site historical subsurface analytical data (as applicable); and
- Conceptual Remedial Approach Design as a Process & Instrumentation Diagram.

5.6 Focused CMS Submission Schedule

The focused CMS will be submitted thirty business days from the date the PCP is approved without conditions by the agency.